Is Rationalist Institutionalism Correct? Markets and Domestic Structures in the 1992/93 ERM Crisis.

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Thesis Submitted for the Ph D Degree

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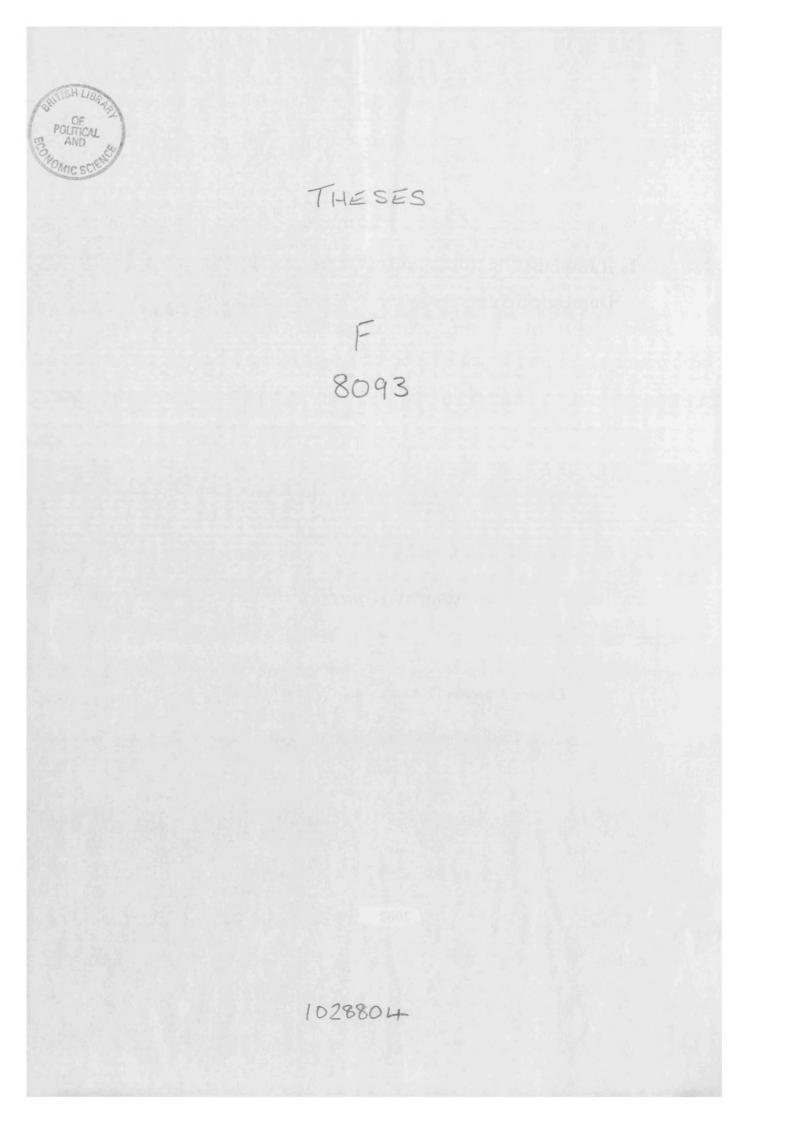
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Abstract

This thesis investigates the influence of domestic institutional structures on international financial market sentiment during financial crises. It asks whether rationalist institutionalism is correct by suggesting that financial market participants make optimising rational choices about domestic institutions when assessing whether exchange rate commitments by national policymakers are consistent with domestic policy constraints.

To clarify the issue I have undertaken an empirical study of market sentiment from a procedural angle. I use focused structured comparison as a means of undertaking an investigation of the process of market decision-making during a single historical episode in which the credibility of currency commitments was at stake, the 1992/93 ERM crisis. This approach allowed for a rigorous detailed longitudinal reconstruction of how domestic institutional variables, which have been identified by rationalist institutionalism as critical for monetary policy outcomes (financial structure, wage bargaining structure, political structure), influenced market sentiment towards pound sterling, the French franc and the D-mark.

I conclude that, firstly, market participants took account of domestic institutional structures in a broadly rational fashion. But given that, in the practice of financial market trading, information is incomplete and the cognitive capacities of market analysts are limited, market rationality is bounded and not optimising. Market participants "satisfice": they economise on their decision-making by stopping the process of assessment at a practically acceptable, rather than an optimal solution. This leads to inefficient market outcomes manifested in unstable expectations about institutions and lack of robustness in institutional analysis. Secondly, market sentiment is characterised by uncertainty about the structural underpinnings of political exchange rate commitments, allowing considerable room for national policy-making autonomy through strategic interaction between national policymakers and international financial markets. Thirdly, the practical nature of decision-making by financial market participants has not been recognised by rationalist institutionalism, explaining its theoretical ambiguities regarding the influence of domestic institutions on market sentiment.

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Abbreviations

ADDICVIA	10115
BDB	Bundesverband Deutscher Banken
BDI	Bundesverband der Deutschen Industrie
BIS	Bank of International Settlements
Buba	Deutsche Bundesbank
CAQDAS	Computer assisted qualitative data analysis software
CBI	Confederation of British Industry
CDU	Christlich Demorkatische Union Deutschlands
CFDT	Confédération Française Démocratique du Travail
CGT	Confédération Générale du Travail
CPF	Parti Communiste Français
DIHT	Deutscher Industrie- und Handelskammertag
EC	European Community
ECU	European Currency Unit
EMS	European Monetary System
EMU	Economic and Monetary Union
EPLs	Employment Protection Laws
ERM	Exchange Rate Mechanism
EU	European Union
FDP	Freie Demokratische Partei Deutschlands
FN	Front National
FO	Force Ouvrière
FT	Financial Times
Gesamtmetall	German Engineering Industry Employers Federation
GMB	Britain's General Union for trade and services
GSDS	Gemeinschaft zum Schutz der deutschen Sparer
IG Metall	Industriegewerkschaft Metall
IMF	International Monetary Fund
IoD	Institute of Directors
IPE	International Political Economy
NUD*IST	Non-numerical Unstructured Data Indexing Searching and Theorising
Patronat	Confédération Nationale du Patronat Français
DGB	Deutscher Gewerkschaftsbund
PS	Part Socialiste
RPR	Rassemblement du Peuple Français (Gaullist Party)
SMEs	Small and medium-sized enterprises
SPD	Sozialdemokratische Partei Deutschlands
TGWU	Transport and General Workers Union
TUC	Trade Union Congress
UDF	Union pour la Démocratie Française
UNISON	British public service union

Abbreviation of Text Samples:

FT:	"Foreign Exchanges " column in the Financial Tir	mes Companies and Market
	section	

- GS:
- "International Economics Analyst" market report by Goldman Sachs "International Market Roundup" market report by Salomon Brothers SB:

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Chapter 1: Introduction

In this thesis I ask whether, and how, financial markets take account of domestic institutions in today's highly integrated international economy. It does so against the backdrop of the debate about national policy autonomy and market efficiency among proponents of the orthodox globalisation thesis and their critics from the domestic structures political economy point of view (see Cohen 2001). The two approaches take opposing views as to whether global market integration leaves room for national autonomy. But they arrive at different conclusions by making the same assumption that financial markets operate efficiently. Market participants are seen to base their decisions on rational utility maximising deliberations. Whereas the globalisation thesis asserts that the structural pressures emanating from globalisation leave policymakers little choice but to follow the discipline imposed by the economic logic of markets, rationalist institutionalists point out that domestic structural constraints require policymakers to assert their autonomy towards international market forces. This in turn suggests that rational agents will take domestic structures into account when assessing policymaker's choices. Whether or not domestic institutions matter for the relationship between international markets and national politics depends on whether and how these structures influence international investors in practice. The following thesis is an attempt to clarify this question by investigating decision-making procedures in international financial markets concerning the credibility of national exchange rate commitments during a currency crisis, the 1992/93 ERM crisis.

The most prominent term in the discussion of international political economy in the last decades is "globalisation", used to describe the growing integration of the international economy through increased openness, facilitating a rapid increase in cross-border trade and capital flows.¹ At the heart of the globalisation hypothesis lies the assumption that growing interdependence has led to a transformation of the statemarket relationship, with power having shifted from national policymakers to global markets. A truly global economy is claimed to have emerged, dominated by efficient global market forces, which makes political national economic strategies and management increasingly irrelevant.²

Proponents of the globalisation thesis point in particular to the internationalisation of capital markets to support this view (e.g. Andrews 1994a; Cerny 1993). Deregulated and liberalised financial markets are seen to have created a global pool of highly mobile liquidity constraining national policy autonomy. The last three decades have indeed witnessed a substantive increase in short-term capital mobility resulting from financial liberalisation. In the globalisation debate this mobility is usually demonstrated by flow figures, although it has to be pointed out that these figures are problematic indicators of financial integration.³ From a simple quantitative point of view the 1980s and 90s clearly were decades of growing cross-border capital mobility, with daily turnover in global foreign exchange and derivatives markets

¹ For a good overview of these trends and their academic interpretation see Held (1999); Woods (2000).

² E.g. Bryan & Farrell (1996). For a good review of the globalisation hypothesis by two of its critics, see Hirst & Thompson (1996:1).

³ Firstly, despite the remarkable increase in cross-boarder flows, global financial integration has not yet proceeded to the point of investors allocating capital regardless of national origin. The Feldstein-Horioka puzzle about the close relationship between national savings and investment still holds (Hirst & Thompson 1996; see Weiss 1998). Secondly, rates of return still differ across countries (Frankel 1993), although there is considerable evidence for the synchronisation of interest rate changes across national markets (Simmons 1999). Finally, gross figures overstate net capital flows after settlement. For a discussion of the problems of measuring capital flows and evaluating their significance, see Dobson & Hufbauer (2001).

reaching \$820bn in 1992.⁴ Annual total (short-term and long-term) capital flows increased by 29% from 1987 to 1993. Most of this increase was due to an explosion of short-term portfolio investment, with portfolio flows increasing by 403% over the same period, to constitute 57% of total flows in 1993, up from 15% in 1987.⁵ According to the globalisation thesis not only this increase of actual capital flows, but also the potential for massive flows in response to national policy measures, will give governments an incentive to take the effect of their policies on investor sentiment into account (Andrews 1994a). As a result capital mobility will impose discipline on governments to pursue "sound" policies, dubbed by Cerny "embedded financial orthodoxy" (Cerny 1993). Often, what constitutes "sound" policies is left unspecified, though some form of monetarist orthodoxy is usually implied.

The most rigorous formulation of the globalisation argument has been put forward in the Capital Mobility Hypothesis (CMH) (Andrews 1994a). The CMH is based on the "unholy trinity" problem suggested by the Mundell-Fleming model (Cohen 1993): the conflict between capital account liberalisation and national monetary policy autonomy in the case of fixed exchange rates. According to Andrews within the unholy trinity "…international capital mobility systematically constrains state behaviour" (Andrews 1994a: 193):

Consequently Pauly, building on the CMH, concludes that:

[&]quot;The central claim associated with the capital mobility hypothesis is that financial integration has increased the costs of pursuing divergent monetary objectives, resulting in structural incentives for monetary adjustment." (Andrews 1994a: 203)

⁴ BIS (2002). According to the BIS turnover increased further to \$1,200bn in 2001. See also Chapter 2, Table 2.1. for details on foreign exchange markets turnover in the early 1990s.

"Enjoining governments to yield to signals from the 'global market', the language of capital mobility implied that a profound shift in policy-making authority was necessarily taking place, a shift away from the national level. Proponents typically extolled the surrender of the retrograde idea of 'sovereignty' to rational economic logic of markets beyond national control." (1997:33)

Within the framework of the Mundell-Fleming model the economic logic of markets would merely constrain monetary policies. Domestic interest rates could not fall below international rates to facilitate domestic reflation without undermining exchange rate stability. Having lost monetary policy autonomy under fixed rates, governments would be left with the options to either use fiscal policy, or accept devaluation or floating exchange rates.⁶ But in the wider argument of the globalisation thesis these options do not provide much room for policy autonomy either. Firstly, with highly volatile cross-border portfolio flows, floating comes at the price of heightened exchange rate and domestic monetary instability (Andrews 1994a). Fiscal policy autonomy is seen to be constrained from a rational financial market perspective, since financial markets, which have become more efficient with deregulation and liberalisation, will show little tolerance of potentially inflationary and unsustainable fiscal deficit spending.⁷ As a consequence they will discipline social democratic governments that attempt to undertake traditional interventionist Keynesian-style stabilisation through fiscal expansion to offset monetary rigidity. (Kurzer 1993; Moses 1994; Kapstein 1996).8

⁵ From Griffith-Jones (1998: Table 2.), based on IMF, Balance of Payments Statistics Yearbooks, various.

⁶ Following Ul Haque and Maxfield, national governments will not always be constrained within the unholy trinity framework to attract international capital through tight monetary policies, since international liquidity conditions will vary with the level of interest rates in major developed economies (Ul Haque et al. 1997; Maxfield 1998b).

⁷ In this context it should be noted that according to the Barro-Ricardo equivalence theorem, efficient domestic capital markets should always have constrained profligate governments (on the theorem, see De Grauwe 1996).

The CMH argument sees currency crises as the moment in which capital markets challenge national exchange rate commitments which, in Andrews' words, provide an "increasingly procrustean fit" to the economy (Andrews 1995: 162). Markets are interpreted as taking systematic account of the economic sacrifices resulting from the government's exchange rate commitment. If a government lacks the political will to sustain these sacrifices, markets will lose credibility in the exchange rate commitment. Markets will thus form rational expectations about the time consistency of a government's monetary strategy. A devaluation crisis caused by investors selling the national currency will only pre-empt the inevitable and expected collapse of the exchange rate commitment.

The weak point of the CMH is that it does not provide for the possibility of a government willing and able to defend a fixed exchange rate successfully, even if it provides a procrustean fit for the economy. Confirming the central tenet of the globalisation thesis of the loss of policy autonomy, the CMH simply states that, should there be a conflict between the domestic economic need for monetary expansion and the interest rates required by the exchange rate fix, financial markets will enforce devaluation or floating through crisis, denying policymakers the autonomy to pursue the fixed exchange rate objective at the cost of high unemployment and economic slump. The possibility that some governments might still have this autonomy, since they might be capable of imposing domestically costly adjustment to defend the exchange rate, has not been raised.

⁸ For a good discussion of the globalisation argument regarding monetary and fiscal policy constraints see Maxfield (1998a), Simmons (1999) and Cohen (2001).

The CMH and related arguments present financial markets as a new, powerful, international structural constraint imposed on national policy-making autonomy. They are seen as efficient, capable of using rational economic logic in a systematic judgement of government policies, and enforcing this economic logic through a currency crisis.

Critics of the globalisation thesis coming from international political economy and comparative political science have maintained that the perception that global interdependence is sweeping before it all variations in national behaviour is wrong (Krasner 1995; Risse-Kappen 1995; Boyer 1996; Garrett 1998; Hall 1997; Katzenstein et al. 1998; Hall & Soskice 2001). National politics is according to these views still shaped by domestic conditions, which refract and filter the reaction of national policymakers to the challenges of internationalisation. In particular domestic structures approaches maintain that variations in domestic structures, comprising interests, institutions and ideas, result in different national responses to international pressures and opportunities.⁹

Domestic structures approaches can be grouped into historical approaches, emphasising unique path-dependency and contextual embeddedness of domestic institutional developments in response to internationalisation (Hollingsworth & Boyer 1997b; Radice 2000), cultural-constructivist approaches, emphasising the role of socially constructed ideas (Ross 1997; Ruggie 1998), historically informed taxonomies of the efficacy of domestic institutions in an international market context (Zysman 1983; Hall 1986; Henning 1994), and finally "Rationalist Institutionalism",

⁹ See Hall (1997) for an excellent review of these approaches.

the rational choice version of the domestic structures approach (Milner 1998). The latter, increasingly popular in recent years, suggests that national policymakers are involved in a strategic game at both the domestic and international level, though constrained by domestic structures (Milner 1997). As Milner put it, "...policy is likely to be the result of a complex strategic interaction among the players as structured by domestic institutions" (Milner 1998:785).¹⁰

Rationalist institutionalism is particularly strong in its interpretation of the interaction between international finance and domestic politics in the case of exchange rate commitments. In parallel to the CMH, rationalist institutionalism allows for a rigorous conceptualisation of this interaction, but with the difference of bringing domestic structures back in. The interaction is seen as a strategic game, with actors engaged "in an effort to maximise their own utility" (Simmons 1994: 53-4). Both national policymakers and international financial market agents act rationally in this game, in the sense that they make efficient use of available information. Building on the time consistency problem described by economists (Barro & Gordon 1983), rationalist institutionalists point out the role domestic structures play in the monetary policymaking choice of governments between honouring monetary policy commitments and opting for domestic economic stimulus (Hall & Franzese 1998). Similar to the CMH, rationalist institutionalism takes a structural approach, but instead of simply arguing that the international financial structure leaves policymakers no room for manoeuvre, governments are now faced with structural constraints from both international financial integration and domestic interests and institutions. Domestic institutional

¹⁰ For the rationalist conceptualisation of the interaction between internationalisation and domestic politics see the edited volume by Keohane & Milner (1996); Milner (1997); Milner (1998); Garrett (1998); Martin & Simmons (1998).

constraints and opportunities present politicians with an incentive structure that allows for a trade-off between the costs and benefits of sustaining a monetary policy commitment. They face the choice to adjust or not to adjust (Simmons 1994). If the domestic regime, the domestic institutional setting, is perceived by rational forwardlooking markets as credible, governments can succeed in maintaining an exchange rate commitment under conditions of full capital mobility, even at the cost of substantial domestic economic and social sacrifices. Since politicians have a strategic choice of how to respond to international market pressures, rationalist institutionalists maintain that policy autonomy is still intact. In the strategic game between policymakers and investors, domestic structures provide but also constrain domestic political room for manoeuvre. They limit the ability of governments to adjust, but within these limits governments can exploit the freedom they also grant to make strategic choices.¹¹

Currency crises, from an institutional rationalist point of view, do not result simply from time inconsistency due to the costs of monetary adjustment required to maintain parity. They happen because domestic political structures bloc effective adjustment. Financial market participants are thought to take these domestic structural capabilities into account in their decision-making on whether to attack an exchange rate peg or not. A currency crisis will occur because financial markets come to the conclusion that country-specific domestic structures cannot be trusted to sustain the sacrifices necessitated by the defence of the exchange rate peg.

¹¹ See Milner 1997 on the aspect of "two-level-games" in international cooperation.

As it is the case in the CMH, rationalist institutionalism assumes market rationality. Rational financial markets are now not only concerned with sound macro-economic policies, but also with domestic structural conditions. Simmons suggest that in cases where the domestic institutional setting constrains national policymakers' capability to resolutely defend monetary policy commitments, rational forward looking economic agents anticipate expansionary monetary policies and rearrange their assets accordingly (Simmons 1994: Ch. 3). This majority view within rationalist institutionalism, shared with Simmons (1994), by Garrett (1998), Leblang & Bernhard (2000) and Haggard (2000) implies that market agents take these domestic constraints into account systematically when they judge the credibility of national monetary policies.

Following the rationalist institutionalist argument, remaining ambiguity in market sentiment and the possibility of market inefficiency is caused not by market participant's lack of optimising analysis of all available information, but by imperfect information: rational expectations about the effect of domestic institutions might remain ambiguous, given the limited availability of existing information and the contingency of future events. However, regardless of these limits to perfect information, the efficient market view suggests that optimising investors will be able to transform uncertainty into risk by gathering and analysing all available information (Gibson 1996: 274-275). In a situation of uncertainty about how domestic institutions constrain the defence of monetary policy commitments, investors will be unable to make any objective predictions about the institutional robustness of these commitments and consequently will be liable to subjective and fluctuating judgements about the effect of future events. In contrast, in the presence of institutional risk,

established by a systematic investigation of institutions, investors can estimate the probability of a particular future contingency.¹² Risk analysis of institutions by fully rational investors will thus not eliminate but reduce ambiguity about the effect future contingencies will have on policy outcomes and thus the likelihood that market euphoria or panic will occur.

A dissenting view has been put forward by Mosley (2000), who maintains that only a narrow range of mainly macroeconomic variables influences financial market behaviour systematically, excluding domestic structures. She argues that, as a rule, market participants take only a small set of macroeconomic variables into account systematically, while the domestic structures that determine the time consistency of monetary policy commitments are rarely perceived. Consequently markets must be left with a considerable degree of uncertainty as to what future policy decisions to expect from governments. If domestic structures are not included in systematic analysis by market agents, markets will not operate in a fully efficient and rational fashion. But, although Mosley herself points out the need to investigate investor behaviour over time and across countries, in order to establish variations in the influence of wider supply-side policies related variables on market sentiment, she leaves such a study as "a rich subject for future work" (Mosley 2000: 767).

It is in the very nature of the time consistency problem that the reliability of a government commitment cannot always be ascertained only by looking into whether "sound" economic fundamentals combine with decent growth and employment at a given point in time. Even if the macroeconomic fundamentals are "sound" today,

¹² On the distinction between risk and uncertainty, see Knight (1921).

they might deteriorate in the future or might only be maintained at the costs of socially intolerable adjustment, giving policymakers an incentive to renege on their commitment. One of the strengths of the rationalist institutionalist argument is to point out that these future developments and the capability of national policymakers to sustain adjustment depend on the respective domestic institutional setting.¹³ However, the possibility of a limited influence of domestic institutions on actual market rationality poses a severe challenge to the validity of rationalist institutionalism itself: if markets were fully rational, as is assumed by the majority of rational institutionalists, but did not take domestic structures systematically into account, then the central tenet of rationalist institutionalism, that domestic structures matter for time consistency, must be wrong. If it turned out that limited attention to domestic structures is due to limited market rationality, the majority notion in rationalist institutionalism, that markets behave in a rational and efficient way, might be wrong. Only in the ideal scenario, where financial market participants take domestic structures fully into account, would the majority view be fully vindicated.

It is therefore important to achieve a clearer understanding of how rational markets are, and of exactly what role domestic institutions play in this rationality, in order to assess the veracity of rationalist institutionalism as an explanation for the interaction between domestic politics and international finance. My thesis aims to clarify this critical ambiguity in the rationalist institutionalist argument through a detailed study of market sentiment in currency crises.

¹³ For a detailed analysis: see Chapter 4 of this Thesis.

The lack of clarity in the rationalist institutionalist argument about the influence of domestic institutions on actual market sentiment is related to the traditional approach rationalist institutionalist studies take to empirical evidence. As the debate about central bank independence has demonstrated (Posen 1993; Franzese & Hall 2000; Keefer & Stasavage 2000), measuring domestic structures quantitatively to allow for scientific testing of strategic choice models in cross-time series analysis tends to ignore their wider domestic setting. By suggesting that it is possible to make decisions about institutions without having to understand their specific social embeddedness, rationalist institutionalism implies the possibility of optimising rational choice by market participants, but at the price of decontextualising decision-making processes. It privileges decision-making results over decision-making procedures, at the risk of missing out on the effect of domestic structures in the daily practice of financial market trading. As a consequence, rationalist institutionalism is liable to rely on the ex ante assumption that market participants make optimal strategic choices, an assumption that is heroic when looked at from the practical reality everyday decisionmaking in financial markets. What is needed to clarify the issue is to approach the empirical study of market sentiment from a procedural angle.

I use structured focused comparison as a means of undertaking an investigation of the process of market decision-making in a single historical episode.¹⁴ This approach allows the investigation of the actual evolution of market sentiment in its complexity as to the extent and the way in which domestic structures influence international market actors, without a loss of systematic rigour. The systematic interpretation of actual representations of market sentiment in the form of historic market reports,

¹⁴ On structured focused comparison as methodological approach see George (1989)

through longitudinal content analysis, is an essential part of this process. My thesis employs this approach in an analysis of the ERM crisis of 1992/93, focusing on the case of pound sterling, the D-mark and the French franc.

My main argument, based on the findings of this empirical study, is that rationalist institutionalism is correct in so far as it asserts that domestic structures shape the monetary policy choices open to national policymakers under conditions of international capital mobility. However, rationalist institutionalism is wrong when it suggests that markets make optimising rational choices about domestic institutions, implying idealistic and excessive assumptions about the comprehensiveness of market rationality. In reality market rationality is bounded: it takes only limited and unsystematic account of these domestic structural constraints. Furthermore, such "satisficing" matters, resulting in socially inefficient market outcomes.

How does 'bounded' rationality operate in financial markets?¹⁵ In the operational practice of financial markets it is unreasonable to attempt to come to fully rational, optimising and thus efficient decisions. This is because it is either impossible to obtain full information to reach optimal decisions due to information asymmetries or certain information is too costly to obtain and process.¹⁶ Furthermore, since the effect of institutional structures on future policy outcomes is contingent on future events, a complex analysis of how domestic structures pre-determine policy action might not remove ambiguities about these policy outcomes. Consequently such analysis might not be considered to be cost effective. Faced with these practical realities, market

¹⁵ The concepts of 'bounded' rationality have been developed in the seminal work of Simon (1982a; 1982b; 1997), and adopted for international relations and IPE by Stein (1999) and Odell (2002), to name but two.

participants, instead of optimising by means of taking all information into account systematically, will "satisfice": they will limit their search and analysis to the amount of information sufficient to come to an assessment which is good enough to work in practice (Odell 2002). Only this "subset" of all available information is systematically analysed (Simon 1982b). What information is taken into account depends on whether it can be easily obtained and whether it has in practice proven to be sufficient, good enough, by and large, to inform successful investment strategies. Complex, in-depth information on domestic structures, difficult to obtain and requiring sophisticated and knowledgeable interpretation, does not fall within this subset.

Bounded rationality in financial markets contains elements of both systematic and unsystematic reasoning. Systematic reasoning is characterised by "approximate rationality": "it is accomplished by substituting a simplified approximate decision model for the complexities of the 'real world'." (Simon 1982b: 396). In currency crises market participants will look systematically in easily obtainable and measurable policy decision and policy outcome variables, such as monetary policy decisions, inflation, budget deficits, wage settlements, growth, unemployment and elections. In practice these decisions and outcomes operate as substitutes for domestic structural variables. Simon speaks here of "information surrogates" (1982a: 237).

Given that policy decisions and outcomes are determined by underlying structural factors, they can in practice serve to some degree as rough proxies for the institutional resilience of exchange rate commitments. The strength of domestic structures underpinning an exchange rate commitment is indicated by the extent to which low

¹⁶ The problem here is search costs and limited computational capabilities; see Odell (2002); Simon

inflation, moderate wage increases and control over budget deficits can be achieved and maintained. Structural resilience is indicated by decisive and sustained policy adjustment despite domestic sacrifices in defence of the exchange rate against speculative pressure. The most important indicators here are interest rate decisions, and growth and unemployment rates. In this pattern of decision-making financial markets look directly and systematically into policy outcomes and decisions only. These are in turn influenced by domestic structures. Thus, within a bounded rationality conceptualisation of market sentiment, domestic structures are the independent variable, systematically analysed policy decisions and outcomes the intermediate variable, and market sentiment the dependent variable.

Policy decisions and outcomes, as proxy variables for domestic institutional constraints, provide only a poor substitute for full rational analysis of domestic structures. They have not been derived systematically from an analysis of full structural information, since their whole purpose is to do without such impractical analysis. Not only are they rough approximations, but also individual variables can send out conflicting signals. The possible conflict between adjustment through official interest rate increases, signalling the possibility of structural backing of an exchange rate commitment, and the costs of adjustment in terms of rising unemployment and falling growth, signalling the possibility of severe structural strains, are critical here. Thus the reliance on proxy variables cannot substitute for a rigorous structural analysis to gauge institutional risk. The result is latent uncertainty about the strength of an exchange rate commitment and future policy decisions remains high. This uncertainty escalates if politicians act against the expectations markets have formed

on the basis of the narrow set of proxy variables. This is the case if political events, like elections or referenda, make extrapolations of current approximations of time consistency into the future difficult, and if proxy variables indicating structural stress look alarming over longer periods, due to a procrustean fit of the exchange rate commitment and/or a stand off between speculative pressure and monetary policy defence. In particular in the last scenario participants are faced with a situation where speculative pressure turns into a practical test of a government's exchange rate commitment with unpredictable outcomes, given the conflicting signals sent out by proxy variables. In all of the above cases, simplified substitute models fail to satisfice in practice.

If systematic approximation does not suffice to reach decisions as to which action to take, market practitioners will move to an analysis of more complex information outside the subset usually considered, including information on domestic institutions. Such analysis will be less rigorous and more ad hoc, with decision-makers generally unwilling and unable to undertake costly systematic investigation of these complex variables. Domestic institutions are taken into consideration not for their relevance as indicated by systematic abstract analysis, but for the opportunity costs of institutional evaluation (Simon 1982b). Institutional variables are judged along readily available conventions, past experience or views by other market participants. But theses unsystematic structural deliberations remain inconclusive and can increase uncertainty further, instead of reducing it by robust risk analysis. Ad-hoc sentiment about institutional fragility has to be tested in a trail-and error fashion through speculative pressure. Ultimately solid views on the capacity of domestic structures to facilitate adjustment can only be made ex post, on the grounds of whether a speculative attack

succeeds or is confounded by determined policy action. This means that markets form expectations on institutions in an adaptive way through "stochastic learning" (Simon 1982a). Bounded rationality is thus procedural rather than substantive when it comes to domestic institutions.

With the unsystematic analyses of institutions unlikely to lead to strong and uniform conclusions among market participants, financial markets only take a clear stance on the credibility of an exchange rate commitment if its vulnerability or strength is indicated by clear policy signals. These signals are again taken as indicators for structural resilience, offering a practical resolution to an indeterminate debate about structural factors. As my empirical study will demonstrate, when turning to speculative euphoria or full scale speculative attack markets make subjective ad hoc use of their previous structural deliberations in order to opportunistically support the case for speculative herding. The fact that self-fulfilling speculative attacks can be confounded by structural resilience demonstrates that this ad hoc use of structural deliberations in connection with simplified approximations cannot replace systematic structural risk analysis. Failed speculative attacks confirm my thesis that rationalist institutionalism is correct in emphasising the role of domestic institutions for successful adjustment, but that it fails to understand the bounded nature of market rationality.

The ERM crisis provides evidence for bounded rationality in financial markets. In the first wave of speculative attacks in September 1992, market participants took clearly insufficient notice of domestic structures. The resulting misjudgements constituted a learning process in so far as they raised the awareness in boundedly rational markets

of structural factors in future instances of heightened uncertainty. But these factors where taken into account more and more over the 1992/93 period not in an optimising, but rather in a boundedly rational fashion, making proper institutional risk analysis impossible.

In the 1992 British_K case, markets side-lined weaknesses in Britain's financial structure and ignored the political structure, instead relying on conventions about the strength of the political system, to trust for too long policy statements by a newly elected majority government to defend the ERM parity. Only when interest rate increases were not forthcoming, signalling a lack of will of policymakers to act decisively, did disoriented markets take notice of structural financial strains in an ad hoc manner. This added to uncertainty and contributed to the final turn in market sentiment against sterling triggered by a weak monetary policy response to the prior devaluation of the Italian lira.

In the speculative attack on the French franc in September 1992, rising unemployment, low growth and the near rejection of the Maastricht treaty in a referendum were taken as indicators of an increasing likelihood of devaluation, despite the determined interest rate increases undertaken by the French monetary authorities. Markets were surprised by the unanticipated resilience of the French financial system. Markets learned from experience and acknowledged the capability of French banks to cope with high interest rates in the winter 1992/93 crisis, along with the strength of Bundesbank support, as key reasons for the survival of the franc. From now on the strength of Franco-German monetary cooperation became an indicator for the sustainability of the *franc fort*. Uncertainty was fuelled by doubts as to whether Bundesbank policies and decisive policy steps by the French authorities in defence of the franc could be relied upon. The latter were seen as particularly questionable in the face of explicit domestic dissent with the *franc fort* strategy in the context of electioneering. Markets turned to evaluate in an ad hoc fashion the possible fragility of France's political structures. Again, this added to uncertainty about the ambiguities of France's domestic structures, contributing to speculative market dynamics, rather than containing it through institutional risk assessment.

In the case of Germany and France in summer 1993, markets underestimated the determination of the German and French authorities to defend the strong currency option. In Germany market participants became uncertain about whether the Bundesbank was still willing and able to defend the anchor role of the D-mark in the ERM against an increasingly solid French franc. Its reputation for hawkishness had been built on the impression that it would always be able to adjust monetary policy in pursuit of price stability, due to its independent position in the German political system. When, in the first half of 1993, the Bundesbank's monetary policy signals became ambiguous in this respect, markets started to pay attention to structural weaknesses of the German political and wage bargaining system underpinning the central bank's independence. The analysis, by increasing uncertainty about future Bundesbank policy measures, contributed to the emerging speculative pressure on the D-mark anchor towards summer 1993. More consistent attention to the role of these key structures might, in contrast, have transformed uncertainty into less alarming risk calculations about the probabilities that the deeply entrenched long-term stability culture in the German institutional structure could be overthrown by deviations in exceptional circumstances.

The German developments contrasted with developments in France towards summer 1993. The new French government, elected in March, signalled continued backing of the *franc fort*. But these signals stood in contrast to a year-long record of rising unemployment and continuous low growth as indicators for possible sustainability problems. As in the case of Germany, uncertain market participants turned to direct deliberations over the resilience of the French political system. In a further case of stochastic learning, markets drew lessons from the unexpected French capability to sustain the French Fort throughout 1992/93 and concluded that the structural resilience of the French political system had been underestimated. Nevertheless uncertainty mounted, in this case fuelled by the conflict between market participants open to these structural deliberations and other analysts focusing exclusively on high unemployment/low growth rates as proxy indicators for structural overstretch.

In June/July 1993 the confusion about structural resilience was easily dispelled by two policy developments: the open challenge of Bundesbank dominance in the ERM expressed in the French demand for lower official interest rates and the Bundesbank's tough response, signalling an end to Franco-German monetary cooperation. This, in the market view, resolved the structural debate. Clear signals from policy decisions were taken as surrogate information indicating that the structural underpinnings of the Bundesbank were still intact, whereas in France structural political tolerance had reached breaking point. The result was a self-fulfilling euphoric rally behind the Dmark and a full-scale speculative attack on the franc. The failure of this attack is a direct indicator of market inefficiencies as result of bounded rationality in market decision-making. Fully efficient markets investigating domestic structures systematically might have decided to back Franco-German co-leadership of the ERM on the grounds of greater awareness of the long-term strategic embeddedness of the *franc fort* in France's policy-making regime.

In conclusion, my findings suggest a need for rationalist institutionalism to pay more attention to decision-making procedures in financial markets. Rationalist institutionalism should be broadened to include what might be called "bounded rationality institutionalism", implying a more procedural investigation of decisionmaking in financial markets. Until now, the implicit or explicit assumption made by the majority of rationalist institutionalist studies that financial markets make optimising rational choices concerning domestic institutional constraints has avoided the theoretical and methodological consequences of this approach (see Mosley 2000).

Instead of attempting a systematic explanation of inconsistencies in market behaviour, shifts in sentiment, and outright misjudgement when it comes to domestic institutions, rationalist institutionalism continues to rely on the statistical analysis of the outcomes of market behaviour as proof that domestic institutions are significant. This approach leaves untapped the potential of the domestic structures paradigm for an explanation of market inefficiency because of limited market rationality regarding domestic institutions.

A possible intervention from a rationalist institutional point of view against an approach which relies on the detailed investigation of historic decision-making processes could be that it will not lead to results of general relevance, since they lack scientific rigor. The systematic organisation of my empirical study demonstrates that such problems can be overcome. It suggests rigorous content analysis as one possible way forward.

The advantages of broadening rationalist institutionalism towards a procedural investigation of the actual bounds of rationality when it comes to domestic institutions are fresh insights into the actual role played by domestic institutions in the interaction between international finance and domestic governments, resulting in greater empirical validity. The possibility of applying rationalist institutionalist insights to the ongoing debate in economics about the reasons for inefficient market behaviour in currency crises would be particularly attractive.¹⁷ "Bounded rationality institutionalism" may be able to show that these inefficiencies are rooted not only in a lack of transparency and information about the effect of domestic institutions on future policy outcomes, or alternatively a general tendency towards speculative herding, but in limitations intrinsic in the practical operation of market rationality, specifically in respect to domestic institutions.

The ensuing investigation will be structured as follows: Chapter Two of my thesis will set the assumptions of rationalist institutionalism on the importance of domestic structures against the explanations of currency crises in the first and second generation crisis models of applied economics. It will demonstrate that rationalist institutionalism does indeed make a valuable contribution in so far as it brings wider domestic structures back into the debate about the time consistency of monetary policy, but also that it fails to take into account the qualifications economists have made for rational expectations in the face of financial market inefficiencies.

¹⁷ For an overview about the current debate in economics see Jeanne (1999)

Consequently, I will point out the need for an intermediate, process-oriented study of the influence of domestic institutions on investors' decision-making. The chapter will raise these issues in particular in view of the ERM crisis and its explanations. It will show that the ERM crisis explanations suffer from the same lack of institutional attention as the broader crisis debate, while questioning the full rationality of financial market participants.

Chapter Three presents my theoretical-methodological framework for empirical study of investors' decision-making, informed by the theory of bounded rationality, as means of gauging the capability of financial market participants to take domestic institutions into account. It will map out a research design that, in contrast to classic rationalist institutional comparative studies, has the aim of capturing the practice of daily decision-making in financial markets in respect of domestic structures. The research design is oriented towards the process, not simply the outcomes. The approach taken combines deductive and inductive elements. It is deduced from the theory of "bounded rationality", since bounded rationality has emerged as a convincing practical critique of the rational choice assumptions underlying rationalist institutionalism. The design has to be inductive to take into account the complex context in which domestic institutional factors come into play, in order to cover the fullest possible range of factors influencing market sentiment. The methodological framework will be qualitative and focused, that is, it will be geared towards the indepth study of a single historical currency crisis, the ERM crisis, as it evolves. The ERM crisis was chosen because it was a currency crisis without an interfering banking crisis, affecting countries that had established full capital mobility. Germany, France and Britain were selected as particularly suited for comparison because of their

great homogeneity, representing similar size economies affected by the same systemic crisis. I use computer-assisted content analysis of financial market reports published during the crisis as an historical sample of market sentiment towards sterling, franc, and D-mark. The longitudinal interpretation of these reports in a controlled comparative study will ensure scientific rigor.

Chapter Four investigates the domestic structures of Britain, France and Germany for their capacity to deliver policy outcomes consistent with the strong currency commitment within the ERM. The chapter maps out ideal-typical institutional constellations in the financial, wage bargaining and government structures, three structures that the literature views as critical for determining inflation and exchange rate outcomes. The investigation applies the analysis put forward by domestic structures approaches, especially rationalist institutionalism. The chapter establishes that the respective national structures have to be evaluated realistically as part of distinct socio-economic regimes, with Britain representing a market-liberal pluralist regime, France a regulated-market étatist regime, and Germany a social-market corporatist regime. Each country's regime has its advantages and disadvantages when it comes to the time consistency of monetary policy commitments. In 1992/93, Britain offered a decentralised flexible wage bargaining system and unified majority government, but suffered from an arms-length capital market based financial system and a central bank exposed to government control and partisan financial interests. France could rely on an administrative élite with dirigiste influence over the central bank and the financial system, and on its semi-presidential system to back the *franc* fort. On the other hand it also had to cope with divided government under cohabitation and a partially militant, although fragmented, trade union movement.

The distinguishing feature of federal Germany was the autonomy of the Bundesbank, embedded in the wider German institutional structure of political checks and balances, close bank - export sector relations and a comprehensive wage bargaining system. The breakdown of the stability consensus after unification had, however, turned these structural features into a liability. The chapter concludes that financial market participants, whilst wanting to systematically take into account the complex institutional interconnectedness characteristic for the British, German and French political economy, would have faced a time-consuming task requiring a high degree of expertise. Furthermore they would have had to adjust their analysis to take account of the specific socio-political situation in each country in 1992/93. Only then would the information available concerning domestic structures have been analysed in an optimising fashion.

Chapters Five, Six, and Seven present the longitudinal analysis of the development of market sentiment towards pound sterling, the French franc and the D-mark to establish the extent to which market participants took account of and understood the structural features mapped out in Chapter Three. All three case studies show that the bounded practical reasoning of financial market reporting during 1992/93 was influenced by domestic structures when it came to judge political sustainability. But pragmatic market participants firstly took account of domestic structures if they seemed to constrain the authorities' ability to defend the exchange rate, and moreover did so only when uncertainty about time consistency was signalled by other indicators. This meant that they turned their attention too late to the structural dimension determining the time consistency of the monetary policy commitments in the three countries and could then not fully grasp its complexity.

In Britain the narrowness and ad hoc nature of structural awareness led markets to trust the government's strong currency commitment for too long, resulting in a "too late, too much" speculative run on Black Wednesday. In the case of France, limited awareness of the structural embeddedness of the franc fort in the French political system and the consistency of the French financial system with competitive disinflation was too weak to prevent markets attempting a self-fulfilling speculative attack on the franc in July 1993. Finally, in the case of Germany, significant structural analysis of the wider underpinnings of Bundesbank autonomy by Germany's political and wage bargaining systems could not prevent considerable volatility in the credibility of the D-mark. Uncertain as to whether German reunification had resulted in a long term structural crisis of the German political economic regime backing the strong currency strategy of the central bank, market participants behaved rationally by investigating in particular the critically important government and wage bargaining structures. But structural awareness failed to stabilise expectations about the constraints faced by the Bundesbank. Overdetermined by inconsistent policy signals by the central bank, structural deliberations were ad hoc and, instead of understanding the risks intrinsic to the specific features of the German monetary policy regime, they contributed to uncertainty about its time consistency. Decisive action by the Bundesbank immediately restored confidence, with previous structural concerns falling into oblivion. Ultimately it was historical experience with the German monetary regime, and not systematic rationalist analysis, which helped markets to form conclusive expectations on the consistency of Germany's domestic structures with the strong currency commitment.

Chapter Eight concludes by stating that, although market sentiment takes account of domestic structures in a broadly rational fashion, market rationality is bounded and not optimising, leading to inefficient market outcomes manifested in unstable institutional expectations and a lack of robustness in institutional analysis. Paradoxically it was because boundedly rational market participants did not analyse domestic institutional risks systematically as suggested by rationalist institutional institutional awareness, that in practice national policymakers could gain substantial monetary policy autonomy through strategic interaction with international investors. However, this potential leeway for policy autonomy came at the price of possible speculative attacks that would not have been justified if market participants had formed fully rational expectations of domestic institutional strength. The theoretical ambiguities in rationalist institutionalist conceptualisations of the influence of domestic institutions on market sentiment are explained by the failure to recognise the practical bounded nature of rational decision-making by financial market participants.

Chapter 2:

Literature Review: Domestic Institutions, Market Rationality and Currency Crises

2.1. Introduction

Do international financial markets take systematic account of domestic institutions in judging the credibility of a political commitment to exchange rate stability? Rationalist institutional interpretations of investors' decision-making suggest that domestic structures matter for the sustainability of monetary policy commitments, and that as a consequence, rational market actors will take them systematically into account in their decision-making.¹ However, orthodox currency crisis models in economics take little account of institutional factors. This will be demonstrated in a review of currency crises explanations, focusing on the ERM crisis, from 'fundamentals' explanations towards 'new fundamentalists' and 'self-fulfilling speculative attack' models.² Only recently have these models started to integrate some aspects of domestic structures in an attempt to come to terms with the specific characteristics of the East Asian financial crisis. A systematic analysis of domestic institutional variables is missing, since the debate revolves mainly around the broader issue of rational expectations versus speculative rationality.

The debate about crisis explanations in economics has nevertheless produced a new awareness about the imperfections of market rationality. Speculative dynamics have been recognised in situations where market participants face a substantial degree of uncertainty about the objective situation and other market participants' information. This development represents a refinement of the interpretation of market rationality in economic crisis explanations that is generally

¹ Domestic structures can be defined as patterns of institutions, interests and ideas prevailing in a country (Hall 1997). This thesis focuses on domestic institutions, without excluding the role played by interests and ideas in patterns of domestic structure.

 $^{^2}$ Speculative irrationality models by heterodox, post-Keynesian scholars leave no room for institutional variables either. See for example Alves (2000).

missing in rationalist institutionalism. However, the sophisticated currency crisis models have little to say on how these imperfections in market rationality relate to market attention to domestic institutions. As a result we are left with, on the one hand, the contributions of rationalist institutionalism, focusing on domestic institutions, but suffering from an idealised view of informational efficiency of investors' decisions, and on the other hand economic currency crises models, which, while aware of the limitations of financial market rationality, suffer from a lack of attention to domestic institutional factors. Furthermore, both approaches pay little attention to how market sentiment is actually formed in the reality of foreign exchange trading.

This chapter will review rationalist institutional explanations of currency credibility and economic currency crisis models with regard to their assertions regarding market rationality and domestic institutions. It will conclude that this aspect has been insufficiently analysed and that as a consequence a more realistic, intermediate analysis of investors' behaviour during a currency crisis, focusing on market rationality towards institutions, is necessary. The chapter will prepare the ground for such an analysis in the form of a comparative study of market sentiment towards specific currencies during the 1992/93 ERM crisis.

The chapter is organised as follows: the next section, section two, reviews how rationalist institutionalism views domestic institutional factors contributing to the credibility problems of fixed exchange rate commitments. Section three investigates the range of currency crisis models which have been put forward in the economic debate for domestic institutional explanations, as well as the discussion of market rationality. Section four reviews explanations of the ERM crisis put forward by international political economy and applied economics concerning the issue of market rationality and the role of domestic institutions. It starts with a brief overview of the history of the crisis. Section five concludes.

2.2. Domestic Institutions, Rational Expectations and Currency Crises

The rationalist institutional research paradigm starts from the assertion that domestic institutions can block and refract the effects of internationalisation on national politics, thus conditioning the incentives for domestic interest groups and policymakers (Milner & Keohane 1996a). Rationalist institutionalists assert that the ability to succeed in an open international economic environment through stable macroeconomic policies and low inflation is determined by the specific institutional context of national policy-making (Haggard 2000a). International finance is portrayed as creating a "new audience" that political leaders must satisfy (Keohane & Milner 1996b: 257). Markets are though of as rational, with the credibility of national policies dependent on their ability to impose financial discipline and promote competitiveness. Domestic institutions that underpin neo-liberal policies are seen as indicators of credibility (Keohane & Milner 1996a:258). Geoffrey Garrett shares this rationalist approach towards the interaction between markets and domestic institutional factors, but challenges the conclusion that domestic institutions have to be compatible with neo-liberal policies. He asserts that financial markets are able to understand the positive long-term implications of social democratic institutions for the maintenance of capitalism. In his celebrated critique of the globalisation hypothesis he argues that "farsighted capital can be expected to understand the upside of social democratic corporatism" and hence forgo the temptation to opt for more market-liberal national regimes (Garrett 1998:10). The problem is that currency traders are notoriously short-sighted.

These rational assumptions of rationalist institutionalists about market agents' judgements of domestic institutions are most explicit in their analyses of the credibility of monetary policy commitments. Here, modelling of the time consistency problem based on rational expectations

by neo-classical economists is extended to include domestic structures:³ using all available information, rational forward looking investors will take domestic interests and institutions into account when judging the credibility of monetary policy. As a consequence rationalist institutionalism states that confidence crises in financial markets result not only from conflict between domestic politics and monetary commitments, but also from weak domestic structures which are the underlying cause for political unsustainability (Haggard 2000a; Simmons 1994; Haggard & Maxfield 1996).

Simmons develops this concept clearly in respect to fixed exchange rate commitments in the interwar period (Simmons 1994:52-64): First, building on the Barro-Gordon model, she describes the interaction between domestic politics and financial markets with respect to the credibility of fixed exchange rate commitments in game theoretical terms: the optimal choice of rational policymakers is to undertake an exchange rate commitment to reduce inflationary expectations, but renege on their monetary commitments over time to stimulate growth through surprise monetary expansion inconsistent with exchange rate stability. However, as Simmons put it, "the government's effort to optimize economic growth is undercut if rational forward looking economic agents anticipate expansionary monetary policies and rearrange their assets accordingly." The result is a strategic game between governments and markets "conceived as distinct sets of actors engaged in an effort to maximise their own utility" (1994: 53-4). Governments making stability commitments will choose strategies, like the membership of an exchange rate system, to enhance their credibility, whereas financial markets will use all available information to make their best guess about monetary policy in the near future, persistently questioning the credibility of the government's strategy (1994: 55). Simmons then

³ The time-consistency of monetary policy commitments faced by rational forward-looking actors has been formalised in the Barro-Gordon model (Barro & Gordon 1983). Although formulated for domestic monetary policy commitments in a closed economy, it has been applied to fixed exchange rate commitments in an open economy (see de Grauwe 1996).

goes on to emphasise the importance of information concerning domestic institutions for this judgement.

Bringing domestic interest and institutions back into the debate about the credibility of external commitments by national governments has been a critical contribution of rationalist institutionalism. The political trade-off between the short-term growth and employment costs of maintaining an exchange rate commitment, and the longer term benefits of exchange rate stability and financial openness is structured by what Milner calls the "domestic polity" (1998: 785). Different domestic interests and institutions filter external market pressures, resulting in different policy choices across nations in this trade-off. The domestic institutional context can be expected to greatly influence market's judgement on whether to hold domestically denominated assets (Simmons 1994:63-4).⁴

In this line of argument domestic institutions are important for credibility because they provide the structural underpinnings which determine whether a lasting combination of low inflation with decent growth and low unemployment can be achieved. In turn only such a combination will allow the fixed exchange rate to be solidly based on external equilibrium without causing politically unsustainable domestic dislocations. Furthermore, in case of disequilibria, domestic institutions are crucial in facilitating smooth and effective adjustment. Rationalist institutionalism identifies in particular government, financial and labour market structures as important in this respect.⁵

Firstly, strong and stable governments are expected to be more credible in financial markets since they are less prone to "political business cycle" behaviour (Clark & Hallerberg 2000;

⁴ Other examples of rationalist institutional studies emphasising the influence of domestic institutional factors on investors' behaviour are MacIntyre (2000); Haggard (2000b); Leblang & Bernhard (2000).

Leblang & Bernhard 2000). Furthermore, stable conservative governments are supposed to be more credible through being more capable of imposing tough and costly adjustment policies (Simmons 1994). Finally, institutionally mature and stable democracies are better equipped to push through the necessary adjustments to effectively respond in case of currency crises (Haggard 2000a). Strength and stability of governments in turn depend on whether national constitutional relationship between and within branches of legislature and executive support the formation of unified or divided government. (Simmons 1994; Milner 1997; Bernhard & Leblang 1999; Haggard & MacCubbins 2001). Within the financial structure, central bank independence is assumed to be of pivotal importance for lowering inflationary expectations. Furthermore, disinflation to defend an exchange rate commitment is expected to be more likely if monetary policy is depoliticised (Simmons 1994; Clark et al. 1998). The rootedness of central bank independence in the wider domestic structural context and especially the broader financial structure is of critical importance (Lohman 1998; Hall & Franzese 2000; Henning 1994; Posen 1993). Finally, wage bargaining systems and labour union structures are important, since they determine whether monetary policy commitments will be underpinned by wage moderation (Garrett 1998; Soskice & Iverson 2000; Franzese & Hall 2000).

The rationalist view of market behaviour underlies the majority view in the rationalist research paradigm. A rare critical intervention arguing from within the framework of rationalist institutionalism has come from Mosley (2000), who has investigated how financial market participants evaluate government policy and concluded that their behaviour is rational, but in a limited sense (2000: 742). She asserts that only a narrow range of domestic variables influence financial market behaviour, but that the impact of these variables is strong (740). Domestic institutions in general do not fall within this range. Instead, financial markets rely mainly on a small number of macroeconomic indicators to assess currency risk: government deficits,

⁵ For a detailed review and discussion of the following arguments by rationalist institutionalism see Chapter 4.

inflation, the current account position and exchange rate developments. Furthermore, the response to this narrow set of indicators is strong, reinforcing their importance. Although financial market participants speak strongly of the importance of structural reform, only in situations of heightened tension will they consider microeconomic supply-side factors such as the distribution of government spending, education, labour market systems or infrastructure. These structural variables are in general only taken into account if a developing country is at risk of default, but not in the case of 'simple' currency crises like the ERM crisis. Markets are only concerned with political systems of industrial democracies and their stability if elections herald the possibility of a major shift in policy outcomes. In general, the higher the perceived risk of the government reneging on its commitments, the wider the range of information financial markets will take into account. Mosley supports her "strong but narrow" hypothesis by an analysis of market behaviour. In practice rational herding by market participants and "information shortcuts" leave little room for in-depth institutional analysis (2000: 43). These qualifications of market rationality, expanded on in the next chapter, underline the need for an intermediate view on investor behaviour.

A striking feature of the ERM crisis is that there have been significant differences in the timing and extent of speculative pressure for individual ERM member countries. Only a limited number of countries faced massive speculative attack, although almost all currencies became the target of speculative pressure at some point. If the assumptions of rationalist institutionalism are correct, differences between domestic institutions among countries should partly explain differences in market behaviour towards ERM currencies. In particular, institutional weaknesses in the respective national government, financial and labour market structures have to be investigated with regard to their explanation of not only severe confidence crisis faced by currencies like pound sterling in 1992, or the French franc in 1993, but also the sudden weakness of the most credible currency, the D-mark.

2.3. Theories of Currency Crises by Economists

The 1992/93 ERM crisis was the first of the major currency crises witnessed by the international financial system over the last decade. It was followed by the Mexican crisis in 1994/95, which spilled over to Argentina in 1995, the Asian crisis affecting Thailand, the Philippines, Malaysia, Hong Kong, Taiwan, Korea in 1997/98, which spread to the Russian default, the Brazilian devaluation in 1999, the Turkish crisis of 2000/1 and most recently the Argentine crisis of 2001/2⁶. As a result the academic debate has seen a mushrooming in crisis explanations, with often inconclusive results. As Rose puts it:

"The crisis literature is in crisis. As a profession we simply do not have a very good understanding of what causes crises (especially currency crisis)."⁷

As a rule the debate assumes rational behaviour by market participants and leaves room for domestic political and institutional variables, but the nature of market rationality is contested and the institutional analysis weak. More recent crisis interpretations severely qualify the rational expectations view of market sentiment by emphasising rational herding (Krugman 1998a; Radelet & Sachs 1998; Irwin & Vines 1999). Domestic institutional factors have been neglected for economic variables, but in the wake of the Asian crisis structural weaknesses in the political and financial system of "Asian Capitalism" have been highlighted (Krugman 1998c). The following discussion is based on a classification of economic currency crisis theories represented by Table 2.1.

⁶ The Argentine currency crisis is still evolving at the moment of writing, with an ongoing academic discussion of its causes. It will therefore not been covered in the following review of currency crisis explanations.

⁷ In Bordo et al. (2001:75)

Table 2.1: Currency crisis models

Crisis Model	Domestic Factors	International Factors	Domestic Institutional Factors	Market Dynamics	Market Rationality
1 st Generation Model					
Classic Fundamentalists Model	Competitiveness indicators	Trade contagion, Terms of Trade	None	None	Rational expectations, efficient market hypothesis
New Fundamentalists Model	Domestic moral hazard: overinvestment	IMF bail-outs: international moral hazard	Government bail-out: Financial structure	Crisis feedback- loop due to transfer problem	Rational expectations. Socially inefficient
2 nd Generation Model					
Classic "Multiple Equilibria" Model	Political sustainability Indicators: Calculation of Zone of Vulnerability.	Contagion: capital account, informational, political	Vulnerability of financial/banking system	Self- fulfilling speculative attack, rational herding	Rational expectations, plus: Rational speculation. Socially inefficient
Information Asymmetry/Limitations "Multiple Equilibria" Model	Political sustainability indicators: Uncertainty about zone of vulnerability	Contagion: Capital account, informational, political; plus: Information cascades in situation of uncertainty (lead investors)	Vulnerability of financial/banking system	Self- fulfilling speculative attack, rumours, bank-run behaviour	"Bounded rationality" plus: Speculation in situation of uncertainty. Socially inefficient
Post-Keynesian – Struct	uralist Model	·		· · · · · · · · · · · · · · · · · · ·	
"Casino Capitalism" Model	Random events	Random events; Psychological contagion (mood swings).	None	Endogenous reflexive speculative behaviour	Irrational: Fads, gambling. Socially inefficient

2.3.1. The Role of Domestic Institutions

I shall first consider the importance of institutional factors in the economic crisis literature: the debate has centred around the discussion of two crisis models, the so called "first generation" and "second generation" models and their variations. ⁸ Both approaches are

⁸ Krugman (1996; 1998a); Eichengreen et al. (1998); Flood & Marion (1998). The terminology was introduced by Eichengreen et al. (1995). For recent refinement of the second generation model see Irwin & Vines (1999); Jeanne (1999); (Krugman 2000). For a good introductory survey of the models relating to the ERM crisis see Buiter et al. (1998) and Gros & Thygesen (1998).

rooted in the Mundell-Fleming model, stating that with capital account liberalisation and massive cross-border capital flows the autonomy of governments to set monetary policies has been severely constrained for countries which have committed themselves to a fixed exchange rate. They differ however in their analysis of why and when markets will challenge such a peg in a currency crisis.

In simple terms the first generation "fundamentals" model starts from an excessive expansion of domestic credit to finance budget deficits This forces the central bank to run down reserves in order to defend the exchange rate. An exchange rate crisis is inevitable as soon as reserves run out (Krugman 1979). Fully informed markets will attack the currency as soon as money supply expansion becomes inconsistent with the longer run sustainability of the exchange rate, anticipating the inevitable balance of payments crisis. The crisis is caused by unsound fundamentals, i.e. inflationary fiscal and monetary policies. It can be explained fully by rational expectations of fundamentals, without having to turn to self-fulfilling market dynamics. "Currency crisis will occur as soon as a speculative attack can succeed. The range of indeterminacy – the range over which an attack would succeed if it occurred, but seemingly need not occur – is eliminated by reasoning backward from the known eventual collapse of the exchange rate regime" (Krugman 1996: 349, emphasis in the original). Government monetary policy choices to defend the exchange rate other than by using reserves do not enter into the picture. The first generation "fundamentals" or "competitiveness" interpretation can be thought of essentially as modelling a current account crisis (Eichengreen 2000). Market rationality in this view only takes competitiveness related economic fundamentals indicators into account, i.e. the current account, real exchange rate, excess budget deficits and related inflation. Markets are portrayed as basing their reasoning on a simple calculation of the limits of reserves available for intervention.

More sophisticated applications of the first generation approach acknowledge that competitiveness problems either stem from "unsound" domestic politics or external developments causing real appreciation.⁹ Examples of unsustainable domestic policies are excessive public borrowing in Italy (1992) or Mexico (1994/5), or private overborrowing as a result of "crony capitalism" in Asia. Examples for external causes are the devaluation of major competitors, as in the case of Korea in 1997/8, or the appreciation of the key currency as result of monetary policy decisions in the anchor currency country, as in the case of Germany in the ERM in 1992/3. Furthermore, balance of payments related devaluations in one country triggered by speculative attacks can spread current account problems to other countries through trade contagion (Gerlach & Smets 1995; Glick & Rose 1998).

Basically the first generation crisis model is not concerned with domestic structural factors underlying the emergence of macroeconomic imbalances inconsistent with the exchange rate peg. In the wake of the Asian crisis however, the model has been augmented by a structural dimension, dubbed by Haggard (2000b) as the "new fundamentalism". It asserts that continued lending by forward-looking domestic and international investors can be explained by moral hazard. Although aware of mounting short-term external debt and deteriorating competitiveness, financial markets took the calculated risk of further exposure because of the guarantee implicit in domestic financial systems of a bailout of commercial banks by national governments, financing overinvestment and asset price inflation (Dooley 1997; Krugman 1998c; Goldstein et al. 2000).¹⁰ Given moral hazard, the belated response to deteriorating fundamentals in financial markets becomes rational. Furthermore a "negative feedback-loop", aggravating the crisis, is possible in these models (Krugman 1999): the deterioration of corporate balance sheets due to

⁹ See Krugman (1996, 1998c); Edwards (1998). For an overview of fundamentals arguments including external factors for the Asian crisis see Radelet & Sachs (1998), and Haggard (2000b).

¹⁰ The argument has equally been made for the international financial structure, regarding the role of the IMF in international moral hazard. See Radelet and Sachs (1998).

the massive increase in US-dollar denominated debt caused by a confidence crisis and consequent depreciation of the national currencies will lead to a further rational collapse in investor confidence and depreciation.

Thus the new fundamentalist version adds capital account considerations to the original first generation model. In doing so, it brings in structural variables related to moral hazard: on the domestic side the close government-banking-industry relations in the credit-based financial systems of East Asia, and on the international side features of the international financial architecture, centred around the IMF crisis management regime. Financial markets are portrayed as taking these implicit guarantees into account, suggesting structural awareness. Although this represents an extension of the assumptions of rational expectations to include structural features of the domestic and international financial system, the extension is limited to bail-out mechanisms. The new fundamentalist model does not indicate whether financial markets were aware of the structural fragility of banking systems in East Asia which lay behind the lending excesses. On the contrary the model implies that markets, aware of domestic and international bail-out structures, were encouraged to ignore this broader structural fragility.

Moral hazard and its structural dimension only enter into the explanation of currency crises in the new fundamentalist version if currency crises interact with a banking crisis related to a foreign debt crisis.¹¹ This was, for example, the case in the emerging market currency crises of Mexico, Indonesia, South Korea and Russia (Bordo et al. 2001). In contrast, as the IMF points out, the ERM crises "were essentially currency crises". Only the Nordic countries which had unilaterally pegged to the ECU experienced domestic banking crises around the time of the ERM crisis (IMF 1998: 75). The structural implications of the moral hazard aspect in the first

¹¹ On the distinction and interaction between these three types of crisis see IMF (1998: 74-75)

generation model is thus of limited relevance for my investigation of the possible influence of domestic structures on market sentiment in pure currency crises.

A more complex picture emerges in the second-generation model, distinguished by its emphasis on market expectations about the willingness and ability of governments to implement and sustain the policy measures necessary to defend the exchange rate (Flood & Garber 1994; Krugman 1996; Obstfeld 1996; Ozkan & Sutherland 1994). ¹² As Krugman puts it, '...the defence of an exchange rate is a matter of trade-offs rather than a simple matter of selling foreign exchange until the money is gone' (Krugman 1998a). Governments are looked at more realistically as political agents, constrained in their choices by domestic conditions. They have to make a political decision about the benefits and costs of maintaining exchange rate stability through monetary and fiscal policies consistent with the peg. Such a consistency might require monetary and fiscal contraction, at the price of falling output and rising unemployment. On the other hand the alternative, the abandoning of the peg, comes at the price of potential inflationary depreciation and a loss of credibility (Krugman 1996). Domestic structures are of considerable importance for this trade-off not only in that they shape government preferences, but also because they can create veto points that make certain policies more difficult to implement. Furthermore, uncertainty and the possibility of self-fulfilling attacks enter the debate on market rationality.

Markets are now faced with the much more difficult task of having to deal with the time consistency problem: they have to gauge whether the commitment of a government to maintain an exchange rate peg is credible. The way market participants assess the domestic constraints which influence the trade-off a government faces between its domestic objectives (employment) and its external objective (exchange rate stability) will be crucial for the formation of market sentiment. As with the first generation model, the second generation model assumes that financial markets are informationally efficient. As it takes the domestic political and structural factors which determine government preferences into account, currency commitments face credibility problems not because of unsound fundamentals, but because domestic structures make measures to restore external equilibrium untenable. As Eichengreen (2000) points out, the second generation explanation essentially models a capital account crisis, allowing for an interaction between rational market judgement and rational decisions by policymakers regarding the trade-off between short-run costs and long-run benefits of a peg. The key is that rational market expectation for a devaluation are not driven by fundamentals, but by expectations of a coming change in monetary policy in response to politically unsustainable costs of disinflation (Cobham 1996: 589). Once such expectations have been formed the resulting confidence crisis can be self-fulfilling: under attack the unemployment and growth costs for the government of defending the exchange rate, shifting the incentive structure towards abandonment of the peg (Krugman 1996).

A central question in the debate surrounding the second generation model is whether the devaluation, triggered by a self-fulfilling speculative attack, would otherwise have occurred. Here two different versions have emerged, the 'expected policy change model' and the 'contingent policy change model' of self-fulfilling speculative attacks.¹³ The former model assumes that financial market participants realise that a currency peg has become politically unsustainable. Its collapse is only a question of time, given the costs of disinflation needed to maintain the peg. By worsening domestic policy disequilibria through the dynamics of a self-

¹² For a good overview see Jeanne (1999).

¹³ The terminology has been introduced by Cobham (1996). Representatives of the first view are Flood & Garber (1984); Ozkan & Sutherland (1994); Krugman (1996, 1998a). Proponents of the contingent policy

fulfilling speculative attack, financial markets only precipitate the inevitable collapse of the peg by accelerating the already unsustainable losses the government incurs from staying on the peg (Krugman 1996; 1998a). In contrast, the latter model assumes "multiple rational equilibria": one equilibrium being a politically sustainable exchange rate commitment, as long as it has not to be defended against speculative pressure, the other an equilibrium at a depreciated rate, to which the policy preferences of government will shift in response to a disequilibrium emerging at the old rate, resulting from the need to defend it against a speculative attacks through interest rate hikes (Eichengreen 1996; Radelet & Sachs 1998). Currency crises are now not only selffulfilling but self-generated. As DeLong put it in his review of recent currency crises:

The second generation crisis model has influenced the explanation of speculative attacks on especially those countries with manageable fundamental economic problems, but which were vulnerable from a political sustainability point of view.¹⁴ Regardless of whether a speculative attack was in anticipation of expected or contingent policy change, it only takes place because the political commitment was perceived by market participants to have entered a "zone of vulnerability" (Eichengreen 2000).¹⁵ Although, as suggested by the time-consistency problem, all policymakers have incentives to reflate at the cost of abandoning the exchange rate peg, only in certain domestic circumstances will this susceptibility translate into acute vulnerability of the commitment.¹⁶

[&]quot;It was only the belief that macroeconomic politics would prove unsustainable in the end that made them inappropriate; in the absence of that belief, policies would in all likelihood have been sustainable and appropriate." (1999: 254).

change model are Eichengreen & Wyplosz (1993); Eichengreen et al. (1995), Obstfeld (1996); Eichengreen (2000); Sachs & Radelet (1998).

¹⁴ See the analyses of e.g. Eichengreen & Wyplosz (1993) and Radelet & Sachs (1998).

¹⁵ Krugman (1996) calls the range within which self-fulfilling speculative attacks can occur a "crisis zone" (1996:349).

¹⁶ On the distinction between susceptibility and vulnerability see Keohane & Nye (1977).

The problem for markets is how to assess whether the zone of vulnerability has been entered. Even if markets are assumed to be rational and forward looking, they have to deal with uncertainty when it comes to forming expectations about future policy decisions. In the words of Paul Krugman:

Krugman points out in this context the possibility of unsuccessful speculative attacks which are nevertheless rational, since markets faced with a high degree of "uncertainty about the government's loss function" might decide that it is worth taking the risk of testing a government's resolve (1996: 357). To reduce the inevitable losses associated with such a strategy, rational market participants should have an interest in obtaining and processing as much information as possible on the government's loss function, including its domestic structural determinants.

The second generation model is weak as concerns the extent to which structural factors are considered in market views of the vulnerability of exchange rate commitments. Its main emphasis is on the events triggering a self-fulfilling attack, which can be of political or economic, international or domestic nature (Eichengreen 2000; Radelet & Sachs 2000). Many of these events, like national referenda (ERM 1992), political assassinations and uprisings (Mexico 1994/5), bursting property price bubbles or corporate bankruptcies (Asia 1997/8), point at underlying domestic political or economic structural features. Only weaknesses in the domestic banking structure have been explicitly emphasised, but without in-depth analysis or

[&]quot;The decision [on the future exchange rate strategy; W.H.] is essentially political, it is likely to be influenced strongly by the exhaustion of hard-to-measure reserves of public patience and political capital rather than tangible measures like financial reserves." (1996: 365)

a discussion of whether these weaknesses did influence market sentiment.¹⁷ Whether markets have been aware of these features has not been addressed in the second generation model.

Instead, the model puts considerable emphasis on international developments like external shocks and contagion as reasons for a sudden increase in a government's susceptibility to speculative pressure. But even here the issue of domestic structures should come into play, since markets have to make a proper judgement as to whether a government's monetary policy strategy will be influenced by domestic preferences or the international shock. De Grauwe describes this problem for the case of a too hawkish monetary policy of the anchor currency in an asymmetric key currency system:

Again, market awareness of domestic structures should reduce this uncertainty. Similarly, different forms of contagion can result in spreading sustainability problems. This can be through trade contagion after competitor nations have been forced to devalue, capital account contagion, due to the withdrawal of funds by investors who had to cover losses in the countries first forced to devalue, and informational spillover, caused by financial market participants becoming aware of problems in other countries similar to those in the country which fell victim to the original speculative attack. (Glick & Rose 1998; IMF 1998; Jeanne 1999). Finally, if a self-fulfilling attack succeeds, it might lead to "political contagion" as financial markets realize that the depreciation of one government might negatively affect the rationale for continued pegging for other governments (Drazen 1999). The fact that not all

[&]quot;In an uncertain world, the increase in unemployment observed by private agents can be interpreted in two ways. It can be interpreted as evidence that the authorities are committed to reducing inflation. In that case inflationary expectations will decline. Or it can be seen as the result of a shock, which will increase the incentive to follow more expansionary policies. Private agents may then think that the authorities are likely to devalue the currency." (1996: 70)

¹⁷ For the Asian financial crisis the emphasis is here on the structures of what has become know as "crony capitalism" (Radelet & Sachs 2000). For the ERM crisis Eichengreen has pointed out that financial fragility in Britain was caused by a combination of high interest rates and excessive mortgage lending. (Eichengreen 2000: 24-5).

countries in a similar international situation are equally vulnerable to contagion pressures suggests that market participants are able to differentiate between the different capabilities of national regimes to facilitate disinflation in defence of the peg. The second generation model takes the view that market participants concern themselves with different outcomes of disinflation in terms of unemployment and political support for the peg, without asking for the underlying structural factors causing these differences. The exception is the narrow concern of second generation authors about the specific direct vulnerability of domestic financial structures to interest rate increases and capital outflows. Weaknesses in national banking and financial systems have been highlighted here, starting with the ERM crisis, and ending with the analysis of "crony capitalism" in Asia (IMF 1998; Radelet & Sachs 1998; Irwin & Vines 1999; Eichengreen 2000).

Consequently Goldstein et al. argue the need for widening the analysis of what constitutes financial vulnerability of emerging market countries beyond macroeconomic variables to include institutional characteristics (2000:17). Rationalist institutionalists are of course even more aware of this weakness in the economic analysis of currency crises. Haggard (2000b) asserts that in the case of Asia, the longer-term sources of vulnerability in the political and financial institutional structure have to be addressed, beyond ad hoc explanations of bad policies, in order to systematically understand why financial markets lost confidence in exchange rate commitments. He concludes that both the first and second generation models of currency crises fall short on this account (2000b:7-8). The question remains whether financial markets were indeed taking these critical structural factors into account in the systematic fashion suggested by rationalist institutionalism. Economic crisis models give mixed support to this assumption.

2.3.2. Market Rationality

Only the first generation fundamentals crises model and its 'new fundamentals' variation suggest that financial market behaviour can be explained by fully rational expectations in market decision-making. Juxtaposed to this position are radical accounts of self-fulfilling speculation, in the post-Keynesian or structuralist/post-structualist tradition, which fully discard notions of market rationality in favour of comparing market behaviour to gambling in what Keynes dubbed "casino capitalism" (e.g. Strange 1998; Alves 2000; Harmes 2001). Market participants, unable to form reasonable opinions about an uncertain future, make decisions based on conventions and "fads" prevailing endogenous in the market place, resulting in lemming-like behaviour among traders. External events ("sunspots") only come in as random triggers for irrational swings in market sentiment from optimism to pessimism. Both positions have been criticised for making extreme assumptions about either market rationality or market irrationality, failing to capture the interaction between reality and investor behaviour.¹⁸

In contrast, classic second generation self-fulfilling speculative attack models maintain the assumption of market rationality, although broadened to include the interplay between government vulnerability and market behaviour. Within the second generation self-fulfilling attack models, markets initially form rational expectations as to the vulnerability of government commitments, in order to determine whether and when a multiple equilibria situation exists. Then, once rational markets have come to the conclusion that an exchange rate commitment is vulnerable, speculation, driven by endogenous market dynamics, becomes rational, since it is through this speculative build-up that the crisis becomes self-fulfilling, shifting the government's loss function from a "good" to a "bad" equilibrium. (Obstfeld 1996; Radelet & Sachs 1998, 2000). In this situation it becomes rational for

¹⁸ See Willett (2000), who called in this context for an "intermediate view of investor behaviour".

individual market participants to discard private information supporting the sustainability of the peg in favour of "rational herding". As Radelet & Sachs put it, panic among market participants is "one rational equilibrium" once they have concluded that the government can be pushed towards devaluation, even if this behaviour is socially inefficient in the sense that the peg could have been sustained (1998:5). In this context it seems possible that the decision to join the herd might be based on an awareness of the domestic institutional fragility of an exchange rate commitment.

The picture changes if speculative attacks are seen to be caused not by a rational calculation of vulnerability, but by information asymmetries and/or informational frictions (Calvo & Mendoza 1996; Radelet & Sachs 1998; Flood & Marion 1998). Market participants who are uncertain about the validity of their own judgement on the sustainability of a peg because they are unwilling or unable to obtain sufficient country-specific information, might ignore their own judgement and base their decisions on the decisions of investors before them, resulting in "information cascades" (Flood & Marion 1998).¹⁹ As Food and Marion point out in this context:

Such herding behaviour will hurt investors sometimes, since the speculative attack takes place in an environment of high uncertainty about the government's vulnerability and thus the speculators' ultimate success. This might give investors an incentive to push back limitations on full rational foresight by collecting more information on domestic institutions

[&]quot;Globalization reduces the incentives to collect country-specific information to discredit rumors and increases the likelihood that fund managers who worry about their relative performance will each select the same portfolio. Consequently, small rumors can induce herding behaviour and move the economy from the no-attack to the attack equilibrium." (1998: 16)

¹⁹ Suggestions that herding is in particular caused by the leader role of hedge fund managers has been questioned by IMF studies which found little evidence that hedge funds lead other investors (IMF 1998; Eichengreen et al. 1998). Eichengreen et al. argue that hedge funds carry little weight in market opinion, because investors realise that these institutions with comparatively little research capacity are particularly exposed to information asymmetries (1998:10).

in particular, as Maxfield argues from a rationalist institutional viewpoint (1998: 1216). But this incentive will be in conflict with the desire of market participants to economize on their collection and processing of country-specific information that lie at the root of informational inefficiencies in the first place. From this point of view it seems unlikely that they will undertake systematic domestic institutional-structural analyses.

A way forward, taking account of the reality of investor reasoning, has been suggested by Willett (2000), drawing on bounded rationality concepts. In his "too late, too much" hypothesis he asserts that market behaviour is not fully efficient because market participants suffer from information asymmetries and cognitive limitations, and are consequently prone to feedback loops among individual investors' analyses, resulting in speculative herding. Consequently, highly volatile international financial markets operate inefficiently, oscillating between exuberance and panic. Although ultimately making valid judgements, market participants arrive at these conclusions too late, with a tendency to overshoot.

What is at issue here is the tension between the practical rationality of investors in their dayto-day business and the optimising rationality of rational expectations formation, an issue that has been addressed neither by rationalist institutionalism nor by economic currency crises explanations.

2.4. The 1992/93 ERM Crisis

The analyses of the causes of the wave of speculative attacks on ERM currencies over 1992/93 shows a similar neglect of the possible influence of domestic structures on market sentiment. To introduce my review of the ERM specific crisis literature, a short historical overview of the crisis is necessary.²⁰

2.4.1. A Brief Historical Account

The ERM crisis took place against the backdrop of four critical international developments: the creation of full capital mobility in the European Community (EC),²¹ the launching of Economic and Monetary Union project (EMU), German unification, and the global recession of the early 1990s, led by the USA.²² Full capital mobility was established in the EC as part of the single market programme to become effective in July 1990.²³ Britain, Germany and France were in the vanguard of liberalisation. Britain suspended all remaining barriers to inflows and outflows in 1979, France lifted most restrictions in 1988, with all remaining controls abolished on 1 January 1990 and Germany had already started to liberalise inflows from 1958 onwards, with residual outflow restrictions gradually removed in the course of the 1980s (Bakker 1996). At the end of 1991 all ERM member states had removed remaining restrictions and in 1992/93 the ERM area constituted a zone fully open to international capital flows. In addition, the high degree of domestic financial deregulation as part of the EC's neoliberal reform agenda increased its vulnerability to speculative attacks (Tsoukalis 1997, Eichengreen 2000). Table 2.2 gives an indication of the scale as well as the regional and the currency distribution of cross border currency trading for 1992, illustrating the potential exposure of ERM currencies to the quantitative leverage of financial markets.

²⁰ A tabulatory chronology of the crisis is given in the Appendix, Table 1. Main economic indicators for France, Germany, Britain and the USA from 1988 to 1994 in the Appendix, Table 2.

²¹The European Community changed its title to European Union (EU) on 1 November 1993, with the Maastricht Treaty formally entering into force. Up to this date I will use the abbreviation EC.

²² For a good review of the crisis see Kenen (1995); Tsoukalis (1997); Eichengreen (2000).

²³Fourth Directive on capital movements, adopted 24 June 1988. The directive allowed for a derogative transition period for Greece, Spain, Portugal and Ireland until May 1994. A detailed account of EC and country specific capital account liberalisation in the EC /EU can be found in Bakker (1996).

Table 2.2:	Ta	bl	e	2.2	
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Foreign exchange and derivatives market activity 1992 (Daily Averages in April 1992)

(Daily Averages in April 1992)	
Daily global foreign exchange	market turnover (US dollar bn)
Spot	394
Forwards and swaps	382
Reporting gaps	44
Total	820
Currence distribution of nonort	ad foresign makeness market turn over (noncost) ²⁴
US dollar	ed foreign exchange market turnover (percent) ²⁴ 82.0
D – Mark	39.6
Pound Sterling	13.6
French Franc	3.8
ECU and other EMS	11.8
Reported foreign exchange turr	nover by currency pairs (percent)
US \$/DM	25
US \$/£	10
US \$/FFr	2
US \$/other EMS	6
D-Mark/£	3
D-Mark/FFr	1
D-Mark/other EMS	3
Geographical distribution of re	ported foreign exchange market turnover (percent)
United States	15.5
Germany	5.1
Britain	27.0
France	3.1
Source:	

Source:

BIS (2002): Triennial Central Bank Survey: Foreign Exchange and Derivatives Market Activity in 2001

The push for monetary union (EMU) was related to the creation of a single market, including full capital mobility. Mapped out in the Delors Report (Committee for the Study of Economic and Monetary Union 1989), the project gained critical political momentum with the Franco-German bargain linking German unification to European monetary integration, which led to the formal launch of EMU in the Maastricht Treaty, negotiated in December 1991. The treaty's convergence criteria, which stipulated that national currencies must remain within the 'normal' fluctuation margins of the ERM for at least two years to qualify for EMU, made the

system more rigid and at the same time more vulnerable to speculative pressure in the case of difficulties on the route towards the single currency (Eichengreen & Wyplosz 1993; Eichengreen 2000).

German reunification constituted a classic case of an external shock to the ERM as a system of pegged exchange rates, with the D-mark as key currency (Branson 1994). The rapid full integration of the east-German economy threw the west-German economy off balance, resulting in conflict between the domestic priorities of German monetary management and the role of the D-mark as anchor currency (De Grauwe 1997). High German interest rates, justified domestically by the Bundesbank to contain rising inflation, induced by deficit spending after reunification, imposed a too restrictive monetary policy stance on the rest of the ERM.

Finally, after the boom of the 1980s, the European economies, with the exception of Germany, had entered into severe recession in the early 1990s, led by a post-Gulf War cyclical downturn in the US. US interest rate cuts from 1990 through to the end of 1992, and "benign neglect" of the exchange rate, contrasted with the continuous German reunification boom and high interest rates in Germany, driving up the D-mark against the dollar, thus adding to the strains within the ERM in 1992. (BIS 1993) (See Chart 2.1 and 2.2).

²⁴ Because two currencies are involved in each transaction, the sum of percentage shares of individual currencies totals 200% instead of 100%.



Chart 2.1: Exchange rates: DM to FFr; £; Lit; US \$ (01 January 1991 –30 October 1993; 01/01/91 = 100)

Source: Datastream; Deutsche Bundesbank

Chart 2.2:

France, Germany, UK, USA: Official interest rates (Daily; 01 July 1991 – 30 June 94)

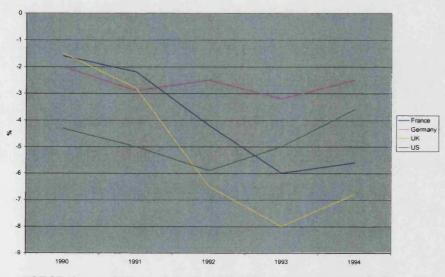


Germany: Discount Rate; France: 5-10 Day Repo Rate; UK: Clearing Banks Base Rate; USA: Intended Federal Funds Rate

Source: Datastream; Federal Reserve

Together these international factors undermined the stable pattern of the workings of European monetary relations in the early 1990s. As a result the conventions in financial markets about the stability of the ERM system gradually broke down, ending with the speculative attacks of 1992/93. A first indication of the vulnerability of D-mark pegs came with the "Nordic currency Crisis" of November 1991, which culminated in the devaluation of the Finnish markka on 15 November. The crisis within the ERM itself erupted in June 1992 after a long phase of stability in 'hard' ERM since 1987. The trigger for this was the rejection of the Maastricht treaty by the Danish referendum on June 2, which put the political feasibility of EMU itself in question. With the Maastricht convergence process now uncertain, confidence in the sustainability of exchange rate stability took a severe blow. Countries where the hard ERM had concealed growing underlying fundamental problems, were the first to come under increasing speculative pressure towards autumn 1992. This was clearly the case for Italy, Spain and Portugal, with some indications also for Britain. High budget deficits and the legacy of high inflation made the pegs of these countries look overvalued, indicated in Britain by high current account deficits and deteriorating terms of trade (Charts 2.3; 2.4; 2.5; 2.6).

Chart 2.3: France, Germany, UK, USA: General government fiscal deficit (1990-1994, annual, as % of GDP)



Source: OECD Economic Outlook 66, Dec 1999 (Statistical Annex, Table 30)

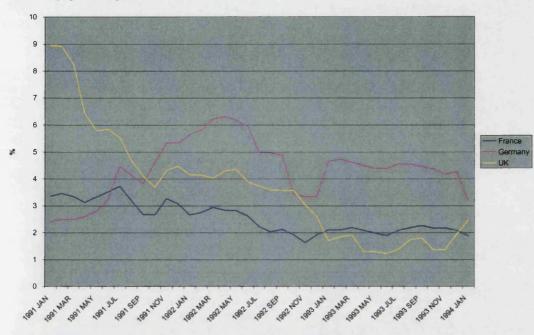


Chart 2.4: France, Germany, UK: Consumer price inflation (monthly, percentages, 01/1991 - 01/1994)

Source: IMF, International Financial Statistics (64x), CD-ROM

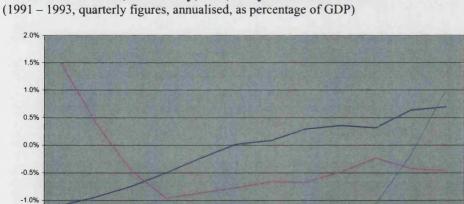


Chart 2.5: France, Germany, UK, Italy: Current account (1991 – 1993 quarterly figures annualised as percentage of GDP)

Q 1/1991 Q 2/1991 Q 3/1991 Q 4/1991 Q 1/1992 Q 2/1992 Q 3/1992 Q 4/1992 Q 1/1993 Q 2/1993 Q 3/1993 Q 4/1993

Source: OECD Statistical Compendium, ed. 01/1999, CD-ROM.

-1.5%

-2.0%

-2.5%

-3.0%

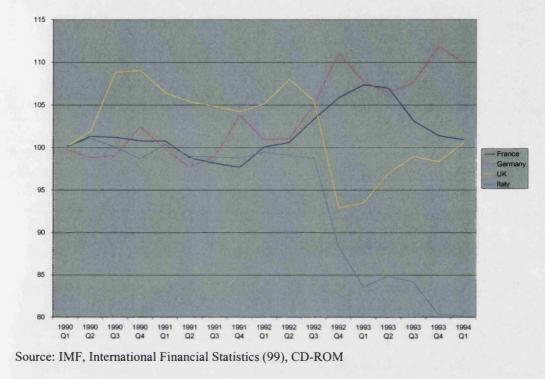


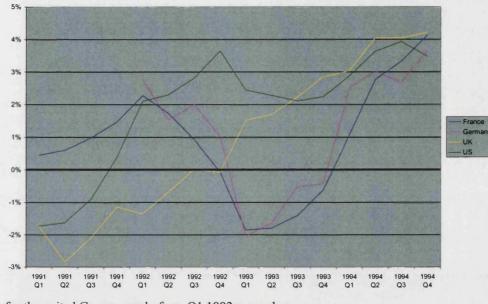
Chart 2.6: France, Germany, UK, Italy: Real effective exchange rate (1990/Q1 - 1993/Q4, quarterly, 1990/Q1 = 100)

The need to shadow rising German interest rates (Chart 2.2), with the consequence of excessive disinflation, made even countries like France, with 'sound' economic fundamentals, vulnerable to speculative pressure. Growth and employment costs were particularly high for France and substantial for Britain (Chart 2.7 and 2.8). Both countries faced the additional problems of having financial sectors specifically vulnerable to excessive monetary tightness. In addition, Britain was particularly exposed to the US dollar depreciating against the ERM, given that it had the highest dependence on exports to the US of all the EMS member states.²⁵ It was in this context, in September 1992, that financial markets received the news that George Soros had taken large speculative positions against sterling.

²⁵ See Eurostat (1999). Table 2.4 gives figures for Britain, France, and Germany.

Chart 2.7: France, Germany, UK, USA: GDP

(1991 - 1994, quarterly, percentage change on corresponding period of previous year*)



*figures for the united Germany only from Q1 1992 onwards. Source: IMF, International Financial Statistics (60b), CD-ROM

Chart 2.8: France, Germany, UK: Unemployment (as % of total labour force, monthly: Jan 1989 –Dec. 1994)*



Source: OECD Statistical Compendium, ed. 01/1999, CD-ROM. *Germany: as % of civil labour force. Data for unified Germany only available from 1992 onwards.

	Exports to US as percentage of total exports	Exports to EU-15 as percentage of tota exports
Britain		
1992	11.6	59.8
1993	12.8	56.8
France		
1992	6.2	65.3
1993	7.0	60.0
Germany		
1992	6.4	63.3
1993	7.4	58.5

 Table 2.3:

 Britain, France, Germany: Share of exports directed to the USA

Merchandise Exports.

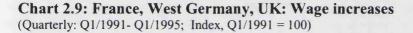
Source: Eurostat (1999)

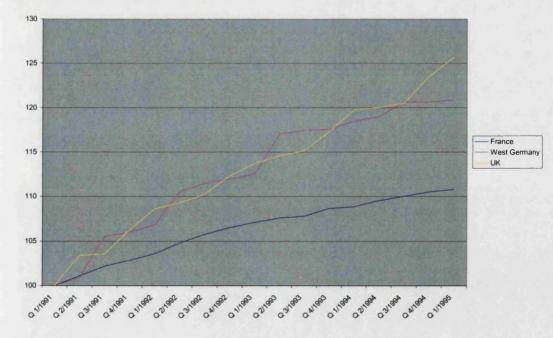
Against this background the speculative pressure resulted in the "first" ERM crisis of autumn 1992, triggered by the rejection of the Maastricht treaty in the Danish referendum of 2 June. Attempts towards a cooperative solution of the subsequent tensions by EC officials and national policymakers at the Bath meeting, which attempted to achieve Bundesbank monetary easing in return for realignments against the D-mark, failed. Afterwards, national interest rate hikes and massive intervention supported by the German Bundesbank were insufficient to contain mounting speculative pressure. First, the pound sterling and the Italian lira were floated on 16 and 17 September, then the devaluation of the Spanish peseta and Portuguese escudo followed on 22 November. Outside the ERM the speculation led to the collapse of both the unilateral D-mark pegs of the Swedish and Norwegian krone in November and December, despite determined interest rate increases by the monetary authorities. Only the French franc was able to maintain the peg in the face of huge selling pressure, due to exceptionally large-scale coordinated intervention by both the Bundesbank and the Banque de France, and French official interest rate hikes (Chart 2.2).

The crisis flared up again in the winter of 1992/93, when it became clear that the Bundesbank would for the time being not relieve tensions in the ERM by significant monetary easing. The Irish punt had to be devalued in January 1993, and again the French franc could only survive

through coordinated support by the German and French monetary authorities. From February 1993 onwards relative calm began to return to the system, after the Bundesbank had finally embarked on a process of gradually easing its monetary policy stance (Chart 2.2). The "Iberian Currency Crisis" of May 1993, forcing a second devaluation of the peseta and the escudo, remained confined to these two countries.

Ironically the return to a degree of systemic stability seems to have been due to an erosion of the credibility of the ERM's anchor currency, the D-mark, in the first half of 1993, as a response to possible stagflation, excessive deficit spending and inflationary wage increases in Germany (Charts 2.3; 2.4; 2.9).





France and W.-Germany:Earnings; Manufacturing (Hourly)United Kingdom:Earnings; Manufacturing (Weekly)Source: OECD, Statistical Compendium, ed. 01/1999, CD-ROM

Comments by George Soros in June 1993 highlighted these problems. Pressure on the Dmark resulted in a period of recovery for the French franc which was seen in financial markets as a potential alternative to the D-mark anchor. But these impressions were shattered by the clash between the French government and the Bundesbank in June 1993 over the challenge of French policymakers of German monetary leadership. It indicated not only that Bundesbank monetary policy was still excessively tight for France, burdened by continuously rising unemployment (Chart 2.8), but also that Germany was increasingly unwilling to adjust its policy in support of the franc. The subsequent speculative attacks of summer 1993, concentrating this time on the French franc and to some extent on the Danish krone, were of such scale that European central bank governors and finance ministers finally conceded to market pressure by widening the ERM band to +/-15 percent during the last weekend of July 1993. The de facto termination the ERM as a system of pegged exchange rates was successful since the incentives for speculative bets against fixed parities were greatly reduced. With calm in the system restored, France managed to maintain the old parity against the D-mark from December 1993 until the start of monetary union in 1999, confounding the expectations of devaluation in foreign exchange markets.

2.4.2. Market Rationality and Domestic Structures in the Analysis of the ERM Crisis The basis for most academic analyses of the ERM crisis is its "official" account by the IMF, the BIS and the EC.²⁶ These accounts explain the crisis as a result of a combination of international and domestic factors, without any deeper analysis of the structural reasons why these factors differed from country to country. Firstly, systemic explanations dominate the analyses, from Bundesbank monetary policy and the US recession, via the 'Nordic currency crisis' to the deteriorating prospects for EMU after the Danish referendum (e.g. BIS 1993). Secondly, when it comes to domestic factors undermining currency credibility, economic

²⁶ For a systematic summary overview of ERM crisis explanations see Table 2.3.

fundamentals explanations dominate in the analyses of the September 1992 crisis, with the tensions and crisis in 1993 explained by growing economic and social sacrifices in defence of the peg. The official reports concluded here that although interest rate increases have proved to be the most effective instrument to defend the exchange rate in an environment of high capital mobility, their effectiveness ultimately depending on market assessment of whether the authorities are willing and politically able to maintain higher rates as long as is necessary to check the pressure on the currency (Group of Ten 1993:34). In the words of the BIS:

A partial departure from the general lack of structural analysis is provided by the IMF which discusses structural problems in the financial sector in France and Britain (Goldstein et al. 1993).²⁷ Following the rational market assumption, the authors maintain that the credibility of fixed exchange rates depends on whether "…markets perceive the costs of that action as being so high as to raise doubts that the authorities will both be willing and able to sustain them" (15).

Of great importance here are what the Fund study terms "side effects", resulting from the individual counties' financial structures. In France the financial structure supported sustainability. Commercial lending could be insulated from an interest increase to squeeze speculators, because co-operation within the banking system allowed the charging of different interest rates to different classes of borrowers. In contrast, in Britain excessive debt levels in the household and corporate sector became unmanageable because of a "financial market structure under which any rise in the Bank of England's minimum dealing rate spread relatively quickly to the whole yield curve, including to retail markets and mortgage

[&]quot;Even where the 'fundamentals' are deemed to be sound, as in the latest episode in Europe, the underlying monetary policy changes implicitly required to hold a fixed exchange rate can quickly come to be seen as "non-credible" – especially where unemployment is very high" (BIS 1994: 169).

markets.' (Goldstein et al. 1993: 16). The weakness of this analysis is that, although it gives some indication as to why Britain was structurally more vulnerable to speculative attack than France, it fails to investigate whether this difference had an influence on market sentiment towards sterling and the franc.

The neglect of domestic structures in the official accounts might explain why these accounts are weak as regards to their analysis of why even Germany finally came under scrutiny in financial markets in 1993, whereas the credibility of the Dutch guilder, the Belgian franc and even the Austrian schilling with its unilateral peg to the D-mark, remained largely intact. The IMF explains this simply with the 'firm and long-standing commitment to a fixed parity visà-vis Germany' of the Dutch, Belgium and Austrian authorities (Goldstein et al. 1993:31). But such a commitment alone is not enough to convince markets, as was demonstrated by the French case.

Markets are portrayed in the official crisis explanations very much as rational actors. They essentially form rational expectations of the economic and political sustainability of the commitment by governments to defend the exchange rate: competitiveness problems are seen as having combined with a deteriorating trade-off between the sacrifices of maintaining the ERM peg and exchange rate stability. The systemic shock of Bundesbank tightening dominates the explanation as to why this trade-off deteriorated, taking priority over country specific factors. Markets are ultimately interpreted as imposing reason on government by challenging economically or politically unsustainable pegs. But, as the IMF asserts, market rationality was not always consistently exercised:

²⁷ The discussion of has been expanded in the IMF's World Economic Outlook (IMF 1998), to include the coincidence of currency and banking crises in emerging markets in the 1990s.

"The discipline exerted by capital markets is neither infallible nor is it always applied smoothly and consistently. Nevertheless, the markets eventually decide on what are unsustainable situations, and when they do, their size alone increasingly allows them to force adjustments." (Goldstein et al. 1993: 22)

Questions concerning the extent of market rationality arose in particular because of the 'excess credibility' of the 'hard ERM' enjoyed in the markets between 1997 and 1992. The IMF points out that markets pushed aside competitiveness problems in some countries by betting on what has become know as the 'convergence play': higher interest rates in countries with weak fundamentals due to high inflation were interpreted not as indicating devaluation risk, but as aiming at improving fundamentals by bringing inflation into line with Germany. The markets are seen to have taken the view that convergence would reduce the exchange rate risk over time, ignoring the direct social and political costs of tight monetary policy. Investors shifted leveraged investment from low yield to high yield countries, with devastating effects once the view was reversed in autumn 1992 (Goldstein et al. 1993: 8-10). Davis (1995), drawing on the IMF analysis, takes the convergence play as an illustration that institutional investors can behave in an inefficient, destabilising fashion. Aside from the 'convergence play' the aspect of how rational actual market behaved was not investigated further.

The ERM crisis has been analysed in great depth by economists and political scientists drawing on the earlier accounts by international financial institutions. Following the argument in these accounts, the studies focus predominantly on the systemic dimension of the crisis. Domestic factors to explain differences in market sentiment towards individual member states are investigated in greater detail only by applied economists. The systemic bias in IPE points at its general weakness with regard to domestic factors. So far the domestic structures approach in comparative political science has not come forward with an analysis of the crisis.

Table 2.4:Explanations of the ERM Crisis

G	F	UK	I	SP	P	DK	NL	B	IR
X ¹	X	x	(X)	x		x			(X)
	X		X	X					
	X	X				X			
		(X)	x	x	x				
X	(X)	X	X	(X)	(X)	T		X	
X			X	X	X				
	X					l			x
	•								
All countries affected									
	X1 	X' X X X X X' (X) X'	$\begin{array}{cccc} X^{i} & X & X \\ & X & X \\ \hline & X & X \\ \hline & X & X \\ \hline & & (X) \\ \hline X^{i} & (X) & X \\ \hline X^{i} & & - \end{array}$	X ¹ X X (X) X X X X X X X X X X X X X ¹ (X) X X ¹ X X X X X X X X X X X	X ¹ X X (X) X X X X X X X X X X X X X X X X X ¹ (X) X X X X ¹ (X) X X X X ¹ X X X X X ¹ X X X X X X X X X	X' X X (X) X X X X X X X X X X X X X X X X X X X X X X' (X) X X X X' X X X X X X X X X X X X X X	X' X X (X) X X X X X X X X X X X X X X X X X X X X X X X X X' (X) X X (X) X X X' (X) X X (X) X X X' (X) X X X X X X X I I I I I	X' X X (X) X X X X X X X X X X X X X X X X X X X X X X X X X' (X) X X X X X X' (X) X X (X) X X X' (X) X X (X) X X X' X X X X I I X X X X X I I	X' X X X X X X X I I X X X X X X I I I X X X I I X I I I X X X I I I I I I X X X X X I I I I X' (X) X X (X) I I I I I X' (X) X X (X) I I I I I I X' X X X X I

G = Germany; F = France; UK = Britain; I = Italy; SP = Spain; P = Portugal; DK = Denmark;

NL = Netherlands; B = Belgium; IR = Ireland.

Parentheses indicate comparatively minor problems.

¹High interest rates, deficits, and inflation in Germany are interpreted as cause for system wide tensions in the ERM, not as posing a credibility problem for the D-mark.

Typical examples of the systemic approach of IPE are the studies by Andrews (1994b, 1995). He interprets the asymmetry in the ERM as a constraint imposed by financial markets on EC countries in order to stabilise against the D-mark. As a consequence he explains the crisis as reinforcement of German hegemony by the structural power of markets. Other studies focusing on the role of Germany see the crisis as a case of the key currency problem in pegged exchange rate systems (Bush 1994; Kenen 1995). This view is reflected in general IPE accounts of the crisis, like Tsoukalis (1997). An exception is Dyson (1994), who takes a two-level international-domestic approach, but focuses on domestic and international policy processes rather then structures. His institutional analysis remains by and large confined to the EC level.

Explanations by economists present a more differentiating picture. ²⁸ Country specific political and economic developments are widely discussed, but not to the level of the different domestic institutional conditions shaping these developments. Furthermore, a detailed discussion of market rationality is missing, including the influence of domestic structural variables. Generally, broad assumptions of markets acting rationally in response to either escalating fundamental problems or the emergence of multiple equilibria in the governments loss function seem to underlie most analyses. In the words of Vaciago:

The first-generation fundamentals model is reflected in the 'competitiveness approach', explaining the crisis as caused by exchange rate misalignments resulting from past national policies. There is widespread consensus that competitiveness problems were a main cause for the "first" ERM crisis affecting mainly Italy, Britain, Spain and Portugal.²⁹ The fundamentals– competitiveness approach is supplemented by contagion-based explanations. They describe Spain's and Portugal's already fundamentally weak competitiveness as further weakened by the improvement of their terms of trade after the Italian and British depreciations. This trade-related contagion is seen as having also affected originally 'sound' countries like France and Ireland.

The second generation model provides the background for the 'expected policy change model', as well as for the 'contingent policy change model', which are generally taken as better

[&]quot;Markets' assessments incorporate two perspectives: the past, with reference to the *cumulative* loss of competitiveness up to the present, and the future, with reference to the sustainability of the authorities' response." (Vaciago 1993: 22, emphasis in the original)

²⁸ I use in the following review of crises explanations the classifications suggested in the excellent discussion of ERM crisis explanations by David Cobham, building on the first and second generation crisis models (1996). A good overview of the crisis and its explanations is also given by Kenen (1995), Buiter et al. (1998), and Gros and Thygesen (1998).

²⁹ The competitiveness approach basically states that the ERM as a mechanism of "borrowed credibility" found its limits in diverging fundamentals (see Tsoukalis 1997). Representatives of this view on the 'first' crisis phase are Pons (1993); Steinherr (1994); De Grauwe (1995); Ötker and Pazarbasioglu (1997); as well as Bacchetta (1994) for Spain; Micossi and Padoan (1994), and Fratianni and Artis (1996) for Italy. Johnson (1994) makes the

explanations for the 'second' attack in summer 1993 on currencies with "sound fundamentals", i.e. the French franc and the Danish krone (Pons 1993; Cobham 1996, 1997; Eichengreen 2000). But the two variations have also been applied to the sterling crisis in September 1992, as the case of fundamentals weakness for Britain is contested, and the autumn 1992 and winter 1993 attacks on the French franc. The "expected policy change model" emphasises the German interest rate shock: markets expected the governments, especially in France, to break their commitment not to devalue because of the rising unemployment caused by German-imposed excessive disinflation.³⁰ Buiter et al. specifically make the point that because hopes for fiscal restraint by the German government did not materialise, the Bundesbank, against expectations, continued its tight monetary policy into 1992/93, "regardless of the consequences for the domestic real economy and with utter disregard for the international implications of its policies" (1998:41).

The "contingent policy change model", in contrast to the expected policy change version of the second generation model, can be seen as a representation of the multiple equilibria version of the self-fulfilling speculative attack scenario. It puts great emphasis on the Danish referendum as the event which shifted the political loss function of all governments to a new equilibrium by weakening their exchange rate commitments (Eichengreen & Wyplosz 1993; Eichengreen 2000). Country-specific conditions are brought in to explain which countries were first and most exposed to speculative pressure. As Eichengreen explains, markets picked Britain and France as countries in which interest increases were least tolerable, due to high unemployment, large amounts of short-term debt and indexed mortgage rates, and, in a rare reference to domestic institutions, weak banking systems (2000:25). In addition, the credibility of their exchange rates

competitiveness problems case for Britain by asserting that the government entered the ERM in 1990 at an overvalued parity.

was undermined in the case of Britain by a back-bench rebellion within the ruling party and in the case of France by parliamentary elections.³¹

Complementing the second generation explanation for the case of Britain and France is the "inconsistent policy view". According to this view inconsistencies in national monetary policies increased uncertainty in financial markets by signalling the vulnerability of the government's position, encouraging a speculative attack. The view refers to the hazardous undertaking by authorities in Britain in 1992 (Cobham 1997) and in France in 1993 (Melitz 1994) to signal to the markets their desperate need for lower interest rates and at the same time to restate their pledge to defend the currency. French politicians attempted to argue from a position of strength in demanding concerted interest rate cuts by pointing at German twin deficits and its own strong nominal fundamentals, but were seen by the foreign exchange markets as only demonstrating their growing nervousness about the political sustainability of rising unemployment.

None of the crisis explanations expands into analysing the erosive effect of domestic problems in Germany on the credibility of the D-mark, especially in spring – early summer 1993, before the triumph of the Bundesbank in July. This is not only because the D-mark was ultimately backed as ERM-anchor by the markets, but also because Germany's problems as the key currency country were exclusively home made, and could thus not be captured by the strongly systemic explanations of the crisis.

³⁰ This view prevails in the analyses of Branson (1994); Ozkan and Sutherland (1994); and Krugman (1996); and Buiter et al. (1998). Explanations of this type have been put forward for Britain by Masson (1995), and for France by Moutot (1994), De Boissieu (1994), Ozkan &Sutherland (1994), and Salvatore (1996).
³¹ In addition the contingent policy model points out market endogenous contagion (Eichengreen and Rose 1998). The crisis spread in this view because markets, after their original 'success' against lira and sterling, attacked countries, which were also considered to be vulnerable, like Spain or France.

Overall the ERM crisis literature gives the impression that markets by and large acted rationally, without the need to take institutional factors into account. A rare challenge to this view has been put forward by Moutot in his interpretation of the 1992 attack on the French franc, linking the question of rationality to the issue of the influence of domestic institutions:

These comments suggest not only that domestic institutions are of importance for the formation of market opinion on time consistency, but also that the way market sentiment takes account of these and other variables can be inconsistent and unstable. Unfortunately Moutot does not follow these suggestions up with a detailed analysis of the formation of market sentiment for the French case.

The only detailed survey of actual market sentiment which can be found in the ERM crisis literature, the February 1993 survey of foreign exchange traders undertaken by Eichengreen and Wyplosz (1993:95-99), fails to address the influence of domestic factors on market views of time consistency. It focuses instead exclusively on the systemic stresses emanating from Bundesbank policies and country specific economic fundamentals problems.³² The survey is more informative as regards the question of market rationality. Market participants gave the Danish referendum as the event which triggered a change in market perceptions about the stability of ERM exchange rates (46.6 %), suggesting that markets where rational speculators, realizing the option of self-fulfilling speculative attacks. The rational character of speculation

[&]quot;[I]t has become clear that even currencies with very sound fundamentals can come under attack whenever doubts about the ability of authorities to maintain the course of their policies develop. These doubts, even when groundless or based on debatable evidence, may spread rapidly because expectations on foreign exchange markets are unstable, autocorrelated, very sensitive to endogenous dynamics and sometimes biased by the gains made by major market participants as a result of higher volatility. They are also heavily influenced by political and institutional developments like referenda and must be envisaged in a context encompassing more variables than the most traditional macroeconomic variables. In particular, the opinion that markets have on sustainability and time consistency of economic policies play a central role." (Moutot 1994: 42)

³² Over 60 percent financial market participants gave as reason for the crisis that a defence of ERM pegs had become difficult in the face of German monetary policy. Weak country specific fundamentals, indicated by high inflation, was seen as a very important cause for the crisis for Italy (27.8%), Span (21.8%), and to some extent the UK (15%).

is put into doubt by 76.7 percent of dealers who agreed that after the successful attacks of September 1992 the crisis proliferated because "markets 'tasted blood' (realized that there were profits to be made)" (Eichengreen &Wyplosz 1993:99, Table 7).

2.5. Conclusion

Overall, the crisis literature presents a picture in which economic accounts fail to pay sufficient attention to domestic institutional factors and rationalist institutional accounts fail to question rational expectations assumptions on the decision-making in financial markets. Both accounts fail to analyse the actual role of domestic institutions in the formation of market sentiment. The weakness of the approach of applied economics is reflected in the two crisis models that inform the analysis of the ERM crisis, which neglect domestic structures. The weakness of rationalist institutionalism is that its underlying rational choice assumptions have resulted in studies which reduce the investigation of market sentiment to correlating domestic factors with economic indicators for investor decisions, thus avoiding an investigation of market practice. This reinforces idealised notions of full market rationality towards domestic institutions.

What is needed to remedy the shortcomings of both approaches is a disaggregate, in-depth study of a historical case, taking an intermediate process oriented look at the formation of market sentiment with specific focus on domestic institutions and rational behaviour by market participants. The next chapter will explain the theoretical-methodological framework for such a study of the ERM crisis, building on the theory of "bounded rationality".

Chapter 3: Theory and Method

3.1. Introduction

The previous chapter has established that rationalist institutionalism is correct in assuming that financial markets, conceptualised as rational actors, should pay systematic attention to domestic institutions, since they influence the sustainability of monetary policy commitments. It has also established that rationalist institutionalism is idealistic in its assumptions about market rationality, and weak when it comes to establish whether financial market rationality is in practice comprehensive enough to include domestic institutions. Thus, the chapter has concluded that a detailed empirical study is necessary of how market participants de facto take account of domestic institutions, taking currency crises to analyse market sentiment. Such a study should be conceptualised as an attempt to refine out understanding of the behaviour of investors by investigating the possibility that market participants' rationality is in practice limited or "bounded". Empirically, this necessitates an "intermediate view of investor behaviour" through a detailed, process orientated, contextual study of a historical episode of currency crises.

The following chapter will develop the theoretical-methodological framework for a detailed case study of investor behaviour during the 1992/93 ERM crisis. The research design will be derived from a critical discussion of the concept of rationality in rationalist institutionalism. This discussion will establish that the rationality assumptions of classical rational choice impose limits as to the theory's ability to explain the complex reality of decision making by financial market participants in the process of trading. Since "the central role of empirics involves the isomorphism

between analytical and modelling assumptions and the underlying reality to be assessed" (Stein 1999: 208), the empirical study has to be designed to bring greater realism into the narrow assumptions of rationalist institutionalism. This will be done by building on "bounded rationality" theory. I will arrive at a qualitative research design, using cross-section content analysis for controlled comparison of the evolution of market sentiment towards pound sterling, the French franc and the Dmark during 22 months of ERM crisis.

Following this introduction, the chapter will, in the second section, expand on bounded rationality as a good theory to inform my research design. Section three will introduce qualitative controlled comparison as a methodology suited to investigate the bounded nature of market rationality, since it allows reconstructing the actual process of decision making in financial markets in a systematic fashion. It will explain why I choose country cases in the ERM crisis as units for structured and focused comparison. Section four will then expand on classical content analysis, aided by computer-assisted qualitative data analysis software (CAQDAS), as my method to investigate a representative sample of contemporary market reports. Section five will conclude.

3.2. "Bounded Rationality": An Approach to Refine Rationalist Institutionalism My study will clarify the concrete conditions of market rationality, i.e. the question of the how and when, the circumstances and the extent of rational institutional analysis by financial market participants. It attempts to refine the assumptions of rationalist institutionalism about market behaviour by bringing in bounded rationality, a concept

central to behavioural economics.¹ By doing so I can stay within the broad scientific parameters of positivist political economy without having to accept the narrow theoretical and methodological restrictions suggested by game theoretical strategic choice. Bounded rationality criticises the strategic choice paradigm underlying rationalist institutionalism by pointing out that its theoretical and methodological strength comes at the price of unrealistic simplifications (Simon 1982a, 1982b). The critique is best understood against a brief review of the key features of rationalist institutionalism.

Rationalist institutionalism has two distinguishing features.² First the clear and unambiguous conceptualisation of institutions as structures shaping action, making it particularly suited for systematic comparative empirical analysis on the effect of clearly delineated institutional designs on actor's decisions. It defines institutions as durable structures constraining actors by imposing parameters for what actions are possible. "Institutions are sets of rules (and sanctions) that structure social interactions and whose existence and applicability are commonly known within the relevant community" (Levi 1997: ³25). Rationalist institutionalism shares this relational definition with historical and sociological approaches.⁴ It is distinguished by the assumption of methodological individualism: it is through institutions that diverse individual preferences are aggregated into matrixes of sanctions and incentives,

¹ The concepts of "bounded rationality" have been developed in the seminal work of Herbert A. Simon (1982a; 1982b; 1997). For a good review see Odell (2002: 3-7). ² For a good overview, see Levi 1997: 24-27.

³ A similar definition is given by Milner (1997: 18).

⁴ For an overview of different approaches to institutions in comparative political science from different paradigms, see Lichbach & Zuckerman (1997).

structuring choices or outcomes for the collective (Stein 1999).⁵ A classic example is the central bank and its status in the political system.

Secondly rationalist institutionalism uses rational choice theory to model actor behaviour (Milner 1997; Milner 1998). This does not mean that rationalist institutionalism stipulates that all possible actors affected by domestic institutional structures will behave in this way. It is only if rigorous empirical testing of a rational choice model of decision making against the actual results of decision making produces significant results that rationalist institutionalism implies rational choice behaviour.

Rational choice models are based on a clear set of demanding assumptions about how human decision making operates. It is assumed that actors have coherent stable preferences. They will then compute alternatives available to find which will be optimal to maximise their utility.⁶ In the case of financial markets international investors will attempt to optimise profitability by rationally weighing the risks and returns of assets denominated in alternative currencies against each other.

Furthermore actors are assumed to act strategically, being aware of the strategic interaction between different interest groups, and alternative bargaining outcomes (Milner 1998: 776-7). Financial market participants are for instance assumed not only

⁵ Hence rationalist institutionalism represents a version of 'new institutionalism' in economics (North 1981, 1990; Williamson 1985), although it focuses more on the politics rather then the economics of institutions.

⁶ Milner (1997) distinguishes between fundamental interests and preferences, which will vary according to the political and institutional situation. Nevertheless, within a given institutional and political setting preferences are then assumed to be stable.

to anticipate government policy in the light of the actions of other economic agents such as labour unions:

"In the strategic model considered ... we would expect capital outflows when there are signs that market distortions may undermine the government's production or employment objectives. One measure of impending distortion is increased strike activity." (Simmons 1994: 63)

Methodologically the rational choice framework does allow for scientific and parsimonious operationalisation of its assumptions through deductive and comparative analysis. Hypotheses derived from rationalist assumptions about actors can be scientifically tested against empirical observations along the lines of natural and medical science. Institutions (together with interests and ideas) are defined as key independent variables for causal inference, controlling for other independent or intermediate variables. The testing of theory by comparative case studies generates falsifiable results on what is general in the causation of specific events, to arrive at general knowledge.⁷ By studying systemic patterns in similar parallel events, as in the study of differences in market sentiment towards national currencies embroiled in regional currency crisis, it is possible to systematically investigate the consequences of alternative institutional arrangements, avoiding the post hoc quality of some institutional research (Milner 1998: 781-2). Strategic choices of financial market participants between different currencies can be investigated for the influence on credibility of institutional features linked to sustainability, resulting in general conclusions on what constitutes institutional efficiency.

In line with the demands of scientific inference, rationalist studies on the effect of domestic institutions on market sentiment ideally use a statistical-correlative

⁷ King et al. (1994), who offer a good introduction into rationalist research design.

approach, depending on the availability of statistically significant sets of observations. These observations are normally easily attainable for market sentiment, but harder to come by for domestic institutions.⁸ If a sufficient number of observations is not possible due to a small set of countries available for comparison, second best less rigorous designs often involve some form of formalised presentation of evidence on institutional developments or typology derived from country-specific narratives, plus descriptive statistics, which can then be related to the development of significant market indicators over limited time periods.⁹

The critique of these rational choice assumptions put forward by bounded rationality is essentially that the strength of the rationalist comparative research framework comes at the price of weaknesses in its ability to capture the reality of the issue investigated. Proponents of bounded rationality point out that the rigor and the internal consistency of strategic choice modelling requires excessive simplifications and unrealistic assumptions. By approaching the complex reality of decision making from rigorous abstract modelling, rationalist institutionalism risks incomplete,

⁸ This approach usually operates with OLS regressions in sectoral cross-time series analysis. Examples are Simmons (1994), who compares the effect of domestic institutions of 13 countries between 1923 and 1939 on capital flows, Leblang and Bernhard (2000), who investigate how national political structures and processes in 15 OECD countries over 25 years affect 'speculative pressure, measured by exchange -, interest rate- and reserve changes, and Mosley (2000), who evaluates the effect of government policies on market sentiment for 15 developed countries from 1981 to 1995, gauging market sentiment by long-term interest rates. A combination of the use formalized presentation of qualitative evidence, and the use of descriptive statistics and correlations is Geoffrey Garrett's study of fourteen industrialised democracies in the period from 1966 to 1990, investigating the effect of globalisation on national autonomy and the viability of distinct national economic regimes (Garrett 1998).

⁹ Examples are here the investigations of Haggard & Maxfied (1996), devising a coding scheme to compare financial openness in a small number of developing countries from 1970-90, and of MacIntyre (2001) of the politics of the Asian financial crisis, using "thumbnail sketches" of national institutional frameworks.

unrealistic or indeterminate explanations and post hoccery (Ward 1995; Stein 1999; Odell 2002).¹⁰

The gist of this critique is that it is based on heroic assumptions about the nature and capabilities of human choice and that decontextualised result-focused rational choice ignores decision making processes. As Simon (1982b: 103/4) puts it in his discussion of rational choice:

The argument that decisions have to be looked at in the specific context of the circumstances in which they are made has been put forward not only by bounded rationality theorists, but also by radical historical and constructivist views. These views emphasise the historical path dependency of institutions to explain their culturally contingent patterns of meaning.¹¹ As Radice (2000) admits, the problem is to reach general conclusions, since cultural-historical approaches conceptualise institutions as being contingent in time and space. Bounded rationality in contrast takes a functional approach to the meaning of institutions for actors that can be found in new institutional economics (Simon 1997: 281-2).¹² This allows bounded rationality to accept the need for systematic rigour typical for rational choice,

[&]quot;If we examine closely the 'classical' concepts of rationality, we see immediately what severe demands they make upon the choosing organism. ... My first empirical proposition is that there is a complete lack of evidence that, in actual human choice situations of any complexity, these computations can be, or are in fact, performed. ... In the absence of evidence that the classical concepts do describe the decision-making process, it seems reasonable to examine the possibility that the actual process is quite different from the ones the rules describe."

¹⁰ Criticism of the rational choice paradigm has been particular strong from the structuralist camp (e.g. Ellen M. Wood 1989). For a good empirical critique of rational choice, see Green & Shapiro (1994).

 ¹¹ For the difference of these approaches to the rationalist approach see Hall (1997:190). A good review of the contextual-historical approach to institutions in comparative study can be found in Radice (2000). For the constructivist approach, see Ruggie (1998).
 ¹² So does mainstream sociological comparative institutional analysis investigating the influence of

¹² So does mainstream sociological comparative institutional analysis investigating the influence of domestic regimes on economic policy outcomes. It has adopted systematic classification of institutions in functional terms to structure a comparison of complex historically grounded institutional regime types. Key examples in the area of finance are Zysman (1983); Hall (1986); Goodman (1992); Henning (1994); and Walsh (2000).

preserving critical preconditions for a parsimonious research design (Odell 2002: 23-28). Bounded rationality differs from maximising rationality concepts in economics in so far as it maintains that expectations of institutional arrangements are not reached by optimising risk analysis of all available information, but by qualitative arguments about what is analysis is 'functional' to undertake in specific complex circumstances, in response to present uncertainty and characterised by practical capacity constraints in decision making processes (Simon 1997: 282).

Rational choice is criticised for starting from heroic assumptions about the rationality of the "economic man" (Simon 1982a, 1982b, 1997). Decisions cannot be made in a maximising fashion, given limited information, search costs and cognitive limitations to compute optima (Odell 2002:4-6).¹³ Optimising evaluation of alternatives is seen as particularly difficult if decision makers are faced with the complexity of highly structured social settings typical for domestic institutional arrangements. As Stein points out, attempts to integrate complex social settings, sequential choice and incomplete information into strategic choice modelling quickly reach the limits of mathematical tractability, resulting in multiple equilibria and indeterminacy (1999:218).¹⁴

Bounded rationality emphasises the analysis of practical decision making processes to understand how actors cope with information, which is paradoxically abundant

¹³ Stein points here especially at the limitations of optimising behaviour by social actors when it comes to assessing political structures, describing them as "crippled rationalist" (1999:216).

¹⁴ This indeterminacy is demonstrated by the ultimately inconclusive and sometimes contradictory perditions and findings of rationalist institutionalists on the effect of different national structures on the sustainability of exchange rate commitments (See Chapter 4). The game theoretical assumption that situations of incomplete information can be handled by full rational choice, with decision makers acting Bayesian rational through persistent and systematic updating of limited information, runs into the same deliberation cost and capacity limits pointed out by bounded rationality for complex full information. (See Stein 1999: 214,fn.51).

beyond computational capacity but also incomplete. In practice, "...the entire mechanism of decision is molded by information-processing considerations" (Simon 1982a: 237). Instead of attempting to optimise between all possible alternatives, actors will, in Simon's terminology, "satisfice": they will economise on their decision making by stopping the process of assessment at a practically acceptable solution with an outcome that is good enough, rather than optimal:

Simon's distinction that satisficing rationality is procedural, whereas maximising rationality is substantive, is of critical importance. Furthermore, decision makers in reality will not maintain stable preferences and analytical criteria, but adopt different outlooks and emphasise different aspect dependent on changing circumstances (Odell 2001:12-13).

Satisficing rationality limits search and analysis by considering systematically only a "subset" of all available information, which in practice operates as "information surrogate" for complete information (Simon 1982a: 235-244). For example, in the daily operation of financial markets it might well be possible that complex in-depth information on domestic institutions, like the actual degree of independence of monetary policymakers from political pressure, is difficult to obtain and requires sophisticated and knowledgeable interpretation. In such a situation a variable like official interest rate decisions can function as a surrogate indicator.

[&]quot;Decision makers usually satisfice, both in the sense of failing to examine all of the information that is available, and in the sense of choosing an alternative as soon as one has been found that is satisfactory along all dimensions of concern." (Simon 1997: 286)

Bounded rationality along these lines contains elements of systematic and unsystematic reasoning. Systematic reasoning within bounded rationality has been described by Simon as "approximate rationality": "it is accomplished by substituting a simplified approximate decision model for the complexities of the 'real world'." (Simon 1982b: 396). It is within these simplified models that certain surrogate variables merit systematic analysis.

It is important to point out that these information surrogates can be proper or improper representations of full information, since they are not derived from a systematic analysis of full information. As Simon pointed out, the fundamental reason why there are surrogates is that they reduce the amount of information required (1982a: 240). Information surrogates are thus stochastic from a full rational choice point of view. Whether they are a proper subset of full information will ultimately only be known from proof. Practitioners will add to their approximate models in an ad hoc fashion, through what Simons describes as "adaptive rationality" operating via "stochastic learning":

Complex variables, like domestic institutions, can come directly into play, if existing systematic approximation does not satisfice, and experience suggests that more complex information should be taken into account. But these complex variables are not systematically integrated into models of approximation, since this would pose the well known computational problems of full rational evaluation of institutional risk. Or, as Simon put it, "the principal usefulness [of adjustments in expectations in bounded rationality] lies in the fact that they remove the necessity for such

[&]quot;The subject is adaptive – or learns – but not necessarily in any optimal fashion. We mean, gradually and on the basis of experience responding more frequently with the choice that, in the past, has been most frequently rewarded." (1982b: 305)

evaluations" (Simon 1982b: 399). What information about complex variables to take into account is in this practical vein of reasoning a mere question of "opportunity costs", that is search costs relative to the aspiration to find more satisficing answers, and not of rigorous analysis (see Simon 1982 a: 393-5). Consequently, complex variables like institutional structures will only be taken into account in a bounded rational way. In the words of Simon:

Given that a systematic analysis of complex variables like domestic institutions is impractical, bounded rationality uses "mental shortcuts", like readily available conventions, past experience or views by other decision makers, to form opinions about these variables (Odell 2002). As Simon points out, the real work in conventional behaviour is done by "ad hoc auxiliary assumptions", which is different from inferring behaviour suggested by rational choice (Simon 1997: 280). As a consequence, changing preferences do not systematically reflect objective changes in institutional settings, as suggested by rational institutionalism. They might change for subjective reasons, because the issue is presented differently to actors in the public domain over time, feedback from the peer group, and changes in the individual's material position. Decision makers, confronted with complex institutional patterns and interacting interests, are liable to be influenced by emotions, beliefs, social norms and the emulation of other actors. In the view of bounded rationality these "bandwagon effects" can be the result of reasonable individual behaviour, if aggregate decisions can be expected to influence outcomes (Simon 1982a: 460-468).

[&]quot;Rationality can be bounded by assuming complexity in the cost function or other environmental constraints so great as to prevent the actor from calculating the best course of action." (Simon 1982b: 411)

The conclusions of bounded rationality have been widely adopted by authors associated with behavioural economics, demanding a more realistic analysis of market sentiment, in particular in financial markets. Supporters of bounded rationality have pointed out that the "hard-core assumptions" of rational choice following the "dictates of mathematical tractability in formal modelling", typical for rational institutionalism, are not suited to a realistic investigation of investor behaviour in financial markets (Willett 2000: 8). Bewley warns of the dangers of assuming full rationality for market participants, in his case business people involved in wage setting processes, "who react to complex and stressful circumstances at work that may be unfamiliar to academic economists" (Bewley 1999: 7). In his view the statistical testing of models based on narrow instrumentalist assumptions cannot capture these conditions. Instead he recommends checking as many aspects as possible of the mechanism to be explained, including the realism of the assumptions" (1999: 10)

Shiller (1989; 1996; 2000) speaks out against a quantitative or empiricist approach, characteristic for rational expectations, to investigate the formation of financial market sentiment, since such an approach seeks data "as measure of the acts of people, not the interpretations they place on these acts." In his view it is important to collect evidence on investor behaviour directly, by observing investors in the actual investing environment. He calls instead for a "hermeneutic approach" under the banner of "interpretative social sciences", which allows us to "collect evidence on investor behavior directly, by observing investors in the actual environment" (1989: 435-6).

This view is supported by Davis (1995), who takes the ERM crisis as a case to point out the critical role of institutional investors in the build up of excessive optimism during the 'convergence play' before the crisis, and the overreaction resulting in selling waves once the crisis had started.¹⁵ He suggests, like Moseley (2000), that the performance pressures under which institutional investors operate result in institutional herding and short time horizons affecting information collection. Consequently he emphasises the importance of further empirical investigation of the behaviour of global portfolio investors and the decision making processes of institutions through process tracking, suggesting interview surveys of fund managers as a fruitful avenue for future research (1995: 16).

The weakness of studies tracking decision making processes in financial markets analysis is that they often focus on endogenous market dynamics. Most extreme is behavioural finance theory. Here exogenous variables only come in to influence market sentiment as stereotypes, conventions or news events (Shefrin 2000). More helpful from a bounded rationality point of view are studies which accept that fundamentals analysis plays an important role in the decision making of professional investors, but focus on the limits of this analysis resulting from competitive performance pressures in fund management and rational herding or feedback loops (Davis 1995; Gibson 1996; Shiller 2000). Alas, these studies say little about where fundamentals analysis ends, and whether institutional factors play a role. Therefore they are of little help for my project, although they point out the need for a qualitative study of the actual formation of investor sentiment.

¹⁵ 'Convergence play' refers to the positions financial markets took in high yield ERM currencies

3.3. Qualitative "focused structured" Comparison of Britain, France and Germany in 1992/93 The problem with direct micro-investigations of market sentiment through the reconstruction of actual investor behaviour is, in the words of Bewley, that "the data collected are often thought as 'touchy-feely' rather than 'hard'"(1999:13). The task for a research design based on qualitative representations by market participants is thus to come up with a method that allows for scientific rigour without compromising the contextual-procedural dimension offered by an interpretative approach to direct market representations.

King et al. (1994) demand that process tracking approaches have to conform with the full set of academic rigour of rational choice causal inference: it has to be informed by general theory, and has to come to falsifiable conclusions through a systematic evaluation of evidence. As a consequence, it makes sense to adopt the preferred analytical framework of rationalist institutionalism: comparative institutional analysis. Following Milner (1998: 781-2), comparative analysis is especially suited not only for rationalist institutionalism, but for any systematic institutional analysis, since it avoids the post hoc quality of some institutional research by investigating the consequences of alternative institutional arrangements under otherwise broadly similar conditions.

My methodological framework is designed to find causal mechanisms by combining inductive process tracking with deductive reasoning derived from my theoretical discussion of market rationality towards institutions. This combination should on the one hand help to avoid the risk of a too narrow selection of observations, dictated by

before the 1992 crisis, expecting that these countries would improve their economic fundamentals to fulfil the Maastricht convergence criteria (See Chapter Two).

the need to focus on indicators considered a priori as relevant by a specific theory, and on the other hand bring in systematic rigor. The research design thus represents a compromise between traditional institutional approaches, exploring specific politicaleconomic systems and their history, and rationalist institutionalism.¹⁶ To reconcile inductive interpretation with deductive rigour, the empirical analysis has be to both controlled and detailed in the analysis of a historical case.

These aspects can be reconciled by following the research design suggested by George under the label "focused, structured comparison" (George 1979). Focused, because it allows for the interpretation of observations in their broadest possible context by selective concentration on a specific historical case, to come to a realistic evaluation of the veracity of a theory; structured, because it employs general questions derived from theory to guide data collection and interpretation of this historical case. To quote George:

As George (1989: 54-5) explains, a focused, structured research design has firstly to decide what phenomenon is to be investigated, and what existing theory, bearing on aspects of the phenomenon, is singled out for refinement. In my case the phenomenon is market sentiment towards government monetary policy commitments, the theory is rationalist institutionalism, brought together in my research question of how financial market sentiment has been influenced by domestic institutions. Secondly, the independent and dependent variables have to be specified. In my study domestic institutions are taken as the independent or causal variable and market sentiment

[&]quot;The investigator who employs the controlled comparison strategy seeks to identify the variety of different causal patterns that can occur for the phenomenon in question. He seeks to identify the conditions under which each distinctive type of causal pattern occurs." (1979: 60)¹⁷

¹⁶ On the classic institutional approach in political science see Rhodes (1995).

¹⁷ Emphases in the original.

towards exchange rate commitments by governments as the dependent or outcome variable.

Next a "class of events" has to be specified that is suited in so far as it represents circumstances that are most favourable to rationalist institutionalism. I choose currency crises, since it is during crises that it should most pay investors to explore institutions. Finally, ways have to be considered by which variances in the causal pattern between independent and dependent variable can best be described to further the development of general theory. Here I brought in bounded rationality as a theory that would allow a refining of rational choice in taking account of the procedural context in decision making. The next step is the choice of a suitable currency crisis episode, with "appropriate cases" for controlled comparison, which will be explained below. The section following this explanation will then expand on content analysis as my method of comparative investigation.

• Why Britain, France and Germany in the ERM crisis?

The crisis episode chosen has to be appropriate to the issue I investigate, the effect of domestic structures on internationally mobile capital in situations of time consistency in respect of a currency commitment. This means the crisis episode has to take place in a situation distinguished by unrestrained cross-border capital flows, to allow international investors to respond to institutional factors unimpeded by restrictions on their ability to move abroad. The integration of these countries into the circuit of internationally mobile capital should also be reflected in the role of their currencies in foreign exchange markets, especially in FX-turnover. If a choice can be made between countries with different degrees of openness to trade, countries with lower openness should be chosen, to avoid the overdetermination of domestic interests by

competitiveness concerns, regardless of domestic institutions (see Frieden 1991). Furthermore, the crisis countries should not be suffering from massive economic fundamentals problems, since institutional factors are expected to matter most when political sustainability, and not economic fundamentals related competitiveness, is at stake. The episode chosen should also represent a scenario of where the whole range of domestic structures associated with time consistency matters in equal fashion, to avoid overdetermination. Furthermore, the crisis episode has also to fulfil the critical criteria of "unit homogeneity" and "conditional independence" (King et al. 1994: ch.3). The former means that the countries chosen for comparison have to match as closely as possible, except for the explanatory variable. The latter means that the problem of "endogeneity" has to be avoided, that is the independent variable should not be affected by the dependent variable.

Firstly, the ERM crisis is highly representative for the problem I am investigating, since it is the only modern currency crisis which affected OECD countries with highly developed and fully liberalised capital markets (Eichengreen 2000). As pointed out in Chapter Two, in the beginning of 1992 all member countries of the ERM had de facto fully liberalised their capital accounts (see Bakker 1996).¹⁸ The other crises of the 1990s all affected emerging market economies. Not all of them had opened up their capital accounts to the degree of ERM countries. Consequently, these crises are less well suited for an investigation of the conditions that determine the effect of capital mobility on domestic autonomy.¹⁹

¹⁸ Chapter Two discusses openness to capital flows, with special attention to Britain, France and Germany.

¹⁹ Table 3.1. lists key indicators for the year *before* the crisis, for countries affected by the 1992/93 ERM crisis, the 1994/95 Tequila crisis and the 1997/98 East Asian crises, to gauge which crisis episode would be suited for a controlled comparative study. The following discussion of the country sample draws on the figures represented in this table.

For the three ERM core currencies, the D-mark, sterling and the French franc, the integration into international capital markets is further underlined by their prominent role in foreign exchange market activity (Table 2.2). In 1992 the D-mark accounted for almost 40 percent of total European foreign exchange turnover, sterling for 13.6 percent and the French franc for almost 4 percent, with the rest of the ERM currencies together only making up for about 12 percent. Financial openness beyond the single market is demonstrated by the high share of trading of the currencies against the US dollar, as well as the prominent role of both Britain and Germany as geographical locations for foreign exchange trading. The particular importance of the three G-5 country members of the EMS for international financial markets is reflected by their systematic and regular coverage in major financial market reports, in contrast to the irregular analysis of other ERM countries.²⁰ Furthermore, Britain, France and Germany combine high levels of capital account openness with comparatively low levels of trade openness compared to their ERM partners, and have comparatively limited fundamentals problems, as discussed in Chapter Two.

Similar considerations disqualify most countries affected by the Tequila and East Asian crises. Immature financial markets were a problem in key Asian countries like South Korea and Malaysia, and key Latin American countries like Mexico and Argentina had substantial competitiveness problems. Furthermore, the ERM crisis has the advantage over emerging market currency crises in that it represents a pure

²⁰ See my review of financial market reports in section 3.4. of this chapter.

Table 3.1:

Economic indicators of countries affected by currency crises (Year before the respective currency crisis)

	Trade (%GDP)	GDP per capita (Thousand current US \$)	GDP growth (Annual %)	Inflation (Consumer prices, annual %)	Budget deficit (Overall, %GDP)	Current account (%GDP)							
ERM 1991													
Britain	48.2	16.2	-2.0	5.9	-1.2	-1.5							
France	45.0	17.8	0.8	3.2	-1.3	-0.5							
Germany	51.0	18.6	4.2*	1.6	-2.2	-1.0							
Belgium	130.8	19.2	1.6	3.2	-6.0	+2.4							
Denmark	68.5	18.7	1.4	2.4	-1.1	+1.5							
Italy	38.0	17.6	1.1	6.3	-9.9	-2.1							
Ireland	111.6	11.9	2.5	3.2	-1.0	+0.6							
Netherlands	103.3	17.6	2.3	3.1	-2.8	+2.7							
Spain	37.4	13.1	2.3	5.9	-3.6	-3.7							
Portugal	69.9	11.5	2.3	11.4	-5.9	-0.9							
					and a strange of the								
Latin America 1993													
Argentina	16.3	10.2	5.9	10.6	+0.7	-3.4							
Brazil	19.6	5.9	4.9	1928	-9.3	+/-0							
Mexico	34.3	7.1	1.9	9.8	+0.5	-5.8							
	San Maria				A STREET								
East Asia 1996													
Indonesia	52.3	30.5	7.8	8.0	+1.2	-3.4							
Malaysia	180.2	8.1	8.6	3.5	+2.0	-4.6							
Philippines	89.8	3.7	5.8	9.0	+0.3	-4.8							
S. Korea	63.1	14.4	6.6	4.9	+0.1	-4.4							
Thailand	84.4	6.6	5.5	5.8	+2.4	-8.0							

*West Germany only

Source:

World Bank (2000): World Development Indicators, CD-ROM;

except for GDP growth Germany (West Germany only): IMF (1997): World Economic Outlook

currency crisis, not interacting with a banking and external debt crisis (see IMF 1998: 75). Problems in the financial structure as a key factor in emerging market currency crises seems to present a strong case for an investigation of the effect of domestic structures. However, these cases pose the problem that financial markets focused in a possibly untypical way on escalating structural problems in just one domestic institutional sector, as a result of the exceptional exposure of the financial and industrial system to foreign borrowing. Secondly, the ERM crisis, more than the emerging market currency crises of the 1990s, offers a sample of cases that fulfil the requirements of homogeneity and conditional independence. The member states of the ERM, especially Britain, France and Germany represent a picture of great homogeneity for a comparative study, compared to the emerging or transition economies affected by currency crises during the 1990s. They were members of the same formal exchange rate system, had therefore formally entered identical international monetary commitments, and were exposed to the same systemic crisis. The results for the three core ERM countries show a close match for capital account openness, GDP per capita, inflation, public sector deficits and the current account, with only the GDP growth figures being significantly out of step. A similarly good match can by and large be found for at least a number of East Asian crisis countries, but these countries did not qualify because of their immature capital markets and the interaction of banking and currency crisis. In the case of Latin America some homogeneity exists for only Mexico and Argentina, while Brazil is clearly out of step.

Finally, as to the problem of conditional independence, in the ERM crisis the outcome variable "market sentiment" and the causal variable "domestic structures" remain unambiguously separated, in contrast to emerging markets. The latter crises are distinguished by speculative attacks interacting with upheavals in the political or economic structure, often associated with the demands for structural adjustments coming from the IMF as crisis manager (Radelet & Sachs 1998). For example this was the case for the political system in Indonesia, the banking system in Mexico and the banking-industry relationship in Korea. In contrast, speculation against ERM parities in 1992/93 interacted neither with IMF involvement nor domestic political

instability. This means that the ERM crisis allows for a clearly delineated investigation of how a given set of domestic institutions influenced market sentiment across the whole crisis episode. Therefore, because of capital account openness and pure currency crisis, in addition to the high degree of homogeneity and conditional independence, the ERM crisis has been chosen as the historical episode best suited for a disciplined in depth investigation, with Britain, France and Germany as the units for comparison.

The analysis will cover the troubled period from the slowly emerging tensions in October 1991 approaching the Maastricht treaty conference, coming to the fore in the Nordic currency crisis in November/December 1991, to the widening of the ERM fluctuation bands from +/- 2.25 percent to +/- 15 percent at the end of July 1993, the critical step to restore calm within the system. Twentytwo months of crisis will be investigated, starting from 01 October 1991, and ending with 02 August 1993. The British case will be covered only for the period up the 16 September 1992, when sterling was withdrawn from the ERM.

3.4. Classical Content Analysis of Market Reports, Using Computer-Assisted Qualitative Data Analysis Software (CAQDAS)

Disciplined comparison can make use of three types of empirical material: sampling surveys, structured or unstructured interviews and content analysis of historical text, image or sound (Bauer 2000: 148). I have chosen to investigate market sentiment towards sterling, the French franc and the D-mark through classical content analysis of historical market reports, published by the Financial Times newspaper and by leading investment banks.

Classical content analysis has several advantages.²¹ Firstly it allows the interpretation of social reality through reconstructing social representations. As Nigel Fielding (1993: 168) states, "good qualitative analysis is able to document its claim to reflect some of the truth of the phenomena by reference to systematically gathered data. Poor qualitative data is anecdotal, unreflective, descriptive without being focused in a coherent line of enquiry." Content analysis, like sampling surveys and structure interviews, facilitates such scientific data gathering through the analysis of coherent and homogeneous representations of a specific social reality via the construction of indicators of opinions, views, themes and values (Bauer 2000). Paisley describes this as "information processing in which communication content is transformed, through objective and systematic application of categorisation rules."²² With the help of the categories the content can then be interpreted to pick up trends and changing patterns in market sentiment, differences in the coverage of the ERM crisis by different market participants, and finally to reconstruct 'maps of knowledge' embodied in the market reports, including the position of domestic institutions within these maps.²³

Content analysis does this by bringing in statistical formalism into qualitative analysis, thus representing a "hybrid technique" on the qualitative/quantitative divide (Bauer 2000: 132). But, as Bauer emphasises, it remains essentially an act of interpretation, with statistical formalism only aiding the systematic organisation of information, facilitating reliable "objectified interpretation" (Bauer 2000: 145). To exploit the advantage of statistical formalism to the full I will use computer-assisted content analysis, which not only assists in the systematic organisation of market

²¹ For an excellent review of classical content analysis see Bauer (2000). An in depth description of its methodology is given by Krippendorff (1980). ²² W.J. Paisley, quoted on Bauer (2000: 133)

²³ See Krippendorff (1980)

reports through "coding", but supports complex retrieval of coded data in support of contextual interpretation. Objectified interpretation brings with it the second advantage of content analysis: it is falsifiable, because it operates in a transparent fashion along clearly organised and well documented procedures, which can be easily reproduced.

The third advantage, related to the former, is that content analysis through systematic coding offers the possibility to combine deductive with inductive analysis of market reports. As Kelle (2000: 295) explains, codes can be used in a referential function, to support inductive analysis, or can be treated as representations of factual information themselves, independent of the data they represent, in support of a deductive analysis to test theory. I will use a combination, with both usages reflected in my design of the coding frame.

Fourthly, content analysis can be applied to different categories of text, for crosssectional analysis of opinion in a specific social environment (Bauer 200:135). In my case I will compare a daily newspaper market column (Financial Times), with two market reports published by investment banks, one on a weekly basis (Salomon Brothers), and the other on a monthly basis (Goldman Sachs), to find out not only about different viewpoints, but also about the effect of different levels in the depth of analysis, in particular with respect to domestic institutions.

Fifthly, in contrast to interview analysis, content analysis allows for a longitudinal study of a historical event by using naturally occurring materials (Bauer 2000). A longitudinal study, like my study of the ERM crisis, can detect regular or irregular

fluctuations in sentiment, to infer concomitant changes in context possibly including institutional factors. Furthermore, market sentiment during the crisis, which is now difficult to reconstruct through interviews or surveys of market participants, can be analysed by drawing on historical reports. This has the additional advantage that these reports are "naturally occurring material" (Bauer 2000: 148), produced for another purpose than my empirical study, and thus not biased by my questions as researcher. They represent direct evidence of the views expressed during the crisis by market participants, for market participants in their professional function and for a professional purpose.

The main disadvantage of content analysis is that, through the process of coding, text units will be separated along the categories suggested by the coding system. This risks "inaccuracies" of interpretation, since the researcher has to make a judgement of the specific contextual meaning of a single section of the text she or he is coding (Bauer 2000: 148-9). In my analysis, I have taken this downside into account by making myself familiar with the overall content and structure of a market report before coding sections of text and by ensuring that these reports are representative of wider market sentiment. Furthermore, I have devised a comprehensive coding system and applied procedural thoroughness to the coding process.

Market Reports: A Representative "Corpus"

The sample of market reports to gauge market sentiment during the ERM crisis has to be carefully selected. Following Bauer and Aarts (2000), my selection of market reports should constitute a "corpus" as signifier of market sentiment, defined as a finite collection of materials, which is determined with an inevitable degree of arbitrariness, but has to fulfil three main criteria: to be relevant, i.e. representative for market sentiment and thematically focused on the issue of my investigation, the analysis of sterling, the franc and the D-mark in the ERM; to be homogeneous, i.e. to compare texts of a similar character; to contain historically coherent texts, i.e. published regularly and in the same format; and finally to offer synchronicity, that is to cover the same period (Bauer & Aarts 2000). The corpus should also reflect different strata of the sample, that is different types of reports and level of analysis.

Financial market reports with focus on my country cases in the opinion-forming financial press and by major international investment banks, which are key participants in international financial markets, fulfil these criteria. They are representative and they are homogenous, since all represent original market sentiment in its natural historical occurrence, structured by proceeding country by country, or currency by currency. They are historically coherent and offer synchronicity, since they have been published during the crisis in parallel to each other at regular intervals, organising the analysis in similar ways. Systematic analysis will be facilitated by taking into account the depth of reporting through the selection of a daily, a weekly and a monthly report. Selecting reports from different banks for different firm-specific views will cover the width of opinion. Including a general overview represented in the financial press will be a way to represent a wide range of market opinion without having to operate with an impractical large sample of reports.

To secure focus the market reports ideally should be currency reports specialising on sterling, the franc and the D-mark. This is possible for the financial press, with the Financial Times offering a specific daily currency market column in its *Companies & Markets* section on the *Currencies & Interest Rates* page, titled during the ERM crisis

"Foreign Exchanges".²⁴ In depth market reports by investment banks focusing solely on the foreign exchange markets are rare and hard to find, but major general financial market reports, which can be weekly, monthly, or quarterly, focus on monetary policy and exchange rates in the context of country specific analysis and forecasting. They typically cover all the major countries systematically. These reports are given to currency traders in addition to informal daily briefings, which are internal and are not archived.

Before I come to the question of which reports to choose, I have to determine the size of the corpus. In an ideal world, all market reports covering Britain, France, and Germany during the ERM crisis should be covered. In practice, a realistic cost-benefit analysis as to the size of the sample has to be undertaken, looking for the optimal trade-off between thorough manageable analysis and generalisability of the findings (Krippendorff 1980:69). As Bauer and Aarts explain, small samples are not considered a disadvantage in qualitative analysis, since they allow for in depth data collection, categorization and analysis, avoiding the creation of "data dungeons" of material collected but never really analysed (Bauer & Aarts 2000:34).

I have constructed a corpus containing three samples, of which the "Foreign Exchanges" column in the FT is probably the most significant and widely noticed market report on a continuous daily basis in the financial press. The other two are key financial market reports focusing on G-7 countries by two major investment banks, the weekly published "International Market Roundup" by Salomon Brothers, and the

²⁴ The column has since been renamed and is now simply titled "Market Reports".

monthly "International Economics Analyst" by Goldman Sachs.²⁵ This makes for a well stratified corpus, representing a wide range of market participants' views through the inclusion of the FT, while juxtaposing the viewpoints of two major operators in the financial services industry. Furthermore, market sentiment will be covered coherently on a daily, weekly, and monthly basis. The reports of Salomon Brothers and Goldman Sachs are representative of similar reports produced by all major international banks; their choice was arbitrary in so far as it was influenced by the easy availability of these two sources.²⁶

In which way are these reports representative of market sentiment? First, the Financial Times had a worldwide daily circulation of ca. 290.000 copies in 1992/93, which put it ahead of the Wall Street Journal internationally.²⁷ Furthermore, the FT currency market column offers a much broader coverage of market sentiment than its rival "Currency Trading" column in the Wall Street Journal. Whereas the former emphasises market opinion over data, the latter is a more direct summary of facts about market trends based on Dow Jones data, with only the occasional representation of an analyst's view.²⁸

²⁵ In my empirical chapters I will use the following abbreviations for these reports:

[&]quot;Foreign Exchanges " column in the Financial Times: FT

[&]quot;International Market Roundup" by Salomon Brothers: SB "International Economics Analyst" by Goldman Sachs: GS

²⁶Investment banks do either not archive market reports systematically and/or are reluctant to grant access to the historical records they keep. The "International Market Roundup" by Salomon Brothers has been fully kept by the Bank of England's Library, and the "International Economics Analyst" by Goldman Sachs by the British Library of Political and Economic Science.

²⁷ Source: FT Customer Services Department. According to a 1993 European Business Readership Survey, the FT had nearly five times the readership of the Wall Street Journal, with the FT being significantly more popular with business executives in Europe than any other English language business title. Source: <u>http://www.ft.com/newspaper/220e.htm</u>.

²⁸ Interview with Christopher Swann, Financial Times currency correspondent, on 28/11/2001. Similar columns in the continental financial press have been excluded since, according to my interviews, the majority of foreign exchange traders in the City does not read non-English language newspapers (Interviews with Natascha Gewaltig, Eurozone Economist, IDEAglobal, 16/06/1999; Tom Grant, Currency Trader, Lehman Brothers, 12/05/1999; Phillipp M. Hildebrand, Senior Managing Director, Moore Capital, 12/05/1999).

The "Foreign Exchanges" column, reporting foreign exchange market movements and sentiment of the previous day, is published daily, except for Mondays. The column is the prime responsibility of a single journalist, normally the currency correspondent, positioned below the economics editor in the Financial Times economics department.²⁹ During the investigated period the FT gives the name of the author of the "Foreign Exchanges" column for only 80.4% of the articles, starting from January 1992. Of these individually authored texts, James Blitz, who was the currency correspondent during at this time, wrote 70.1%.³⁰ In the early 1990s the column was very much the product of its author. It was only occasionally edited by the economics editor and was not discussed at the FT editorial board meeting.³¹

During the ERM crisis the column covered continuously the US dollar, Yen and Dmark, plus pound sterling. The French franc, regularly covered even before the crisis, became the object of permanent attention from autumn 1992 onwards. Other currencies, including other ERM currencies, have only been commented on occasionally, whenever they became the focus of market attention. The column gives the key news on exchange rate movements, but reserves most of its space to reflect market sentiment, or, as Swan put it, "to give a flavour of what the big bankers are thinking". For this purpose, the currency correspondent elicits opinions from currency strategists at major banks mainly based in London, with some analysts based in New York. These analysts are, as a rule, willing to be interviewed and quoted as marketing

²⁹ Only in case of his/her absence another member of the economics department steps in as a substitute. (Interview with Christopher Swann). ³⁰ 13 other journalists account for the remaining authored articles, covering each between 0.5% and

^{5%,} obviously substituting for Blitz during his absence.

³¹ This and the following information about the column are based on my interview with Christopher Swann.

exercise, acting in a "salesman-like function" to drum up business for their bank. As a rule the currency correspondent raises topical questions with the analysts, but leaves it to the respondents to answer the questions according to their own preferences, or point out other issues they consider to be of importance. The selection of what is to be reported and who is to be quoted was done pragmatically on the basis of how interesting and representative opinions were.

The column attempts to sum up the sentiment in financial markets as reflected in the range of opinions collected during the daily research. The column thus reflects sentiment of financial market participants in a rather open way, with the opinion of the writing journalist taking a back seat. Altogether, 26 analysts have been quoted in the column during my period of investigation.³² Even if each individual column is to some extent eclectic in its coverage, in aggregate they constitute a good source to gauge market trends.

In addition, the column, although not widely noticed by the broad FT readership, operates as a forum for the exchange of views and opinions between insiders. In the words of Swann:

"For the markets it is like a community thing. It is a very incestuous market; almost everybody has worked with each other at some point. They like to keep track on their colleagues, they like to get a sense what other analysts' position might be. People tend to talk their book. If someone is telling something, other analysts will assume that the person is advising his traders similar things. It is a delicate balance between strategist not wishing to give away the position of their bank and trying to get quoted, and other people trying to interpret what the strategists are saying what their banks position is. From the market's point of view it helps people to know which way the wind is blowing."

This view has been confirmed by interviews with traders and analysts, with one hedge fund manager stating that there was little the financial press could report that analysts

 $^{^{32}}$ For how often individual analysts have been quoted for each of the three currencies investigated, see Appendix, Table 2 (Index Tree).

would not know already, but that he would read the foreign exchange column "to get a feel for which direction the market is moving."³³

The two market reports by financial services firms in my sample corpus are published by Goldman Sachs and Salomon Brothers, two major international investment banks.³⁴ In the first half of the 1990s both banks were grouped by The Economist magazine in the top half dozen "bulge-bracket" of global investment banks.³⁵ According to an October 1993 league table rating of global investment banks undertaken by Euromoney, Goldman Sachs takes overall top position and Salomon Brothers place thirteen. Goldman occupies place four for trading activities, and Salomon Brothers place ten.³⁶

Both market reports, the weekly "International Market Roundup" by Salomon Brothers, and the monthly "International Economics Analyst" by Goldman Sachs are typical of country specific economic and market analysis by the economic research departments of major banks. Both reports are also similar in terms of coverage, structure, production, and circulation.³⁷ Typical for this type of overview analysis of international economic conditions targeted at international financial market participants and global fund managers, the reports focus on key OECD countries and

³³ Interview with Phillipp Hildebrand, Moore Capital, A similar view was voiced by a currency trader (Interview with Tom Grant, Lehman Brothers).

Salomon Brothers has since become Salomon Smith Barney, part of Citigroup.

³⁵ The Economist: "Battling back: Post-scandal Salomon Brothers", 21 Nov. 1992; "They've really got a hold on EU: US investment banks are increasingly dominant in European financial markets", 20 April 1994. ³⁶ Reported in The Economist: "Survey of International Banking" 30 April 1994.

³⁷ Salomon Brother's "International Market Roundup" is not being produced any longer. The following description is based on interviews with the following economic analysts: Dimitry Gladkov, Goldman Sachs (17/10/2001); Jens Nordwig-Rasmussn, Goldman Sachs (17/10/2001); Michael Saunders, Salomon Smith Barney (25/10/2001); Natascha Gewaltig, IDEAglobal (16/06/1999); Stanislav Gelfer, Credit Suisse First Boston (17/10/2001). Further information was provided by Katherine Stuart, Assistant, Economic Research Dept., Goldman Sachs (25/10/2001).

on the key international economic themes of exchange rates, monetary and fiscal policy, interest rates, and balance of payments. These themes are discussed and commented on within the context of recent country specific and international economic and political development, containing forecasts on key variables like exchange rates, inflation, and interest rates. Both reports follow the standard format by starting out with a general international overview, followed by country specific analysis.

In the case of Goldman Sachs the coverage is very extensive. In addition to the general overview ("The International Economy - Overall Summary and Forecasts") the report includes a thematic section "International Economic Themes", followed by "Country Reports" on 14 OECD countries, led by reports on the US, Japan, Germany, the UK, and France. In addition to this regular coverage, the report contains occasional features of particular importance to financial markets. These occasional features can be country or issue specific. Smaller and less detailed in its range and depth of investigation, Salomon Brothers' weekly "International Market Roundup" starts with a section titled "Overview", summarising key international developments normally dominated by the US, Europe and Japan, and then moves on to country specific sections. Here the US, Japan, Germany, France and the UK are always covered in a separate section, with other European countries being represented on an irregular basis.

The country specific sections of these reports are always written by the same country analyst in charge of the respective country, with issue specific sections in the "International Economics Analysts" by issue specialists on the ERM, international

interest rates etc.. The reports in their entirety nevertheless represent a team effort by the international economic research teams in the respective research departments.³⁸ Through a continuous coordination process, including informal editorial supervision by the chief economist, it is ensured that the reports present a coherent and uniform "message", with individual views forming parts of a consistent global scenario representing the stance of the firm.³⁹ This stance is also presented in the overview section, which, in the case of Salomon Brothers, was written by the senior economist in charge of the "International Market Roundup", who also acted as an editor (John Lipsky); in the case of Goldman Sachs by two senior international economists (David Walton, Jeremy Hale) in charge of the "International Economics Analyst", and then edited by the chief economist (David Morrison). The coordination/editorial process included regular coordination meetings on a monthly basis to align and match forecasting on key economic indicators like GDP figures. In addition, informal coordination of views took place during the writing of the report, with the final product in its entirety edited by the chief economist. As several interview partners have pointed out, the coordination process aims at guaranteeing constancy in particular as to the global outlook and the forecasting of key variables. Broader country specific assessments, regarding political developments and structural aspects, are left to the discretion of the individual country specialist, as long as his/her analysis does not stand in conflict to the overall message of the report. Thus, when it comes to an interpretation of domestic structural trends, the individual analyst is rather unconstrained to give his own individual explanations.⁴⁰

³⁸ The procedures of Salomon Brothers and Goldman Sachs are typical for how these reports are produced across the banking industry. ³⁹ Interviews with Jens Nordwig-Rasmussn, Michael Saunders.

⁴⁰ Interviews with Katherine Stuart, Jens Nordwig-Rasmussn, Natascha Gewaltig.

Reports like the two chosen here are distributed widely within the financial community through formal and informal channels. Traders read these reports, although the daily briefings are of greater direct relevance, given the short-term time horizons and instantaneous nature of decision making in currency trading.⁴¹ But since the same analysts who produce the more in-depth general market reports write these daily reports, it can be assumed that the latter reflect opinions given to traders in the former. Furthermore, since these reports, produced "in their thousands",⁴² are distributed to other analysts in-house and circulate widely within the analyst community in the financial services industry, they influence the opinion of other analysts, and their briefings of traders.⁴³ As one interviewee pointed out, market reports like the International Economics Analyst are of particular importance if analysts want to get information on country specific structural issues in situations where they lack the information and resources to come up with a view on their own.⁴⁴ Consequently, the inclusion of the two market reports by different investment banks into my sample corpus complements the FT column not only because they represent firm specific views directly or indirectly influencing trading desks, but because they put monetary policies and exchange rate analysis by market participants in the context of a wider analysis of the economic and structural conditions of a country.

Computer-assisted qualitative data analysis with NUD*IST

The systematic analysis of my market reports will be facilitated by organising the information contained in the texts using a computer assisted qualitative data analysis

⁴¹ Interviews with Natascha Gewaltig, Tom Grant, Dimitry Gladkov.

⁴² Interview with Dimitry Gladkov. It was impossible to get exact circulation figures for these reports from the publishing banks.

⁴³ Market reports are circulated informally within what is a close-knit financial community in which most members know each other, and formally through the distribution to clients of investment banks, including the asset management arms of those investment banks which are clients of the bank which publishes the report (Interview with Dimitry Gladkov; interview with Stanislav Gelfer).

software (CAQDAS) package. Essentially, CAQDAS is nothing but a computerised method for the systematic organisation of text through indexing (coding) typical for classical content analysis. Computerised coding has the advantage of automating and speeding up the analysis tasks and of facilitating more sophisticated searching and complex questioning of the data (Barry 1998). For the use of computer-assisted analysis it is critical to understand that the pursuit of automatic content analysis – text in, interpretation out – would be absurd. Semantic coding has to remain the privilege of the human interpreter (Bauer 2000: 148). Consequently I use the computer software merely as a mechanical devise to speed up coding. I developed the methodology and the coding system independently of the technical capabilities of the CAQDAS, strictly in line with what is required by a systematic analysis of my samples in regard to the questions I pose.

NU*DIST, the software I use, has the advantage over its main competitor Atlas/ti in offering a more structured, sequential and verbal classification system of text content.⁴⁵ The disadvantage of this logical structure is that NU*DIST, in contrast to the more pictorial and open-ended organisation of Atlas/ti, is more rigidly linear, leaving little room for creative solutions. However, it is precisely the highly structured ways of NU*DIST which match my own approach to undertaking a rigorous analysis through a mixture of a deductive and inductive analysis.

At the heart of the coding exercise lies the design of an internally coherent category system, the "coding frame". A well designed coding frame, together with clear

⁴⁴ Interview with Natascha Gewaltig.

⁴⁵ For an evaluation of NUD*IST, in comparison to Atlas/ti, see Barry (1998). As Barry points out, the third most widely used CAQDAS package, ETHNOGRAPH, is outdated, lacking the flexibility and sophistication of its two competitors.

instructions on the execution of coding, and a documentation of the coding frame, ensures methodological quality through a coherent, transparent and falsifiable research design (Krippendorff 1980).

To be coherent, coding must be developed from clear principles, which can be derived either from theory (deductive approach: "coding down"), or can be arrived at in the process of the coding of text, expanding and reworking the coding frame during analysing more and more text units (inductive approach: "coding up") (J. Fielding 1993:227). I have developed my coding frame using both methods, in line with my approach to combine deductive and inductive approaches. To allow for systematic comparison, the coding frame has to be symmetrical, i.e. the same coding scheme or "index tree" has to be applied to each country case. Thus, there will be three index trees covering domestic variables for Britain, France and Germany respectively, prefixed (1) (Britain), (2) (France), and (3) (Germany), with six primary nodes, followed by a number of sub-nodes, in addition to a separate index tree for international developments, prefixed (4).⁴⁶ The coding frame will then attempt to cover the whole range of possible factors influencing market sentiment, to put domestic structural variables in context. Furthermore, it has been designed to facilitate longitudinal indexing of data, to capture trends and processes in the development of market sentiment.

The primary nodes are economic performance (x 1), economic policy (x 2), politics (x 3), EMS-EMU (x 4), domestic structures (x 5) and exchange rate movements (x 6), and crisis episodes (x 7). The broader structure of this coding frame is a case of

⁴⁶ In the terminology of NUD*IST a code is called "node".

deductive coding down, since it is derived from the theory underlying my comparative research design, investigating the validity of domestic structure approaches as explanations of currency crisis. The comparative element is reflected in country specific index trees. The domestic structures approach is reflected in the distinction between domestic and international factors in separate trees, with a primary node for domestic structures (x 5). The secondary and tertiary nodes of this node have been deduced from the explanation of rationalist institutionalism. Separate primary nodes for domestic economic variables (x 1) (x 2) and domestic politics and structure variables (x 3) (x 5) reflect the first and second generation crisis models.

The inductive approach has informed the construction of the "international developments" index tree in my coding frame (4), and of the primary node "EMS-EMU" in the domestic trees (x 4). These nodes are the result of working with sample texts. As far as the international index tree is concerned, it became obvious that market participants analyse developments outside my three country cases in a country-by-country or currency-by-currency fashion, with great emphasis given to developments in the US and the EU. Particularly significant was the impact of the ERM crisis itself as a systemic crisis for market sentiment towards sterling, franc and D-mark. The recognition of the ERM crisis as a systemic factor in this coding tree is independent from my taking account of EMS-EMU related factors in the domestic trees (x 4). Although equally a product of inductive analysis, it takes account of the specific importance market participants attributed to the domestic politics of European monetary integration in the three case countries. In a similarly inductive fashion a number of sub-nodes have been added in the course of my research to the economic

and political primary nodes (x 1) (x 2) (x 3), acknowledging the importance of issues for market sentiment which I had not deduced from theory.⁴⁷

The primary nodes "exchange rates" $(x \ 6)$ and "crisis episodes" $(x \ 7)$ have a simple descriptive function, with the former being created in recognition of the fact that most text units include exchange rate forecasting for my three currency cases, thus giving an quantitative indicator for the direction of market sentiment. My intention to capture in detail the widest possible range of factors influencing market sentiment has led to a detailed breakdown of not only the domestic structures primary node, but of all primary codes in several secondary and tertiary nodes. My plan to capture the process of decision making has resulted in Node (x 7), which makes it possible to code text units in a longitudinal fashion, by breaking down the whole ERM crisis into a sequence of country specific crisis episodes, separated by times of relative calm or "non-crisis". Crisis episodes have been defined by using quantitative indicators indicating speculative pressure, that is exchange rate movement, the spread of official interest rates over the Bundesbank discount rate, and the spread of short-term money market interest rates over German rates. In addition, to define definite dates marking the turning point of market sentiment, political or economic events or decisions have been taken into account.⁴⁸ Finally, for all levels of indexing a node "other" has been added, to ensure that all issues raised in the reports can be accounted for in my coding frame.

Following Kelle (2000), the coding procedure consisted of assigning codes to previously defined text segments or units. I defined a single whole column (FT) or

⁴⁷ An example would here be Node (x 2 1 4) "Bundesbank statements"

issue of a market report (Salomon Brothers, Goldman Sachs) as text segment, thereby guaranteeing that my text segments were matching each other as closely as possible within each representative source, being samples of the same article/report. The coding process then consisted of indexing these units of my three sources, which NUD*IST identifies as three separate "documents", along the coding frame. Any mentioning of one of the issues represented by a node was coded, regardless of how important it was in the respective text unit.

NUD*IST was then used to assist my qualitative interpretation, by facilitating searches for interconnectedness between individual nodes. The software offers 17 different types of index searches, to find for example all texts units coded at several nodes, or coded at one node, or coded at at least one node of a range of nodes, etc. Altogether 872 index searches were undertaken in the course of my research. To ensure transparency and falsifiability, the coding frame has been documented in the appendix, including the number of text units coded at each individual node. Essentially, the coding process allowed me to establish statistically which quantitative weight a specific variable has in the analysis of a text sample. For a specific period this weight can be measured by the number of texts in a sample source coded at a specific node or combination of nodes, as a ratio of all texts of the sample source during this period. This ratio will be expressed in percentages for each sample text, and presented graphically by standardised charts. The qualitative interpretation of these statistical findings will draw on the actual analysis in the text and its context, often using direct quotes. This interpretation will take an inductive stance by taking account of the fullest possible range of variables, to understand the reasoning of

⁴⁸ For the German case this combination of indicators has also been applied to define episodes of

market participants about institutions in its broader context, but will emphasise the interpretation of institutional factors.

Clearly, not every indexing at each code can be given extensive interpretation. Hence a significance threshold has been established as a rough benchmark below which a detailed analysis will only be undertaken if the low numbers of text units coded includes highly significant texts. It will be considered why certain variables were of such low significance for a specific country case. The significance threshold has to differ for each of the three text samples. The chances of a variable being covered by Goldman Sachs are considerably higher than by Salomon Brothers, and even lower for the Financial Times, since they differ significantly in depth. This is indicated by the fact that the average Goldman Sachs report has about 5000 words, the average Salomon Brothers report about 1500 words, and the average FT report only about 500 words. Consequently, different significance thresholds have to reflect different levels of analysis and coverage, with the highest value for the "International Economics Analysts", the lowest for the FT, and the "International Market Roundup" taking a middle position. The actual thresholds have been established in the process of coding, in light of the experience of how coverage broadly differs among text samples. The following values have been set: only those variables will be analysed in detail that pass at least two of the following three thresholds: for the FT at least 5 percent of text units have to be coded at the respective node (or combination of nodes); for Salomon Brothers at least 20 percent; for Goldman Sachs at least 40 percent.

weakness of the D-mark.

3.5 Conclusion

This chapter has mapped out my methodology, informed by bounded rationality theory, on how to investigate the rationality of market sentiment towards domestic institutions through a qualitative comparative study. In the following chapters the qualitative interpretation will be organised along the key categories of my coding frame for each country case.

So far, the concept of rationality in rational institutionalism has been discussed, and the need to focus on domestic institutions to explain currency crises has been pointed out. What is still missing before I can move on to the empirical analysis is a discussion of which domestic institutions should matter for rational financial market participants. The next chapter will therefore expand on the domestic structures that theorists have identified as important for the time consistency of political commitments to monetary and exchange rate stability.

Chapter 4: Domestic Structures and Monetary Policy Commitments

4.1. Introduction

Rational financial markets should be 'institutionally sensitive' when forming expectations of the credibility of government commitments to defend the external and/or internal value of their currencies. This is because the domestic institutional structure, together with the constellation of domestic interests, is critical for the political sustainability of this commitment.¹ As neo-classical monetary economics has formulated in the 'time consistency problem', the credibility of these commitments depends on whether financial market participants will expect the national authorities to renege on it in the future.²

How exactly did time consistency become a problem in the ERM in the early 1990s? In the asymmetric ERM, time consistency depended on whether Germany, as the leader country, was willing and able to maintain its superior record of domestic price stability which underpinned the D-mark's anchor currency role, and whether the other ERM countries were able and willing to follow Bundesbank monetary policy decisions to maintain exchange rate stability against the D-mark. Potentially unsustainable adjustment costs in terms of unemployment and growth were possible as a consequence of German inflation in the wake unification for both the leader country and the follower countries. In Germany the Bundesbank had to curb the post-unification inflationary boom by imposing disinflation at the price of growth and employment sacrifices. In the follower countries

¹The importance of domestic structures for political sustainability has been elaborated on from the viewpoint of rationalist institutionalism in Chapter Two.

²See: De Grauwe (1996).

the difficulties were greater. Disinflation was necessitated not by the need to restore domestic price stability, but to maintain external equilibrium in the face of a monetary policy unilaterally imposed by the leader country Germany. This could cause possibly unsustainable domestic disequilibria in pegging countries.³ From a rationalist institutionalist point of view, both the time consistency of the German monetary policy commitment to price stability and the commitment of the other ERM members to exchange rate stability depended on their domestic institutional capacity.

To support time consistency, domestic structures have to facilitate policies which in the medium term reconcile the objectives of low inflation, decent growth rates and high employment.⁴ Depending on the institutional structures, adjustment can be quick or slow, smooth or disruptive. If disinflation is necessary, the smoothness and speed of adjustment matters for its costs. If adjustment is disruptive, the resulting sacrifices might not be politically sustainable over time.⁵ Domestic institutions, by determining not only the costs of adjustment, but also the capability of policymakers to impose these costs, are critical for time consistency. To find out what institutional information should have influenced financial market assessment, it is necessary to review how exactly institutions constrain monetary policy-making.

³ The general problematique of a disinflationary strategy overdetermined by a peg to the D-mark has been elaborated for the French franc by Lordon (1998).

⁴ Helen Milner identifies these three objectives as the key policy preferences of political actors motivated by maximizing their reelection prospects (1997:42-3).

⁵ De Grauwe, in his application of the Barro-Gordon model to an open economy, points out in particular sustainability problems for pegging countries in asymmetric fixed exchange rate system, resulting from a 'hard nosed' disinflationary stance by the anchor country (1996:61-71).

In the following chapter, I map out which constellation of interests and institutions in the financial, labour market and government structures would be optimal to underpin a hard currency commitment, in accordance with the analysis of domestic structures approaches. For national institutions, each ideal-typical review is followed by a comparison of the respective structures for the UK, Germany, and France, in order to establish how their structural features should have influenced financial market participants conceptualised as rational actors. As will be shown, ideal-typical models have to be substantially qualified to take into account the actual strengths and weaknesses of the historically rooted complex social configurations of each country. Although this thesis focuses on domestic structures rather than interests, I start by briefly pointing out the importance of domestic interest patterns for the sustainability of strong currency commitments, since it is a combination of interests with domestic structures, shaping preferences, which determines policy outcomes.⁶ The following three sections cover financial, labour market and government institutions respectively, since these structures are of particular importance to the time consistency of monetary policy commitments. The conclusion will evaluate what these structural differences should have meant for the credibility of pound sterling, the French franc, and the D-mark.

4.2. Domestic Interests and Monetary Policy Commitments

Starting with government, the key economic interest of office-seeking politicians in democracies can be assumed to be the manipulation of the economy for electoral advantage (Hall 1997: 178-80). Assuming that a government's utility is dominated by the rationale of the short-run Phillips-curve, left-wing governments should to be more

⁶ See Milner (1997).

accommodating in their monetary policy to reduce unemployment than right wing governments and thus more likely to renege on their inflation and exchange rate commitments.⁷ Furthermore, following the framework set out by Frieden in his sectoral preferences approach, interests can be delineated for key groups of economic agents.⁸ Firms and labour in the competitive export sector will favour low inflation and exchange rate stability of a strong currency in order to fully exploit their competitiveness through exchange rate certainty and strong terms of trade. Uncompetitive industries in the tradables sector and their workers will press for devaluation to improve competitiveness, accepting possible inflationary consequences. The financial sector's narrow interests are in low inflation to protect the real value of assets, preferring a strengthening currency to external stability.9 Labour and employees in the non-tradable sector, especially SMEs and the public sector, will favour monetary accommodation to promote growth and employment, paying little attention to the exchange rate.¹⁰ Thus, competitive international business and their labour unions support non-accommodating monetary policies to achieve long-term price stability, and will tolerate disinflation as long as it does not undermine exchange rate stability. Resistance towards disinflation and demands for devaluation will be strongest from uncompetitive export-orientated businesses and their workers, with the financial services industry taking the opposite position. Hence, investors should prefer currencies of countries which ideally feature a right wing

⁷ Simmons (1994: 276). Opportunistic economic behaviour by politicians results in what has become known as the "political business cycle". For a review of the literature supporting this argument, see Leblang & Bernhard (2000: 297-8), and Clark et al. (1998).

⁸See Frieden (1991), and Frieden & Rogowski (1996). For an application of this approach to explaining national preferences towards European integration, see Moravcsik 1998.

⁹The basic opposition of financial intermediaries to inflation is explained by Adam Posen (1993: 48). ¹⁰See Gowa (1988) on the preferences of the nontradables sectors, notably the public sector in the USA, and Josselin (2001) on the sectoral preferences of German and French trade unions towards EMU.

government, facing no near-term elections. The economy should be dominated by competitive international business, with trade union power concentrated in the private export sector.¹¹ How these basic interests translate into actual policy preferences and to what extent a government is constrained by these interests depends on the domestic institutional structure.¹²

4.3. Domestic Institutions and the Time Consistency of Monetary Policy Commitments

The setting of an external monetary policy strategy is determined by government, with exchange rate policy normally a task falling to the finance ministry (Henning 1994). This was the case for Germany, France, and Britain in the ERM 1992/93. The strength of strong currency/pegged exchange rate commitments depends on the sustainability of a non-accommodating monetary stance at home. Domestic monetary policy falls formally into the remit of the central bank, with different degrees of independence from the finance ministry for each of the three countries investigated. The domestic interests and structures that facilitate both low inflation combined with decent growth and smooth adjustment, are related. Domestic structures approaches suggest that the interest and institutional constellation is decisive in particular in the financial, government and labour market structures.¹³ The following analysis will start with the financial structure, first the position of the central bank in the national economic regime, and secondly the critical institutional features of the wider financial structure. This will be followed by a

¹¹ For a country specific review of the interest constellation in Britain, France, and Germany, see the respective case study chapters (Chapters Five, Six, Seven).

¹² Helen Milner distinguishes between relatively stable actors' interests and their preferences, the latter varying according to their political situation (1997:15,fn.4)

¹³see Keohane & Milner (eds.) 1996; Milner 1997; Hall 1997.

description of national labour market structures, with the nature of the wage bargaining system and labour market flexibility as key variables. Finally, national government structures will be investigated.

4.3.1. Financial Structure

The sustainability of a strong currency commitment first of all depends on the position of the central bank. Secondly, it is determined by the wider financial structure, the character of the bank-industry relationship and the monetary transmission mechanism, in particular the speed and extent at which changes in official monetary policy spread to the economy. As I have pointed out in Chapter Two, my thesis will focus on the domestic structural determinates of pure currency crises, unrelated to a domestic banking crisis. The following discussion of financial structures will therefore investigate which structures best facilitate time consistency of exchange rate commitments. It will not analyse which domestic financial structures support a sound and solvent banking system to prevent banking crises.

4.3.1.1. Central Bank Independence

"Central bank independence is regarded by current economic literature as one of the most effective guarantees for the pursuit of price stability."¹⁴ The credibility of the antiinflationary stance of an independent central bank is seen to reduce inflationary expectations, leading to less inflationary behaviour by private agents in wage and price setting, as well as sound budgetary decisions by government. Neo-classical theories on central banking emphasise that central bank independence (CBI) per se should be able to

¹⁴ Bagella and Becchetti (1998: 53). For an overview of orthodox theories of central bank independence, see Hall and Franzese (1998: 506-509), and Posen (1993).

deliver low inflation at little cost to the real economy (Alesina & Summers 1993). If the central bank's commitment to enforce low inflation through non-accommodating monetary management is credible, it should, in a rational expectations framework, deliver low inflationary behaviour by economic agents who care about real outcomes and anticipate price stability, thus reducing the need for adjustment through disinflation. CBI should therefore suffice to combine low inflation with low unemployment.¹⁵ In the case of an exceptional inflationary shock, the statutory insulation of central banks from political pressure should strengthen their capacity to defend a monetary policy commitment by imposing costly disinflation.

Consequently, CBI should enhance market confidence, making speculative attacks less likely. CBI has been recognised by rationalist institutionalism as a critical institutional factor underpinning currency credibility in financial markets. Beth Simmons comes to this conclusion in her analysis of monetary policy commitments to the inter-war gold standard:

"Central bank independence is expected to assure markets that promises of monetary stringency would actually be fulfilled. I hypothesised that greater central bank independence would contribute to currency strength and adherence to the first norm of gold standard adjustment" [i.e. priority to external economic balance above economic conditions at home; W.H.]¹⁶

But, as econometric analysis has shown, no clear link can be established between formal CBI and an improved macroeconomic performance, except possibly for inflation (Grilli,

¹⁵ See Franzese & Hall (2000: 174-77) and Soskice (2000: 40-43).

¹⁶ (Simmons 1994: 277). Simmons, in her later findings, recognises the potential conflict between price and exchange rate stability confronting an independent central bank, pointing out that independent central

et al. 1991). Other economists have even disputed the findings for inflation (e.g. Posen 1993). Rationalist institutionalism and institutional monetary economics have gone further by asserting that even low inflation has been an outcome not simply of legal CBI as such, but of the broader structural context in which it operates.

Firstly, legal independence is not enough to improve monetary policy outcomes if the central bank is not de facto insulated from excessive political pressure by the broader structure of the political system. Political structures which feature strong checks and balances to constrain excessive political leverage over the central bank are of critical importance, in particular if combined with polarisation in the political landscape (Keefer & Stasavage 2000). In this line of argument Lohmann (1998) asserts that a federal bicameral system is well suited to underpin real monetary policy autonomy of the central bank by giving a stake to political agencies with conflicting preferences in decisions concerning the composition of the central bank council and the institution's legal status.

Secondly, even if a central bank is capable of imposing disinflation, it cannot eliminate inflationary behaviour by economic and political agents. Hence the need for costly disinflation, if economic agents do not support non-accommodating central bank monetary policy. Hall and Franzese (1998) have pointed out that the effectiveness of CBI in lowering inflationary expectations is not just a function of its credibility, but the reception of its signals by domestic actors, who are constrained in this respect by the

banks, by prioritising price stability under conditions of a fragile low inflation culture, can destabilise fixed exchange rate regimes (Simmons 1996).

institutional context which shapes their short-term preferences. It is of particular importance whether domestic institutions allow organised labour to overcome collective action problems when it comes to adopting non-inflationary behaviour. A similar case has been made for the structure of the financial sector: it depends on the institutional structure of the banking system whether anti-inflationary preferences can be effectively conveyed to policymakers (Posen 1993; 1995; 1998).

Similar structural conditions apply to the sustainability of strong currency commitments. CBI will only suffice in backing an exchange rate commitment through sustained low inflation, if it is supported by the institutional features of the finance, industrial relations and politics. In particular, the bank-industry relationship has been emphasised as crucial for the broader social support of exchange rate stability (Henning 1994; Walsh 2000). Ultimately monetary policy outcomes will depend not simply on the position of the central bank, but on the wider societal context. As Issing put it: "Not even an independent central bank can lastingly defend monetary stability against a 'society of excessive demands' – in other words, every society ultimately gets the rate of inflation it deserves and basically wants" (Issing 1993: 36).

From a rational market point of view, CBI should ideally be embedded in a supportive structural context in order to make monetary policy announcement credible. I will therefore review those measures of CBI in Britain, France and Germany which go beyond narrow constitutional status to include broader political and economic variables.

Broad political-economy indices for CBI have been put forward by Grilli et al. (1991) and Cukierman et al. (1992).¹⁷ Grilli et al. look at CBI in terms of political and economic independence. "Political independence is the capacity to choose the *final goal* of monetary policy, such as inflation or the level of economic activity. Economic independence is the capacity to choose *the instruments* with which to pursue these goals."¹⁸ The degree of political independence is indicated by whether there is a statutory requirement for the pursuit of monetary stability, by whether the bank has the power to decide on monetary policy (especially official interest rates), by the degree of government political influence on the central bank board (especially its president), and by whether the central bank's position for autonomous acting is legally enforced. For economic independence it matters whether the central bank is required to finance government and is involved with banking supervision, with possible exposure to demands from the financial sector. Table 4.1 uses these criteria to indicate the degree of independence of the Bundesbank, the Banque de France, and the Bank of England.

¹⁷ The index by Grilli et al. (1991) covers the period from 1950-89, the index by Cukierman et al. the 1908s.

¹⁸ Grilli et al. (1991:366). Emphases in the original.

Table 4.1:
Germany, France, UK: Comparison of central bank independence in 1992/93 ¹⁹

	Bundesbank	Banque de France ²⁰	Bank of England ²¹
(1) Legal priority of price stability	Yes	No	No
(2) Power over monetary policy formulation	Yes	No	No
(3) Board/CB president not appointed by government	No	No	No
(4) Term of office for board members/president (years)	8	6	4
(5) Board/CB president dismissible by government	No	Yes	No
(6) Board/CB president subject to instructions by government	No	Yes	Yes
(7) Legal enforcement of CB in conflicts with government	Yes	No	No
(8) Requirement to finance government	Some	Substantial	Substantial
(9) Banking supervision not entrusted to CB	Partial	Yes	No
(10) Index of political and economic independence (Grilli et al. 1991)	13	7	6
(11) Index of legal independence (Cukierman et al. 1992)	0.69	0.24	0.27
(12) Questionnaire-based index (Cukierman at al. 1992)	1.00	0.65	0.64

¹⁹ Row (1) to (9) of the table is based on the independence indicators by Grilli et al. (1991), and modelled on Table 3.5 in Henning (1994: 115). Row (10) gives the summery figure for political and economic independence recorded by Grilli et al. (1991: 368-9), a simple aggregate of positive single points scored for each individual variable, with 17 as the highest possible score. Row (11) and (12) give as comparison two central bank indices developed by Cukierman et al. (1992). The two indices measure independence on a scale from 0 (lowest level of independence) to 1 (highest level of independence). 'Legal independence' (row 11) takes into account: the terms of contract of the governor; policy formation, including the resolution of conflicts over monetary policy with government; policy objectives of the central bank; the possibility and conditions of central bank lending to the public sector. The questionnaire-based index (row 12) is based on questions to a sample of specialists on monetary policy in various central banks. The questionnaires focused on the same range of issues as those taken into account in the legal independence index. For a review of the main CBI indicators presented in the economic literature, see Bagella & Becchetti (1998). For an excellent historical-constitutional overview for the three central banks investigated here, see Capie et al. (1995: Appendix B), and Toniolo (1988).

²⁰ The Banque de France gained legal independence on 1 January 1994, with the appointment of an independent governing council and the setting of a new monetary policy framework committed to price stability (Loriaux 1997a: 152). The process towards independence was launched by the Prime Minister Balladur on 09/04/93, with government approval for independence granted on 10/05/93.

²¹ The Bank of England was given 'operational independence' to set interest rates to meet the Government's stated inflation target by the new Labour government in May 1997.

Britain

In 1992/93 Britain's central bank, the Bank of England was formally highly dependent on the finance ministry, the Treasury. Although interest rate decisions were decided officially in consultation between the Treasury and the Bank, the Treasury decided monetary policy, leaving the Bank with the task of implementation. In the period of ERM membership this meant that the Treasury was deciding whether and to what extent the peg should be defended through interest rate increases, de facto instructing the Bank to execute these policies. Furthermore, the dependent status of the Bank allowed theoretically for the financing of government deficit spending through non-automatic direct credit facilities (Grilli et al. 1991: 369).

In addition to its political dependence, the Bank of England was constrained by its close relationship with the financial services industries of the City of London.²² This closeness was reflected by the fact that the Bank was in sole charge of banking supervision before 1997. The Bank played, and still plays, a crucial coordinating and mediating role between government and City (Kynaston 1995: 44-53). Based on this "hegemonic position in banking and securities" (Coleman 1996: 185), it acts as "spokesman for the financial markets" (Hall 1986: 248). This means that in reality the Bank has considerable leverage over government policies by representing the interests of Britain's important financial services industry, leading Peter Hall to describe it as "a particularly powerful central bank" (1986: 61). But this power comes at the price of being subjected to partisan pressure from the financial sector, a sector with no consistent preference for exchange rate stability within the ERM.

- France

In 1992/93 the Banque de France was, like the Bank of England, formally highly dependent on government. In contrast to Britain, influence was exercised by the state over the banking system via the central bank. This reflects the integral role of the central bank in the centralised bureaucratic apparatus of French economic governance, with the Treasury at its centre. Characteristically, banking supervision lay in the hands of specialised agencies set up within the Finance Ministry structure, not the central bank (Coleman 1997: 283). As Kenneth Dyson put it:

"France provides an example of a relatively well-structured policy process. Its commercial banks, public and private, are particularly sensitive to the policy of the Banque de France: being tied to the Banque de France, and the Banque de France in turn locked into the Trésor of the Finance ministry through a web of interpersonal relations."²³

This dirigiste integration of the financial sector under public authority gave France the ability, as Coleman put it, "to adjust to internationalisation on its own terms".²⁴ Through its influence over commercial banks the Banque de France was able to shield the private sector from official interest rate increases in defence of the franc, as demonstrated in autumn 1992.²⁵ Legislative steps taken by the government during the course of 1993 to establish central bank independence in January 1994 did little to change the reality of close links

²² Roberts (1995). The governing body of the Bank, the court, had an inbuild majority of members drawn from City institutions (Hutton 1995: 144).

²³ Dyson 1994: 262. In 1993 two of the largest three commercial banks were still state owned (Crédit Lyonnaise and BNP), with Société Générale having been privatised only in 1988 (Coleman 1997: 288). Furthermore, top positions in private banking were, like those in the Banque de France and the Trésor, normally filled from the network of the bureaucratic elite, educated at the Ecole Nationale d'Administration (Cameron 1995).

²⁴ (Coleman 1997: 274). France's state-led approach to liberalisation and deregulation has been described by Loriaux (1991, 1997a).

²⁵ See Dyson (1994: 190).

between the Trésor and the Banque de France, since both were run by well-connected members of the same administrative elite.

Germany

The Bundesbank represented the classic case of a high CBI, with a high degree of political, personal and financial independence (Loedel 1999: 44-55). Political independence is enshrined in the Bundesbank law of 1957, conferring the Bundesbank the autonomy to use its monetary policy instruments in pursuit of "safeguarding the currency". In Germany, as in other ERM countries, the authority in respect to the formal commitment to exchange rate stability in the ERM fell to the government. The Bundesbank, in charge of 'safeguarding the currency', could nevertheless claim to have a stake in external monetary policy. Its low inflation policies not only underpinned price stability, but also the strength of the D-mark and thus its anchor status in the system (Henning 1994: 90-94). Independence of the Central Bank Council was high, with its core Directorate composed of non-partisan technocrats, conforming as a rule with the Bundesbank stability consensus (Lohmann 1998; Marsh 1992). Not only are council members appointed long term and cannot be dismissed, but the federalist structure of Germany's political system, reflected in the composition of the governing board of the central bank, shields the bank from direct pressure from vested private interests as well as from the federal government (Lohmann 1998). Furthermore, any change in the Bundesbank law would require the approval of the upper house, representing the federal states in Germany's bicameral system. ²⁶ Consequently, assuming institutionally aware market participants, the

²⁶ (Duckenfield 1999, Lohmann 1998). The streamlining of the Bundesbank council in the wake of reunification, although used by the federal government to reduce the influence of the federal states, left the original federal structure basically intact. See Kaltenthaler (1996).

credibility of Bundesbank autonomy in financial markets should have been enhanced by the institutions of German federalism.

The Bundesbank was financially highly independent, with the Bundesbank law prohibiting the bank from granting the federal government anything but limited short-term credit.²⁷ Although the central bank's policy remit included the maintenance of financial stability, in the early 1990s direct banking supervisory responsibility lay with the banking supervisory office, an agency of the Finance Ministry (Marsh 1992; Posen 1993).

However, the central bank's autonomy over domestic monetary policy to maintain price stability was constrained by political reality, above all by the imperatives of the government's foreign monetary policy strategy, with international monetary policy cooperation falling into the realm of the finance ministry (Henning 1994). Although in particular the political commitment to the ERM could result in tensions between the bank and government over the maintenance of exchange rate stability, open conflict was rare since the Bundesbank commitment to prioritise domestic price stability above all else has never been as clear cut as is generally assumed.²⁸ In practice the central bank has always attempted to reconcile domestic price stability with exchange rate stability. As a result its monetary policy making since the 1950s has been characterised by a dilemma: the

²⁷ (Loedel 1999: 53). The 1997 dispute between the Bundesbank and the finance ministry about the revaluation of gold reserves demonstrates that the central bank can rely on public opinion when it comes to reject demands by government for financing public debt. See Duckenfield (1999: 101-4).

²⁸ The myth that the Bundesbank gives uncompromising priority to price stability above international and domestic pressures for exchange rate stability or domestic growth, has been promoted by the bank itself. This view has been adopted by a number of authoritative studies on the Bundesbank. Classic examples are Kaltenthaler (1998) and Kennedy (1991). Kaltenthaler speaks here of the 'Bundesbank paradigm' (p. 75), Kennedy of the 'Bundesbank ethos' (p. 6). Other authors arguing in the same vein are Marsh (1992), de

potential conflict between external and internal equilibrium.²⁹ As Henning describes, this enduring overdetermination of the Bundesbank's monetary policy by the external flank has to be understood against the backdrop of the embeddedness of Bundesbank policy in Germany's foreign policy and foreign trade relations (Henning 1994:85). In the reality of the German political economy the Bundesbank could only succeed if it took account of the interests of the export sector, dominant in the German economy, and accepted the government's commitment to the EMS. As a consequence Goodman concludes:

"To maintain its independence the Bundesbank has been forced to take the views of West Germany's major societal actors into account. In practice, the Bank has always sought to build a coalition of supporting groups or, at a minimum, avoid uniting too many powerful interests in opposition" (Goodman 1992: 100-101).³⁰

On the other hand the Bundesbank's relative autonomy turned it into a powerful international actor when it came to Germany's exchange rate strategy, despite the lack of a legal mandate in this area. Heisenberg claims that the Bundesbank acted as "an institutionalised opposition to force European-level initiatives proposed by the government."³¹ By keeping public opinion on its side, the Bundesbank has been able to

Grauwe (1997), and Grahl (1997), and Connolly (1995). Randall Henning delivers an excellent critique of this view. See 1994:177-251.

²⁹ The classic description of this dilemma was given by the former Bundesbank President Otmar Emminger (1977), building on Keynes' writings on money from the 1920s (in particular his "A Treatise on Money": Keynes 1930). Three aspects in his analysis deserve particular attention: that the dilemma cannot simply be solved by moving to floating exchange rates, given the importance of external stability not only for the German export sector, but also for the maintenance of price stability; that the exposure of the D-mark on the external flank is complicated by the interaction between exchange rate stability in Europe and the D-mark - US dollar exchange rate; and that the key currency countries stability can serve as an anchor for others only if it combines narrow domestic monetary stability with broad domestic economic stability. ³⁰ See also Kaltenthaler 1998: Ch. 2.

³¹ (Heisenberg 1999: 188). The Bundesbank 'enshrined' its veto power over the government's exchange rate commitments in the ERM already in 1978 in the co-called "Emminger-Letter", which stated the Bundesbank's right to suspend compulsory intervention, if it threatened to undermine domestic monetary stability. (See Heisenberg 1999:63-4; with a translation of the letter on p. 65, fig. 3.1). The inability of the Bundesbank to assert its autonomy against a broad societal consensus was demonstrated during German reunification, when the Chancellor ignored the bank' objections to German Economic and Monetary Union. See Duckenfield (1999), and Marsh (1995).

constrain and shape governmental foreign monetary policy strategy, as Mark Duckenfield (1999) demonstrated in the case of the design of the European Central Bank.

As a tactical means to consolidate the "fragmented" structures and complex interest patterns of Germany into broad societal support, the bank accepted frequent overshooting of its domestic money supply targets. These tactics facilitated a socially acceptable hard currency strategy at an undervalued exchange rate by delaying and resisting upward valuations. Only when the competing objectives of internal and external equilibrium could not be reconciled, and exchange rate stability could only be had at the price of rising inflation and the subsequent erosion of the D-mark's credibility as hard currency, did the Bundesbank give priority to price stability over immediate competitiveness considerations, and push for revaluation as a last resort. When it came to this point, it could only succeed if backing from the interest coalition behind the German stability consensus was forthcoming.

Ultimately the Bundesbank relied on the capacity of the wider structures of the German political economy to facilitate long-term price stability to allow for the management of exchange rate stability. As Spahn put it with reference of the role of the D-mark in the EMS:

[&]quot;The standard assertion by the Bundesbank that fighting inflation in Germany was the precondition for allowing the D-mark to play its role as anchor currency in the ERM is highly problematic. In fact, it is the *pre-existence* of domestic monetary stability, which safeguards the national and international role of the Dmark, whereas the need to *establish* price stability by restrictive monetary policy disrupts the smooth functioning of a key currency system. As a consequence domestic stability has to be *given* by other measures (e.g. through co-operative, macro-economically responsible wage setting policies), to allow the

central bank of the anchor currency to concentrate on its intrinsic task of maintaining external equilibrium and thus to stabilise the key currency system as a whole." (Spahn 1995)³²

Two factors are of key importance here: fiscal policy (i.e. budgetary discipline by federal and state governments), and wage policies (i.e. a sense of macro-economic responsibility in the German system of collective bargaining). ³³

To conclude, as the case of Britain, France and Germany demonstrate, the position of the central bank is shaped by the respective national economic and political context. In the words of Randall Henning: "Irrespective of their relationship to their governments, all central banks are firmly embedded in their national political systems." (Henning 1994: 90). Rational financial market participants should make currency credibility conditional on the embeddedness of central bank policy autonomy in the wider national institutional context, avoiding a single-minded focus on the central bank's formal statute. The ability of the financial structure, the wage bargaining system and the government system to deliver price stability by shaping the respective actors' preferences to behave in a macro-economic responsible fashion is of critical importance. Furthermore, the flexibility and speed of adjustment in financial and labour markets will influence adjustment costs, critical for the social acceptance of disinflationary policies imposed by a central bank, regardless of its formal status.

³² Own translation. Emphases in the original.

³³ Kenneth Dyson (1994: 350) speaks in this context of a "three-legged" stool which supports German monetary virtue: fiscal and wage discipline, plus Bundesbank independence.

4.3.1.2. The Bank-Industry Relationship

The importance of the structure of the financial sector, and of its relationship with industry in influencing the financial services industries' preferences for price stability and exchange rate stability, has been widely discussed.³⁴ The argument acknowledges the basic interest of the financial services industry in low inflation, in order to protect asset values, and of the large export industry in a stable and competitive exchange rate. It asserts that a stable currency regime will be a function of a tight bank-industry relationship. Randall Henning concludes:

"Where banks are close to industry, specifically, private preferences tend to favour a competitively valued, stable currency. Where banks are distant to industry, private preferences are weak and often discordant."³⁵

Drawing on the distinction by Zysman between bank credit based systems and capital market based systems (Zysman 1983), the former ideal-type features close bank-industry links, distinguished by indirect long-term finance of industry (loans) through large banks, which gives them a stake in industrial policy. The latter is distinguished by a weak bank-industry relationship, since firms are self-financing through the capital market (bonds and shares), at arms length from the financial sector, allowing investors to focus on short-term shareholder value and the protection of their assets through low inflation.³⁶

In regard to backing an official exchange rate commitment, bank - industry ties matter:

[&]quot;First, they enlarge the coalition favouring fixed and competitive exchange rates. Second, a small number of banks aggregate the preferences of a large and heterogeneous industrial sector and effectively transmit these preferences to monetary authorities" (Walsh 2000: 148).

³⁴ See Henning (1994), and Posen (1993). Henning gives a good review of the debate on the efficacy of different financial systems (1994: 22, fn.4).

³⁵ Henning (1994: 6). A similar argument has been made by Hall (1986); Scharpf (1991); and Walsh (2000).

³⁶ On the different logic of these two systems, see Albert (1993), and Dore (2000).

But strong bank-industry relations are not by definition an indicator of private preferences consolidating around exchange rate stability if the export sectors' preferences are built around achieving competitiveness through occasional devaluation as James Walsh points out in the case of France (2000: 124). If the export sector aims to maintain competitiveness through nominal devaluations rather than through "competitive disinflation", weak bank-industry links might be a better foundation for a sustainable commitment to a strong currency since banks linked to industry might compromise on their anti-inflationary strong currency preferences.³⁷

Despite these qualifications there is a strong case for the superior performance of a bank credit based system when it comes to delivering low inflation. The case has been made by Adam Posen (1993; 1998) who asserts that universal banks engaged as intermediaries in long term lending are more exposed to inflation than capital market based financial institutions, and therefore more opposed to inflation than their investment banking counterparts, regardless of the interest of industry they lend to. Furthermore, Posen, like Walsh, emphasises the advantage of universal bank systems in unifying the banking sector, allowing it to transmit opposition to inflation effectively to the central bank. (Posen 1993: 48). It can be assumed that this superior signalling mechanism works both ways, allowing the central bank to exert greater influence on the inflationary expectations of banking and industry in a credit-based financial system.

In all, clear-cut generalisations concerning the optimal financial system in regard to sustaining monetary policy commitments are difficult to make. If geared towards a policy

³⁷ On the concept of competitive disinflation, see: Fitoussi et al. (1993).

of competitive disinflation, a credit-based financial system with strong universal bankindustry ties should be more effective in underpinning a strong and stable currency strategy. Capital market based systems, with weak ties between finance and industry, might perform better on inflation in comparison with a credit based system geared towards periodic devaluations, but can be expected to be more discordant on both inflation and exchange rate objectives overall. Ultimately, an investigation of the specific financial structure-macroeconomic strategy interaction in individual countries is required. How do the financial structures of Germany, France and Britain compare on this account?

Tabl	e 4.2:
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France, Germany, UK: Financial structure in the early 1990s				
	France	Germany	UK	
 Household financial liabilities (% of disposable income) (1993) 	51.0	77.9	102.0	
(2) Homeowners as % of total households(1994)	54	40	66	
(3) Outstanding residential mortgage debt as % GDP (1986-96 averages)	22.1	45.1	51.9	
(4) Credit at adjustable interest rates, all sectors(% of total credit) (1993)	44	39	73	
(5) Variable-rate mortgages (% of total mortgages) (1993)	10	<10	90	
(6) Equity market capitalisation as % GDP (end 1990)	26.3	23.6	86.3	
(7) Liabilities of non-financial enterprises: % of bank loans in total debt liabilities (1993)	80.2	85.1	49.4	

Sources: Row 1 and 7: Dornbusch et al. (1998: 46; 44); Row 2 and 5: Britton & Whitley (1997: 153; 154); Row 3: Chiuri & Jappelli (2000: 22); Row 4: Borio (1995: 28); Row 6: IMF (1996: 45)

Britain

Britain represents a classic case of a capital market based system, distinguished by distance between industry and finance. With commercial banks not being able to provide sufficient long-term finance to industry, and the City of London investment banks mainly concerned about international finance, firms in Britain rely on the capital market and retained earnings for their financing.³⁸ In reality the result has been not so much an armslength relationship between banks and firms, but a divide.³⁹ Finance, dominated by international financial services firms, is mainly interested in low inflation and promoting the international financial status of the City of London through a strong currency. Industry, on the other hand, following the competitiveness through a weak currency pattern, prefers accommodating monetary policy and devaluation (Walsh 2000: 148-9; Henning 1994: 337-8).

With conflicting pressures from both sides of the divide, British internal and external monetary policy up to the 1990s has been highly inconsistent. Influenced by City interests, the government tolerated overvaluation.⁴⁰ A strong sterling policy, in the interests of the City, conflicted with loose domestic monetary policy in the interest of industry and households causing chronic balance of payments problems, with the need for periods of sharp deflation. The result were stop-go cycles in the British economy, and periodic sharp depreciations of sterling. As Henning put it, the conflicting private

³⁸ (Hall 1986; Hutton 1995; Vitols 1997). For the dependence of UK corporate finance on the capital market, see Table 4.2, Row (6) and (7).

³⁹ see: Ingham (1984); Kynaston (2001).

⁴⁰ The financial sector's share of value added to the economy was about 20 percent in the early 1990s, and its interests were conveyed to government by the Bank of England (Hutton 1995: 142-44).

interests behind British monetary policy led to the "tolerance of overvaluation, flexibility, and misalignments" (1994: 338).

The 1990–92 ERM membership experience has been adduced as a typical example for the structural inconsistency characterising British exchange rate commitments. Although British industry supported ERM membership for the sake of exchange rate stability, Britain entered at too high a rate, reflecting City interest in bringing inflation down. Once in, the exchange rate was not defended by consistent high interest rate policies. In the end, industry demanded devaluation and reflation, whereas the City, never interested in exchange rate stability per se, lost interest in the ERM, with inflation having been reduced successfully (Walsh 2000: 149-50). Given the divisions in the industry-finance structure, the official commitment to the currency peg was inherently unstable.

- France

In the early 1990s, France's political elite had firmly adopted the German strategy of competitive disinflation, with the *franc fort*, representing a de facto no devaluation commitment within the ERM, as its external monetary policy component.⁴¹ The interventionist state realised that stabilisation, credibility and exchange rate stability in the ERM could only be achieved through a structural break with the old regime of *dirigisme* itself through deregulation and liberalisation (Loriaux 1997a). At the core of the old bank-industry link had been the allocation of cheap credit to selected industries through a banking system under tight control of the treasury, described by Pérez as a

⁴¹ Sandholtz summarises the rationale of competitive disinflation as follows: "Higher inflation elsewhere in an adjustable-rate system like the ERM in which realignments were not entirely compensating for

state-directed system of "selective credit regulation" (1997: 203). The system tried to diffuse the costs of rapid modernisation through inflation and periodic devaluation (Hall 1986: 176). Although the system had been in crisis since the breakdown of the Bretton Woods system, its structures proved highly resistant to attempts to impose an external constraint on inflation via ERM membership.⁴²

The resulting structural reforms saw the creation of a domestic financial system geared towards low inflation, complementing the *franc fort* strategy in the ERM (Loriaux 1997a). The French elite intended to marketise industrial finance along the lines of the German model of credit organised by private banks. They intended to shift the principal locus of monetary control from the banks to the newly reformed money market, and thus facilitate the control of interest rates and monetary growth through intervention by the central bank (Loriaux 1991: 225-6).⁴³ As Peréz describes (1997: 212-13), contrary to the intentions of policymakers, France during the 1990s actually evolved towards an increased role for capital markets in the financing of French firms, i.e. the Anglo-Saxon model, based on a competitive and liberalised Paris stock market. However, this transformation was and still is taking place slowly and gradually, with bank loans still by far the dominant form of industrial finance in the early 1990s.⁴⁴

The state directed shift towards a mixture of the old credit-market based system and a

accumulated inflation differentials, meant that foreign prices rose faster than French prices. Hence the increasing price competitiveness of French output." (1996: 264, fn. 120)

⁴² Loriaux (1991) explains that the functioning of "overdraft economy" was ultimately dependent on the inflationary provision of global liquidity by the US during the Bretton Woods period.

⁴³ Peréz (1997) asserts that French policymakers choose market-led adjustment over direct intervention, thus deflecting political resistance.

capital-market based structure had nevertheless significant implications already during the time of the ERM crisis. In particular, it led to competitive big business relying more on the new deregulated capital market. This caused banks to become more orientated towards capital market performance, attaching greater importance to low inflation and exchange rate stability. Consequently small and medium-sized firms, which remained dependent on bank credit and relied on periodic devaluation, lost an important ally in the banks (Walsh 2000). Walsh concludes that in the early 1990s this divergence of preferences had "...reduced the political power of industry and created space for governments to concentrate on stabilising the nominal exchange rate" (2000:124). Although these developments theoretically exposed industry to the costs of tight monetary policy and the *franc fort*, in practice government, through its still considerable formal and informal control over the semi-public commercial banking sector, continued to provide credit to SMEs at affordable interest rates (Pérez 1997: 216).

Germany

Germany represented the ideal case of successful competitive disinflation, backed up by close ties between a credit-based universal banking system and an export orientated industry. Higher inflation elsewhere in the ERM, with realignments not entirely compensating for accumulated inflation differentials, was a key factor in German competitiveness. The domestic export coalition, which included, in addition to industry and banks, major trade unions, was thus interested in maintaining German international competitiveness by keeping the D-mark "dynamically undervalued" through price stability and exchange rate stability in the ERM (Henning 1994: 246-51; Herr 1989: 19-

⁴⁴ See Table 4.2, Row (6) and (7). On the nature of financial reform in France see Loriaux (1997a), and

25). The result was persistent current account surpluses until the early 1990s, and a profitable and dynamic export sector at the heart of the German economy, providing and protecting well paid jobs for a qualified workforce. Herr speaks here of a "stability-oriented mercantilism" underpinning the dominance of the D-mark in the ERM (Herr 1997: 135-40).

Close bank-industry ties lay at the heart of the "German model" and provided the background for the Bundesbank to successfully reconcile exchange rate with price stability.⁴⁵ The creation and maintenance of the EMS was accordingly never opposed by the banking system tied in with the export industry, imposing constraints on the Bundesbank's priority of internal over external stability (Henning 1994: 328-30).

At the core of German relationship banking were the big German universal banks and major insurance companies, both linked to the export orientated manufacturing sector dominating the German economy.⁴⁶ In the early 1990s, the banks and insurance corporations at the centre of Germany's corporate web not only provided long-term stable and cheap credit to industry (see Table 4.2, Row 6 and 7), with an underdeveloped capital market largely endogenous to the banking system. The "House Banks" and insurance companies were at the apex of corporate strategic decision-making and governance. Story describes this as a "nexus of banks, insurance companies and industrial corporations, which own each others' shares and share each others' supervisory board seats" (1995:

Coleman (1997).

⁴⁵ On the link between Germany's industrial-financial structure and Germany's surplus oriented exchange rate policy, see Story (1997).

14).⁴⁷ Although these characteristics of German credit-based capitalism began to "fray at the edges in the 1990s" under the pressure of internationalisation, deregulation and a growing role for arms length equity finance, in 1992/93 the finance-industry relationships underpinning internal and external monetary stability in Germany were still, in essence, intact.⁴⁸ Coherence was stronger than in France, given that big industry and banks were still integrated in the traditional structure.

4.3.1.3. The Monetary Transmission Mechanism

What matters for the sustainability of a monetary policy giving priority to the defence of a strong currency is how costly it is in terms of employment and output. The monetary transmission mechanism, that is the speed and extend to which a national financial structure spreads contractionary monetary policy into the wider economy, is of critical importance (see Dornbusch et al. 1998).⁴⁹

Differences in the monetary transmission mechanism, and thus the interest rate-output link across countries, are difficult to measure by econometric methods, as the discussion of such attempts by central banks in Dornbusch et al. (1998) demonstrates. As a

⁴⁶ The following description draws on Story (1995); Henning (1994); Edwards & Fischer (1994); Dyson (1992).

⁴⁷ The "Big Three" industrial banks are Deutsche, Dresdner, and Commerz Bank. The largest insurer, acting as an industrial holding company, is Allianz.

⁴⁸ (Dyson & Featherstone 1999: 227-228). On the pressures for change, and the defences put up by the German model, see Story (1997).

⁴⁹ The monetary transmission mechanism differs from the related sacrifice ratio in so far, as it focuses directly on how vulnerable an economy is to official interest rate increases, an important aspect when it comes to the sustainability of such increases. The sacrifice ratio in contrast refers to the cumulative employment and output losses arising from a permanent reduction in inflation. According to Andersen & Wascher (1999) the sources of higher sacrifice ratios among countries remain elusive and one should be cautious about drawing strong implications for monetary policy.

consequence Dornbusch et al. and Maclennan et al. (1999) discuss the issue by looking into the domestic structural features influencing the effect of monetary policy measures. They conclude that important institutional differences which exist in asset markets, in particular those in housing and credit market, imply large differences in the monetary transmission mechanism across European countries. Both studies suggest that, at least as far as the early 1990s are concerned, the impact of an EU-wide change in interest rates on real activity was highest in the UK, lower in France and lowest in Germany.⁵⁰ A clear indicator for these differences is the credit channel which transmits official interest rate increases to bank lending rates (Table 4.3).

 Table 4.3:

 France, Germany, UK: Bank lending rate response to a change in the official interest rate in the early 1990s⁵¹

	1 month	1 quarter	2 quarters	l year	2 years
France	0.53	0.56	0.58	0.59	0.60
Germany	0.00	0.32	0.50	0.73	0.91
UK	1.00	1.00	1.00	1.00	1.00

Response of bank lending rates (in percentage points) to a 100 basis point rise in the policy rate. Source: Borio & Fritz (1995: Table 8)

Which institutional features explain these differences? The character of the monetary transmission mechanism is important for the flexibility of interest rates, the wealth effect of changing asset prices in response to interest rate changes, and the role of assets as

⁵⁰ Dornbusch et al. (1998) see a recent convergence between France and the UK, related to the growing role of the capital market in the financing of firms in France. Maclennan et al.(1999) in contrast insist that the UK was and still is an extreme an extreme case.

⁵¹ The econometric simulations are for the period of around 1990 to 1994, with the exact start model is based on exact start of the period country-specific (Borio & Fritz 1995: 5). The loan rates are standard short-term reference rates, e.g. "prime"rates. France: Base rate; Germany: Rate on current account credits, average; UK: Prime rate. The official interest rates are repurchasing agreement rates. France: Tender rate, generally one week; Germany: PR tender rate, two weeks to one month; UK: Outright purchases, 1 day to 2 weeks.

source of direct financing and collateral for loans.⁵² Germany and France, dominated by relationship banking, which provided for long-term credit at stable rates to both households and firms and pay-as-you go pension systems, were capable of insulating the real economy, to some extent, from the contractionary effects of official rate increases (see Table 4.2: Row 4 an 6). For France, this aspect contributed to the sustainability of the franc fort in 1992/93. The economic performance of Britain on the other hand was, and still is, more vulnerable in this respect. Firstly, in a capital-market based system credit to firms and households is more short-term and predominantly at variable rates (see Table 4.2: Row 3 and 4). Secondly, Britain's structure of private accommodation centred around home ownership (see Table 4.2: Row 2) resulted in the highest level of household liabilities of the three countries, mostly in the form of housing mortgages at variable rates (Vitols 1997, see Table 4.2: Row 1). Finally, both corporate investment and household spending was strongly influenced by falling asset prices in response to rising interest rates: firms are vulnerable because they rely heavily on direct financing through equities and bonds, the prices of which are sensitive to monetary tightening (See Table 4.2: Row 6). Households are affected by falling asset prices, through the importance of securities for pension funds and of assets as collateral for consumer credit and mortgages. Consequently Dornbusch et al. conclude:

[&]quot;Effects of monetary tightening in countries such as France and Germany, characterised by a bank-centred financial system, are systematically weaker than in the UK, where the capital markets play a central role in the financing of industry. ... A bank cultivates a long-term relationship with its customer: it will thus be prepared to absorb, at least temporarily, some effects of an interest rate hike, anticipating that it will be able to make this up in the future" (1998: 43/44).

⁵² See Maclennan et al. (1999), and Dornbusch et al. (1998). The following discussion draws on these two studies.

In general, the institutional structures of the British financial system contributed to inflationary-disinflationary boom-bust cycles as a distinctive characteristic of British economic performance. This lies in contrast to the more stable performance of the German and French economies. Germany and France were able to achieve disinflation at, comparatively, the lowest costs. The fact that their transmission mechanisms were slow compared to Britain, when it came to fighting inflation, was normally no disadvantage given the low inflation culture in Germany, and the success of competitive disinflation in France. But in Germany, in exceptional situations, the Bundesbank was confronted with the disadvantages of a slow monetary transmission mechanism. If an inflationary shock was combined with uncooperative behaviour from government and wage and price setters (as during the early 1990s post-unification boom), the central bank was forced to impose prolonged tight monetary policy to bring inflation under control (see Spahn 1988).

The variations in national financial structures rooted in the distinct institutional features of the credit-based system in Germany and France, as opposed to those of the capitalmarket based system in Britain, resulted in considerable differences in the degree of structural strength backing the strong currency commitments of each of the three countries. Rational financial markets should have analysed these variations to improve their predictions about the time consistency of these commitments.

4.3.2. Labour Market and Wage Bargaining Structures

Wage bargaining systems have been widely recognised as a critical factor in determining the sustainability of strong currency commitments. ⁵³ In the case of the ERM, low inflation and exchange rate sustainability were dependent on adequate domestic wage behaviour in member countries. The EMS did little in itself to promote less inflationary wage behaviour (De Grauwe et al. 1996). As for the behaviour of wage setters, the premises of "tying one's hands" through an external peg did not hold. As Reimut Jochimsen, a past member of the Bundesbank Council, put it from a German point of view:

"Fixing exchange rates without having earned stability on the domestic side does not work. It will only work if the long-term stability of money shapes expectations of wage setters. Collective wage bargaining fostering responsible behaviour and other labour market frameworks, starting from the basis of a stability consensus, will be crucial."⁵⁴

Economists have pointed out that wage-push inflation intrinsic in certain wage bargaining structures is not the only relevant factor for price stability and exchange rate stability in a fixed exchange rate system like the ERM. Factors like capacity utilisation, exchange rate adjustments (devaluation effect), government tax and spending policies, international price developments are also important. Finally, wage-push inflation will be strongly related to national employment rates (Artis & Kontolemis 1996: 77-78; Herr 1997: 124-5). Nevertheless, labour market institutions are a critical factor not only in delivering the

⁵³ This has been emphasised in respect to exchange rate stability by both economists from the neo-classical side (see: De Grauwe et al. 1996; Artis & Ormerod 1994) and the Post-Keynesian side (Flassbeck 1994; Herr 1997). Both Flassbeck and Artis & Ormerod emphasise the link between national pay bargaining levels and labour market structures. There exists consensus that wage increases above productivity increases undermine the Balance of Payments position of a country, with destabilising effects on the external value of the currency. For a good discussion of the importance of labour market behaviour for economic performance in EU countries aspiring to form monetary union, see: Ishikawa (1999).

structural underpinnings of low inflation, but also in facilitating flexible downward adjustment of wages and prices.

4.3.2.1. Wage Bargaining Structures in Britain, France and Germany

The behaviour of wage setters was important for the performance of Germany, France and Britain during the ERM crisis. The problem for Germany was excessive wage inflation after reunification, affecting the anchor currency status of the Bundesbank, whereas for Britain and France the issue was the manner in which wages responded to persistent disinflationary pressure, influencing the unemployment costs of defending the peg.

The central argument on the importance of wage bargaining structures for low inflation goes back to Calmfors and Driffill (1988). It asserts that given sufficiently encompassing wage setting mechanisms in co-ordinated and centralised wage bargaining systems, unions will be aware that their agreements have an affect on aggregate prices. If the central bank is non-accommodating, co-ordinated wage setters will have an incentive to moderate nominal wage increases, resulting in overall improved macroeconomic performance, including employment. In un-coordinated, fragmented wage bargaining systems on the other hand, where the overall macroeconomic outcome of individual settlements is uncertain, and unions are competing with each other, each individual wage

⁵⁴ "Germany and Europe in Transition: The Task for Economic and Social Policy". Public Lecture, European Institute, London School of Economics, 14 October 1998. See also: Jochimsen (1994).

setter will demand a wage increment that will be inflationary in the aggregate (Carlin &Soskice 1990; Soskice & Iverson 2000; Franzese & Hall 2000).⁵⁵

Various political economists have built on this basic axiom, coming up with a range of variations, centred on the interaction between central bank monetary policy and the institutional shape of the wage bargaining system.⁵⁶ The key assertion is that comprehensive, coordinated wage bargaining systems, whether comprising whole industrial sectors, as in Germany, or organised encompassing the whole economy, can potentially be highly sensitive to signals from the central bank, since these systems resolve collective action problems inherent in a fragmented militant wage bargaining structure. Comprehensive systems allow for strategic behaviour of social partners, who can take the overall effect of wage settlements on inflation, as well as the expected reaction by the central bank, into consideration (Hall 1997; Franzese & Hall 2000: 177-180).⁵⁷ Decentralised wage bargaining systems, on the other hand, will be supportive of non-accommodating monetary policies only if competing unions will be too weak to push through wage increments. This would be the case in a market-liberal regime combining non-accommodating monetary policy with commodifying social/employment policies (Iversen 2000: 216).

⁵⁵ An early political economy recognition of the importance of coordinated wage bargaining for low inflation is Cameron (1984). For a review of the literature, see Ishikawa (1999: 107-8).
⁵⁶ For a good overview of the argument, see Iversen et al. (2000).

⁵⁷ The effectiveness of wage bargaining systems to contribute to low inflation is not just a question of the centralisation of union structures, but also of the comprehensiveness of employer confederations (Hall & Franzese 1998: 509-10).

Iversen refines this model by maintaining that in a highly centralised wage bargaining structure of the social-democratic type, the capacity of unions to support conservative monetary policy might be jeopardised by an excessive need for internal compromises within the centralised organisation, leading to "wage drift" (2000: 207-8). As a consequence he prefers intermediately centralised systems such as the German sectoral bargaining structure.

The paradigm has been further supplemented by the addition of sectoral preferences of unions and the political orientation of government. As mentioned above, employees and employers in the non-tradables sectors have little interest in maintaining low inflation and exchange rate stability, compared to those in the tradable sector, exposed to international competition, regardless of the wage bargaining structure. Low inflation behaviour can be least expected from the non-traded public sector, where unions can rely on a de facto job guarantee by the state, regardless of the contractory monetary response of the central bank to excessive wage increases. Consequently Garrett and Way conclude "that encompassing labour movements are only associated with desirable macroeconomic effects cases when public-sector unions are weak" (2000: 288).

According to Garrett (1998), the efficacy of labour market regimes to improve macroeconomic outcomes is also a function of its interaction with the political orientation of government. He argues that encompassing labour market institutions will only make use of their capacity to contribute to economic stability, if left-wing or Christian Democratic parties are in government. Associated with the welfare state, they promise to be redistributive and mitigate the uncertainties of globalised capitalism for workers. Comprehensive unions, confronted with right wing governments, can, on the other hand, use their capability in a highly destabilising fashion. Against this background Garrett speaks of "coherent political economies" where

"...politically powerful left-wing governments are allied with encompassing labor market institutions and where right-wing dominance is coupled with very weak institutions in the labor market" (1998: 49).

Other permutations are considered to result in political instability and inefficiency. Garrett qualifies his argument on the efficiency of the corporatist government-labour constellation, by admitting that social-democratic corporatist regimes under-performed when it came to inflation, the macroeconomic aspect most critical for the economic sustainability of a strong currency commitment (1998: 126). Nevertheless he suggests that rational financial markets should recognise the overall advantages of such regimes, concluding that "...there is no good a priori reason to think that mobile asset holders will choose to exit from social democratic corporatist regimes" (1998: 9).

Britain

The British system, characterised by un-coordinated wage bargaining, comes close to representing one of the two ideal-types described by Garrett, combining a right-wing government with very weak institutions in the labour market. Traditionally, industrial relations in Britain have been voluntary, with the state playing a limited role, leaving employers and trade unions free to decide on whether and how to enter into a mutual relationship to negotiate wages and employment conditions (Ozaki 1999: 68).

In the 1990s, collective bargaining structures in Britain had become highly decentralised, with settlements at the individual company/establishment level predominating. Trade union rights had been weakened by the policies of successive conservative governments since the early 1980s, abolishing institutional structures aimed at facilitating central tripartite negotiations and consultations among the government, employers and employees. Furthermore, due to the fragmented structure of organised labour, coordination among unions was weak (Hall 1986, Ch. 5). The British union confederation, the Trade Union Congress, does not deal with wage issues. As a result, unions had little leverage left to disrupt the monetary policy strategy of the conservative administration through labour unrest. However, despite the reforms, wage push inflation had not been fully brought under control. Chart 2.9 shows that in the first half of the 1990s wage increases, although moving in line with rising German wages, were high in comparison to France, failing to mitigate the nominal appreciation of sterling in this period.

- France

In contrast to Britain, France in the early 1990s displayed non-inflationary wage performance consistent with the ERM peg, demonstrating the success of competitive disinflation in this area. As Artus and Salomon claim, this success was owed not to the external constraints set by ERM membership but to domestic reforms of the wage bargaining structure (Artus & Salomon 1996; Iverson & Pontusson 2000). French trade unions were fragmented along ideological, political, religious and professional lines, with little coordination between several competing trade union confederations.⁵⁸ In the 1980s

⁵⁸ For an overview of French trade union organisations, see Josselin (2001: 60-1)

and 1990s industrial relations between unions and employers in France were conflictual, with inefficient collective bargaining, and the possibility of disruptive strikes in particular in the public sector. Though sectoral level collective bargaining was still prevalent in the early 1990s, a considerable shift towards bargaining at the firm level had taken place since the mid-1980s.

As Ishikawa describes, the reformist elites in the administration planned to remodel labour market institutions in order to facilitate German style consensual collective bargaining by improving the bargaining position of trade unions at the firm level, in face of a fragmented trade union structure at the national level (1999: 60). Paradoxically the reforms failed to create German-style trade union power at firm level, but rather eroded union power in sector wide bargaining.⁵⁹ According to Ishikawa, the crucial law, the *Loi Auroux*, "...resulted in a rapid increase in firm agreements to improve efficiency and undercut sectoral wage bargaining. ... [it] restored the power of the *patronat* under conditions of greater flexibility" (1999: 61). On top of this, a considerable number of employees in small and medium enterprises were not covered at all by collective bargaining.

Within these structures, labour unions, although militant, were ineffective in pushing through significant wage increases, due to the low unionisation among employees, the weakness vis-à-vis employer organisations and the fragmented nature of organised labour

⁵⁹ For details, see Boyer (1994: 63)

in France.⁶⁰ Overall, moderate wage increases in the late 1980s and early 1990s made a major contribution to the sustainability of the *franc fort*, with the recessionary climate of 1992/93 preventing union militancy from turning to disruptive industrial action. Only militant sections of unionised labour in the public sector occasionally challenged the economic policies of government, creating the potential for significant disruption after the election of a conservative administration in spring 1993. However, since it was not the public sector which had to bear the brunt of the adjustment costs of the *franc fort* strategy, awareness of the wider structural weakness of French organised labour should have reassured financial markets about the policy's sustainability.

Germany

The German wage bargaining system has been portrayed as an ideal-type of a comprehensive sectoral wage bargaining structure which combines with an independent central bank to facilitate internal and external monetary stability.⁶¹ Unions are organised by 17 industrial sectors, under all-encompassing union confederation, the *Deutscher Gewerkschaftsbund* (DGB). They engage in consensus-oriented collective bargaining with corresponding sectoral employers' organisations in a sophisticated rule-based system of annual wage rounds. Consensus seeking is further supported by elected work

⁶⁰ Trade union density in France is among the lowest in OECD countries. However, low union density as an indicator for low union influence has to be treated carefully. Union density in 1995 was 9.1% in France, 28.9% in Germany and 32.9% in Britain (Source: ILO 1997), but industrial relations experts agree that the influence of unions on wage bargaining and economic decision-making is highest in Germany (see Ishikawa 1999).

⁶¹ See Franzese & Hall (2000:180-3). Recently, even in Germany comprehensive wage bargaining at the sectoral level is on the defensive. Increasingly, collective agreements often include "open clause" that allow for modifying firm level agreements to suit the particular conditions of individual companies. Significantly, these developments were partly triggered after the 1993 crisis, when sectoral bargaining extended to east Germany had proved to be inefficient and inflationary.

councils at plant level, and co-determination of labour in company decision-making through union representation on the supervisory board of large firms.

The German comprehensive collective bargaining system seems particularly well suited to respond to the non-accommodating monetary signals by the Bundesbank due to the central coordinating role of consensual bargaining in the key electrical and engineering manufacturing sectors. The wage increases negotiated in this sector between the powerful IG Metall, the metal workers union, and Gesamtmetall, the sectoral employers association, serve as the benchmark for other sectoral agreements. Not only is the IG Metall aware of the potentially inflationary consequences of its settlements, which are generalised throughout the economy, but, representing Germany's manufacturing export sector, it is also strongly concerned about maintaining unit labour costs at internationally competitive levels. As Franzese and Hall put it, the actors in the key sectors of the German wage bargaining structure are "especially sensitive to signals from the central bank, because the restrictive monetary policies that the bank wields not only depress the level of economic activity but also tend to appreciate the exchange rate" (2000: 183). Given its critical role delivering wage moderation, the IG Metal has been described as Germany's "social Bundesbank" (Incomes Data Services 1996: 123).

However, immediately after reunification, Germany's collective bargaining system went through a phase of exceptional turmoil, exerting the strength and efficacy of the comprehensive system to push through excessive wage demands. Responding to the massive boost of the east and west German economy through federal deficit spending, trade unions, in collaboration with employers' organisations, demanded wage equalisation in east Germany and achieved substantial wage increases in west Germany, with the inflationary consequences damaging external competitiveness.

As Flassbeck (1994), Tullio et al. (1996) and Soskice (2000) have pointed out, the exceptional temporary breakdown of non-inflationary wage coordination following reunification was one of the key reasons for the savage deflation unleashed by the Bundesbank. With coordinated wage bargaining temporarily turning into a bilateral monopoly of employers and employees organisations to agree excessive pay increases, the central bank found itself largely powerless to restore price stability. As a result, Germany in 1992/93 actually represented the worst case scenario for wage bargaining structures, with powerful trade unions using a well-organised, comprehensive bargaining system to take part in what was a general shift towards inflationary behaviour by private economic actors, encouraged by irresponsible government deficit spending. In such a scenario one would expect financial market agents to invest resources in assessing whether Germany's labour market structure was undergoing permanent change.

4.3.2.2. Labour Market Flexibility

Following the Mundell-Fleming model, a commitment to currency stability means the loss of monetary policy autonomy and the exchange rate as an adjustment mechanism. In such a situation, speedy and smooth adjustment in the labour markets, through labour market flexibility, is critical to allow for a quick reduction of unemployment and return to growth. Labour market experts distinguish between several types of labour market flexibility. In respect to keeping the cost of disinflation at a minimum, two types of flexibility matter: labour cost flexibility and numerical flexibility.⁶² Labour cost flexibility comprises wage and non-wage cost flexibility. Numerical flexibility refers to the adjustment of the number of employees or of hours worked.

In 1992/93 cost flexibility was important for Germany, since it would have promised a quick response by wage setters to rising unemployment caused by disinflationary Bundesbank monetary policies. Cost flexibility was also relevant for the sustainability of the ERM pegs of Britain and France, since both countries needed speedy downward adjustment of wages to stay competitive as their exchange rates appreciated against non-ERM currencies.

For the ERM in 1992/93 the picture is more complex as regards numerical flexibility. On the one hand a numerically inflexible labour market would have been advantageous to all three countries investigated in coping with contractive monetary policies, since in the short-run this would reduce the unemployment costs of disinflation. In the long run, however, a lack of numerical flexibility would aggravate the problems encountered by business in restoring profitability in a downturn, thus delaying a return to growth. In the context of the threat posed by rising unemployment to the immediate political sustainability of the strong currency strategy in France, Britain, and even Germany, numerical inflexibility was probably of greater direct importance for market credibility. The degree of flexibility in both areas is affected by national labour market regulations of

⁶² The third important type, functional flexibility, refers to the adaptability of the labour force to new tasks, restructuring and technological change. This further explanation of this classification see: Atkinson (1987), Wood (1989) and Lagos (1994). For a discussion of labour market flexibility, see Streeck (1987), Sengenberger (1990) and Auer (1991).

wages, working hours and employment protection against redundancy etc., i.e. the respective labour market regimes of Britain, France and Germany.

Cost Flexibility

By examining the responsiveness of real wages to changes in output and productivity between 1962 and 1996, Ishikawa (1999) found that aggregate wage flexibility is highest in Germany, followed by France and then Britain. However, given the temporary breakdown of the country's efficient comprehensive wage bargaining system after reunification, Germany's cost flexibility was exceptionally low in 1992/93, which was reflected in excessive wage-push inflation. France's comparatively good record is explained by the weak wage bargaining structure described above. The poor record of UK cost flexibility demonstrates that the Thatcherite reforms had only succeeded in increasing numerical flexibility, failing to significantly increase the responsiveness of wage setters to an economic downturn. According to Johnson (1994), due to insufficiently flexible labour market structures, the costs of the disinflation necessary to make up for an overvalued exchange rate was made worse by an insufficiently rapid fall in pay settlements to restore competitiveness

Numerical Flexibility

According to Ishikawa (1999: 251-61), a good indicator for the numerical flexibility of national labour market structures is the manner in which employment protection laws (EPLs) influence hiring and firing behaviour of firms. These laws set out rules governing unfair dismissal, layoffs, severance payments, minimum notice periods, administrative authorisation for dismissals and prior discussion with labour representatives. Table 4.4

indicates the numerical flexibility of labour markets in Britain, France and Germany by

ranking these countries according to constraints imposed by their EPLs.

 Table 4.4:

 Britain, France, Germany: Numerical labour market flexibility⁶³

 (Ranking by Strictness of EPLs)

Source	OECD (1994)	IOE (1985)	Bertola (1990)	EC Ad Hoc Survey (1995)	Total
Britain	0.3	0.5	1.2	1.5	3.5
France	2	2.5	2.4	2.4	9.3
Germany	2.3	2.5	1.8	2.3	8.9

Source: Ishikawa 1999:261

According to this table, numerical labour market rigidity is very high for France and Germany, in contrast to the very flexible structures of Britain. The four sources investigated by Ishikawa agree that these differences are due mainly to the much tougher restrictions on dismissal, combined with higher compensation requirements, in Germany and France, resulting in a significant lower job turnover for these two countries. In 1992/92 the evidence on both forms of labour market flexibility should have revealed to informed analysts that France was best positioned to sustain the strong currency option, with high cost flexibility and low numerical flexibility. Germany takes a middle position, with equally 'good' low numerical flexibility, but exceptionally poor cost flexibility. Britain scores worst, with poor cost flexibility and high numerical flexibility, leaving it ill-equipped to contain the real appreciation of sterling, while having at the same time to cope with rapid increases in unemployment (see Chart 2.8).

⁶³ The table presents the evaluation of the rigidity of EPLs by four key sources. In order to compare the different rankings, they have been re-adjusted on a scale from 0 (insignificant constraints), 1 (minor constraints), 2 (serious constraints), to 3 (fundamental constraints). Column 5 presents the simple sum of the ranking numbers, to indicate the relative degree of employment protection in the three countries.

4.3.3. Political Structures

The importance of political structures, that is, the institutional structure of government, is of central interest to comparative and rationalist IPE, since it is ultimately the government's willingness and ability to maintain a strong currency commitment which matters for exchange rate stability. According to the widely accepted political business cycle argument, in democracies office–seeking politicians interested in electoral advantages will always be prone to short-term opportunistic manipulation of short-term macroeconomic outcomes. This causes the risks to long-term economic stability and therefore the foundations for a sustainable strong currency commitment.⁶⁴ Opportunistic short-term stimulation can be monetary or fiscal, risking economic overheating, which will result in internal and external imbalances and instability.

The relationship between government and central bank is critical in this context. The ability and willingness of government to undermine exchange rate stability through short-term monetary policy stimulation depends firstly on whether the government has committed itself to fixed exchange rates, and secondly on its control or influence over the central bank, i.e. the degree of CBI (Grilli et al. 1991). As for fiscal expansion, according to the Mundell-Fleming model, in open economies fiscal stimulation will be particularly problematic for the sustainability of fixed exchange rate commitments, since it entails additional monetary expansion to maintain exchange rate stability. Furthermore, escalating fiscal deficits will make the government inclined to lean on the central bank to

lower interest rates in an attempt to reduce the debt service and, through inflation, the real value of the principal. As such, fiscal laxity, endangering price stability, would result in pressure on the currency.⁶⁵ Even if a strong, independent central bank policy refuses monetary expansion and fights fiscal laxity through monetary tightening, a strong currency commitment might become politically unsustainable given the disinflationary costs of a stand off between government and central bank (Posen 1998). Consequently the interest and institutional constraints and incentives faced by politicians in connection with opportunistic macroeconomic intervention, matter for sustainability and should matter for market credibility.

The degree to which politicians are susceptible to short-term vote-seeking behaviour depends on their partisan orientation and the institutional conditions of government. In the framework of the short-run Phillips curve, left-wing parties in government are more likely to use inflation to create employment than right-wing governments, especially before elections.⁶⁶ Partisan issues are seen to be particularly relevant in the run-up to elections, when the risk of vote-seeking reflation is naturally at its highest. It is of importance whether the expected new government will be more left wing or intends to regain national monetary policy making autonomy.⁶⁷ According to Leblang and Bernhard (2000) the probability of a speculative attack by currency traders increases not simply

⁶⁴ See Hall 1997: 178-80. For a good review of the political business cycle literature see: Clark et al. (1998) and Clark & Hallerberg (2000).

⁶⁵ This has been pointed out by Gros & Thygesen to explain the need for including a three percent upper limit on budget deficits in the Maastricht convergence criteria (1998: 327-328).

⁶⁶ Milner (1997: 49). Simmons finds this distinction confirmed by her analysis of exchange rate stability during the inter-war period (Simmons 1994).

⁶⁷ Milner distinguishes here between domestically orientated "hawkish", and more international cooperative "dovish" governments (1997: 37).

with the prospect of a cabinet change, but also with uncertainty over political instability, election dates and outcomes.⁶⁸ Institutional aspects matter in so far as political systems with exogenous election timing, i.e. legally fixed election dates, are supposed to be more at risk of short-term manipulation of the economy by politicians than systems with endogenous election timing, where politicians can pick the peak of the business cycle for elections, without the need for manipulation (Bernhard & Leblang 1999).

Once in office, a government's weakness or instability is important for the sustainability of monetary commitments from a domestic institutional point of view (Grilli et al. 1991; Simmons 1994). Critical is the legislature-executive relationship, that is, whether a government is unified or divided (Milner 1997). According to Milner, different constitutional arrangements will produce different outcomes, with united governments better placed to implement the measures necessary to defend a strong currency commitment than divided governments, which are weakened by the need for compromise and possible splits and instability.

Generally speaking, divided governments are considered to be less likely in majoritarian single chamber parliamentary systems. A strong government elected by the one party that has won in general elections in what is de facto a two party system, unconstrained by the veto power of a second chamber, seems to be ideal here. Government in a presidential system would be similarly unified, provided the president, concentrating executive power in his hands, and the majority in the legislature come from the same party. But this

⁶⁸ Political instability as a major obstacle to sound economic policies and the maintenance of strong currency commitments has also been identified by Grilli et al. (1991) and Simmons (1994).

outcome is by no means guaranteed, given that in presidential systems president and legislature are elected separately, with the possibility of divided government. Finally, governments in parliamentarian proportional systems, which have to rely on multi-party coalitions built around the need for political compromises, tend to be weak or instable. Such governments can be divided internally between coalition partners, in addition to a possible division between government and the legislature in the case of minority governments or if the opposition dominates the upper house. A further source of weakness in these systems is the possibility of fragmentation and extremism in the multiparty spectrum represented in parliament.⁶⁹

But this parsimonious model has been criticised for its limited usefulness as ideal type. Firstly, the superiority of one-chamber systems in delivering on strong currency commitments has been questioned. MacIntyre (2001) points out the importance of veto power in preventing an overbearing executive from sudden opportunistic policy shifts. This argument is supported in respect to strong CBI by Keefer & Stasavage (2000), Lohmann (1998) and Posen (1993), who suggest that the embeddedness of an independent central bank in a federalist system, with states represented in the second chamber, protects and insulates the central bank from political pressure by central government. Furthermore, the superiority of majoritarian systems over parliamentarian proportional systems has itself come under scrutiny: single party governments may be more likely to shift to accommodating monetary policy than incoherent multiparty coalitions, since voters will be able to clearly allocate responsibility for disinflation to the

⁶⁹ This argument has been put forward by Haggard & McCubbins (2001); Hall (1997); Milner (1997); Simmons (1994); Grilli et al. (1991).

ruling party (Mosley 2000). Proportional representational systems are also seen as more amenable to exchange rate commitments, since they provide a focal point for coalition building, and the costs of electoral defeat are lower for individual parties (Bernhard & Leblang 1999). Finally, as Milner points out, majoritarian governments face the possibility of division, not because they rely on multiparty backing, but because they depend on party discipline within the majority party (1997: 41-2).

The overall picture demonstrates the difficulty of consolidating the views of rational political economy into an ideal typical model. Causal pathways for decision-making in financial markets appear to be multiple and potentially unstable when it comes to government structures as institutional determinants of currency credibility. Distinct government systems have their respective advantages, if they come in the right configuration. A consensual coalition government, backed by a well functioning parliamentarian two chamber system, with checks on party fragmentation, should be as well positioned to defend a strong currency commitment as a committed single chamber majoritarian parliamentarian government or presidential system. Whereas the former type probably has more to offer in terms of the wider social embeddedness of the monetary commitment, the latter has advantages as to sheer strength and stability, when it comes to sustaining such a commitment in hard times. How do the three country cases shape up against this backdrop?⁷⁰

The following summary is based on these authors.

Britain

The United Kingdom is a constitutional monarchy with a bicameral parliament: the House of Commons (659 seats), elected by majority voting to serve five years with the possibility of earlier elections under endogenous election timing, and the House of Lords, comprising non-hereditary and hereditary peers (CIA 2000). In the early 1990s Britain represented a rare case of a highly unitary state, with a single domestic source of power in Westminster. Not only was power centralised in the hands of the national executive, with no voice for the regions, the executive was also dominating the legislature, due the majoritarian two-party system in the lower house, and an upper house without any relevant veto powers.⁷¹ The result was de facto a majoritarian single chamber system (Dunleavy 1997; Hall 1986).

This system allows for what Dunleavy described as "a potential concentration of executive power unparalleled in any other liberal democracy" (1997: 130). He lists a range of key components of this highly centralised Westminster system: first, the permanent duopoly of power over parliament by government and opposition leadership, through an effective whips system, to maintain party discipline; second, the large freedom for executive action by government from checks by the legislature; third, strong central government's control over all subordinate agencies and local governments; fourth, extensive protections from judicial interference; and fifth, the capacity of the two main party elites to rearrange any aspect of an unwritten constitutional order.

⁷⁰ The following review of constitutional systems in the UK, France, and Germany draws on information from Keesing's Record of World Events, and CIA (2000).

⁷¹ After 1997 the new Labour government proceeded with devolution of power to Scotland and Wales.

This constitutional setting allows British politics to be run by a close-knit "core executive", comprising a small number of cabinet members and top civil servants, with the Cabinet Office, the Treasury, and the Foreign and Commonwealth Office the key ministries (Hood &James 1997). Although in the early 1990s the two main parties appeared polarised, with the Labour Party strongly associated with the trade union movement and the Conservative Party seen to be the party of business and City interests (Hall 1986: 64-5), the "club ethos" permeating the Westminster system resulted in a convergence of views especially on international economic policy objectives (Dunleavy 1996).

An example of this is the long term mutual concern of both Conservative and Labour administrations for the defence of the pound, drawing attention and resources away from domestic problems (Hall 1986:58). This consensus was reflected in the general bipartisan support for ERM membership. The Conservative administration, who had ruled with a comfortable majority of 41 in the 659 seat House of Commons was returned to office in the general elections of April 1992, but with a majority reduced to only 21. With this slim majority, Prime Minister John Major faced the problem of party discipline typical of majoritarian systems, in particular with respect to the highly divisive ratification of the Maastricht Treaty (Milner 1997: 233).

France

The Fifth Republic is a highly centralised presidential democracy with a bicameral parliamentary system.⁷² Absolute majority elects the President for a seven year term. He

⁷² On the tentative steps to distribute power from Paris to the provinces, see Mazey (1994).

appoints the Prime Minister, who is responsible to parliament. The Lower House, the National Assembly, has 577 seats; its members are elected by direct popular vote under a single-member majoritarian system, for a five-year term. In the upper house, the Senate, one-third of the seats are renewed every three years by indirect elections, through a mix of majority and proportional voting systems (CIA 2000). The French constitution thus defines what Milner dubbed a "semi-presidential system", with a popularly elected president and a cabinet run by a prime minister and dependent on the confidence of the national assembly creating two representative agents of the electorate. When the parliamentary majority represents the same party as the president, the system can provide for strong, unified government. If they are from different parties, divided government, know as *cohabitation*, can result in intense conflict between the President and the Prime Minister (Milner 1997: 38).

According to Machin, during the presidencies of François Mitterrand in the 1980s and 1990s, unified government was characterised by a shared leadership pattern with the Prime Minister as the key domestic figure, and the President leading in foreign and defence policy. Periods of *cohabitation*, on the other hand, "involved continual competitive coexistence, often at the risk of public conflict" (Machin 1994: 107). Nevertheless, on the project of furthering the *construction européenne*, which had gained hegemonic status in the French elites during the 1980s, President and Prime Minister cooperated closely, even during periods of *cohabitation*.

This was particularly visible in respect of the ERM and EMU during the early 1990s. From 1988 until the parliamentary elections of March 1993, François Mitterrand had presided over a unified minority, Socialist Party government. After the devastating election defeat of the scandal-ridden Socialist Party, the Gaullist *Rassemblement du Peuple* (RPR) and the centre right *Union pour la Démocratie Française* (UDF) held nearly three quarters of the seats in the National Assembly, and Mitterrand had to govern in *cohabitation* with a RPR-UDF government led by Prime Minister Edouard Balladur. The scale of the socialist defeat left the President isolated and forced him to adopt a consensual style of *cohabitation coopérative*, with the prime minister clearly in control of the levers of power (Machin & Guyomarch 1994: 321). Consensus was particularly strong on the necessity to sustain the *franc fort* within the ERM, continuing the unified stance against devaluation as part of the strategy of competitive disinflation adopted by both the right and the left in the mid 1980s.⁷³

The weak position of parliament in France's presidential system contributed to executivebureaucratic power being an essential feature of the political structure. Peter Hall speaks here of France as *dirigiste* state, organised towards orchestrating the modernisation of the French economy through economic planning (Hall 1994). This *étatisme* of the French system sets state power to some extent apart from party politics, by establishing the state apparatus as an independent agency (Hall 1986: 164-71). At the heart of this relative independence lies the highly coherent and stable administration shaping and implementing key policies. With the higher civil service the reserve of an elite shaped by the Ecole Nationale d'Administration (ENA), the administrative system was governed by

⁷³ See Le Cacheux (1995).

a small set of grands corps at the heart of key ministries, above all the Ministry of Finance, with its Inspection des Finances (Suleiman 1995; Hall 1994).

In the 1980s this cohesive politico-administrative elite had been won over by neo-liberal prescriptions and the primacy of European monetary integration. Within the thinking of the *grands corps* elite, the *franc fort* project had taken on hegemonic position (Josselin 2001). The *Trésor* and the Finance Inspectorate were convinced that a strong franc was necessary not only for economic reasons, but also in the national interest of France to advance the *construction européenne*. As a result the government could rely on the determination of a highly organised bureaucracy to defend the strong currency commitment, shielding it from social pressure, with the prestige and career of civil servants tied in with the government's external monetary strategy.⁷⁴ The long term goal of the dirigiste state helped the government to resist short term electoral cycle temptations.

A source of weakness in the French system is that the impressive coherence of the elitist French national political structure lies in contrasts with growing legitimacy problems of this system and its economic policies in the wider society. This was especially true in the early 1990s, when the social costs of disinflation put the social consensus backing the government under severe strain. The result was increasing popularity for the extreme left Communist Party and the extreme right National Front, with significant representation of the Communists in parliament, despite the majoritarian election system.⁷⁵

⁷⁴ See Dyson & Featherstone (1999), and Suleiman (1995).

⁷⁵ See Machin & Guyomarch (1994: 19).

The continuous appeal of extremist parties to the French electorate led Grilli et al. to the conclusion that political stability in France was weak in comparison to Germany and Britain (Grilli et al. 1991: 353-4). Furthermore, splits appeared in the centre parties as well, with the *franc fort* policy strongly criticised by both the socialist left and the Gaullist right (Loriaux 1997a: 150). But, as Yves Mény explains, this moral crisis in the party system in the early 1990s might actually have strengthened the authority of the President over a people searching for authoritarian leadership (1995: 193).

Germany

The Chancellor, elected by the Federal Assembly, leads Germany's cabinet. The bicameral legislature consists of the Bundestag (Federal Assembly: Lower House) and the Bundesrat (Federal Council: upper chamber), comprising representatives of the 16 federal state governments. The Bundestag, with usually 656 seats, is elected for a fixed four-year term by popular vote under a system combining direct and proportional representation. Each party must win at least 5% of the national vote or three direct mandates to gain representation. Key legislation can be reviewed by the Federal Constitutional Court, the Bundesverfassungsgericht, with half the judges elected by the Bundestag and half by the Bundestat (CIA 2000).

The complex structure of Germany's political system seems to present a case of divided or even fragmented government.⁷⁶ But the reality of German politics, especially economic policy making, displays a remarkable degree of stability and continuity. This is

⁷⁶ See e.g. Kaltenthaler (1998) for this point of view.

explained by the multilayered interaction between political and societal actors in an interrelated network of institutions. The institutional system of government is characterised by a complex set of checks and balances. According to Glaessner, the system combines a horizontal separation of power between executive, legislature and judiciary, with a vertical separation of powers between the federal, the state and the local authorities (1996: 18). The power of the executive, with the Chancellor at its centre deciding the broader policy framework, is constrained not only by a bicameral legislature, but also by the veto power of the Constitutional Court over legislation and the independent Bundesbank.⁷⁷

In respect of the legislature–executive relationship, effective strong government needs the backing not only from a multiparty Bundestag, but also from the federal states represented in the upper house. Sturm speaks here of "multiparty government compounded by multilevel government" (1996: 118).⁷⁸ As a consequence unified government has been the exception in the history of the Federal Republic, with governments backed as a rule by multiparty coalitions in parliament, often facing an opposition-dominated upper house. The German parliamentary system features a

⁷⁷ The Constitutional Court, embodying the strong legal component in German policy-making, can, like the Bundesbank, only sustain legitimacy if it acknowledges the wider social and political trends in its decision making (Goetz 1996:116).

⁷⁸ In addition most government functions are shared between the sate and the federal level. Exclusive federal administration exists only for the Foreign Office, Defence, and financial administration (Glaessner 1996).

complicated set of bodies, designed to produce political compromise through institutionalised bargaining.⁷⁹

The complex system of checks and balances, typical for Germany, shaped the Helmut Kohl administration from 1990 to 1994. The government was backed by a centre-right coalition of CDU (Christian Democrats) and FDP (Liberals) in parliament, and had to seek political consensus or compromise with an SPD (Social Democrats) dominated upper house. In addition, it had to face a revision of key legislation by the Constitutional Court, as demonstrated by the need to have the Maastricht Treaty approved by the court. Finally, although Germany, in contrast to Britain and France, did not have general elections scheduled for the 1992/93 period, the ruling coalition had to face three important regional elections during this time, in addition to a number of local elections.

This formally fragmented system, requiring persistent bargaining and compromise to bring about decisions, works only because it is backed by strong underlying coherence in the highly connected German political party and wider societal structure. With radical parties marginalised by the election system's five percent electoral threshold to qualify for parliamentary representation, German politics is dominated by the two big "People's Parties" SPD and CDU, which alternate periodically in government by forming coalitions with either the FDP, or more recently, the Green party. Not only does this comparatively small number of key parties minimise collective action problems, Germany also has a centripetal rather than a polarised party system because of what Smith describes as "cartel" democracy, with German parties acting more as agents of the state than for

⁷⁹ See Sturm (1996).

partisan interests (Smith 1996). This is particularly important when it comes to macroeconomic management, where all main parties have converged on the German 'stability culture', rooted in the concepts of German post-war 'ordo-liberalism', thus allowing for effective compromise in day-to-day politics.⁸⁰

Finally, the representation of key societal interest groups in the German political system of institutionally mediated compromise and consensus is critical. It is in the bargaining process between these organisations and political institutions that the foundations for political compromise are laid (Kaltenthaler 1998: 113-115). According to Padgett, Germany's organised interest groups

In respect of the German corporatist consensus underpinning the economic and especially monetary policy management in Germany, the key societal organisations are the peak associations of industry and finance, as well as the trade unions.⁸¹

In 1992/93 the weakness of this system lay in its inherent complexity. At least temporarily, it proved unable to cope with the political, economic and social shock of German reunification. Designed to reconcile competing partisan interests, it proved

[&]quot;...help to establish order among the myriad of private interest in society, weaving them into the broader fabric of the public interest. Effective systems of interest representation promote social cohesion, overcoming the clash of competing interests and resolving conflicts between the private and public sphere." (1996: 233)

⁸⁰ See Smyser (1993).

⁸¹ This are for industry the BDI (Confederation of German Industry) and the DIHT (German Chambers of Commerce), the BDB (Federation of German Banks) and the GSDS (Association for the Protection of the German Saver) for financial services, and for trade unions the DGB (German Trade Union Federation), plus the large sectoral trade unions. See Kaltenthaler (1998: Ch.2).

unable to come up with radical macroeconomic and structural adjustments to respond to this challenge. Dyson points at the power of "vested interests to veto radical change to the accumulated pattern of state support, of which they were beneficiaries", as a cause of "political blockage to fiscal and structural reforms" (1999: 229).

In 1993 this structural blockage of adjustment resulted in a period of stagflation, raising the possibility of a fundamental crisis in Germany's stability regime. On the one hand, the political system procrastinated on fiscal adjustment. On the other hand, the fragmented political system with checks in balances shielded the independent central bank from political pressure. This allowed the Bundesbank to maintain the "Schlingerkurs" between an overall anti-inflationary policy lacking broader societal support, and periodic ERM stabilisation in response to high politics until summer 1993.

4.4. Conclusion

It is difficult to interpret national interest-institution patterns against an ideal-typical institutional design for specific institutions, since in reality institutions constitute integral parts of specific types of national regimes in which they are embedded. Hollingsworth and Boyer describe this nexus as a "social system of production":

Using the classification put forward by Hancock (1991), in the 1980s Germany represented the 'social market –democratic corporatist' regime type, France still the 'étatist – centralist' type and Britain the 'regulated market – pluralist' type, being reshaped by Thatcherite

[&]quot;Institutions or structures of a country or region are integrated into a social configuration. ... While each of [the] components has some autonomy and may have some goals that are contradictory to the goals of other institutions with which it is integrated, an institutional logic in each society leads institutions to coalesce into a complex social configuration." (1997a: 2)

reforms towards market-liberalism.⁸² In 1992/93 Germany's system, distinguished by corporatist structures in the private sector, was facing a major regime crisis in the wake of reunification. For France, the features of the old dirigiste system where increasingly diluted by liberalisation and deregulation.

All three types of regime have specific advantages and disadvantages when it comes to their capacity to sustain a strong currency commitment, and in the case of Britain, Germany and France their specific capability depends on their historical evolution. A measurement of their key institutions against an ideal-type, in a strictly linear fashion, is thus of little use to gauge the credibility of the structural factors underpinning a currency commitment. As rationalist political economy admits, national institutions must be interpreted as interlocking parts of a complex system (Iversen & Pontusson 2000: 19).

Table 4.5 presents a comparative classification of the institutional features of Britain, France and Germany, grading the key domestic institutions for their capacity to underpin the time consistency of a strong currency commitment on a scale from +2 to -2. Overall institutional capacity of each country is then measured by simply adding up the grades for individual institutions. The problem with such measurement is that a grading of individual institutional features against an ideal type can only narrowly capture the capacity of complex institutional configurations in a specific historical situation. I have attempted to overcome this problem by giving two indicators for institutional capacity (Table 4.5).

⁸² This classification fits in with earlier regime type definitions by Zysman (1983), Katzenstein (1983), and Hall (1986), indicating stability over time.

Table 4.5: France, Germany, UK: The structural sustainability of a strong currency commitment

	Theoretical Ideal	Bri	tain	Fra	nce	Gerr	nany
Regime Type				•		•	
	No ideal type	Regulated market – pluralist regime		Étatist – centralist regime		Social market – democratic corporatis regime	
Financial Stru						•	
	Credit based financial system	Capital market based financial system		Mix of capital market and credit based financial system		Credit based financial system	
		Formal	Actual	Formal	Actual	Formal	Actual
Central Bank	CBI	(- 2)	- 2	(- 2)	±0	(+ 2)	+1
Financial System	Close bank- industry relations	(- 2)	- 2	(- 1)	+ 1	(+ 2)	+1
Monetary Transmission	No ideal type	-2 +2		- 1			
Labour Mark	et Structure						
	Centralised	Formal	Actual	Formal	Actual	Formal	Actual
Wage Bargaining System	co-operative wage bargaining, or decentralised un- coordinated fragmentation	(+ 2)	+2	(- 2)	- 2	(+ 2)	- 2
Labour Market Flexibility	No ideal type	-1		+1		±0	
Political Struc							
	ture						
		Formal	Actual	Formal	Actual	Formal	Actual
Government System	Centralised one chamber majoritarian parliamentary/ unified presidential system, or fragmented checks and balances plus CBI	Formal (+ 2)	Actual ±0	Formal (±0)	Actual + 1	Formal (+ 2)	Actual +1
Government	Centralised one chamber majoritarian parliamentary/ unified presidential system, or fragmented checks and balances plus						

 $\pm 0 = -1 = -2 = -2$ neutral bad very bad The first measures formal capacity as defined by the legal-organisational constitution of an institution against the ideal-typical design suggested by domestic structures approaches, including rationalist institutionalism. The second gives an adjusted measure for the actual institutional capacity in 1992/93 as embedded in the complex national institutional structure.⁸³

The results of the table indicate that, with regard to combining financial, labour market and government structures into a coherent regime supporting a strong currency, in 1992/93 France offered the most credible regime, German credibility was weakened but still intact, and Britain had the least credible institutional system. Differences between this result and the formal institutional capacity of the three countries, judged against the ideal-type, can be explained by differences in the actual status of the key institutions.

Firstly, in the ideal typical institutional design suggested by rationalist institutionalism, political and economic central bank independence should be supported by political checks and balances and a banking sector interested in a combination of low inflation and exchange rate stability. In this regard Germany would score top results, with France and the UK at the other end of the scale. But this picture has to be qualified for 1992/93, when the societal embeddedness looked fragile in the case of Germany, whereas in France moves were undertaken to grant the Banque of France independence and the banking sector was increasingly having a stake in the *franc fort* strategy. Only in the case of Britain did ideal-typical weakness and real weakness in regard to the willingness and ability of the Bank of

England to defend exchange rate stability overlap. Not only were the Bank's monetary policy decisions set out by government, it was also closely linked to the City of London, which had lost interest in the ERM.

As regards the broader financial structure, the ideal-typical model of domestic structures approaches seems to capture the reality of Germany and Britain, with Germany's credit based banking system and export orientated competitive industrial sector forming an ideal combination to back both low inflation and exchange rate stability. Meanwhile, the British split between a capital market based financial sector and industry was detrimental for domestic and external monetary instability. For France, the model has to be applied broadly, taking account of the fact that a weakening industry-finance relationship shielded the *franc fort* strategy from the pressures of firms accustomed to devaluations and inflationary financing. As for the structural determination of the monetary transmission mechanism, it is difficult to come up with an ideal type for pegged exchange rate regimes.

Whether a speedy monetary transmission is desirable depends on whether disinflation is pursued in response to domestic inflation by the leader and leads to excessive monetary tightening in follower countries. In 1992/93 Germany needed speedy adjustment in response to Bundesbank disinflation, and was hindered by structures resulting in a slow, although smooth adjustment mechanism. In the case of France, however, an equally slow and smooth transmission mechanism (although for different structural reasons) shielded the real economy from possible deflation. Britain was in the worst position, with its financial

⁸³ The first measure is given in parenthesis, since it is actual capacity which should matter for financial markets.

structures resulting in a quick and disruptive transmission mechanism amplifying the problems of following the Bundesbank monetary policies.

For wage bargaining structures the ideal models, derived from rationalist institutionalist political economy, only apply to the 1992/93 reality of Britain and France. In the case of Britain, representing the ideal of a fragmented wage bargaining system combined with commodifying market-liberal government policies by a conservative administration, the reality of 1992 matches ideal typical predictions. In the face of recession the regime delivered non-inflationary acquiescence from the labour force with monetary austerity, despite low labour market flexibility. In France, the ideal typical model is similarly confirmed by real outcomes. The country experienced dissent by sections of organised labour in response to the *franc fort* strategy, which did not allow even the socialist government to offer a trade-off between welfare spending and wage moderation. But, in line with rationalist institutionalist predictions, the weakness of union power inherent in the fragmented union structure made militant protest ineffective. High labour market flexibility combined with unemployment to keep wage increases low. For Germany, on the other hand, ideal-typical predictions and reality diverge. Combining a comprehensive co-ordinated wage bargaining system with a political system committed to the welfare state, the country represents a show-case for the second ideal-type of structures supporting wage moderation. But in the specific circumstances following German reunification, the comprehensive corporatist wage bargaining system turned from a structure supporting price stability into an engine pushing inflation, with the country experiencing an extraordinary phase of high upward wage flexibility.

As for the government structure, the ideal typical predictions derived from rationalist institutionalism hold only in part for the situation in 1992/93. The unified majoritarian single chamber party system, as represented by Britain, had ambiguous results with respect to strengthening the UK government's exchange rate commitment in 1992. On the one hand, this structure endowed Britain with a strong government with an impressive capacity to stick rigidly to its commitment in the face of deteriorating economic conditions. On the other hand, as the September 1992 episode demonstrated, the British governmental structure allowed the government to renege on its commitment in a sudden U-turn of strategy. As predicted by rationalist institutionalism, this had to do with internal divisions in the governing parliamentary party.

Federal Germany on the other hand, with its fragmented proportional parliamentarian system, was, according to the rationalist model, a clear case of weak government and should accordingly have lacked consistency when it came to defending its strong currency strategy. Although these predictions seem to have been borne out in 1992/93, the temporary weakness of the German governmental institutions was not owed to intrinsic structural divisions. The diverse governmental structures failed, not because the consensus seeking mechanisms which interlinked them had collapsed, but because the stability consensus was temporarily replaced by the broad acceptance by all political actors, that the integration of east Germany had to take priority over price and exchange rate stability.

Finally, in France, following rationalist institutionalism, the semi-presidential system gave the executive substantial power to give in to the temptations of the electoral cycle, especially in situations of unity between the president and the government. France's political system, from an ideal-typical point of view, was therefore badly positioned to deliver time consistency. However, in the reality of 1992/93, the unified socialist government sustained the *franc fort* in the run up to parliamentary elections, thereby contributing to its devastating defeat. In the following period of *cohabitation*, the new conservative government continued with this strategy despite internal divisions and the weakness of the president. This remarkable consistency is explained by institutional 'French exeptionalism': the power of the highly organised administrative bureaucracy in the French dirigiste system, committed to the *franc fort*.

Financial market participants, wishing to optimise their predictions of monetary policy outcomes during the ERM crisis by systematically taking domestic institutional capacity into account, would have faced a difficult task. Not only would this have required sophisticated and time-consuming analysis of individual national structures similar to that of rationalist institutionalism. Market participants would also have had to interpret this analysis to take account of the complex institutional interconnectedness characteristic of the British, German and French political economy. Furthermore, they would have had to adjust their interpretation to the specific socio-political situation in each country in 1992/93. Only then would information available on domestic structures have been analysed in an optimising fashion. As academic studies demonstrate, the systematic application of functional models of domestic structures to specific situations and countries demands a high degree of expertise and is time consuming. The following empirical chapters will investigate how decision-making in financial markets coped in practice with information about domestic institutions as variables influencing policy outcomes.

Chapter 5: Sterling during the ERM Crisis

5.1. Introduction

This chapter presents the first of three case studies of the 1992/93 ERM crisis, focusing on the crisis of pound sterling, which led to its withdrawal from the ERM on 16 September 1992. How did market sentiment towards sterling evolve over the 12-month period preceding "Black Wednesday" and how did domestic institutions affect it?

From a structural point of view the time inconsistency of the British commitment to defend parity within the ERM is not surprising. In Chapter Four I established that the structural sustainability of the British strong currency commitment was indeed weak. The Treasury and not the central bank de facto set monetary policy. Arms-length bank-industry relations meant that City finance had little deeper interest in exchange rate stability, whereas industry, although interested in external stability, was used to regaining cost competitiveness through sterling depreciations. Most importantly, Britain's highly centralised political structure gave the government relative autonomy not to undertake currency commitments, and also to break them if it was politically expedient. Such behaviour was especially likely in situations of small government majorities with possible backbench dissent, since the characteristics of the British monetary transmission mechanism made a decisive defence of the currency costly for the electorate. Overall, the British institutional regime thus displayed little coherence when it came to backing the ERM peg.

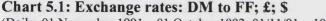
In this context what has to be explained is not so much the ultimate credibility crisis of sterling, but rather why the ERM peg suffered from a fully blown credibility crisis only as late as September 1992. The Chapter will conclude that this was due to a general neglect of

domestic structures by financial market participants, except for the politically highly sensitive credit structure. But even this structure was only taken into consideration unsystematically, in an ad hoc way triggered by policy-making decisions. Although acutely aware of the issue of political sustainability of the exchange rate commitment beyond narrow economic fundamentals sustainability, financial markets in general relied upon direct policy outcome indicators, such as official British and German interest rates, unemployment rates, GDP figures and opinion polls before the general election, to gauge this sustainability. These variables did little to reassure markets of the time consistency of the government's monetary policy strategy. To overcome uncertainty, market participants joined with government in strategic denial of the underlying fragility of the ERM stance, only to swing towards pessimism, triggered by events in the ERM and an indecisive domestic monetary policy response. Deteriorating international and domestic variables were then used as a short-cut to diagnose sustainability problems without deeper analysis of structural strains. Overall these conclusions confirm the "second generation" inconsistent policy model of exchange rate crises, but add a structural-institutional dimension to explain the "too late - too much" behaviour of international investors.

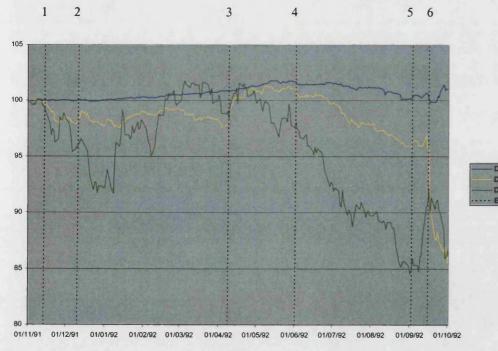
This chapter is organised in four sections: section two gives a brief review of the sterling crisis and its interpretation in the literature. Section three presents the findings of my qualitative analysis of the relative relevance of different factors in the formation of market sentiment, and section four concludes.

5.2. Sterling and the ERM Crisis

The crisis of sterling in the ERM has to be considered against the backdrop of a hard currency policy which, in contrast to that of France and Germany, was not strategic, but was the outcome of the pragmatic ad hoc tactical decision-making which had characterised British monetary policy since the end of the Bretton Woods. Critical for this lack of a long-term strategy was that key societal actors in Britain were by-and-large content with a policy of benign neglect towards sterling, displaying only periodic and then conflicting interest in a monetary policy targeting the exchange rate (see Stephens 1997; Henning 1994). Under these conditions of strategic weakness the government's commitment to the ERM paradoxically turned into dogma, with the actual defence of the exchange rate indecisive.



(Daily, 01 November 1991 - 01 October 1992; 01/11/91 = 100)



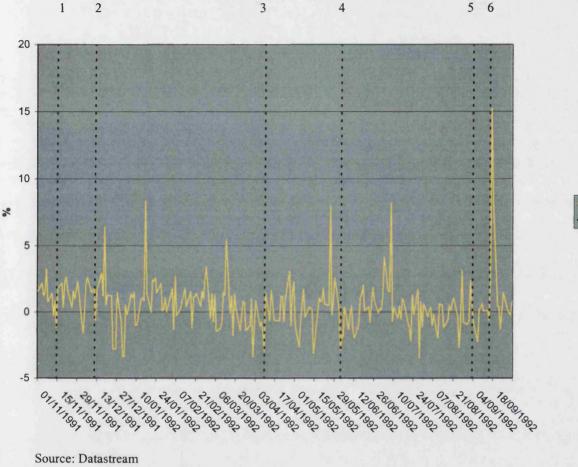
Source: Datastream

Events:

- 1: 14/11/91. Finnish Markka abandons peg to ECU
- 2: 11/12/91. Maastricht Treaty agreed.
- 3: 09/04/92. UK general elections.
- 4: 02/06/92. Danish referendum on EMU.
- 5: 03/09/92. ECU 10bn borrowing by Bank of England announced
- 6: 16/09/92. "Black Wednesday". UK leaves ERM.

Chart 5.2: Britain: short-term interest rates

(Daily; 01 November 1991 - 01 October 1992; differential with German rates)



Events:

- 1: 14/11/91. Finnish Markka abandons peg to ECU
- 2: 11/12/91. Maastricht Treaty agreed.
- 3: 09/04/92. UK general elections.
- 4: 02/06/92. Danish referendum on EMU.
- 5: 03/09/92. ECU 10bn borrowing by Bank of England announced
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5.2.1. Politics and the Pound in 1991/92

British membership of the ERM lasted from 8 October 1990 until 16 September 1992 ("Black Wednesday") when sterling was forced to quit the ERM by overwhelming speculative pressure from the foreign exchange markets.¹ Politically, this period represents the beginning of the end of a long period of majority government by the Conservative party which had lasted since 1979. Britain had entered the ERM with Margaret Thatcher as Prime Minister.

Short-i: £-DM

- - Events

¹ The following historical review is based on Philip Stephens' excellent history of the pound in the ERM (Stephens 1997) and the accounts of Connolly (1995), Grahl (1997), Dyson (1994), Leigh-Pemberton (1993).

After her resignation over the European strategy of the Conservative government in November 1990, John Major, who had taken sterling into the ERM as Chancellor of the Exchequer, took over as Prime Minister and managed to return the Tories to power for a fourth term in April 1992, in spite of the economic strains experienced by the country.

Economically, the period of British membership in the ERM was characterised by disinflation, with deepening recession, escalating budget deficits and rising unemployment.² Only after September 1992, when Britain was freed from the external constraint on its monetary policy autonomy by ERM membership, did economic growth set in and unemployment fall. The pound entered the ERM at a central rate of DM 2.95, and within the wider fluctuation band of $\pm -6\%$.

The following features stand out in this period: ERM entry was the outcome of narrow cabinet decision-making, ERM membership was more the result of a lack of alternatives than of a strategic policy shift, ERM policy was driven more by party political divisions and electoral concerns than interest group preferences, monetary policy autonomy was reluctantly and only partially surrendered to Bundesbank leadership and, finally, the ERM parity became a "badge of pride" for the government.

Britain entered the ERM after alternative monetary policy frameworks, such as monetarist money supply targeting in the early 1980s and shadowing the D-mark in the late 1980s, had been discredited, having contributed to the boom-bust cycles typical of British economic performance. Economically, the ERM was widely seen as the only option left to deal with the inflationary consequences of the "Lawson boom" of the late 1980s. Politically, the decision

² See Charts 2.7, 2.3, 2.8, and Appendix, Table 2.

to join represented a triumph of the European integrationist Foreign Office over the sceptical Prime Minister. This situation was reflected by the high central rate of DM 2.95 at which sterling joined. Although it exposed Britain to competitiveness problems, it was chosen because of its anti-inflationary impact and for reasons of national prestige, to appease eurosceptic concerns within the governing Conservative Party by entering the ERM from a position of strength, against the advice of the Bundesbank.

From the beginning, ERM policy was therefore shaped by narrow political manoeuvrings in the ruling party reflecting the structure of state-society relations in Britain, which gives the government a high degree of autonomy from societal influence. Throughout the period of membership the strategy chosen by the conservative government was characterised more by appeasing eurosceptic backbenchers and by electoral considerations than by economic interest groups (see Fioretos 2001: 228-9). Inner-party divisions became critical in particular after the conservative election victory in April 1992, which returned the government with a slim House of Commons majority of only 21 seats. Of particular concern for the new administration was the exposure of its core constituency, the home-owning middle classes with huge mortgage debt, to official interest increases in defence of the external value of the pound. This added to similar problems stemming from a highly leveraged corporate sector and strains within the banking system.

As a result the defence of the exchange rate commitment lacked consistency from the outset. Contrary to the practice of other ERM countries, the Bank of England under the control of the Treasury did not shadow Bundesbank monetary policy, but exploited whatever room the ERM constraint allowed for domestic monetary policy autonomy. It opted for an independent path of official interest rate cuts against the trend of Bundesbank rate increases until May 1992 and then left rates unchanged despite mounting ERM tensions, relying on intervention to defend sterling. The bank rate was only increased on "Black Wednesday", too late to prevent sterling being forced out of the ERM (see Chart 2.2). The Major government tried to make up for this politically opportunistic monetary policy weakness by talking tough, elevating sterling's ERM parity to a "badge of pride" (Stephens 1997: 261). By suggesting that it was impossible for his government to survive a sterling devaluation, the government forwent an orderly exit strategy. Unwilling to raise official interest rates, the half-hearted followership of the Bundesbank left the Treasury ultimately at its mercy when speculative pressure mounted. When the German central bank refused to cut interest rates in response to British demands in the beginning of September, the British ERM strategy had collapsed, and sterling became highly vulnerable to speculative attack.

- 1992: Domestic Tensions

The high-risk and ad hoc exchange rate policy by the British government is explained by the incoherent rootedness of ERM membership in the wider societal structure. The uncoordinated key institutions of British politics and economics remained mostly ambivalent about to the idea of turning a fixed exchange rate into the linchpin of monetary policy-making, depriving the government's policy of consistent structural foundations and shaping influence.

Lack of co-ordination and structural incoherence was also present in the institutions of central government itself. Only the Prime Minister and the Foreign Office were unambiguous supporters of ERM membership and the defence of parity, both being motivated by the high politics of establishing Britain as an influential player in the rapidly advancing project of European integration. But the Treasury and the Bank of England were deeply ambivalent towards EMU, following the policy instructions of the Prime Minister with lingering doubts. Backing for the Prime Minister in the governing Conservative Party was equally weak, with the parliamentary majority divided between Euro-philes and anti-ERM Euro-skeptics. The

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opposition Labour Party took an opportunistic stance towards ERM membership. Although it declared its support for entry and the defence of the pound, in order to banish fears of inflationary spending and monetary easing by a future Labour government, in 1992 it tacitly favoured devaluation as part of a return to a monetary policy stimulating growth and employment (Stephens 1997: 262).³

The ambivalence of policy-makers towards the ERM was reflected in the stance of financial interests in the City and the interests of industry. Bankers and City analysts were fundamentally interested in price stability and not exchange rate stability, but, in the specific circumstances of the 1990s, came to support ERM entry as a means to control inflation. Once inflation had been brought under control, the City lost interest in ERM membership, in particular because ERM-induced disinflation continued, putting the banking sector under strain (Walsh 2000). Industry, represented by the CBI and the Institute of Directors was more fundamentally supportive of exchange rate stability through ERM membership, hoping for a more stable internal and external monetary policy environment and a stake in European integration. But it wanted membership at a competitive rate, with the option of occasional devaluations. When the actual ERM policy turned out to be anti-growth and rigidly committed to a very high exchange rate, industry demanded lower interest rates, implying devaluation (Stephens 1997).

Organised labour, weakened by the Thatcherite industrial relations reforms of the 1980s, was equally ambivalent towards joining the ERM. The trade union confederation (TUC) supported ERM entry as a way to regain some influence over social policy making through constructive engagement with Europe. But trade unions associated with the public sector,

³ The Liberal Democrats, of only marginal importance in the House of Commons, followed a more consistent

such as the GMB, the TGWU and UNISON, remained critical since they preferred to maintain monetary policy autonomy in order to stimulate growth and employment (see Josselin 2001). When it became clear that the government's ERM policy was responsible for continued deflation and rising unemployment (see Chart 2.8), trade unions in general gave priority to an easing of monetary policy, regardless of the consequences for ERM membership.

Table 5.1:Monetary policy interests in Britain in 1991/92

	DOMESTI	C POLICY	EXTRNAL POLICY		
	Employment/ Growth	Disinflation	ERM Membership	Devaluation/ Depreciation	
Administration				-	
Prime Minister	+	+	++		
Foreign Office			++	-	
Treasury	+	++	+		
Bank of England		++	+		
Private Sector					
City - Banking		++	+		
CBI/IoD	++	+	++	+	
Unions			* · · · · · · · · · · · · · · · · · · ·		
TUC	++	<u> </u>	+	+	
GMB/TGWU/UNISON	++		-	++	
Political Parties					
Conservatives					
- Majority	+	+	+		
- Back Benchers	++	-		++	
Labour	++	-	+	+	
Liberal Democrats	+	+	++	-	

Based on Josselin (2001), Walsh (2000), Moravcsik (1998), Milner (1997), Stephens (1997), Connolly (1995)

++ strongly in favour

+ in favour

- opposed

-- strongly opposed

blank: neutral

Given these considerable structural tensions it is remarkable that financial markets waited until September 1992 to mount a full-scale attack. This is indicated in particular by the development of short-term interest rates. The sterling exchange rate against the D-mark deteriorated from the Danish referendum onwards (see Chart 5.1). However, the short-term interest rate spread over D-mark rates, which had increased after the referendum, narrowed from the beginning of July until the end of August, to shoot up only shortly before "Black Wednesday" (Chart 5.2). The empirical investigation has to establish whether this belated reaction of financial markets to a growing tension between external strains and domestic structural weaknesses is owed to a lack of systematic institutional awareness.

5.2.2. Periodization of the History of the Pound Sterling in the ERM Crisis

Market sentiment towards sterling was investigated during the period from 1 October 1991, before the Nordic currency crisis and the Maastricht Treaty negotiations, until 16 September 1992, "Black Wednesday", when sterling was forced out of the ERM by speculative pressure. Four "crisis episodes" were identified:

- the pre-Maastricht crisis episode (15 November 1991 12 December 1992);
- the post-Maastricht crisis episode (16 December 1991 14 January 1992);
- the pre-election crisis episode (02 March 1992 09 April 1992);
- the Black Wednesday episode (03 June 1992 16 September 1992).⁴

Each of these episodes has been investigated individually. They have been aggregated as "All Crisis Episodes" and juxtaposed against "Non-Crisis Episodes" (the aggregate of the periods before and between the crisis episodes) to contrast factors influencing negative market sentiment with those influencing positive sentiment. Altogether the investigation of market sentiment stretches over almost 12 months, broken down into eight periods:

⁴ For the criteria of delineating these episodes see Chapter Three. Given the erratic behaviour of short-term interest rates in the case of Britain (see Chart 5.2), characterised by stochastic one-off spikes in response to data

- Sterling stability before the Nordic currency crisis (01 October 1991 14 November 1991). This period was characterised by calm in the ERM and improving economic fundamentals for inflation, GDP and the current account, suggesting that the British economy could sustain ERM membership.
- 2. The first severe sterling weakness episode (15 November 1991 12 December 1991) took place in the context of the Nordic currency crisis and growing apprehension about the chances for a successful conclusion of the Maastricht treaty, with the prospect of EMU having been a major incentive for Britain's ERM membership. It culminated with the pound reaching a low of DM 2.84 on 9 December 1991, two days before the successful conclusion of the Maastricht agreement.
- 3. A brief moment of recovery, triggered by the conclusion of the treaty, raising hopes that sterling would join the narrow band of the ERM (13 December 1991 to 15 December 1991).
- A second flurry of speculation against sterling (16 December 1991 14 January 1992), after the Treasury decided against following the Bundesbank lead to raise interest rates. Again, Sterling reached a low of DM 2.84 on 14 January.
- Sterling recovery in response to the strong US dollar recovery between mid-January and the beginning of March and hopes for Bundesbank interest rate cuts (15 January 1992 to 01 March 1992).
- 6. After the pound had strengthened to DM 2.88 at the end of February, it was hit once again by a third wave of speculative selling (02 March 1992 – 09 April 1992). The growing consensus, based on opinion polls, that the general election on 9 April would result in a

releases on domestic and international variables, the periodization of market sentiment is based mainly on political events and turning-points in the exchange rate.

Labour victory or even a politically unstable "hung-parliament" with no clear majority played an important role in this.

- 7. Sterling recovered immediately after the unexpected Tory victory (10 April 1992 to 02 June 1992). The government used the election victory to embark on a two-pronged strategy of proclaiming that sterling had entered the top league of ERM currencies, suggesting a move to the narrow band, while alleviating disinflationary pressure through an unilateral official interest rate cut on 06 May, raising hopes for imminent economic recovery. Internationally, weaknesses in the German economy and pressure for German monetary easing conspired in support of sterling. Foreign exchange markets pushed sterling up to DM 2.94, close to its central rate, on 1 June 1992.
- 8. The no-vote on the Maastricht treaty in the Danish referendum triggered the fourth and final phase of speculation against sterling (03 June 1992 16 September 1992). This period is characterised by growing international and domestic tensions and government denial. Internationally, the dollar fell rapidly against the D-mark. The Bundesbank discount rate hike of 16 July added to ERM tensions, culminating in the devaluation of the Italian lira on 14 September. Domestically, the recovery of growth and the current account stalled, unemployment was approaching ten percent and strains in the housing market and banking system mounted. Politically, the government faced an unruly backbench rebellion against the ratification of the Maastricht treaty which put Britain's future European integration at stake. Despite these pressures the administration did not increase official interest rates, relying instead on tough no-devaluation pledges and central bank intervention for the defence of sterling. This strategy brought brief relief for the pound with the announcement on 03 September that the Bank of England had borrowed ECU 10bn for massive intervention. But the strategy disintegrated when the Bundesbank refused to assist Britain with an official interest cut at the Bath meeting of 5-6 September

and pushed for a realignment of sterling, which was rejected by the Treasury. The currency accelerated its decline towards its lowest point in the ERM of DM 2.78. On 16 September the government withdrew from the ERM in the face of a massive speculative onslaught, after a last ditch attempt to save the peg on the same day by announcing an increase in the bank rate to 15 percent had poven futile. It is remarkable that during this period of continuous decline of the pound after the Danish referendum short-term interest rates could oscillate narrowly around German interest rates, sometimes falling *below* German rates (see Chart 5.2).

5.2.3. Interpretations of the Sterling Crisis

Interpretations of the sterling crisis in the academic literature remain divided as to its causes. All three main crisis models are reflected in the various competing explanations. There is widespread belief among economists and political scientists that the key reason for the sterling crisis was an initial overvaluation of the pound in the ERM (Pons 1993; Portes 1993; Johnson 1994; Barell et.al. 1994; Gros & Thygesen 1998).⁵ These arguments give some support to the "first generation" competitiveness model.⁶

In contrast, proponents of "second generation" expected policy change model as explanation of the crisis emphasise the mounting and ultimately unsustainable unemployment costs of disinflation, resulting from the asymmetric structure of the EMS on the British economy. According to this view, the root cause of the crisis lies with the cyclical divergence between the UK economy and the economy of the anchor currency country Germany (Leigh-Pemberton 1993; Barell et al. 1994; Masson 1994, 1995; De Grauwe 1995, 1997). Proponents

⁵ Whether this is was indeed the case remains a matter of academic dispute. Real effective exchange rate measurements, in contrast to purchasing power parity indicators, support overvaluation. See Westway (1992); Eichengreen & Wyplosz (1993:65-69), and the interchange between Barell et al. (1994) and Allsop (1994). What seems to be undisputed is the pound's overvaluation against the US dollar (Leigh-Pemberton 1993).

⁶ For the UK current account and REER see Chart 2.5 and 2.6.

of this view point out factors specific to the UK in this explanation of the sterling crisis. According to Masson (1994, 1995), the Major administration managed to convince market participants of the time consistency of this commitment up to a point, because of the government's tough rhetoric, but ultimately lost confidence in its willingness to defend the peg in the face of rising unemployment. In contrast Barell et al. (1994) emphasise the government's structural weakness, since it lacked political support for ERM co-operation as a result of the narrow majority it could command in Parliament.

Dyson (1994), Grahl (1997) and Eichengreen (2000) expand on the particular structural problems of the UK economy by pointing out that the overextended UK banking and credit system made it exceptionally vulnerable to deflation. Against this background Congdon (1993) concludes that German interest rate levels were not appropriate for Britain, not only during the specific cyclical conditions prevailing in 1991/92, but also for general structural reasons stemming from the peculiar functioning of the UK housing market. Johnson (1994) makes a similar argument for the UK labour market structure, which he considers as lacking the downward wage flexibility necessary to allow for real depreciation of sterling in absence of nominal devaluation.

The "inconsistent policy view", related to the expected policy change view and applied to Britain by Cobham (1995, 1996, 1997), delivers an explanation of the "Black Wednesday" speculative attack as resulting from the credibility problem of the government's behaviour of "strategic denial". In his view, Britain imposed on markets a monetary policy stance inconsistent with domestic equilibrium by neither increasing interest rates in line with the Bundesbank nor allowing sterling to depreciate. This was a high-risk strategy, since it caused uncertainties in financial markets and invited a one-way bet against the pound. Although it has been popular after the crisis to blame speculators for the pound's exit from the ERM, only Eichengreen and Wyplosz (1993) and Eichengreen (2000) support the contingent policy change view. They see the sterling crisis as caused by a self-fulfilling speculative attack, triggered by the Danish referendum. But the argument that the rejection of the Maastricht Treaty put monetary union in question and thus undermined the willingness by ERM member states to defend existing parities as a precondition of participation in EMU applies to Britain only to a limited extent. It had never been committed to the project in the first place, as the Maastricht opt-out demonstrated.⁷

Overall there is little support for an economics fundamentals explanation of the 1992/93 sterling crisis. Most analyses emphasise that the crisis took place because market participants expected that the government could not implement and sustain a disinflationary stance consistent with the ERM peg and defend this peg effectively under speculative pressure. But political sustainability models of the crisis fail to explain why it took so long for market sentiment to realise how ultimately fragile the government's exchange rate commitment was. This is due to the result oriented character of most analysis, which pays little attention to the process of how market sentiment deteriorated and what factors market participants took into account at certain moments in time.

⁷ The argument has been explicitly rejected by Leigh-Pemberton (1993), who was Governor of the Bank of England during the crisis.

5.3. Market Sentiment towards the Pound during the ERM Crisis

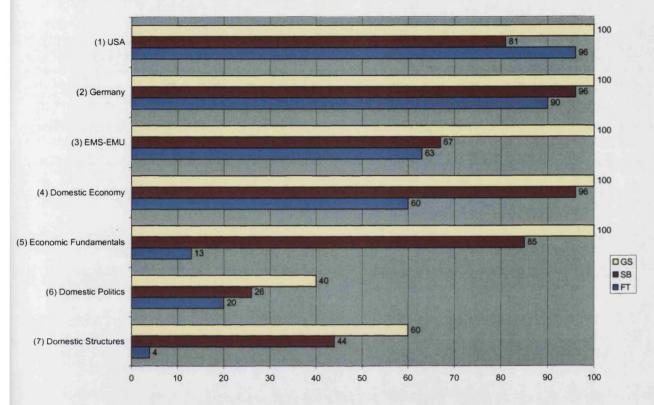


Chart 5.3: Market sentiment UK: Economic, political, structural variables (as percentage of text units coded at UK crisis episodes)⁸

(1) International developments: USA (US monetary policy and US dollar)

(2) International developments: Germany (Bundesbank policy and DM)

- (3) International developments: EMS-EMU
- (4) Domestic developments: British economic performance and economic policy (including economic fundamentals)
- (5) Domestic developments: British economic fundamentals only (inflation, BoP, budget deficits)
- (6) Domestic developments: British domestic politics (especially elections)

(7) domestic structures (especially central bank; financial, wage bargaining, government structures)

⁸ The categories in this chart, and the following charts on 'market sentiment', refer to noded categories and their subordinated categories in the index tree (Appendix, Table 3).

Category [1] = Node (4 1 1) and (4 1 3);

Category [2] = Nodes (3 2 1 1), (3 2 2 1), (3 6);

Category [3] = Nodes (1 4), (1 2 1 1 7), and Nodes (4 3 9), (4 3 11);

Category [4] = Nodes (1 1) and (1 2);

Category [5] = Nodes (1 1 1 1), (1 1 1 2), (1 1 1 3), (1 1 1 6), (1 1 2 1), (1 1 2 2), (1 1 2 3), (1 1 2 6);

Category [6] = Node (1 3);

Category [7] = Node (1 5).

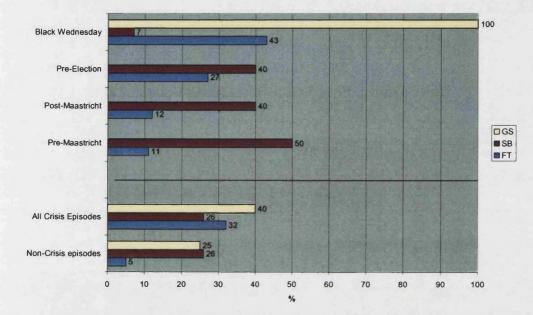
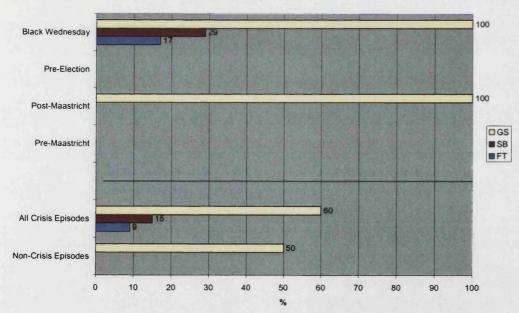


Chart 5.4: Market sentiment UK: Expectations of pound sterling to weaken in the ERM (as percentage of text units coded at respective episode)⁹

Chart 5.5: Market sentiment UK: Concerns about the sustainability of the ERM exchange rate commitment

(as percentage of text units coded at respective episodes)¹⁰



The following section will analyse the influence of international and domestic factors on market sentiment. It aims to establish in particular the relevance of domestic structures over time, relative to other variables. The relative statistical significance of economic, political variables, both domestic and international, and of domestic structural variables is presented in Chart 5.3.

The following features stand out: international developments and domestic economic variables clearly dominated market sentiment towards sterling in 1991/92, with domestic politics and structures paying a comparatively minor role. In particular monetary policy developments in Germany and the USA were highly significant. This indicates that the sterling crisis might not have happened without the fateful interaction between the monetary squeeze imposed by the Bundesbank's management of the regional anchor currency, and the benign neglect of the dollar exchange rate by loose US monetary policy. Furthermore, systemic tensions within the EMS, related to political uncertainty about the Maastricht - EMU project, were also influential.

Domestic economic variables were of critical importance to markets as key indicators of the sustainability of sterling's ERM parity. Market sentiment distinguished not only in the British case, but also that of France and Germany, between two types of sustainability, which I will call *balance of payments sustainability* and *political sustainability*. Balance of payments sustainability is the type of sustainability that matters for the first generation crisis model. It is determined by a range of narrow economic fundamentals variables indicating a national economy's competitiveness. The inflation rate, public finances, the trade and current account, and, more indirectly, wage developments are of critical importance. Political sustainability

refers to the time consistency of the political commitment to exchange rate stability. In line with the second generation crisis model, variables indicating the vulnerability of the governments exchange rate strategy to the costs of disinflation are important, especially economic growth and unemployment.¹¹

Domestic political and structural factors were only looked at narrowly by financial markets. Politics mattered only in relation to the general election in April 1992. Domestic structures were ignored except for the significant wider financial structure, which was particularly vulnerable to disinflation.

Market sentiment throughout the investigated period was uncertain about the strength of sterling in the ERM, with a continuously expectation of a weakening of the exchange rate in both crisis and non-crisis episodes (see Chart 5.4). But concerns about the sustainability of ERM parity clustered in the Black Wednesday crisis episode (see Chart 5.5). For the FT and Salomon Brothers, 100% of *all* text units which raise concerns about sustainability fall in this period.

Firstly this pattern indicates that it was ultimately concerns about the political time consistency of the government's exchange rate commitment, and not worries about unsound fundamentals, that caused the collapse in the credibility of sterling. Whereas economic fundamentals sustainability improved during ERM membership as a consequence of disinflation, political support for the defence of the ERM peg deteriorated with rising disinflationary sacrifices.

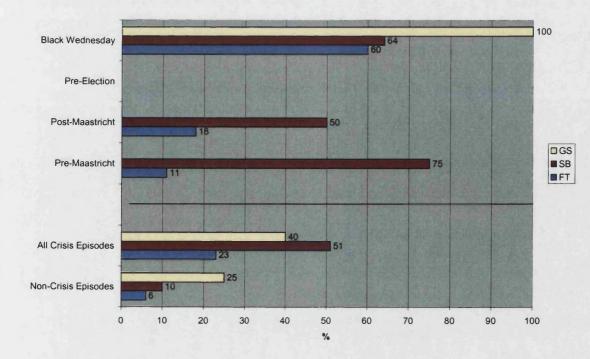
¹¹ For the crisis models see Chapter 2, esp. Table 2.1.

Secondly, the sudden collapse of market confidence indicates a "too late – too much" reaction by markets, which raises questions about the depth of market analysis. As the development of the exchange rate and of short-term interest rates shows (see Chart 2.1 and 2.2), market sentiment deteriorated following the Danish referendum after a phase of euphoria, with a sudden collapse in September 1992. This volatile behaviour might be linked to the selective and only occasional attention market participants paid to domestic structures.

My empirical analysis will start with the influence of international factors, followed by domestic economic and political indicators. Finally domestic structures variables will be investigated.

5.3.1. International Variables

Chart 5.6: Market sentiment UK: Expectations of US dollar to weaken against the D-mark



(as percentage of text units coded at respective episode)¹²

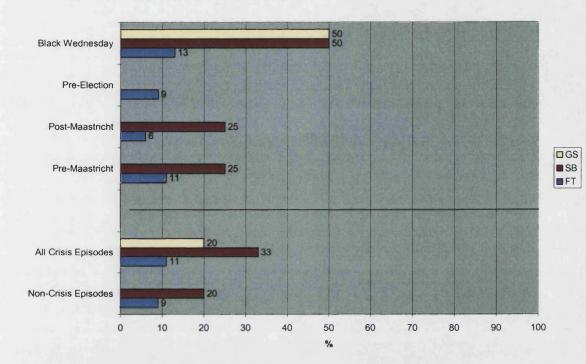
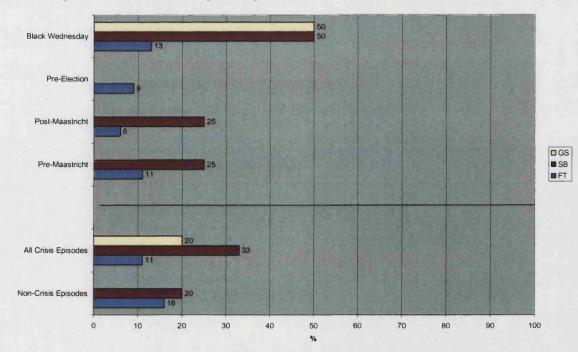


Chart 5.7: Market sentiment UK: Bundesbank statements

(as percentage of text units coded at respective episodes)¹³

Chart 5.8: Market sentiment UK: Concerns about hawkish Bundesbank statements (as percentage of text units coded at respective episodes)¹⁴



5.3.1.1. The D-Mark/Dollar Cross and Bundesbank Interest Rate Policy Two developments in the international monetary system were critical for market sentiment towards sterling: US dollar and D-mark politics. Two aspects stand out: firstly, attention to the D-mark/dollar exchange rate reflected volatility in the actual exchange rate (see Chart 5.6 and 2.1). Secondly, financial markets supported sterling until summer 1992 despite growing strains, mainly because of expectations for an imminent easing in German monetary policy and for a strengthening of the dollar.

The dollar/D-mark cross was of particular importance for markets in the case of sterling because analysts were aware of the exceptionally high dependence of UK trade on the US market (see Table 2.3). UK trade was seen to be "...more skewed toward North America than that of EC countries." (SB, 26/06/92:5) Consequently sterling was considered to be at "the mercy of the dollar/D-Mark cross, whatever policy the Bank of England may adopt" (FT 05/09/92:11). As a consequence the D-mark/sterling exchange rate was strongly correlated to the D-mark/dollar rate, in contrast to the French franc (see Chart 2.1).¹⁵ What stands out in the across-time analysis of market sentiment is that expectations for the dollar to weaken against the D-mark followed actual DM/\$ exchange rate volatility. After a late 1991 peak these expectations fell to levels of little significance in the pre-election crisis and the postelection non-crisis euphoria, only to re-emerge in the Black Wednesday episode (Chart 5.6 and 2.1). This oscillating market sentiment ignored the persistent widening German-US interest rate differential (see Chart 2.2).¹⁶ Markets thus acknowledged the specific international exposure of sterling, but gauged this exposure by overly relying on short-term exchange rate movements.

¹⁵ Correlation DM/£ : DM/\$: 0.67 (in comparison: correlation DM/FF : DM/\$: 0.04).

Underlying this short-termist attitude was the strong cyclical view markets took of the prospects of the D-mark and the dollar. As reflected by all three sources, market participants assumed that the US economy, boosted by low interest rates, would recover from its 1991 recession and that the German economy, with tight Bundesbank interest rates, would slow down quickly. With German inflation squeezed, the German central bank would sooner rather than later relieve pressure on sterling by cutting official interest rates. Furthermore, from the beginning of 1992 onwards the hawkish Bundesbank stance was considered to be unsustainable in the face of the weakening German economy, and US recovery was seen to be imminent.

The lingering expectations of a cut in German rates gained in strength the longer the Bundesbank maintained its hawkish stance, reaching significant levels in summer 1992, just in time to delay the Black Wednesday attack (see Table 5.2). "They [the Bundesbank] are also keeping an eye on unemployment and slow industrial production growth and it seems likely that there will be a cut, just later than anticipated" (Mark Austin, HSBC; FT 24/06/92:31).¹⁷ Whereas the FT reports showed weak hopes, Salomon Brothers were rather enthusiastic, with Goldman Sachs the most sober source.

 Table 5.2: Bundesbank interest rates: Expectations of an imminent official rate cut (as percentage share of total expectations on German interest rates)¹⁸

	Pre-Maastricht	Post-Maastricht	Pre-Election	Black Wednesday
FT	0%	0%	0%	7%
SB	0%	0%	20%	43%
GS	0%	0%	0%	0%

¹⁶ The respective variable (Node 4 1 1 3) remained insignificant for the UK.

¹⁷ A strong supporter of this view was Salomon Brothers, see SB 31/7/92; 07/08/92; 14/08/92.

¹⁸ Text units coded at Node (3 2 1 1 2) as percentage of text units coded at Nodes (3 2 1 1 1), (3 2 1 1 2), (3 2 1 1 3), (3 2 1 1 4).

The problem with this essentially correct analysis was that markets underestimated how long it would take to materialise. With their short-term expectations disappointed, market sentiment became uncertain and volatile, with temporary excessive swings, relying on ad hoc sentiment and rumours. Irritation was growing with regard to German rates when markets, in search of confirmation of their expectations of a rate cut, increasingly paid attention to Bundesbank statements (Chart 5.7). Concern and uncertainty increased when the German central bank was persistent in its hawkish signals during the course of 1992, contrary to the trend in opinion prevailing in financial markets (see Chart 5.8).¹⁹ In the period between 1 September and 16 September a high proportion (29%) of all FT reports commented on Bundesbank statements. Market irritation became tangible when expectations for a cut in German rates were disappointed by the inconclusive outcome of the Bath emergency meeting of European finance ministers and central bankers between 4 and 6 September. "There is nothing new there at all" commented Jim O'Neill, head of research at Swiss Banking corporation, and added "What the market wants to know is when the cut will come." (FT 08/09/92).

With no significant shift in Bundesbank policy materialising, the Italian lira demonstrating that unilateral devaluation was on the agenda, and growing uncertainty about the position of the French franc in light of the approaching referendum, the swing in market sentiment was ultimately ad hoc. It was triggered by a remark from Bundesbank President Schlesinger to the press, suggesting the need for a sterling realignment on 15 September.

¹⁹ Markets clearly hoped for a Bundesbank interest rate cut for domestic German reasons and international considerations relating to the EMU project and the Franco-German axis (see Chapter 6). But, in contrast to the case the French franc, expectations for Bundesbank intervention in support for sterling remained insignificant (Node 3 4 1 2).

Market irritation was demonstrated even more clearly by the changing attitude to the dollar. In May 1992, after the dollar rally earlier in the year, Goldman Sachs was speaking of a mere overshooting on the downside (GS, May 1992, 7/5: 1.09). One month later bankers saw "that the potential is here for a real dollar crisis" (Paul Chertkow, head of global currency research at UBS Phillips and Drew; FT 18/07/92: 11), and wondered, with the dollar "collapsing", whether "things aren't unravelling" (Ian Amstad, Bankers Trust; FT 18/07/92: 11). One trader even believed "that dollar depreciation could be part of the US authorities' strategy, aiming at boosting export growth" (Neil McKinnon, Yamaichi International London; FT 07/07/92: 33).

Ultimately, instead of shifting to a more profound, systematic analysis of the state of the two economies, markets decided to make up their mind ex post, rather than relying on false expectations: "Given the number of "false starts" that the dollar recovery has made, it seems likely that markets participants will await an actual change in US/German monetary conditions before acquiring dollars enthusiastically" (GS, June 1992, 7/6:1.05).

Market sentiment took the monetary developments in the two top currency countries consistently into account as they were recognised to be of critical importance for the prospects of sterling. But this account was ad hoc and short-termist, relying excessively on unfounded conventions on cyclical developments and the simple extrapolation of exchange rate movements.

5.3.1.2. EMU Problems and ERM Tensions Increasing tensions in the ERM, associated with the prospects for EMU added a critical regional dimension to international pressures on the pound. As Chart 5.9 indicates, expectations for a devaluation/realignment of the pound were particularly strong before the general election and after the Danish referendum. Thus market sentiment seems to have been influenced both by domestic as well as systemic factors.

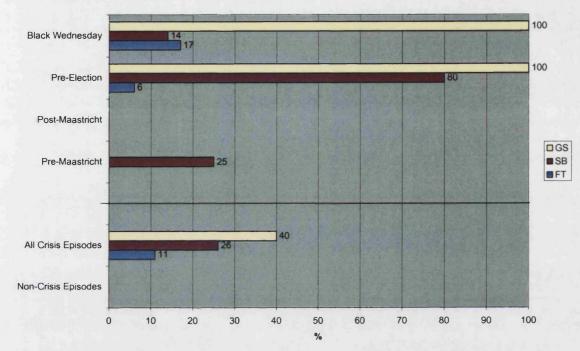


Chart 5.9: Market sentiment UK: Expected devaluation/realignment of sterling (as percentage of text units coded at respective episodes)²⁰

The link between EMU problems and realignment expectations for sterling becomes visible as early as in the pre-Maastricht crisis episode of November/December 1991, with financial markets concerned about the success of the Maastricht treaty negotiations on the single currency. Concerns resurfaced forcefully after the whole EMU project seemed to have been thrown into disarray by the rejection of the treaty in the Danish referendum of 2 June.

A key reason for the vulnerability to speculative pressure on ERM currencies whose governments wanted to qualify for EMU membership were the diminishing prospects for the single currency to become reality after the Danish referendum. As an anonymous trader put it after 2 June: "ERM realignment expectations can only be encouraged by overnight developments. One questions whether the commitment to currency parities will be as durable without the external discipline provided by the convergence criteria" (FT 04/06/92:41). But since the UK was an unlikely candidate for EMU membership in the first place, given its optout from the single currency, financial markets should have had little reason for taking the Danish referendum as a turning point for the credibility of the UK government's commitment to the DM 2.95 parity.

However, as Table 5.3 shows, the credibility of the government's commitment, often linked to statements that a move to the narrow ERM band at the prevailing parity was on the agenda, suffered considerably in the wake of the Danish referendum, after it had peaked in the postelection euphoria. A variation in opinion can be observed between a more confident Salomon Brothers and the continuous pessimism of Goldman Sachs, with the FT reflecting average market sentiment of falling, but not collapsing confidence in the time consistency of the sterling peg in the Black Wednesday episode. Goldman Sachs, although sceptical itself, took the prevailing overall optimism into account in evaluating the chances for a pound devaluation: "The f/x markets probably believe that the UK government's commitment to narrow bands is credible." (GS, May 1992, 7/5: 1.14).

 Table 5.3: Market sentiment UK: Concerns about the government's commitment to

 Sterling's ERM parity

	Pre-Maastricht	Post-Maastricht	Pre-Election	Post-Election	Black Wednesday
FT	50%	50%	50%	11%	67%
SB	0%		50%	5%	40%
GS	100%		100%	0%	100%

This poses the question why market sentiment towards the pound was sensitive to EMU prospects, in spite of the UK's opt out. One possible explanation, contagion from the

weakness of other ERM currencies, was an insignificant factor not only in general, but also specifically for the Black Wednesday episode, for obvious reasons: the Italian lira and sterling were the first ERM currencies to suffer from all-out speculative attack and to be forced off the peg.²²

The systemic reason for the vulnerability of sterling to wider ERM tensions lies in the specific link between the UK's commitment and the credibility of the French franc. Market agents realised that John Major had pinned his whole strategy of providing a stable economic policy framework on maintaining the peg to the D-mark. Financial markets therefore considered unilateral devaluation not to be a strategic option for government, since it would only have been possible at the cost of a massive loss of political and economic credibility. The only way a British devaluation could be imagined by market participants without a loss of credibility was as part of a general realignment including France, the major hard-core ERM country after Germany. Goldman Sachs stated this link clearly as early as May 1992, before the Danish referendum:

"The attitude of the French authorities is pivotal in determining the likelihood of an ERM realignment. At the present time the French would consider themselves members of the hard core group of countries. As long as this remains the case a realignment is effectively ruled out since Italy and especially the UK have no interest in seeking a more-or-less unilateral devaluation." (GS May 1992, 7/5: S.10)

Consequently the credibility of sterling did not collapse immediately after the Danish referendum, despite continuous downward pressure on the pound. Only in late August 1992, once the French referendum crisis was interpreted as making a realignment of the franc likely, did markets see a situation of multiple equilibria emerge for the UK government. A

 ²¹ Node (1 4 1 2). ERM commitment was a significant issue for market sentiment. The percentage of text units coded at this node, as percentage of total crisis episode text units are FT: 12%; SB: 41%; GS 100%.
 ²² Coding for sterling crisis episodes at the sub-tree of Node (4 3 8 1), excluding Node (4 3 8 1 1), was insignificant.

'respected forex dealer' concluded: "Politically, a devaluation is not much more difficult for the UK than a rise. I have a feeling that it is being considered. I cannot otherwise explain why rates have not yet been raised" (FT 27/08/92: 25).

The UK government was able to "borrow credibility" from the credible French commitment to EMU. Markets dealt with uncertainty about the time consistency of the British ERM by taking the short-cut of linking the fate of sterling to the prospects of the French referendum. This line of reasoning was pragmatic in-so-far as it reduced the need for a systematic evaluation of complex, contradicting and often ambiguous domestic sustainability indicators in the light of deeper domestic structures, by simply looking into what were the realistic strategic options for the UK government. It did however expose markets to manipulation and strategic denial of the government. Prime Minister Major's tactic of strategic denial, substituting decisive monetary policy action in defence of sterling with statements linking the fate of his government to sterling's ERM parity, succeeded in influencing market sentiment until the French referendum strains. Financial markets consequently woke up too late to the fact that the British government, despite its unwillingness to devalue unilaterally, was unable to follow France in defending the peg through consistent monetary policy tightening.

5.3.2. Domestic Economic and Political Variables

Market participants' analysis of domestic factors affecting the credibility of sterling was influenced by the tension between balance of payments sustainability and political sustainability. As for France, a shift from balance of payments 'fundamental' concerns to political sustainability concerns can be observed for the case of sterling. This shift reflects the fact that the competitiveness of the UK economy improved during 1991/92, due to sustained disinflation, whereas the domestic sacrifices caused by disinflation increased. Goldman Sachs, generally more concerned about political sustainability than Salomon Brothers and the FT, suggested a shift in focus as early as May 1992, before the Danish referendum:

"In the days of yore, when men were men and realignments [in the ERM] actually occurred, they tended to be a response to some combination of (i) a weak dollar (ii) a huge 'competitiveness' discrepancy within the ERM or iii) a balance of payments problem. ... The "traditional" or historical rationale for an ERM-reshuffle no longer holds. There may, however, be a new variation. ... Sustainability ... will depend on countries being in a position to maintain low inflation rates and budget deficits and yet continue to grow and provide jobs." (GS, May 1992, 7,5: 1.13)

The evaluation of the sustainability of sterling's ERM peg took place in the context of the debate about the government's monetary policy strategy, especially about the direction of the Bank of England's key official interest rate, the "Clearing Bank Base Rate". In the next section I will analyse this debate. I will follow with a detailed investigation of firstly how competitiveness related variables and secondly political sustainability related variables influenced market sentiment.²³

²³ Economic performance and economic policy issues "other" than those covered specifically in the subtrees to Nodes (21) and (22) were insignificant. Coding for Nodes (1117), (1127), (1215),

^(1 2 2 4) falls well below the significance threshold.

Monetary Policy: The Shift in Market Sentiment

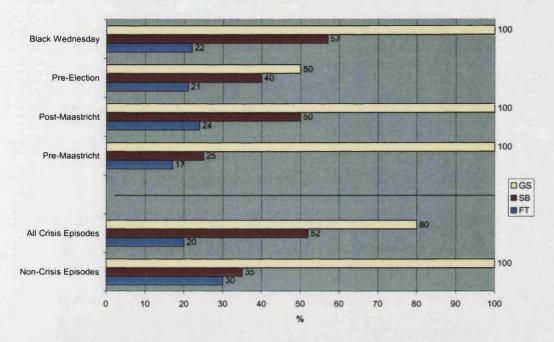
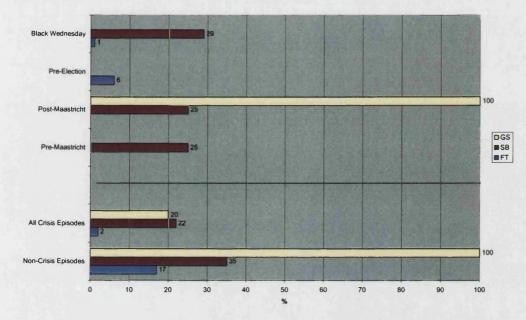
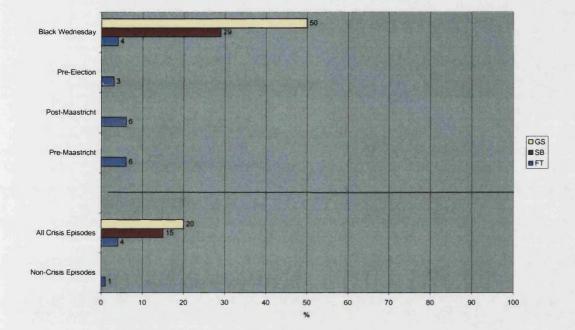


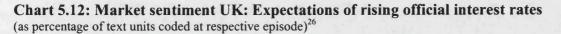
Chart 5.10: Market sentiment UK: Expectations of official interest rate policy (as percentage of text units coded at respective episode)²⁴

Chart 5.11: Market sentiment UK: Expectations of falling official interest rates (as percentage of text units coded at respective episode)²⁵



²⁴ Nodes (1 2 1 1 1) (1 2 1 1 2) (1 2 1 1 3) (1 2 1 1 4).





Expectations of official monetary policy were highly significant across the period investigated, in both crisis and non-crisis episodes. Only in the pre-election phase were monetary policy deliberations overshadowed by concerns about the election outcome (see Chart 5.10 and 5.18). Overall, market participants were inclined to expect the Base Rate to fall. Only in the Black Wednesday crisis episode is a clear shift towards expectations of an increase in official rates statistically evident (see Chart 5.11 and 5.12).

The fact that financial market participants expected a relaxation of the British monetary policy stance could be interpreted as a simple recognition of the actual trend in monetary policy. The Bank of England did not shadow Bundesbank rate increases until Black Wednesday, but had actually been pursuing the opposite course of successive cuts since 1991, with the Bank Rate being reduced below the German Discount rate after the April 1992

²⁶ Node (1 2 1 1 1)

general elections (see Chart 2.2). But market sentiment on this aspect is remarkable in so far as investors maintained confidence in sterling until September 1992, in spite of official rates falling below their German equivalent and expectations for further monetary easing. This attitude reflects a basic inclination on the part of market participants to emphasise that official rate cuts were positive by stimulating the recessionary UK economy, but also to neglect that theses cuts could be problematic for the external monetary policy strategy. Positive sentiment clearly prevailed until summer 1992 when finally the need for a decisive defence of sterling through official rate increases was emphasised.

This belated recognition of the latent conflict between British and German monetary policy is astounding since markets were clearly aware of the subordinated status of British monetary policy to Bundesbank policy since the beginning of 1992:

The main effect of the combination of unilateral monetary easing by the UK monetary authorities and a positive reaction from market participants was that the conflict between balance of payments sustainability and political sustainability was temporarily defused and thus delayed until late summer 1992. By cutting rates the government addressed political sustainability concerns arising from the costs of disinflation, thereby prolonging the positive influence of improving competitiveness on market sentiment. Uncertainty about time consistency, which would have developed had the government asked for even greater disinflationary sacrifices, was thus kept at bay.

[&]quot;To all intents and purposes the pound is a satellite of the D-Mark. The path of UK interest rates is now probably more heavily influenced by the path of German interest rates than related to domestic British economic developments." (GS February 1992, 8/2: 1.08).

The government's strong currency rhetoric after its election victory, suggesting a move to the narrow ERM band, was critical for the markets sanguine attitude about political sustainability prospects. Market participants, under the impression that rates were cut from a position of strength, based on sound economic fundamentals and firm political commitment, were willing to reward monetary easing through continued confidence. In doing so, markets delivered to policymakers cover of the external flank the government's monetary policy strategy had exposed. Furthermore, expectations of German monetary policy helped to calm market concerns about the actual divergence of German and British interest rates. Markets viewed UK interest rates cuts as essentially only pre-empting forthcoming German cuts, demonstrated by the parallel movement of expectations of monetary easing for the two currencies (see Chart 5.11 and Table 5.2).

The virtuous cycle combining the government's strong currency rhetoric and political sustainability improving interest rate cuts with growing market confidence, reached its peak in the phase of sterling exuberance after the Conservative party's victory in the general elections of 9 April 1992. Market participants then became outright dismissive of the problem of interest rate divergence from the anchor currency by seriously entertaining the thought that British monetary policy could decouple from the German anchor, in combination with a move of sterling to the narrow ERM band at the prevailing DM 2.95 parity. These hopes were expressed by Salomon Brothers as late as 31/07/92 as part of an argument that ever more insistent calls for lower interest rates in the UK should not lead to exaggerated worries about the government's long-term ERM commitment:

[&]quot;Low inflation should allow UK short-term interest rates to fall in line with the gradual easing of German monetary policy that we expect. ... Alternatively, if German inflation and credit growth prove to remain stubbornly high, than falling UK inflation should still allow UK short-term interest rates to fall to or even below German levels." (SB 31/07/92:5)

Again it was Goldman Sachs who took the contrarian sober view by suggesting that "attempts to push rates below German levels will probably end in tears" (GS, May 92, 7/5:2.12). Postelection market buoyancy towards sterling is confirmed by market reaction to the cut of the Bank Rate by 0.5 percent on 5 May, to which investors responded by moving into sterling, intimating that further cuts should be possible.

Growing market confidence in the time consistency of the government's strong currency commitment, based on the impression that improving competitiveness combined positively with policy steps to reduce disinflationary pressures, turned out to be an illusion towards September 1992. The illusion can be explained by the susceptibility of market participants to the appearance of strong government suggested by the return of a Conservative administration in the election and its subsequent strong currency rhetoric. It was, for a time, self-fulfilling, due to the path-dependent nature of market reasoning.

Markets started to question the impression the government had created only when external developments in the form of a new dollar crisis, ERM tensions and persistent Bundesbank hawkishness forced them to take note of actual government inaction to defend sterling. In this systemic context, political sustainability worries re-emerged and financial markets were no longer willing to accept the UK government's strategic denial. On 14 July the FT quoted Neil McKinnon, chief economist of Yamaichi International:

However, the resilience of the conventions formed during the post-election euphoria was amazing. As late as 4 September, in the light of the ECU 10bn borrowing by the Bank of

[&]quot;There is a mismatch between rhetoric and action. We have seen recently the Bank of Italy raise interest rates as a consequence of being in the ERM. The market wants to know whether the British are prepared to do the same." (FT 14/07/92: 27).

England to stock up reserves for possible intervention in support of sterling, Salomon Brothers emphasised again that the government's commitment was credible (SB 04/09/92: 5). In the same vein Jeremy Hawkins, chief economist at Bank of America was quoted in the FT (04/09/92: 29): "Norman Lamont [the UK Chancellor of the Exchequer] is putting his money where his mouth is."

When the spell was finally broken in the light of negative international developments, sterling's credibility was caught up in classic multiple equilibria uncertainty. Although interest rates hikes were increasingly considered a necessity in order to demonstrate the time consistency of the government's commitment to ERM parity, the demand for rate increases heightened awareness of rising political sustainability tensions. The case was best put by Salomon Brothers:

"With monetary policy already tight, the traditional cure for a weak pound - a rate hike - may be ineffective. ... In the current situation a rate hike may buy a few weeks of currency stability, but unless quickly reversed, it could turn the current stagnation into a slump. This development would intensify subsequent pressure for lower interest rates, thereby giving little lasting support for sterling." (SB 28/08/92: 5)

Contributing to the impression of a multiple equilibria situation was the apparent inconsistency of the government's interest rate policy with its stated exchange rate commitment, highlighted by its giving in to demands by building societies, reducing the significant interest rate of National Savings bonds. Here the FT commented "the cut unnerved sterling investors because it suggested to them that the government will not tighten monetary policy" (FT 10/08/92:25). With the view prevailing in financial markets that interest rate increases would not only be ineffective in the medium term, but also that the government was unwilling to take such action, a self-fulfilling speculative attack became a one-way bet.

Market sentiment towards UK monetary policy demonstrates remarkable inconsistency. It was caught up in a positive feedback-loop between election results, government rhetoric, and market optimism. The event and policy statement driven behaviour created a temporary impression of certainty about the prospects of sterling, without having to rely on a systematic deeper analysis of political sustainability problems and their structural dimension. But this ad hoc behaviour only suppressed, but did not overcome uncertainty about the time consistency of the British exchange rate commitment, as the September 1992 "too late – too much" run on sterling demonstrated.

5.3.2.1. Competitiveness Related Economic Variables

Chart 5.13: Market sentiment UK:

Strengthening balance of payments position (expectations and fact) (as percentage of text units coded at respective episode)²⁷

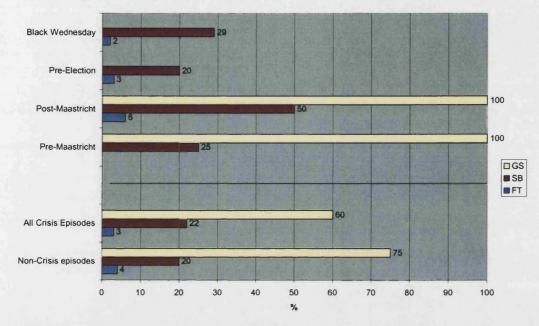
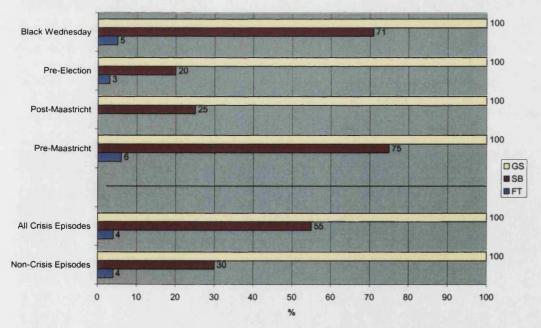


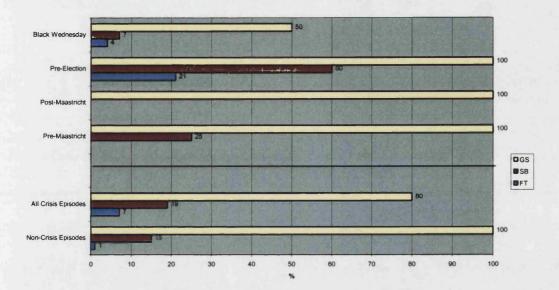
Chart 5.14: Market sentiment UK: Falling inflation (expectations and fact) (as percentage of text units coded at respective episode)²⁸



²⁷ Nodes (1 1 1 3), (1 1 2 3).

²⁸ Nodes (1 1 1 1 1) (1 1 2 1 1).

Chart 5.15: Market sentiment UK:



Fiscal deficits and fiscal policy (expectations and fact) (as percentage of text units coded at respective episode)²⁹

Economic variables related to the international competitiveness of the UK economy and thus to the sustainability of its balance of payments were significant for financial markets.³⁰ In addition to the state of the balance of payments itself (see Chart 5.13), market participants paid significant attention to inflation as the critical variable with regard to competitiveness (see Chart 5.14).

As Chart 5.13 indicates, direct competitiveness concerns dominated market sentiment in particular in the first two crisis episodes in late 1991 and early 1992. The issue was whether the UK had a competitiveness problem at the ERM exchange rate of DM2.95 chosen by the government. Financial markets in particular were concerned about the rapid fall of the dollar against the pound. Although this led to drastic deterioration of sterling's real effective exchange rate (Chart 2.6), the current account deficit levelled out during 1992 (see Chart 2.5).

²⁹ Node (1 1 1 2), (1 1 2 2), (1 2 1 2), (1 2 2 2).

³⁰ In the UK case market analysis rarely used the generic term "fundamentals" to summarise competitiveness related economic indicators. Coding at the respective nodes remained insignificant [Node (1 1 1 6), (1 1 2 6)].

Markets interpreted this as evidence that successful British competitive disinflation against Europe had compensated for the decline of competitiveness towards the US. From a fundamentals point of view real depreciation due to rapidly falling inflation was considered to make up the ground lost by sterling through nominal appreciation against non-ERM currencies. Consequently competitiveness concerns had made room for optimism as early as April 1992. The view of Salomon Brothers is typical:

"Most frequent arguments for an ERM realignment begin with the assertion that ERM currencies are fundamentally misaligned. However, if we compare data on relative unit labour costs, export prices, and consumer prices some countries - such as Italy - show significant pressure for a depreciation of their currency. If we take expected price developments into account, the United Kingdom does not show a competitiveness problem within the ERM. ... The United Kingdom's modest trade imbalance with the EC casts doubt on claims that its ERM parity is set too high, while its larger overall trade deficit reflects both overvaluation of all European currencies versus the dollar and the yen and the country's larger trade share outside Europe. A favourable invisible balance means that the current account is stronger than the trade balance." (SB 04/09/92: 3-4)

As with other variables, markets treated good news as no news, with reduced interest in balance of payments sustainability from spring 1992 onwards.

Market attention to disinflation differed from market concerns about competitiveness. After having fallen from high levels from late 1991 onwards, it rebounded during the Black Wednesday crisis episode (see Chart 5.14). This pattern can be explained by the ambiguous effect of highly successful British disinflation on sustainability.³¹

Until the Black Wednesday episode, disinflation was mainly looked at by market participants from a balance of payments sustainability point of view. Financial market participants welcomed inflation rates lower than those of the anchor currency country as clear evidence for the economic sustainability of ERM parity. Even in September 1992, Salomon Brothers

³¹ For the rapid reduction in consumer price inflation during ERM membership, see Chart 2.4.

asserted that "...the United Kingdom's disinflation has put it within reach of the low-inflation heart of the ERM" (SB 14/09/92: 5).

Over time the optimistic fundamentals sentiment regarding sustained disinflation became less prominent in market analysis. The statistical resurgence of market attention during the Black Wednesday crisis episode was mainly due to political sustainability concerns, with markets now interested in the rising economic and social costs of disinflation.

Budget deficits and public debt were of only periodical relevance for market sentiment, although the UK budget deficit was deteriorating rapidly to minus 8 percent of GDP in 1993 (see Chart 5.15 and Chart 2.3).³² Market participants showed significant concern only in the pre-election crisis episode, reflecting fears of a fiscal boost as part of electioneering and of fiscal profligacy by an expected new Labour government. The general lack of concern is explained firstly by market perceptions that the rising deficit would merely be a cyclical response to recession and secondly by market expectations that the deficit would have no inflationary consequences, given disinflationary monetary policy. Deficits therefore were of little concern from a balance of payments sustainability point of view, but welcome as an urgently needed counter-measure to disinflation from a political sustainability position.

Wage developments were irrelevant to financial market participants. Only Salomon Brothers occasionally mentioned moderate wage increases as positive news. ³³ Markets paid scant attention to wages since, with the economy marred in recession, the output gap growing from -0.9 percent of GDP in 1991 to -2.8 percent in 1992 and unemployment rates approaching 11 percent, employees and trade unions were in no position to push for inflationary wage

³² see also Appendix, Table 2.

³³ Neither the FT nor Goldman Sachs mentioned wages. Salomon Brothers attention was insignificant, amounting to only 15% of UK units coded at crisis episodes (subtree of Node 1 2 2 3).

increases.³⁴ In short, all seemed quiet on the wage front, and markets simply did not care to bother.

To sum up, competitiveness-related economic variables were taken into account in a selective way, with investors mainly focusing on developments that caused concern for the sustainability of the balance of payments. Since the balance of payments was improving towards sustainability due to disinflationary monetary policy, with fiscal deficits and wage increases posing no problem, market interest in competitiveness issues diminished during the course of 1992. With markets confident about the narrow sound fundamentals of the UK economy, attention turned to the forthcoming general elections of spring 1992. Market participants displayed pragmatic short-termism in their attitude to fundamentals, by dealing first of all with those variables which gave cause for concern and raised uncertainty, not bothering to maintain a consistent systematic analysis once uncertainty was receding.

³⁴ Figures from OECD Economic Outlook 66, Dec. 1999, Statistical Annex.

5.3.2.2. Political Sustainability Concerns

Explicit concerns about the political sustainability of the government's disinflationary strong currency stance were only significant during the Black Wednesday crisis episode (see Chart 5.5). This concentration of market concerns in the last crisis episode indicates that lasting disinflation resulted in escalating market uncertainty as to whether this strategy was tolerable any longer. However, market expectations for a realignment of sterling, which can be taken as an indirect indicator for political sustainability concerns, shot up as early as during the pre-election crisis episode, having previously been insignificant (see Chart 5.9). This indicates that the time consistency of the political commitment to exchange rate stability came under scrutiny due to market concerns about the growing unpopularity of disinflationary sacrifices with the electorate. Before the general elections, markets were uncertain as to the direction the new government's exchange rate policy would take. After the conservative election wictory, popular disenchantment with disinflation continued to be a critical factor influencing market sentiment, now combined with growing ERM tensions:

"In some ways, the pressures beginning to mount in the ERM could be interpreted as a side-effect of the regime's 'success'. Sub-par growth and employment performances in many ERM countries, especially relative to Germany, have brought down inflation so much that electorates may no longer be prepared to sacrifice further losses of output and employment for a few notches more off inflation rates, especially since there is precious little evidence that maintenance of low and stable inflation produces subsequent economic recovery." (GS, June 1992, 7/6: 1.06)

In the following section the market account of the two key variables indicating the costs of disinflation, growth and unemployment, will be analysed. This is followed by an investigation of the role the electoral cycle played in the credibility of the government's monetary policy commitment.

Recession and Unemployment

Chart 5.16: Market sentiment UK: Concerns about recession (expectations and fact) (as percentage of text units coded at respective episode)³⁵

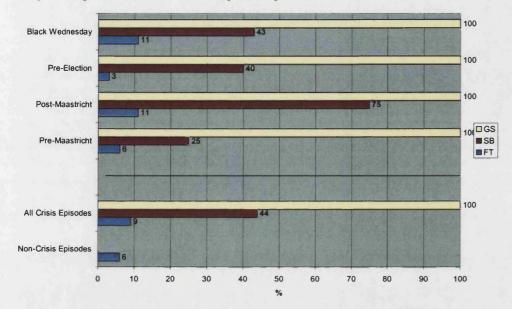
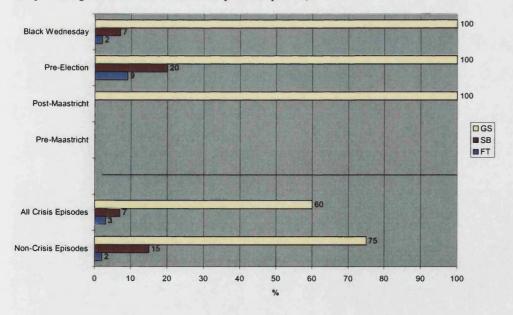


Chart 5.17: Market sentiment UK: Rising unemployment (expectations and fact) (as percentage of text units coded at respective episode)³⁶



³⁵ Nodes (1 1 1 4 2) (1 1 2 4 2).

³⁶ Nodes (1 1 1 5 2) (1 1 2 5 2).

Concern about the lack of economic growth in the UK economy has been significantly high throughout the period investigated. Concerns about the lasting recession, having fallen from their peak in the December 1991 post-Maastricht crisis episode to the post-election euphoria non-crisis episode, reached a new peak in the Black Wednesday crisis episode, when the slow recovery of UK GDP seemed to stall (see Chart 5.16 and Chart 2.7). The Danish referendum and the subsequent wider ERM tensions seem to have contributed to a rebound of old worries that further delays in the expected economic recovery, caused by continued disinflation, were becoming politically unacceptable.

The importance of popular support for the credibility of the government's exchange rate strategy is demonstrated by the influence the persistently rising unemployment figures had on market sentiment (see Chart 5.17 and Chart 2.8). With the exception of Goldman Sachs, whose consistent high attention to the issue confirms their heightened sensitivity about political sustainability, market concerns about unemployment are concentrated in the preelection crisis episode, since rising unemployment reduced the chances for re-election of a strong government committed to the defence of the ERM parity of sterling. Market participants thus demonstrated clear awareness of the importance of the electoral cycle for political sustainability, with employment concerns diminishing drastically after the confirmation of a Conservative government for another five years.

The account of negative output and rising unemployment by market analysts was rather ad hoc and volatile. Electoral concerns were clearly strongly linked to the level of market attention. Beyond this, markets seem to have underestimated the continued relevance of these two variables after the elections, as the rebound of related concerns in the Back Wednesday crisis episode, after a phase of little concern, indicates.

Elections

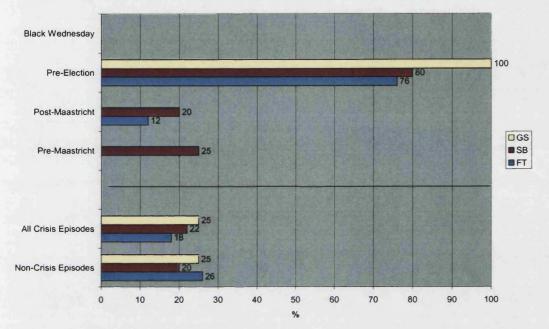


Chart 5.18: Market sentiment UK: Election concerns (expectations) (as percentage of text units coded at respective episode)³⁷

Concerns about the outcome of the general election of 9 April were highly significant for the pre-election crisis episode (see Chart 5.18).³⁸ The negative sentiment dominating financial markets before the election was thus critical for the loss of confidence in sterling during this episode.³⁹

Despite opinion polls indicating that the Conservative government would lose the election, it was not so much an expected narrow Labour Party win that worried financial market participants, as the possibility of a "hung parliament", a situation in which no party would have the overall majority. It was therefore the stability of government, more than its political orientation, which mattered to financial market agents. A minority government of either the Conservative or the Labour party would have to rely on the support of other parties, making it

³⁸ 89% of FT text units, 100% of SB, and 60% of GS dealing with politics were concerned with the general election. Attention to an eclectic range of other political issues remained insignificant [Node (1 3 1 2), (1 3 2 2)].
 ³⁹ The majority of text units commenting on the elections voiced negative expectations (FT: 83%, SB 100%, GS 100%).

³⁷ Node (1 3 1 1 2).

unlikely to sustain the commitment to the pound's ERM parity, undertaken by the previous administration. A possible majority Labour government was of less concern for market participants who took the forceful declarations of Labour not to devalue to be credible. Wondering about sterling's strength in the face of a strong Labour lead in the opinion polls, the FT commented:

"Dealers say that this might be explained by the belief that, as both Conservatives and Labour are committed to taking sterling into the narrow band of the ERM at DM 2.95 central rate, sterling has less to fear from outright victory by either party than it does from a hung parliament and prolonged political uncertainty" (FT 23/03/92: 31)

Market reaction to the unexpected re-election of a Conservative majority government was euphoric. Financial market participants pointed to the apparent stability of the new government, which was seen to end political uncertainty about time consistency. In the words of the FT, it was "investor confidence in the one European country certain to have a stable government for the next five years" which boosted sterling (FT 09/05/92: 11). The fact that the new government had to rely on a small majority did not seem to diminish the prevailing sentiment that the new government would be strong. As Goldman Sachs pointed out:

That the relative autonomy enjoyed by the Major administration in the UK political system could also be used for a short-term reversal of the government's exchange rate strategy was not realised by financial markets until September 1992.

This optimism regarding the long-term commitment of the executive to defend sterling's ERM parity raises the question of why financial market participants were not worried about the possibility that the new government could be held hostage on its ERM/EMU strategy by a small number of euro-sceptic back-benchers. In fact, British politics was dominated soon

[&]quot;The final outcome – a majority of 21 – is sufficient to last a full five year term, unless the rate of attrition through by-election losses is unusually great. The government can therefore plan ahead for the long term (GS, April 1992, 7/4: 3.07)."

after the election by a Conservative back-bench rebellion against the government's wider commitment to European integration, threatening to derail the ratification of the Maastricht Treaty in Parliament. Markets took account of the split within the governing Conservative Party, but confined their analysis to the actual conflict about the Maastricht treaty, failing to understand its implications for the executive's political economic capacity in general (see GS, April 1992, 7/4: 1.09; FT 30/06/92: 26).

Market participants approached the problem of divided government in a superficial, event driven, ad hoc manner. In the case of the election result a simplistic belief in the arithmetic of majority substituted for a deeper analysis of the vulnerability of the government to internal ruling party splits. In the case of the Maastricht treaty, with internal divisions becoming manifest, market participants failed to grasp that these events were indicating fundamental structural weakness of the government's policy-making autonomy. Furthermore, they failed to realise that this underlying weakness could combine with the government's capacity to make a sudden U-turn on exchange rate strategy.

In judging the prospects of political sustainability, market participants were rational in so far as they took account of aspects emphasised by rationalist political economy as critical for time consistency: the political business cycle and government unity. Market analysts initially assumed that the possibility of a minority government being elected might result in greater vulnerability of the exchange rate commitment to the output and employment costs of disinflation. With a majority Conservative government confirmed in office for five years, markets reacted with relief, assuming renewed political leeway for the administration to impose further disinflationary sacrifices. However, market concerns about unemployment and falling output rebounded strongly in the Black Wednesday episode, indicating that market participants had underestimated the vulnerability of the new government. Firstly, their simplistic confidence that the government's majority would deliver long-term time consistency led to selective attention being paid to its internal divisions and a neglect of the risks posed by unchecked executive power posed to time consistency. Secondly, a short-termist understanding of the political business cycle led analysts to neglect the suffering of the core Conservative Party constituencies, the business community and the property-owning middle classes, in the face of disinflation. Only in summer 1992 did market participants realise that it was uncertain whether the Conservative government would be able and willing to defend sterling with significant Bank Rate hikes in a situation of speculative attack. Markets failed to understand that, although the government did not have to face the electorate for another couple of years, such a hike would permanently damage the Conservative Party's reputation for competent monetary policy making. This failure points at a weak understanding in financial markets of the structural exposure of the constituency to disinflation.

5.3.3. Domestic Structures

Chart 5.19: Market sentiment UK:

Domestic structures: Comparative significance

(text units coded at respective domestic structures node, as percentage of all text units)⁴⁰

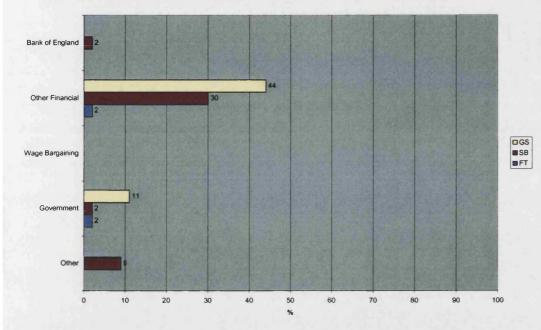
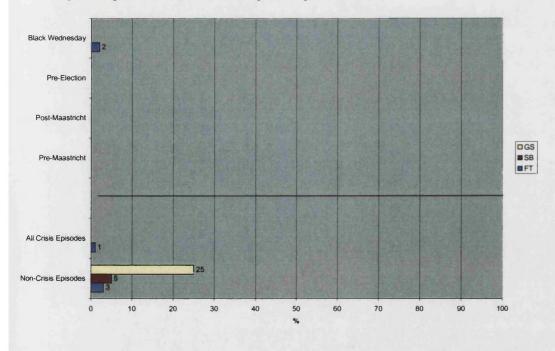


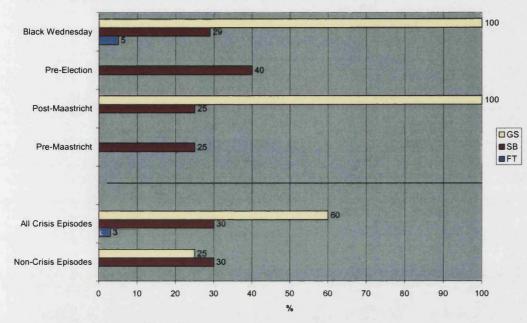
Chart 5.20: Market sentiment UK: Domestic structures: Government (as percentage of text units coded at respective episode)⁴¹



⁴⁰ Central bank: Node (1 5 1 1); other financial structures: Node (1 5 1 2); wage bargaining structures: Node (1 5 2); government structures: Node (1 5 3); other structures: Node (1 5 4). ⁴¹ Node (1 5 3)

Chart 5.21: Market sentiment UK:

Domestic structures: Financial structures (excluding central bank) (as percentage of text units coded at respective episode)⁴²



Market participants took domestic structures into account in a highly selective fashion. A single structure, the non-central bank financial structure, stands out, with a persistent, very high level of attention. In contrast, attention to all other domestic structures was non-existent or insignificant (see Chart 5.19). Britain thus constitutes an exceptional case of narrowly focused market sentiment, in contrast to the broader awareness found in the French and German cases (see Chart 6.22 and 7.15).⁴³

Assuming that markets would take into account those structures which gave cause for concern from a rationalist institutionalist vantage point (see Chapter Four), in particular, the wider financial and the government structure should have been the focus of market attention. Britain's financial system was wholly unsuited to underpin a monetary policy geared towards exchange rate stability. Its international banking was split from industry, and its rapid monetary transmission mechanism combined with high levels of household and corporate

⁴² Node (1 5 1 2).

debt. The weakness of the de facto single chamber majoritarian government system lay in the possibility of internal divisions within the ruling majority party and the autonomy of the government to renege easily and quickly on its monetary policy commitments. The actual pattern in market sentiment towards domestic structures only marginally reflects rationalist institutionalist concerns.

5.3.3.1. The Insignificance of Wage Bargaining Structures and of the Bank of England

Market participants completely ignored wage bargaining structures and mentioned the constitutional status of the Bank of England only once.⁴⁴ The lack of attention to wage bargaining structures and the position of the central bank in Britain's economic policy regime demonstrates the pragmatic nature of market reasoning towards domestic structures. Wage bargaining structures, characterised by weak and fragmented organised trade unions, denied workers the organisational capacity to stand up against the Conservative government in a situation of rapidly rising unemployment. Consequently market participants confidently expected peaceful industrial relations with modest wage increases and chose not to bother about structural evaluations.

The lack of market interest in the dependent status of the Bank of England can be explained along similar lines. Given that in practice it was the government's commitment to exchange rate stability that mattered for monetary policy decisions, market participants chose in general to take no account of the central bank's position in the wider British political economic structure. However, the moment even a vague possibility emerged for the central bank to be turned into a relevant actor by granting it independence, markets took notice:

⁴³ Domestic structures other than the financial, wage bargaining and government structure [Node (1 5 4)] were highly insignificant for market sentiment, with attention falling even below the very low French results.
⁴⁴ No text units have been coded at Node "wage bargaining structures" (1 5 1 2) for any of the three text samples. The Node "central bank" (1 5 1 1) registers one single comment by Salomon Brothers.

"The need to dampen fears over the direction of monetary policy could lead a minority government to accelerate a shift towards grater public independence of the Bank of England" (SB 06/03/92: 3).

The lack of influence wage bargaining structures and the status of the central bank had on market sentiment indicates that market sentiment understood the suggestion of rationalist institutionalism that these structures either posed no problem or were of little relevance for time consistency in broad terms, but reacted pragmatically in forgoing systematic investigation.

5.3.3.2. Government Structures

The influence of government structures on market sentiment was highly insignificant, especially during sterling crisis episodes (see Chart 5.20). The almost total neglect of these structures demonstrates the limits of bounded rational market sentiment to come to pertinent conclusions. Market expectations were volatile and event driven. After the April general elections, market participants substituted simple superficial conventions about the stability and strength of majority governments in Britain's political system for a deeper, systematic structural analysis only to discard these conventions for rational herding in September.

The lack of rigorous analysis made markets unaware of the potentially explosive combination residing in the specific constellation of the British governmental structure of 1992, which combined the intrinsic weakness of majority rule due to internal divisions in the ruling party with the power of the executive for sudden unchecked monetary policy reversals. Instead of forming longer-term stable expectations about the structural fragility of the government's strong currency commitment, market participants went from ad hoc post-election exuberance to ad hoc speculative panic over the course of only five months. Ineffective market reasoning caused by the failure to understand the constraints on time consistency imposed by the

government structure was aggravated by the limited attention paid by market participants to the problems posed by the wider financial structure.

5.3.3.3. **Financial Structures**

The financial structure of Britain (excluding the central bank) significantly influenced market sentiment, with the high levels of attention in 1992 only interrupted by the pre-election crisis episode and post-election euphoria (see Chart 5.21). As pointed out in the analysis of Chapter Three, the UK credit structure, with the housing market in a pivotal position, was inconsistent with a prolonged defence of the ERM peg. Financial markets were aware of this specific exposure of sterling to the structural weaknesses of the British financial system, indicating rational structural evaluation.

Analysis in the financial markets concentrated on the effect of tight monetary policy on a banking system whose structural characteristics were variable interest rates and excessive levels of household, mortgage and corporate borrowing. Salomon Brothers serves here as a

good example:

"Falling property prices, the steady uptrend in business failures, together with companies' reports that further reductions in employment and investment are planned, are all signs of painfully high debt levels. Apart from persistent high debts, the credit squeeze, especially on small business, remains acute. ... Rising bad debts are forcing banks to adopt tougher lending standards. The combination of high debt levels, high real interest rates and banks' caution over new loans means that there is likely to be a protracted period of liquidity accumulation before companies and households feel secure enough to start spending in excess of their incomes." (SB 24/04/92:3)

This analysis is later supplemented by the observation that the structural problems on the borrower side lay with the dismal state of the housing markets, which in turn affected consumer spending:

"Declines in house prices and housing wealth have led to a sharp drop inequity withdrawal.⁴⁵ The importance of the link among personal wealth, equity withdrawal and consumer spending means that the prospects for a significant recovery in consumer spending during the remainder of 1992 and into 1993 rest on a pickup in the housing market." (SB 17/07/92:5)

⁴⁵ "Equity withdrawal" is the use of mortgage borrowing to finance consumer spending [W.H.].

The direct reasons for heightened market sensitivity to the financial structure were twofold: firstly, the high debt levels meant that high interest rates resulted in debt deflation, which postponed the recovery that was urgently needed for political sustainability. As Goldman Sachs put it "debt is high, so there can be no recovery" (GS, May 1992, 7/5: 3.05). Secondly, markets knew that the main disinflationary cost stemming from the structural exposure of the financial system to interest rate increases had be borne by the Tory Party's key constituency, the home-owning middle classes. This became clear in particular during the Black Wednesday crisis episode: "The pound may have been weakened by increasing calls from British political and business figures for emergency action to stimulate the housing market" (FT 05/08/92: 23).

However, the fact that market interest in the financial structure receded during the period before and after the general election only to remerge in summer 1992 despite continuously rising structural strains, indicates that market analysis lacked consistency. The election, as the key political event of spring 1992, overdetermined structural concerns. Financial market participants focused in an ad hoc fashion on their most urgent concern, the short-term election outcome, at the cost of neglecting a systemic structural analysis of financial strains. In the aftermath of the election they preferred to give in to ad hoc euphoria, sidelining uncertainty associated with mounting problems in the financial structure. Again, market behaviour displayed practical reasoning characterised by superficiality and intellectual shortcuts, confirming the assertions of bounded rationality.

5.4. Conclusion

Domestic structures influenced financial market sentiment only selectively and periodically. Only the wider financial structure affected market sentiment significantly, but was not looked into consistently. The selective interest of markets particularly in this structure indicates that analysts paid attention only to structures pertaining to uncertainty about the political sustainability of the government's commitment to the ERM peg. Structures other than the financial structure were neglected because they seemed to give less reason for concern.

Attention to the credit structure was volatile, varying with the ups and downs of market uncertainty about time consistency. When the positive general election result led to a boost of confidence in sterling, market interest in the strained British financial system fell, only to rise again during the Black Wednesday episode, triggered by growing uncertainty about the government's monetary policy stance. As in the case of France and Germany, by noticing structural strains market uncertainty increased. Structural attention was determined by political events and monetary policy signals, but played a critical role in market participants losing confidence in the government's policy statements.

This pattern suggests that financial markets by-and large took a rational, although pragmatic approach to domestic structures. This rationality was bounded, however, resulting in inefficiencies in the market judgement of the credibility of sterling. Because market participants acknowledged domestic structures only in a narrow, ad hoc and superficial way, they failed to develop stable and consistent expectations of the time consistency of the government's exchange rate commitment, being instead liable to waves of uncertainty interrupted by over-confidence. The insufficient, bounded nature of market reasoning is demonstrated firstly by the unsystematic selection of the one domestic structure that mattered that for markets in practice. Markets looked into the financial structure because of its direct effect on the domestic costs of disinflation. But they failed to recognise the subtle features of the political structure, which turned out to be critical for time consistency. Secondly, they assessed the credit structure unsystematically, relying on direct policy indicators to switch interest on and off. This attitude prevented the already overly narrow structural analysis from having a stabilising influence on market sentiment.

Market participants were generally reluctant to enter into complex systematic structural deliberations in order to clarify how and to what extent domestic structures fundamentally constrained the longer-term capability of the government to defend the exchange rate, as long as there was some short-cut to overcome uncertainty in the short term.

Overall, the longitudinal analysis of market sentiment demonstrated that in the case of the British pound, as for the French franc and the D-mark, it was primarily uncertainty about the political sustainability of the strong currency commitment, and not competitiveness concerns, which caused the attack on sterling. Early market worries about balance of payments sustainability were dispelled in the course of 1992 due to the positive effect of disinflation on competitiveness. Market uncertainty, fuelled by strains in the financial structure, was clearly linked to political sustainability concerns. This result is contrary to the assertions in some academic explanations which see the 1992 sterling crisis to have been caused to a considerable degree by overvaluation (e.g. Portes 1993, Gros & Thygesen 1998).

Consequently, the analysis lends strong support to the second generation expected policy change model, but finds little support for the first generation competitiveness crisis model. Furthermore, both the contingent policy change version and the inconsistent policy view within the second generation model are confirmed by the sterling crisis. Clearly the government's commitment to ERM parity had to enter a crisis zone of growing political sustainability problems for market participants to ponder a speculative attack in late summer 1992, as predicted by the expected policy change model. But the actual attack was triggered by inconsistencies between the government's strong currency rhetoric and its weak monetary policy signals. Finally, once the fragility of the exchange rate commitment had been acknowledged, a situation of multiple equilibria arose, with the time consistency of the government's exchange rate commitment contingent on whether it would have to defend sterling against a speculative attack. The ejection of sterling from the ERM on Black Wednesday was thus the result of a self-fulfilling speculative attack, triggered by policy inconsistency, but determined by escalating uncertainty pertaining in part to strains in the financial structure.

Chapter 6: The French Franc during the ERM Crisis

6.1. Introduction

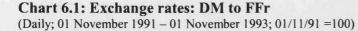
This chapter investigates the evolution of international financial market sentiment towards the French franc during the ERM crisis. What variables were important for market participants and how prominent were concerns regarding domestic structures?

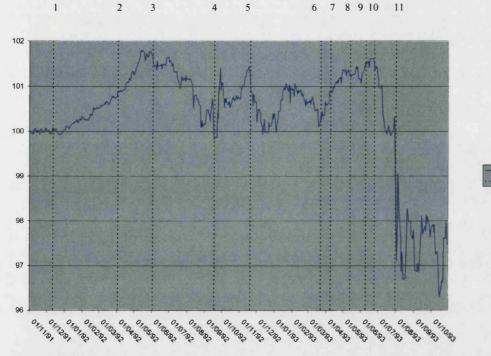
Following my methodological approach outlined in Chapter Three, I focus on episodes of currency weakness in order to establish what led to credibility problems of the ERM peg of the French franc. My analysis in Chapter Four concluded that there was significant structural support in the French political economy for the *franc fort*. The bureaucratic elite controlling the Treasury and the Banque de France in the dirigiste administration combined with a centralised semi-presidential political system to support the strong currency strategy. Against this support stood divided government during *cohabitation*, the relationship of banking with a devaluation inclined industry, and militant sections of the trade union movement. But in the early 1990s these structural weaknesses did not pose a serious challenge to the sustainability of the hard currency strategy, since there was bipartisan consensus in France's political elite around the *franc fort* strategy, a weakening of bank-industry links, and fragmentation in the wage bargaining structure.

The chapter concludes that financial market participants took account of domestic structures, but a systematic and coherent analysis shared by all analysts of the specific nature of the institutional-structural underpinnings of the French monetary policy strategy was lacking. As in the British case, ad hoc auxiliary indicators as unemployment, referenda, election results, and political comments where taken as short-cuts to draw conclusions about the structural fragility of the French political economy. On the other hand financial markets underwent a process of structural learning as to the capabilities of the French political and financial system to cope with the strains of disinflation. Ultimately market participants were not able to make up their mind whether sound French economic fundamentals were embedded in corresponding domestic structures, or simply conditional on rigid adherence to Bundesbank imposed monetary policies. Inconclusive superficial structural awareness only added to uncertainty about the future of the French exchange rate commitment. In summer 1993 this uncertainty contributed to the impression in financial markets that the challenge of Bundesbank dominance by French policy makers represented policy inconsistency in regard of the commitment to the *franc fort*. Consequently my findings in this chapter will add a structural dimension to the "second generation" inconsistent policy model.

The second section of this chapter gives an account of the events surrounding the French franc in 1992/93 against the background of the *franc fort* strategy, followed by a review of the interpretations of the franc crisis in the literature. Section three presents the empirical evaluation of market sentiment, based on my qualitative analysis of the three financial market reports. Section four concludes.

6.2. The French Franc in the ERM Crisis







Events:

- 1: 11/12/91: Maastricht treaty agreed.
- 2: 02/06/92: Danish referendum on Maastricht Treaty.
- 3: 02/04/92: Pierre Bérégovoy replaced Edith Cresson as Prime Minister.
- 4: 16/09/92: "Black Wednesday".
- 20/09/92: French referendum on Maastricht Treaty.
- 5: 19/11/92: Swedish krona floated (mounting ERM tensions)
- 6: 21/03/93: France: first round of National Assembly elections.
- 7: 09/04/93: PM Balladur announces independence for the Banque de France at the end of 1993.
- 8: 13/05/93: Spanish peseta and Portuguese escudo devalued (Iberian currency crisis).
- 9: 09/06/93; George Soros speaks of "fundamental and long-term D-mark weakness".
- 10: 24/06/93: "La grande gaffe": France suggests concerted interest rate cuts to Germany.
- 11: 29/07/93: Bundesbank interest rate cuts insignificant (Lombard minus 0.5%); 31/07 01/08/93: widening of ERM bands to 15%.

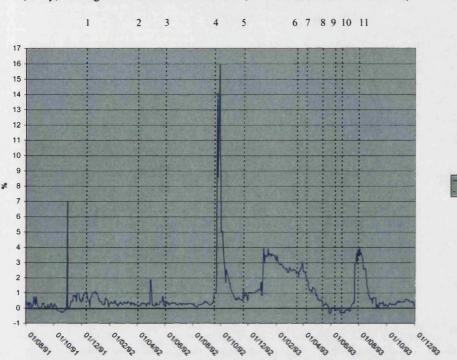


Chart 6.2: France: short-term interest rates

(Daily; 01 August 91 to 01 December 1993; differential with German rates)

Germany and France: Call Money Rate Source: Datastream

Events:

- 1: 11/12/91: Maastricht treaty agreed.
- 2: 02/06/92: Danish referendum on Maastricht Treaty.
- 3: 02/04/92: Pierre Bérégovoy replaced Edith Cresson as Prime Minister.
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 - 31/07 01/08/93: widening of ERM bands to 15%.

The succession of exchange rate crises of the French franc in the ERM during 1992/93

represents a case of credibility crises resulting from political sustainability problems

Short-i: FF-DN

(Cacheux 1995: 84; De Grauwe 1997: 107-108).¹ Although the devaluations and depreciations of other ERM countries following September 1992 had resulted in some deterioration of French competitiveness, French balance of payments-related fundamentals continued to be sound.² It was the costs of lasting disinflation in terms of output loss and rising unemployment, resulting from the rigorous French commitment to exchange rate stability in the ERM, which was ultimately judged by financial market participants to be politically unsustainable. Therefore the franc crisis was internationally rooted not in overvaluation, but in the asymmetry within the ERM, i.e. the need to shadow excessively tight monetary policy by Germany (Tsoukalis 1997: 152-58).

What distinguishes the French case from the UK is that France did not use the leeway for monetary policy autonomy it had gained by the widening of bands in August 1993 to decouple from Bundesbank monetary policy.³ In autumn 1993 it became clear that financial market participants had got it wrong by expecting France to give priority to domestic monetary policy needs, sealing the fate of the ERM and the EMU project (see Gros & Thygesen 1998: 222). The surprising strength of the French commitment was grounded in the nature of French domestic structures described in Chapter Four. Market sentiment has to be investigated as to whether these conditions were fully understood.

¹ The following review is based on Dyson (1994); Andrews (1995); Cameron (1995); Connolly (1995); Kenen (1995); Sandholtz (1996); Grahl (1997); Tsoukalis (1997); Walsh (2000); and Keesing's Record of World Events.

² For the convergence of key economic fundamental indicators towards German levels, see Cacheux 1995: 72-81)

³ On the contrary, France scrupulously followed the gradual monetary relaxation of the Bundesbank, and the franc climbed back above the floor of its previous narrow band on 8 December 1993, after only a brief period of depreciation in the wake of the summer 1993 crisis (Andrews 1995: 169). The assessment that France did not break free from the narrow constraints of the DM peg is widely shared in the literature (e.g. Dyson 1994; Kennen 1995; Grahl 1997). An exception is Cameron (1995), who argues that France deliberately provoked the widening of ERM bands to regain monetary policy autonomy. His analysis

6.2.1. Competitive Disinflation and the Franc Fort

The French economic and 'high politics' interests behind the *franc fort* strategy have been described by Loriaux as a case of 'second image reversed' (1991: 241). International developments, first of all the end of the Bretton Woods regime and the consequent creation of the EMS resulted in the acceptance for domestic economic stabilisation and structural reform, which in turn shaped the external strategy of competitive disinflation and the *franc fort*. The asymmetric EMS had reduced, but not removed this exposure to US monetary policy, and sharpened the problem of German dominance over French monetary policy. As long as France continued with its post-war inflationary economic regime, franc crises and devaluations determined by American and German monetary policy moves were unavoidable, relegating France to a second rate nation in monetary affairs (Loriaux 1991).

The franc crisis and capital flight in response to the Mitterrand experiment of "reflation in one country" after 1981 led to the general acceptance of the need for a U-turn towards domestic stabilisation in the French elite (Peréz 1997: 205; Goodman 1992: 135-6). The corresponding external monetary policy move was the shift towards the strategy of 'competitive disinflation' and the *franc fort* in the ERM, as a way to establish a strong brand of franc credibility in financial markets (Cacheux 1995: 84).

The strategy of competitive disinflation constituted the narrow economic rationale behind

ignores that post-crisis French monetary easing was done in step with the Bundesbank, always preserving a considerable spread over German interest rates.

the now stable and strong currency policy (Dyson 1994: 210).⁴ Sandholtz summarises

the rationale competitive disinflation as follows:

"Higher inflation elsewhere in an adjustable-rate system like the ERM in which realignments were not entirely compensating for accumulated inflation differentials, meant that foreign prices rose faster than French prices. Hence the increasing price competitiveness of French output." (1996: 264, fn. 120)

Importantly, competitive disinflation was designed not to be in conflict with growth and employment, but seen as a means to create the conditions for an economic take-off:

Ironically, the surrender of interventionist economic power coming with competitive disinflation was conceived as a strategy to retrieve power to determine monetary policy vis-à-vis Germany and ultimately the US (Loriaux 1991: 240).

Therefore, the importance of competitive disinflation and the *franc fort* as linchpin of a greater high politics strategy by the French policy-making elites should not be underestimated. According to David Andrews its grand objective was "to develop a framework for European monetary relations that, minimally, would allow symmetry between France and Germany and, maximally, might promote French dominance" (1995: 165).⁵ The EMS was in this context nothing but a "halfway house" (Dyson 2000: 175). Only through the EMU project of pooled monetary sovereignty between member states including Germany could France at least partly regain national monetary policy

[&]quot;The economic rationale for the franc stable was presented as a virtuous alternative to the vicious circle of inflation-crisis-devaluation; 'zero inflation', combined with 'modernization' would ensure a more competitive French industry" (Dyson & Featherstone 1999: 81).

⁴ For detailed assessment of the strategy of competitive disinflation in France, see: Blanchard and Muet (1993), and Fitoussi et al. (1993).

⁵ See also Sandholtz (1996:268).

autonomy. Hence to maintain the franc at the heart of the EMS was critical for the survival of this strategy, since a French devaluation would have not only undermined the ERM, but in all probability been a fatal blow to EMU.

In addition, shared monetary sovereignty had become the nub around which the Franco-German 'high politics' project of *construction européenne* revolved (Dyson & Featherstone 1999: 81). In this context France saw monetary union as a way to anchor Germany in an integrated western Europe in return for supporting German reunification (Sandholtz 1993b). The resolution in both France and Germany to co-operate to create European monetary union gave additional strength to the Franco-German axis at the core of the ERM in the early 1990s. The high politics of EMU thus lent critical external supported to the *franc fort* by the German government.

In the early 1990s competitive disinflation and the *franc fort* had taken on hegemonic importance in the wider French national policy discourse. As Kenneth Dyson and Kevin Featherstone conclude:

This ideational rootedness of the *franc fort* was the result of the capacity of France's domestic structures to enable the French state to prioritise its policy objectives in a comprehensive fashion. The 1992/93 crisis put these structures to test, threatened everything that the French policy-making elite had achieved so far through competitive

[&]quot;On French interest in rebalancing economic and monetary power with the USA and Germany there was an impressive domestic political consensus stretching across parties on which the French government could build in pursuing EMU. The pursuit of this long-term gain in so sustained a manner has the attributes of heroic leadership of directly elected Presidential power onto the apparatus and ethics of an administrative state that has a sense of operating on behalf of the general interest." (Dyson & Featherstone 1999: 253)

disinflation. The French economic and foreign policy paradigm itself was at stake (Dyson 1994: 162-168).

- 1992/93: Domestic Tensions

The 1992/93 crisis highlighted the fundamental weakness of the *franc fort* commitment: heightened vulnerability to Bundesbank and US dollar politics. When the combination of the German monetary squeeze and US benign neglect hit the franc in the early 1990s, France saw itself forced to defend excessive exchange rate rigidity through rigorous disinflation.

In 1992/93, participation in a co-ordinated ERM realignment, as suggested by the Bundesbank, would have put French qualification for EMU at risk, given the exchange rate stability requirement and timetable of the Maastricht design (Sandholtz 1996: 264-5).⁶ Furthermore the French policy-making elite did not want to undermine its hard won monetary credibility through another devaluation, which might have disqualified France for monetary union in the eyes of the Germans. Tensions in the ERM were thus increased from both sides of the ERM hierarchy: by dysfunctional Bundesbank leadership and by uncooperative French followership (see Abdedal 1998). Without realignment the Banque de France had to defend the *franc fort* by increasing interest rates to punitive levels (see Chart 2.2), pushing the French economy into recession (see Chart 2.7).⁷

Domestically, the erosion of the broad interest coalition in French society in support of

⁶ In addition, as James Welsh points out, in September 1992 French officials feared that realignment would have reduced voter's support for the treaty (2000: 114).

⁷ See also the overview of French annual main economic indicators in the Appendix, Table 2.

the *franc fort*, in the face of unemployment rising to 12 percent of the labour force in summer 1993 (see Chart 2.8), is probably the most significant. Looking into the support for the *franc fort* by the administration, the private sector, peak associations of social interest groups, and political parties (Table 6.1), only the core of the administration, i.e. the president, prime minister, the Treasury and the Banque de France, maintained a consistently united stance behind the defence of the hard currency until and beyond August 1993.⁸

This commitment is remarkable, since both the socialist and the centre-right government faced considerable pressures from the radical wings of their parties to abandon the *franc fort* in favour of stimulating the economy. In particular the government collation of RPR (Gaullist) and UDF (centre-right) elected in March 1993 faced what James Walsh described "...was a near insurrection against the policy of competitive disinflation from both senior and rank-and-file RPR members" (2000: 129). This resistance from part of the established parties added to the traditional opposition by the communist CPF and the extreme right *Front Nationale* (FN) to the project of *construction européenne*. Both denounced the *franc fort* and the Maastricht treaty as a surrender of national policy autonomy to manage the economy.⁹

⁸ The reaction of French policymakers to the 1992/93 crisis was not to devalue, but to push ahead with legal independence for the Banque de France (Sandholtz 1996: 264).

⁹ On the rejection of the liberal European strategy of the French elite from the right and left of the political spectrum, see Berger (1995).

Table 6.1:	
Monetary policy interests in France in	1992/93

	DOMESTI	DOMESTIC POLICY		EXTERNAL POLICY	
	Employment/ Growth	Disinflation	Franc Fort	Devaluation	
Administration					
President	+		++		
Finance Ministry/ Banque de France		++	++		
Foreign Ministry			++		
Private Sector					
Patronat	++	-	+		
MNCs	+		+	-	
SMEs	++		-	+	
Commercial Banks		+	+	-	
Unions			· · · · ·		
CFDT	++		+		
FO	++		-	+	
CGT	++		-	+	
Farmers				++	
Political Parties					
CPF	++	-	-		
PS	++		+	-	
UDF	+	+	++		
RPR	+		+	-	
FN	++			++	

Based on Dyson & Featherstone (1999); Ishikawa (1999); Welsh (2000); Josselin (2001)

++ strongly in favour

+ in favour

- opposed

-- strongly opposed

blank: neutral

Patronat: Confédération Nationale du Patronat Français (main employers' organisation); CFDT: Confédération Française Démocratique du Travail; FO: Force Ouvrière; CGT: Confédération Générale du Travail; CPF: Communist Party; PS: Socialist Party; UDF: Union pour la Démocratie Française (centreright); RPR: Rassemblement du Peuple Français (Gaullist); FN: National Front.

Criticism came also from the more radical organisations in the fragmented trade union movement, the communist union CGT and its public sector offshoot FO, and over time increasingly from the main employers' organisation, the *patronat*, influenced by the interests of small and medium-sized enterprises (Josselin 2001: 60-1; Dyson 1994: 199; Dyson & Featherstone 1999: 79). Resistance centred on the consequences of the

government monetary policy framework for unemployment and growth, and found a common theme in the reaction of the Maastricht treaty, especially the excessive austerity imposed by the convergence criteria and the Growth and Stability pact.¹⁰. Domestically orientated SMEs, more dependent on bank credit than big business, and seeking relief from competition through devaluation, suffered disproportionately under the credit squeeze of disinflation (Dyson & Featherstone 1999: 79). In this situation the rigorous defence of the *franc fort* by the Banque de France increasingly appeared to be out of touch with reality (see Connolly 1995).

6.2.2. Periodization of the History of the French Franc in the ERM Crisis

The analysis of market sentiment in the case of the French franc crisis starts from 1 October 1991, with market volatility increasing towards the Maastricht conference in November/December 1991, and ends with the widening of the ERM bands to +/- 15% on 31 July to 1 August 1993. The investigated period stretches over 22 months, from October 1991 to 2 August 1993. The French franc went through several episodes of speculative pressure during this period, most prominently the period surrounding the French referendum on 20 September 1992 and the crisis following the French "Grande Gaffe", the challenge of Bundesbank leadership in the ERM in summer 1993.¹¹

¹⁰ Daphne Josselin (2001) gives a good summary of the critical positions to Maastricht within the French political party and trade union spectrum.
¹¹ The term 'Grande Gaffe' refers to the misjudged call by France's Finance Minister Edmond Alphandéry

¹¹ The term 'Grande Gaffe' refers to the misjudged call by France's Finance Minister Edmond Alphandéry on 24 June 1993 for joint German-French interest rate reductions, immediately rejected by his German counterpart Theo Waigel, triggering a run on the French franc. As Bernhard Connolly reports, the failed attempt for joint Franco-German leadership in the ERM became immediately known as "La gaffe Alphandéry" (Connolly 1995: 309)

A systematic definition of periods of speculative attack on the French franc has resulted in five so called "crisis episodes": ¹²

- the "Maastricht Treaty weakness episode" (28 October 1991 23 December 1991)
- the "Danish-French referendum crisis episode" (03 June 1992 28 September 1992)
- the "Swedish krona crisis episode" (19 November 1992 04 January 1993)
- the "pre-election crisis episode" (21 January 1993 27 March 1993)
- the "Grande Gaffe' crisis episode" (24 June 1993 31 July 1993)

The crisis episodes have also been statistically aggregated as "franc crisis episodes". This variable is juxtaposed with "franc non-crisis episodes", the aggregate of those periods in which the French franc was free or recovered from speculative pressure. Altogether the 1992/93 periods has been broken down into ten episodes:

- Franc stability before the Nordic currency crisis (01 October 1991 27 October 1991). Banking on the growing credibility of the French franc, which had show remarkable stability since 1987, and bolstered by the prospect of an agreement on monetary union at the Maastricht conference in December, the Banque de France did on 17 October risk to undercut German official rates.
- 2. The franc weakness surrounding the Maastricht treaty negotiations (28 October 1001 23 December 1991). In this period growing doubts on the ability of European politicians to reach an agreement on monetary union, drastic monetary easing in the United States, and the Nordic currency crisis boosted the D-mark against other ERM currencies, including the French franc.

¹² For the definition criteria see Chapter Three. For a chronology of the events referred to in the following section, see Appendix, Table 1.

At the end of October, markets signaled that they would not tolerate the French policy of decoupling official interests rates by driving up the spread of market rates over German short-term rates. Official French policy had to react to this confidence crisis by returning to a policy of shadowing Bundesbank monetary policy from 18 November onwards. On 23 December the Bank of France matched the increase in the German discount rate of 20 December, resulting in the franc stabilising.

- 3. The period of franc recovery until the Danish referendum (24 December 1991 02 June 1992). Internationally, expectations of German interests rate cuts and a lasting recovery of the dollar, fuelled hopes for an imminent recovery and job creation in France. Domestically, the French minority government, which had been weakened by losses in regional elections and tainted by corruption scandals, emerged strengthened when President Mitterrand replaced Prime Minister Edith Cresson with the competent Pierre Bérégovoy on 3 April, who announced rapid steps to implement central bank independence. The rapid recovery of the franc led to political speculation that the currency had the potential to replace the D-mark as ERM anchor.
- 4. The franc crisis triggered by the rejection of the Maastricht Treaty in the Danish referendum, ending with the narrow endorsement of the treaty in French referendum (03 June 1992 28 September 1992). Although the currency had started to weaken immediately after the Danish referendum, the crucial phase of speculative pressure, dubbed the "battle of the franc" lasted

only from 16 September to 24 September.¹³ Internationally, pressure on the franc escalated when the British pound and the Italian lira were forced out of the ERM on 16/17 September. Again the situation was aggravated by dollar weakness. Domestically the French referendum of 20 September became a rallying point for the growing discontent with the economic and social costs of a monetary policy strategy accused of surrendering national monetary policy autonomy. The franc was finally stabilised through coordinated massive intervention by the Bundesbank and the Banque de France and drastic increases in French official interest rates to 13 percent on 23 September. The French financial structure partly insulated the banking system from these increases. Official rates could be cut unilaterally by France on 28 September.

- 5. A brief phase of franc strength (29 September 1992 18 November 1992). Supported by re-emerging doubts about the state of the German economy and a dollar recovery, the franc was now seen as a clear favourite for a possible 'hard-core' monetary union including Germany and the Benelux countries.
- 6. The crisis episode triggered by the floatation of the Swedish krona, followed by the devaluation of the Spanish peseta and the Portuguese escudo three days later (19 November 1992 04 January 1993). The franc came under attack due to the impression that the Bundesbank was unwilling to follow up on its support of September with significant interest rate cuts, shifting back attention to the question of whether the *franc fort* policy was politically sustainable.

¹³ The term 'battle of the franc' was already used in the financial market reports of the FT during the crisis (see FT 24/09/92). It was later adopted in the literature, e.g. by John Grahl (1997: 97)

Furthermore the devaluation or floating of major EU trading partners of France tarnished the image of France's competitive strength.

- A brief phase of franc stabilisation in expectation of German interest rate cuts (05 January 1993 – 21 January 1993).
- 8. The crisis period preceding the elections for the French National Assembly (21 January 1993 27 March 1993). Opinion polls forecast a clear defeat of the ruling socialist government, due to growing discontent with the output and unemployment costs of defending the *franc fort*. The question causing pessimism on the French franc was whether a likely new centre-right UDF-RPR government would abandon the *franc fort*. Although the centre-right signalled their intention to persist with the defence of the currency, announcing its own plans to confer independence to the Banque de France, doubts remained, given the vociferous criticism of this policy from the nationalist wing of the Gaullist RPR. A fully-fledged devaluation crisis could only be avoided by a repeat of determined French-German action to relieve pressure on the franc, this time including Bundesbank rate cuts.
- 9. The period of franc strength, following the landslide victory of the centre-right (28 March 1993 – 23 June 1993). The new Prime Minister Edouard Balladur reaffirmed his commitment to the *franc fort* by sticking to tight monetary policy and taking legal steps for full central bank independence in 1994. On the other hand the administration dramatically increased counter-cyclical deficit spending. Internationally the franc was supported by a rising dollar and intrinsic D-mark weakness. The impression that the franc was gaining

hard currency status independent of German was confirmed by the fact that it was able to shrug off the Iberian currency crisis in April/May and the Banque de France's ability to lower its official interest rates towards Bundesbank levels. In June 1993, short-term market rates fell below German rates without undermining the stability of the franc (see Charts 2.2 and 6.2). The key factor behind this strength was that France now easily outperformed Germany on inflation.

10. The 'Grand gaffe' crisis episode, clearly defined by two political events: It starts with the call for French co-leadership in the ERM by Finance Minister Alphandery ('Grande Gaffe') on 24 June 1993, and ends with the widening of ERM bands to +/- 15 percent on 31 July 1993. The most severe speculative assault on the franc so far happened because the French policy move was interpreted as a sign of weakness, not strength. The hostile German reaction, followed by only insignificant piecemeal steps by the Bundesbank to further lower its interest rates, and reluctant intervention, revealed severe strains in the Franco-German axis. The French pressure on Germany also exposed the mounting domestic resistance to a continuation of the *franc fort* strategy by the elite. Since the government would not accept realignment, the widening of the ERM bands to \pm 15 percent was devised as a face saving way to reduce speculative pressure. Contrary to expectations, French policymakers did not risk erasing at one stroke the credibility which had been earned through years of competitive disinflation, and which was critical for the prospect of EMU.

France did not exploit the leeway for rapid monetary easing it had gained, but returned the traditional defence of the *franc fort*.

6.2.3. Interpretations of the French Franc Crisis

The French franc crises of 1992/93 have been interpreted in the currency crisis literature within the standard framework of the three competing crisis models, the "first generation" competitiveness model, the "second generation" expected or contingent policy change models, and the related "inconsistent policy view". The discussion revolves around three questions: the "puzzle" why the franc came under speculative attack despite strong economic fundamentals, what explains the timing of the attack, and finally, why did financial markets get it wrong in expecting a policy change from the French authorities towards reflation at the price of devaluation.

The majority view in the academic literature is that the first generation model cannot explain the franc crises, since both the balance of payments and French inflation both indicated strong and improving international competitiveness of the French economy over 1992/93, despite the depreciations and devaluations of other ERM members.¹⁴ The deteriorating fiscal deficit has been dismissed as a minor problem, since it was low by international comparison (De Boissieu 1994, Gilibert 1994).¹⁵

¹⁴ See Eichengreen & Wyplosz (1993); De Boissieu (1994); Mélitz (1994); Moutot (1994); Cobham (1996, 1997), Gros & Thygesen (1998).

¹⁵ Not everyone agrees. Dissenting voices, pointing out economic fundaments weakness for the French franc, are Cameron (1995), emphasising French deteriorating competitiveness in after the devaluations and depreciations of other ERM member states, and Ötker & Pazarbasioglu (1997), who add concerns about France's deteriorating public deficits to worries about competitiveness.

The second generation expected and contingent policy models on the other hand are widely assumed to hold the key to explaining the attacks on the French franc. Its proponents assert that, given the social and economic costs of disinflation and the deteriorating prospects for EMU after the Danish referendum, the wider French society suffered from "adjustment fatigue". This critically weakened the political commitment to shadow German monetary policy (Moutot 1994). From this point of view it is of secondary importance whether market participants speculated against the franc because they expected French policymakers to renege on their commitment, as suggested by the expected policy change explanation, or because they expected France to succumb to the punitive interest rate increases in defence of the franc in response to speculative pressure, as suggested by the contingent policy change "multiple equilibria" explanation.¹⁶

Finally, the inconsistent policy view adds an explanation for the timing of the summer 1993 crisis by maintaining that the French demand for joint Franco-German monetary easing was contradicting the *franc fort* commitment, signalling that it would be reneged under speculative pressure. (Cobham 1996, 1997; Mélitz 1994).

Academic crisis interpretations still fail to explain why French authorities did not reflate after the widening of the ERM band in August 1993, contrary to financial market expectations. Neither the expected nor the contingent policy view take account of the possibility that markets failed to fully appreciate that the strength of the French exchange rate commitment was based on strong domestic structural underpinnings. The problem of

¹⁶ Proponents of the expected policy change explanation for France are De Grauwe (1997) Krugman (1996), Salvatore (1996), Ozkan & Sutherland (1994), Moutot (1994), De Boissieu (1994). Their position finds support in 'official' accounts of the franc crisis (e.g. BIS 1994). The key representatives of the contingent policy view are Eichengreen & Wyplosz (1993).

"social rootedness" of disinflation policies is mentioned, (Gilibert 1994), but the issue is not followed up with an investigation of whether markets have been concerned about this rootedness. A notable exception is de Boissieu (1994), who speaks of "institutional risks" in connection with speculative attacks, accusing "Anglo-Saxon speculators" of failing to understand the strength of the French financial sector in coping with mounting private debt and high interest rates. Financial market sentiment has to be investigated directly in order to establish whether unsystematic and superficial awareness of French domestic structures offers some explanations for the misjudgement of French policy credibility by investors.

6.3. Market Sentiment towards the French Franc during the ERM Crisis

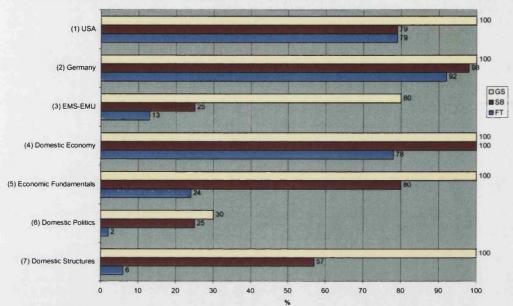


Chart 6.3: Market sentiment France: Economic, political, structural variables (as percentage of text units coded at French crisis episodes)¹⁷

- (1) International developments: USA (US monetary policy and US dollar)
- (2) International developments: Germany (Bundesbank policy and DM)
- (3) International developments: EMS-EMU
- (4) Domestic developments: French economic performance and economic policy (including economic fundamentals)
- (5) Domestic developments: French economic fundamentals only (inflation, BoP, budget deficits)
- (6) Domestic developments: French domestic politics (especially elections)
- (7) domestic structures (especially central bank; financial, wage bargaining, government structures)

¹⁷ The categories in this chart, and the following charts on 'market sentiment', refer to noded categories and their subordinated categories in the index tree (Appendix, Table 3).

Category [1] = Node (4 1 1) and (4 1 3);

Category [2] = Nodes (3 2 1 1), (3 2 2 1), (3 6);

Category [3] = Nodes (2 4), (2 2 1 1 7), and Nodes (4 3 9), (4 3 11);

Category [4] = Nodes (2 1) and (2 2);

Category [5] = Nodes (2 1 1 1), (2 1 1 2), (2 1 1 3), (2 1 1 6), (2 1 2 1), (2 1 2 2), (2 1 2 3), (2 1 2 6);

Category [6] = Node (2 3);

Category [7] = Node (2 5).

Chart 6.4: Market sentiment France:

Expectations of FFr exchange rate: uncertain or weakening (as percentage of text units coded at respective episode)¹⁸

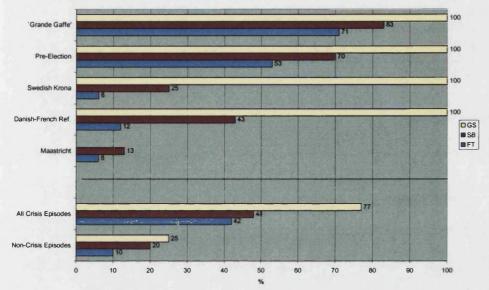
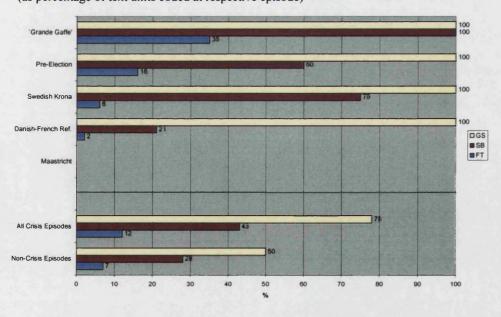


Chart 6.5: Market sentiment France: Concerns about the sustainability of the ERM exchange rate commitment (as percentage of text units coded at respective episode)¹⁹



¹⁸ Nodes (2 6 1 2) and (2 6 1 4)

¹⁹ Node (2 4 1 5)

Market sentiment towards the French franc was investigated for the relative influence of a broad range of international and domestic variables, with specific focus on domestic structures. As an overview of the relative importance of different variables shows (Chart 6.3), international developments and the performance of the French economy have clearly concerned financial market participants more than domestic politics or domestic structures. The developments of German and US monetary policy and the D-mark and Dollar exchange rates were as significant for markets as the performance of the French economy itself. As for the case of Britain, market participants approached the credibility of the French ERM commitment in the context of developments in the anchor currency country, especially Bundesbank policies, and the wider international trend dominated by the US dollar. Narrow fundamentals, indicating balance of payments sustainability, were consistently monitored, in addition to the variables relating to political sustainability, that is unemployment and GDP growth. In comparison, international developments concerning the ERM and European integration have been less significant. The same goes for domestic politics. Domestic structures, on the other hand, received a remarkably high degree of attention from Salomon Brothers and Goldman Sachs.

Looking into two key indicators of French franc credibility, expectations of a franc devaluation (Chart 6.4), and concerns about the sustainability of the ERM commitment (Chart 6.5), a consistent pattern of a cumulative build up of pressure emerges. It increased from one crisis episode to the next, reaching explosive levels during the 'Grande Gaffe' crisis episode in summer 1993. This build up of market sentiment against the franc is more homogenous than in the case of Germany and Britain, escalating periodically in speculative attacks that challenged the resolve of the government's commitment to defend the *franc fort*. The qualitative analysis of market sentiment will confirm this broad trend.

This trend suggests that, in the case of the French franc, market participants had to cope with almost persistent uncertainty about the government's exchange rate strategy, in contrast to Germany and even Britain. This uncertainty goes back to the central question of sustainability. Firstly, evidence for good balance of payments "fundamental" sustainability conflicted with equally influential evidence for deteriorating political sustainability. Secondly, markets registered mixed signals coming from close but fraught cooperation between the German and French authorities in the ERM, which was critical for political sustainability. On the one hand devaluation risks had to be gauged against the willingness of the Bundesbank to support the franc as part of the Franco-German axis. On the other hand the possibility of a successful attempt by the Banque de France to decouple from monetary policy had to be taken into consideration. The overall result was a highly charged feeling of political, social and economic uncertainty in markets about the future of the *franc fort* strategy.

Domestic institutions should have come in as a way to assess the structural strength of the French commitment to the *franc fort* policy in its tactical interaction with the German authorities and the domestic constituency. Although domestic structures were considerably more relevant for France than for Britain, market attention did not add up to a systematic and coherent investigation by analysts.

The empirical qualitative analysis will begin with international factors, and move on to domestic economic factors determining balance of payments and political sustainability, and related political developments. Against these findings I then assess the influence of domestic structures on market sentiment.

6.3.1. International Variables

6.3.1.1. The D-Mark/Dollar Cross and Bundesbank Monetary Policy

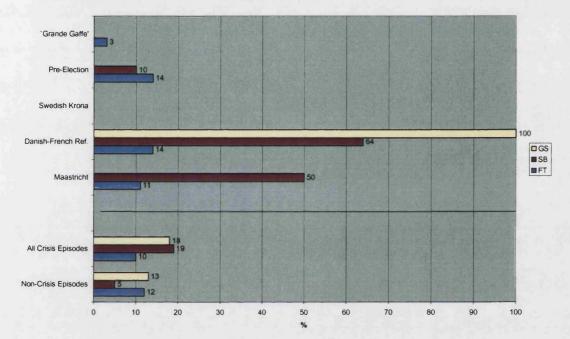
In the context of the asymmetric nature of the ERM the French franc was caught up in a scissors movement between tight German and loose US monetary policy. As this prevented France from relaxing its excessively tight monetary stance, financial market participants expectations for the franc were linked to hopes for opposite interest moves in the US and Germany from the end of 1991. Markets took account of the expected imminent recovery from the 1991 recession in the US, and equally expected imminent progress of the Bundesbank in bringing German inflation under control. In the French case, markets did not directly focus on US and German interest rates, but on the strength of the US dollar versus the D-mark (Chart 6.6).²⁰

Attention to the role of the US dollar for the prospects of the franc was high until summer 1993. This reflected D-mark – dollar exchange rate uncertainty since success in Germany on the inflation front and signs for a US recovery alternated with successive setbacks. But worries about the dollar clearly receded with the US currency's recovery in 1993 (see Chart 6.6). The fact that the franc came under attack in summer 1993 despite this points

at a narrowing of the focus in market sentiment towards the critical Bundesbank - franc

fort relationship.

Chart 6.6: Market sentiment France: Expectations of US dollar to weaken against the D-mark (as percentage of text units coded at respective episode)²¹

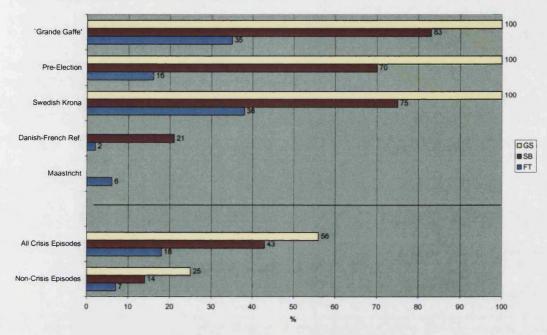


²⁰ The issue of an expected widening of the US-German interest rate differential (Node 4 1 1 3 1) was insignificant in the French case. ²¹ Node (4 1 3 1 2)

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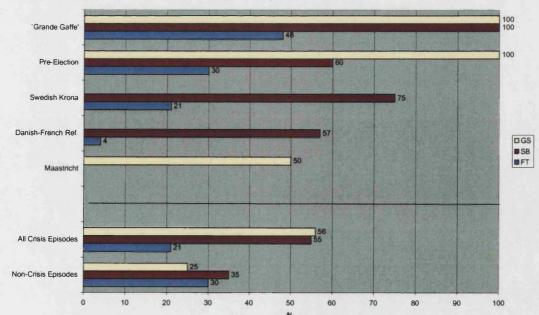
Chart 6.7: Market sentiment France:

Expectations of the Franco-German axis causing the Bundesbank to stabilise the French franc



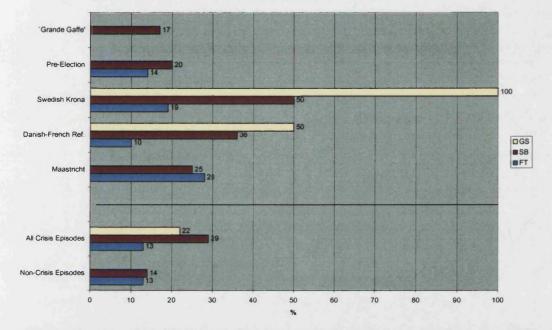
(as percentage of text units coded at respective episode)²²

Chart 6.8: Market sentiment France: Expectations of an imminent Bundesbank interest rate cut



(as percentage of text units coded at respective episode)²³

Chart 6.9: Market sentiment France: Concerns about hawkish Bundesbank statements (as percentage of text units coded at respective episode)²⁴



Regarding the role of Germany, financial markets recognised that the sustainability of the *franc fort* was critically dependent on support by the Bundesbank through either interest rate reductions and/or intervention (see Chart 6.7). Coordinated Bundesbank - Banque de France intervention in defence of the franc/D-mark parity was seen as the decisive factor for the survival of the French currency in the Danish-French referendum crisis episode. This raised market expectations of further intervention by the Bundesbank in later crisis episodes, which by themselves helped to contain speculative pressure on the franc: "Speculation against the franc has not surged, because market participants expect that the Bundesbank will offer support to its French counterpart, as it did in September." (SB 27/11/92: 6)

²² Node (3 4 1 2) and (3 4 1 3)

²³ Node (3 2 1 1 2)

²⁴ Node (3 2 1 4 1)

Furthermore, the September episode raised expectations in financial markets that the Bundesbank would cut official interest rates in support of the *franc fort*. Markets saw these expectations confirmed by the German central bank's cuts before the 1993 French National Assembly elections. Subsequently, expectations of further substantive cuts increased, culminating in the wake of the call by France's Finance Minister Edmond Alphandéry for joint German-French interests reductions (See Chart 6.8).

Despite consistent attention to Bundesbank moves, financial market participants remained inconclusive as to how critical an easing of German monetary policy would be for the survival of the *franc fort*. In summer 1993 this was reflected in the FT after only token German interest rate cuts in reaction to the 'Grande Gaffe' crisis of the franc:

Six days later the FT quoted an unnamed London analyst with "if the Bundesbank cannot reduce interest rates next week, the attention goes back to whether the French economy can get through the summer at today's high rates" (FT 23/07/93: 29). Although this indicates that markets were aware of the need for deeper and broader assessment to overcome uncertainty about the French vulnerability to German monetary policy, it did not result in systematic structural analysis.

[&]quot;Mr Brian Hilliard, international economist at Societe Generale Strauss Turnbull in London said that ultimately the existing parities would survive. 'What is happening is a scare, not a fatal blow,' he commented. 'There is plenty more that they can do to help the French. The Bundesbank's commitment to support the franc is total.' On the other side of the spectrum was Mr Neil MacKinnon of Citibank in London: 'The absence of a Bundesbank rate move puts another nail in the coffin of the ERM.' (FT 16/07/92: 25)

At the level of European monetary cooperation market participants paid close attention to the high politics of Franco-German cooperation. As the FT put it during the 'Grande Gaffe crisis episode:

The high politics of the Franco-German axis in support of the franc was understood by market participants to conflict with Bundesbank monetary policy priority, contributing to uncertainty about the chances for a decisive German defence of the franc. On the one hand persistent hawkish Bundesbank statements caused major concern until spring 1993 (see Chart 6.9).²⁵ On the other hand markets expected government pressure on the central bank to provide relief for the franc.²⁶

Uncertainty was further increased from the French side in Franco-German axis diplomacy. In summer 1993 markets were aware of the high-risk brinkmanship monetary diplomacy undertaken by the French towards the Bundesbank:

In general, the complex political bargaining relations characterising Franco-German monetary cooperation proved impossible for market analysts to predict through mere

[&]quot;As far as many observers are concerned, the French franc cannot maintain its current position in the European exchange rate mechanism without lower real interest rates, and the mechanism itself cannot survive without the French." (FT 26/07/93: 33)

[&]quot;By allowing the franc to fall to its floor in the system, France's tactic may have been to put the onus on the Bundesbank to support the franc, which it is obliged to do so under the ERM rules. 'The French have been very clever,' said one analyst. 'They are effectively saying to the Bundesbank that the only way the system can be saved is by German intervention or a cut in German interest rates.' (FT 31/07/93: 13)

²⁵ Dovish Bundesbank statements [Node (3 2 1 4 2)] were hardly registered, remaining well below the significance threshold.

policy analysis. Consequently financial market participants considered any predictions of the franc parity in the ERM to be a "close call" (GS, Feb 1993,8/1: 1.10). This only changed when German domestic economic weakness added to international pressures for a German interest cut, leading to more persistent expectations of a cut in German interest rates towards summer 1993 (see Charts 6.7 and 6.8).

6.3.1.2. EMU Problems and ERM Tensions

Chart 6.10: Market sentiment France:

ERM tensions: Expected realignment of other ERM currencies (excluding the French franc)

Grande Gaffe Pre-Election Swedish Krona 100 Danish-French Ref. DGS SB FT Maastricht 44 All Crisis Episodes Non-Crisis Episodes 0 10 20 30 40 50 60 70 100 80 90

(as percentage of text units coded at respective episode)²⁷

²⁶ In the aftermath of the September 1992 expectations flourished that a hard core "mini-EMU" would be superimposed on the Bundesbank, comprising Germany, France, and the Benelux countries. But such speculations remained statistically insignificant. See Node (4 3 11). ²⁷ Nodes (4 3 8 1 1) (4 3 8 1 3), (4 3 8 1 4), (4 3 8 1 5), (4 3 8 1 6)

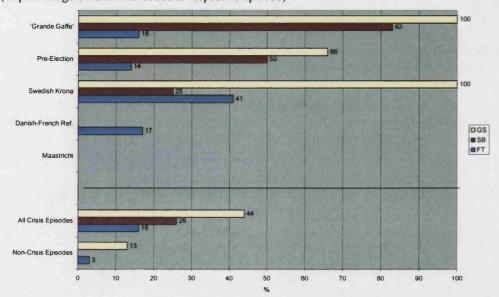


Chart 6.11: Market sentiment France: ERM tensions: Expected realignment of the French franc (as percentage of text units coded at respective episode)²⁸

Similar to the wider international developments related to the dollar and the D-mark anchor, the regional level upheavals in the EMS in 1992/93 can only partly account for the loss of market confidence in the franc. Firstly, the spill-over of wider speculative pressures in the ERM to the franc is insufficient to explain the deterioration of market sentiment over the course of 1992/93. The influence of ERM tensions peaked already in the Danish-French episode, and became insignificant towards the 'Grande Gaffe' episode (see Chart 6.10), despite the Iberian currency crisis of April/May 1993. However, expectations of a realignment of the franc peaked in summer 1993, but were insignificant for September 1992 (Chart 6.11). Furthermore, the credibility of the French authority's commitment to the *franc fort* deteriorated steadily from winter 1991 to summer 1993 (Table 6.2). Together these trends in market sentiment indicate that essentially the

²⁸ Node (4 3 8 1 2)

problems of the franc in financial markets must have been country specific, rather than

systemic.

 Table 6.2: Market sentiment France:

Concern about the government's commitment to the <i>Franc Fort</i> /ERM parity	7
(as percentage share of all expectations of the government's commitment) ²⁹	

	Maastricht	Danish-French Ref.	Swedish Krona	Pre-Election	'Grande Gaffe'
FT	Color- actor	62%	53%	74%	95%
SB	0%	34%	50%	55%	81%
GS		50%	100%	100%	100%

Secondly, evidence for self-fulfilling speculative behaviour for systemic reasons even during the early Danish-French referendum and the Swedish devaluation crisis episodes is mixed. The Danish and French referenda, signalling weak public support for the Maastricht Treaty, led to expectations of a less strong commitment of the French authorities to the prevailing franc parity.³⁰ In the crisis episode following the Swedish Krona flotation of November 1992 fears grew about a speculative spill-over from the Italian lira and pound sterling crises to the franc.³¹

However, these pressures cannot simply be explained by market dynamics triggered by ERM wide problems, since the reaction of market participants was ultimately determined by domestic sustainability concerns. Goldman Sachs' analysis of the spill-over of speculative pressure to the French franc after the Swedish float is representative in this

²⁹ Node (2 4 1 2). As in the case of Britain, the ERM commitment was a significant issue for market sentiment. The percentages of text units coded at this node, as percentage of all crisis episode text units, are: FT: 16%; SB: 74%; GS: 78%.

³⁰ The prospects for the French referendum following the Danish 'No', concerned 43% of FT, 86% of SB, and 100% of GS texts during the Danish-French referendum episode (Node 4 3 9). The figures for concerns about political and public support for EMU during this episode are: FT: 29%; SB: 79%; GS: 100%. For other episodes these concerns remained below the significance threshold. See Nodes (2 4 1 1), (2 4 2 1). ³¹ Nodes (2 4 1 4), (2 4 2 4). Results on market participants concerns about contagion are significant only

for this crisis episode (FT: 3%; SB: 24%; GS: 100%)

respect. They argued that markets were selling the franc in the expectation that the French authorities would follow the UK, Italy, Finland and now Sweden in recognising the "inappropriateness of maintaining disequilibrium real interest rates in a recessionary/ depressionary economy principally to maintain a fixed nominal parity for an exchange rate." (GS, Dec. 1992/Jan. 1993, 7/11: 1.10).

Thus not only the collapse of confidence in the franc in summer 1993, but already the 1992 crisis episode have critically to do with growing concerns about the domestic capability to sustain continued disinflation. Although in 1992 wider ERM tensions spilled over into speculative market dynamics against the franc, market participants understood well the importance of domestic factors for the vulnerability of the *franc fort* to mounting international adversities.

6.3.2. Domestic Economic and Political Variables

Continuous disinflation by the French monetary authorities was justified explicitly within the paradigm of *competitive* disinflation as a way to improve the French terms of trade, and thus balance of payments sustainability. But competitive disinflation had the opposite effect on political sustainability, given its domestic economic and social costs. This conflicting evidence about the sustainability of the government's exchange rate commitment shaped market confidence in the *franc fort*. In this section I first analyse how this conflict influenced the debate in financial markets about the course and sustainability of French monetary policy, followed by an investigation of how market sentiment was affected firstly by competitiveness related fundamentals variables, and secondly political sustainability related variables.³²

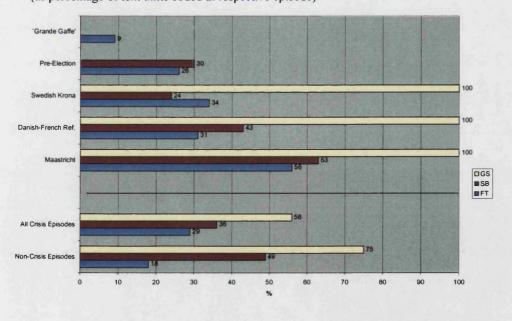
- Monetary Policy: Conflicting Views on Sustainability

French monetary policy was dominated by the need to shadow German official interest rates to maintain market credibility in the *franc fort*. In the overall picture financial markets expected parallel moves in French and German official interest rates, indicating a high degree of confidence in the resolve of the French monetary policy commitment to act in defence of the franc (Charts 6.12 and 6.13). However, over the course of 1992/93 market participants were increasingly concerned as to whether this policy was time consistent, since excessively high German imposed interest rate levels were considered uniformly by all analysts as the root cause for the depressed state of the French economy and rising unemployment. With growing uncertainty in 1993 the debate shifted towards

the question of whether France had the option to unilaterally cut interest rates closer to or even below German levels.

The latter position was up to a point presented by Salomon Brothers. They argued that France had a considerable degree of monetary autonomy, because of inflation being lower than in Germany, allowing for a decoupling from German official interest rates: "The principal factor is the perception that French monetary authorities have greater leeway than the Bundesbank to reduce official interest rates" (SB 25/06/93: 5). Essentially this view assumed a virtuous cycle between positive fundamentals, monetary easing, falling cost of disinflation and consequently rising political sustainability.

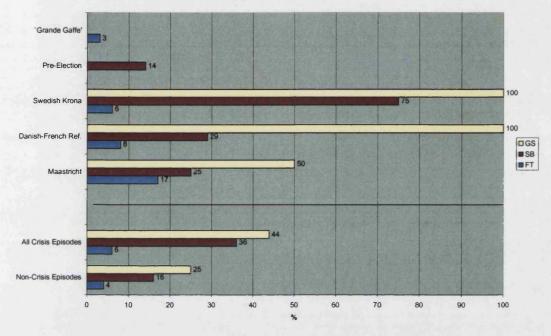
Chart 6.12: Market sentiment France: Expectations of steady or rising Bundesbank interest rates (as percentage of text units coded at respective episode)³³



³² Economic performance and economic policy issues "other" than those covered specifically in the subtrees to Nodes (21) and (22) were insignificant. Coding for Nodes (2117), (2127), (2216), (2224) falls well below the significance threshold. ³³ Nodes (32111), (32113)

Chart 6.13: Market sentiment France:

Expectations of steady or rising French official interest rates (as percentage of text units coded at respective episode)³⁴



The opposing view, represented by Goldman Sachs, saw little room for manoeuvre. They expected that French monetary policy would have to follow the Bundesbank to maintain confidence in the franc, with political sustainability problems as a consequence. Because of these problems financial markets would demand a risk premium over German rates:

"The fact that France requires higher real short-term rates in order to maintain a steady nominal exchange rate with Germany indicates to market participants that the currency-interest rate relationship is not naturally stable. If France's better inflation, budget, and trade position than Germany's were the dominant influences on investors then there would probably be no need for the size of the risk premium obviously demanded to hold French assets." (GS, March 1993, 8/2: 1.07)

Essentially this view assumed a vicious circle between the need to shadow the Bundesbank, disinflationary costs, risk premia to compensate for possible time inconsistency, and even greater political sustainability problems. The likely outcome would be a possibly self-fulfilling speculative attack. Goldman questioned the virtuous cycle argument by pointing out the political business cycle constraint faced by French policymakers. In view of the presidential elections in 1995 they wrote:

"The weakness of the D-mark has provided scope for the monetary authorities outside Germany to cut interest rates independently of the Bundesbank. ... The question of whether there will be a renewed scrutiny of existing parities rests largely with the ability of governments to loosen policy sufficiently to pull their economies out of recession within a period of time tolerable to electorates." (GS, June 1993,8/6: 2.03)

Consequently this viewpoint suggested that devaluation of the franc might ultimately be unavoidable to allow French policymakers to shift towards a stimulatory monetary policy stance.

Confidence in the French franc oscillated between the extremes of these two positions. The latter view dominated whenever events made markets to assume that French policymakers were increasingly unable or unwilling to ignore growing public discontent with the *franc fort* strategy. This was specifically the case for the 1992 crisis episodes close to the French referendum, the pre-election crisis episode in early 1993, and the crisis triggered by the 'Grande Gaffe' of the French economics minister. The importance of politics for negative market sentiment towards the time consistency of the *franc fort* commitment is confirmed by expectations of an imminent French official interest rate cut, with such expectations concentrating in the pre-election and 'Grande Gaffe' crisis episodes.

³⁴ Nodes (2 2 1 1 1), (2 2 1 1 3)

(as pe	(as percentage of text units coded at respective episode) ³³				
	Maastricht	Danish-French Ref.	Swedish Krona	Pre-Election	'Grande Gaffe'
FT	0%	2%	6%	5%	35%
SB	0%	14%	0%	10%	100%
GS	0%	0%	0%	24%	100%

Table 6.3: Market sentiment France: Expectations of an imminent French official interest rate cut (a) provide a fraction of the sentence of

The more sanguine view prevailed in non-crisis episodes in particular after March 1993, when the election of a new strong government in France combined with the confidence crisis of the D-mark to raise expectations of the French franc to replace the German D-mark as the anchor currency of the EMS.

In the end both views on the development of French monetary policy got it wrong, with France neither able to decouple from Bundesbank monetary policy, nor shifting to domestic monetary stimulation at the price of devaluation after August 1993. This raises the question to what extent event and policy statement driven market sentiment had allowed for a deeper systemic analysis of the factors determining the structural capabilities of the French economic system to either sustain German monetary policy or take over as anchor.

³⁵ Node (2 2 1 1 2)

6.3.2.1. Competitiveness Related Economic Variables

France's comparatively good performance of competitiveness related economic variables, often summarised under the generic term "economic fundamentals" in market analysis, had significant positive influence on market sentiment (see Chart 6.14). Market participants consistently paid attention to the balance of payments, especially the trade and current account, inflation, and the state of public finances. Most important was the influence of France's steadily improving inflation record (see Chart 6.16).³⁶ In addition the positive balance of payments, with a swing to rising trade and current account surpluses in 1992/93, supported confidence in the franc (see Chart 6.15).³⁷ In contrast, consistently moderate French wage increases attracted little attention, with the exception of Salomon Brothers, who frequently pointed at wage moderation to support their case for the sustainability of competitive disinflation (e.g. SB 10/01/92. For the statistical relevance of wage bargaining outcomes see Chart 6.17).³⁸

The only other fundamentals concern significantly recognised by markets was the deteriorating state of public finances, with budget deficits rising well above German levels in 1993 (Chart 6.18).³⁹ But this acknowledgement failed to dent "fundamentals" optimism in market sentiment, since escalating deficits were seen as merely cyclical. Given the ferocious overall disinflationary climate, their potential inflationary impact was dismissed as practically irrelevant (see e.g. GS, May 1993, 8/5:1.10 and 3.08). Fiscal stimulus was explained in line with the political business cycle. It was seen as an attempt

³⁶ For France's comparative inflation performance, see Chart 2.4.

³⁷ For France's current account position from 1991 to 1993, compared with other major ERM countries and the USA, see Chart 2.5.

³⁸ For France's wage developments, compared to Germany and the UK, see Chart 2.9.

³⁹ For a comparative presentation of the French fiscal deficit, see Chart 2.3.

by the government to avoid electoral defeat in the National Assembly elections of 1993 and in view of the presidential elections of 1995, by mitigating the effects of the disinflationary *franc fort* strategy (e.g. SB 26/03/93: 5). But similar to the fundamentals concerns about the budget deficit, the positive contribution of the fiscal stimulus to political sustainability was dismissed as having little impact on the economy depressed by disinflationary monetary policy.

In quantitative terms attention to fundamentals was related to growing political sustainability concerns. As these concerns became more prominent in market sentiment over time, the relative importance of improving fundamentals as a countervailing factor was discussed more frequently. But market participants saw positive competitiveness factors as less relevant with prolonged weakness in French output and labour markets, with political sustainability concerns gaining in importance. The Financial Times located the turning point in early 1993, after the Irish punt was forced to devalue, quoting Avinish Persaud, a currency economist at UBS Phillips and Drew:

This confirms the observation already made for Britain that market sentiment shifts from emphasising economic fundamentals sustainability assessment to political sustainability concerns with prolonged disinflation.

[&]quot;The market needs to ask itself whether it is now targeting countries with high unemployment as devaluation candidates. If that is the new mentality, the franc will soon come under pressure'." (FT 01/02/93: 27)

Chart 6.14: Market sentiment France:

Sound "fundamentals" supporting competitiveness (expectations and fact) (as percentage of text units coded at respective episode)⁴⁰

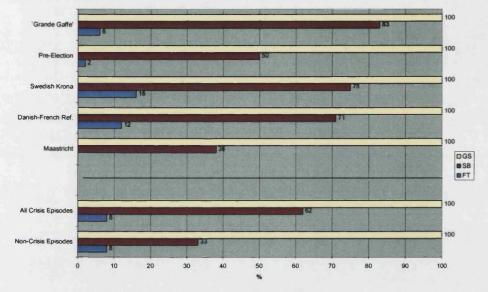
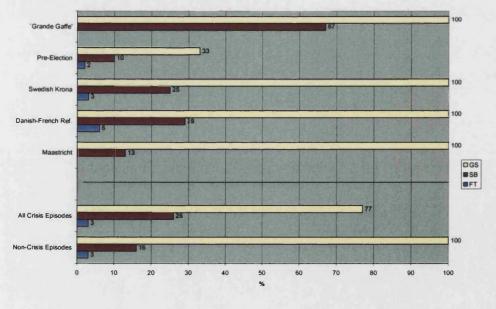


Chart 6.15: Market sentiment France:

Strengthening Balance of Payments position (expectations and fact) (as percentage of text units coded at respective episode)⁴¹



⁴⁰ Nodes (2 1 1 1 1), (2 1 2 1 1), (2 1 1 3), (2 1 2 3), (2 1 1 6), (2 1 2 6)

⁴¹ Nodes (2 1 1 3), (2 1 2 3)

Chart 6.16: Market sentiment France: Falling inflation (expectations and fact)



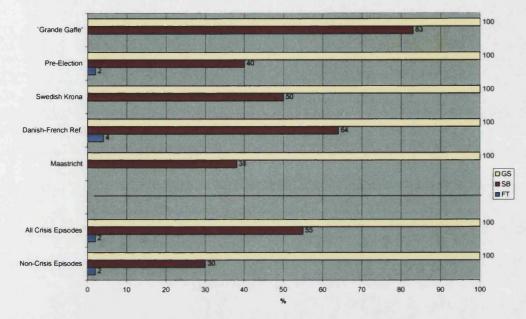
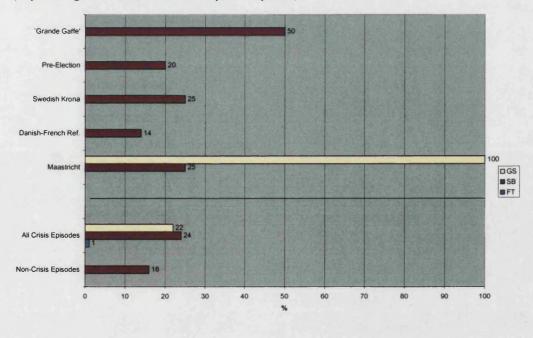


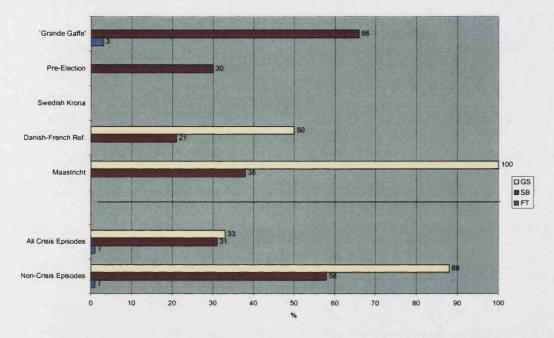
Chart 6.17: Market sentiment France: Positive assessment of wage bargaining (expectations and fact) (as percentage of text units coded at respective episode)⁴³



⁴² Nodes (2 1 1 1 1), (2 1 2 1 1)

⁴³ Nodes (2 2 1 3 1), (2 2 2 3 1)

Chart 6.18: Market sentiment France: Fiscal deficits and fiscal policy (expectations and fact) (as percentage of text units coded at respective episode)⁴⁴



Although the fundamentals argument per se should have stabilised market confidence in the franc, it contributed to overall uncertainty, due to its interaction with political sustainability concerns. In the longer term markets expected political sustainability to go hand in hand with improving political sustainability, since sound fundamentals raised the prospect for a significant easing of monetary policy. Even in the short run rising unemployment and falling demand, the main factors fuelling market concerns about political sustainability, were paradoxically interpreted as positive from a fundamentals point of view. At the height of the Danish-French referendum crisis Salomon Brothers asserts that:

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[&]quot;...markets eventually should draw encouragement from recent developments that point to weaker-thanexpected GDP growth and additional disinflation pressures. Slowing demand will underpin recent evidence of renewed stagnation and depress 1992 GDP growth prospects." (SB 21/08/92: 6)

⁴⁴ Nodes (2 1 1 2), (2 1 2 2), (2 2 1 2), (2 2 2 2)

But market participants looked at narrow economic fundamentals in the wider context of political sustainability, paying particular attention to the political business cycle. This left analysts in a state of basic uncertainty, since the achievement of sound fundamentals sustaining competitive disinflation had come at the price of deteriorating political sustainability, paradoxically increasing the incentive for policymakers to renege on their commitment to the *franc fort*. Market uncertainty was thus the result of pragmatic rationality in financial markets, mirroring the pragmatic nature of political reasoning. The extent to which policymakers' susceptibility to the political business cycle considerations translated into actual vulnerability, given the countervailing domestic interests in competitive disinflation, could only be gauged by taking domestic structures into account.

6.3.2.2. Political Sustainability Concerns

Recession and Unemployment

Chart 6.19: Market sentiment France:

Concerns about recession (expectations and fact)

(as percentage of text units coded at respective episode)⁴⁵

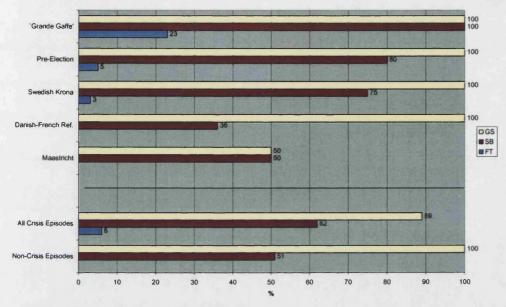
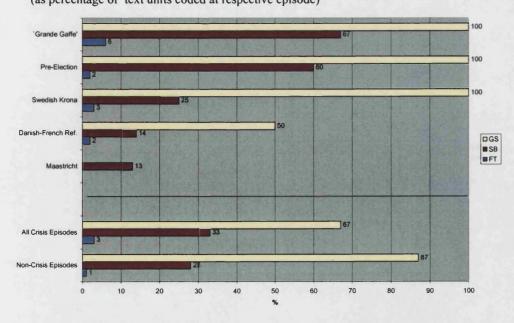


Chart 6.20: Market sentiment France: Rising unemployment (expectations and fact) (as percentage of text units coded at respective episode)⁴⁶





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Growing concerns about the political sustainability of the *franc fort* is clearly indicated by the increasing significance over time of two variables: GDP (Chart 6.19) and unemployment (Chart 6.20). Both the concerns about the falling GDP (Chart 6.19) and rising unemployment (Chart 6.20) were not only highly significant, but increased steadily throughout the investigated period for all three sources. Inversely, mirroring market sentiment towards balance of payments fundamentals, political sustainability concerns were dismissed until mid-1992, but grew in relevance to dominate market sentiment during 1993. Electoral cycle considerations played a critical role in focusing market attention on political sustainability in the last two crisis episodes (see Chart 6.21). This development is clearly reflected by the Financial Times. Whereas in July 1992 it reports that ".... the French franc shrugged off disappointing unemployment data for June. The fundamental features of the French economy are strong, and the D-Mark softened" (FT 31/07/92: 27), six months later it asserts: "With French unemployment at 10.5 per cent and an election less than two months away, such high rates may be unsustainable for long" (FT 06/01/93: 21).

Until summer 1992 market participants arguing the case for balance of payments sustainability discounted political sustainability for two reasons: firstly the *franc fort* strategy was regarded as having broad political backing, despite its disinflationary costs:

⁴⁶ Nodes (2 1 1 5 2), (2 1 2 5 2)

[&]quot;Pressure for change has been almost negligible in France, both in the political and business communities. The strategy of 'competitive disinflation has brought gains in exporter's market share and corporate profitability. A return to "stop-and-go" policies would jeopardise these gains but have virtually no impact on unemployment. Rather, they would be unpopular with the electorate that severely sanctioned the policy U-turns of the early 1980s." (SB 18/09/92: 7)

Secondly, market participants had exaggerated expectations of an early recovery of the French economy, providing relief from political sustainability pressure, linked to premature hopes for a Bundesbank interest rate cut.

The case against this line of argument was made mainly by Goldman Sachs. They highlighted that confidence in the franc was eroded not by the simple fact of low output and high unemployment, but because of their continuation over time, which made the *franc fort* increasingly unpopular and consequently politically costly to maintain. This was put succinctly in March 1993:

"Fixed exchange rate systems tend to come under most pressure in recessions, not necessarily because governments realise that their currency parities are 'wrong', but more because the cost of maintaining them is very high in terms of lost output and employment. Maybe this cost is temporary, and maybe it isn't; but after several years of 'sacrifice', businesses and consumers, and sometimes governments decide to call 'time out', not because they want to change the exchange rate but because they want to change the interest rate stance needed to maintain the exchange rate. There is no doubt that this line of thought carries no truck with the French authorities. This is understandable. Traditional fundamentals like inflation, trade, budget balances and competitiveness all point to a successful period of economic stewardship by the current government. It is natural, consequently, to believe that once market participants 'wake up' this success will be rewarded. The difficulty market participants have in 'waking-up', however, is that they question the underlying 'model'." (GS, March 1993, 8/2: 1.10)

This cumulative deterioration of political sustainability was eventually recognised by the majority of analysts, including those originally inclined to emphasise strong fundamentals in support of the franc. Salomon Brothers admit, for example, already in March 1993:

"While the traditional unpopularity of devaluations among the French electorate has been a powerful argument in favor of the 'franc fort', the risks exist that the price of that policy – high interest rate and a weak economy – ultimately will be judged as too costly." (SB 19/03/93: 50)

The final collapse of the credibility of the franc fort strategy in summer 1993, after the

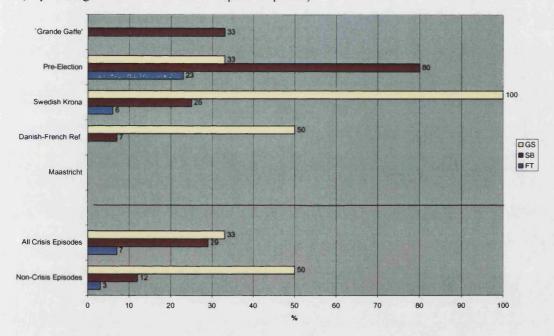
'Grande Gaffe', was consequently caused first of all by political sustainability concerns,

with the awful French unemployment figures having become the "focus for dogged anti-

franc speculators" (FT 26/07/93: 33).

Elections

Chart 6.21: Market sentiment France: Election concerns (expectations and fact) (as percentage of text units coded at respective episode)⁴⁷



Election concerns explain why confidence in the time consistency of the political commitment to the *franc fort* did not erode in a gradual and steady fashion, but in violent swings from pessimism to optimism and back between January and July 1993. Firstly, the March 1993 French General Assembly elections led to an escalation of political sustainability concerns, resulting in the pre-election crisis episode. But the crisis in the run-up and the immediate aftermath of the 1993 National Assembly elections was not

simply caused by worries that the Socialist government might give priority to domestic reflation during electioneering, as suggested by the political business cycle argument. The commitment of the socialist Bérégovoy government to the *franc fort* was taken to be beyond doubt. The weakness of the franc was linked to uncertainty about the future course of the anticipated new centre-right government. Political business cycle concerns mattered here in regard of the French presidential elections of 1995, as indicated by Goldman Sachs on 18 March 1993, three days before the second round of voting for the National Assembly:

"With a Presidential election looming in two years time, no one on the right has any desire to take political ownership of prolonged recession. So if interest rates do remain sticky, the new government may launch a concerted drive to persuade the Germans to cut interest rates sharply or speed up the process of monetary union. Only if this fails will they contemplate floating the currency." (GS, March 1993, 8/2: 3.08)

After the elections the new stable government managed to disperse market fears about a change in its monetary policy course by skilfully taking advantage of intrinsic D-mark weakness, combining strong assurances of its commitment to exchange rate stability with careful unilateral interest rate cuts from a position of strength. The result was the period of exceptional market euphoria about the franc until the French economics minister Alphandéry challenged German leadership in the ERM. Only when the Bundesbank signalled that it would confront the French challenge, turning it into the 'Grande Gaffe', financial markets returned to the assessment already suggested by Goldman Sachs in March: that without German cooperation the new government would turn to devaluation to win the presidential elections.

⁴⁷ Nodes (2 3 1 1 2), (2 3 2 1 2)

Apart from electioneering, the political sensitivity of market sentiment was demonstrated by market reaction to the appointment of Pierre Bérégovoy as Prime Minister in April 1992, to replace the Edith Cresson, who had been discredited by scandals. Bérégovoy enjoyed a reputation in markets as highly competent, following a tight economic strategy (see e.g. FT 31/03/92: 35). Consequently his appointment was greeted with enthusiasm by market participants, triggering the spectacular pre-Danish referendum recovery of the franc against the D-mark (see FT 03/04/92: 31).

By paying consistently strong attention to the short and medium-term vote seeking motives of policymakers, market participants took not only political events and election dates, but also political statements and personalities very seriously. This risked resulting in short run and ad hoc behaviour, in particular if political action was not understood in the context of its specific national structural context.

6.3.3. Domestic Structures

Chart 6.22: Market sentiment France:

Domestic structures: Comparative significance

(text units coded at respective domestic structures node, as percentage of all text units)48

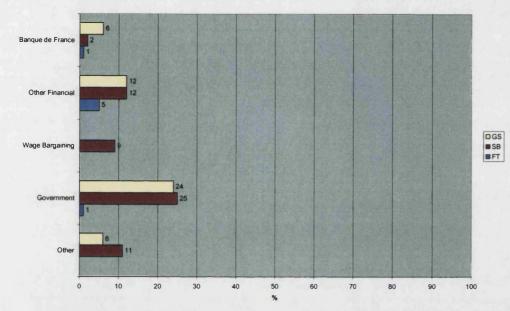
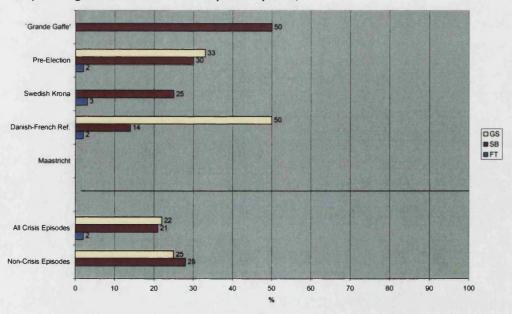


Chart 6.23: Market sentiment France: Domestic structures: Government

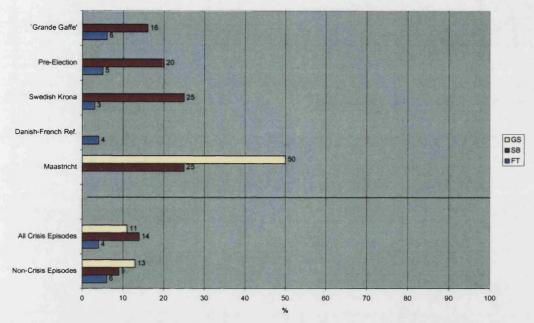
(as percentage of text units coded at respective episode)⁴⁹



⁴⁸ Central bank: Node (2 5 1 1); other financial structures: Node (2 5 1 2); wage bargaining structures: Node (2 5 2); government structures: Node (2 5 3); other structures: Node (2 5 4).

Chart 6.24: Market sentiment France:

Domestic structures: Financial structures (excluding central bank) (as percentage of text units coded at respective episode)⁵⁰



Domestic structures mattered in the French case, somewhat less than for Germany (see Chart 7.16), but more than in the case of Britain, except for the wider financial structure (see Chart 5.19). Given the dirigiste features of France's domestic structures and its history of trade union militancy, the government and wider financial structure, and the wage bargaining structure should have mattered for market participants. As Chart 6.22 demonstrates, it was indeed particularly the government structure and the non-central bank financial structure which influenced market sentiment towards the French franc, with a remarkable neglect of the wage bargaining structure. The de facto irrelevance of the institutional position of the Banque de France is understandable to some extent, given the political and constitutional control of the central bank by the bureaucratic elite of the

49 Node (2 5 3)

Treasury. The fact that against the backdrop of this political reality, financial market participants chose to ignore the legal status of the central bank despite the constitutionally significant moves by the government to grant the Banque de France full independence, is further evidence for the pragmatic nature of market rationality. Boundedly rational behaviour thus resulted in an understanding by financial markets of the institutional position of the central bank within the wider structural context of the French political economy, rather than in abstract isolation. The insignificance of the central bank differs from Germany, with the Bundesbank and wage bargaining most relevant, but resembles Britain, where markets were also particularly interested in the political and financial structure, but neglected the dependent Bank of England.

Although analysts had to come to terms with a structurally complex national regime, structural awareness by market participants is in the French case uniquely concentrated in one source, Salomon Brothers. Goldman Sachs shows exceptionally little interest, compared to the German and British case, and the Financial Times displays its usual neglect of structures, explained by its event-driven daily reporting. A possible explanation for this profile could be that Salomon Brothers were more uncertain in the case of France than Britain, always qualifying the political sustainability argument against the franc with a strong fundamentals counter position. Goldman on the other had already at the turn of 1992/93 spoke out about political sustainability concerns, thereby taking an increasingly firm stance against the credibility of the *franc fort*. In the following I analyse market sentiment towards the financial, labour market, and government structures, beginning with the insignificant central bank and wage bargaining

⁵⁰ Node (2 5 1 2)

structures, then move on to the highly significant government structure and the important wider financial structure.⁵¹

6.3.3.1. The Banque de France

The status of the Banque of France was only discussed occasionally with reference to the steps taken in the course of 1993 first by the socialist and later the centre-right government to grant it full independence towards the end of the year.⁵² Policymakers targeted statements and announcements signalling that central bank independence was forthcoming at financial markets in the hope that this would boost the credibility of the *franc fort* in the short run, to dampen speculative pressure.

For example, the statement during the Swedish krona crisis episode in winter 1992 by the leader of the opposition UDF, Valery Giscard d'Estaing, that his party, once elected, would grant independence to the Banque de France to strengthen the *franc fort* was acknowledged by the Financial Times with: "Although an independent French central bank is expected one foreign exchange dealer said; 'Anything which focuses market minds on a monetary move that will strengthen the franc can only be helpful." (FT 19/12/92: 11). Similarly the announcement of concrete measures towards central bank independence by the new centre-right Prime Minister Balladur in his first keynote speech to parliament attracted some support for the currency (see FT 10/04/93: 13).

⁵¹ Domestic structures other than the three key structures investigated here were overall of little significance to financial market sentiment (see Node 2 5 4). The issues addressed here were mainly relating to the structure of the tax and the social security system in regard of business costs and investment, and the structure of industry in regard of export competitiveness.

But by-and-large the legal status of the bank had little influence, because market participants were aware that the government was the key player in the French political structure when it came to the commitment to the *franc fort*. It was recognised that this commitment was essentially political, part of a grand strategy of competitive disinflation and European integration by France's ruling elites. Markets sensed that, should this strategy break under the pressures of disinflation, legal independence of the central bank would make little difference:

"Independence for the Banque de France, expected to be granted by mid-July, may lead to a slight reduction on risk premia on French interest rates in the medium term, although with 'franc fort' already established under political control the impact is unlikely to be too significant." (GS, May 1993, 8/5: 3.08)

Policymakers thus clearly overestimated the importance of formal central bank independence for financial markets. The market reaction towards respective policy signals shows that market participants approached the issue of the status of the central bank in a pragmatic and realistic way. They seem to have been aware that the time consistency of the *franc fort* de facto was a question of the rootedness of the strategy in the wider étatist-centralist French political regime, regardless of constitutional status of the Banque de France.

6.3.3.2. Wage Bargaining Structures

Wage bargaining structures were clearly insignificant for market sentiment not only in statistical terms, but also in qualitative importance. Of the three sample sources only Salomon Brothers commented occasionally on these structures (See Chart 6.22).⁵³ The

⁵² These comments on the structure of the Banque de France [Node (2 5 1 1)] are few and far in between, falling well below the significance threshold.

⁵³ Wage bargaining structures [Node (2 5 2)] were considered by neither the FT nor Goldman Sachs.

simple reason for this lack of attention seems to have been that wage bargaining and the behaviour of trade unions gave little concern to financial markets. Wage increases were moderate (see Chart 2.9), and union militancy remained low, with strike activities in 1992 lower than any year since 1984, and around their ten year average in 1993.⁵⁴ The relaxed attitude of market participants towards labour market structures is confirmed by the fact that for Salomon Brothers they mattered most in non-crisis episodes.⁵⁵

Salomon Brothers' sanguine view of French wage bargaining structures was based on the perception that the capability of the weak and splintered trade union movement to push through inflationary wage increases in the face of recession and unemployment was low. The challenge to the political sustainability of the government's *franc fort* strategy through strikes and social unrest was dismissed:

Similar views might explain the silence of the Financial Times and of Goldman Sachs on the issue. Confirmed by the actual developments over 1992/93, this view did not change over the investigated period. French labour market structures are thus a good demonstration that practical market participants only looked into domestic structures that they associated with clearly visible imminent problems. Salomon Brothers, for example, commented on the still militant and still powerful public sector unions only related to

[&]quot;In our view market fears that growing social unrest could cause a significant alteration in the Government's economic policy stance are unfounded. The recent tougher stance by labor unions against the Government's economic policies is unlikely to lead to major labor disputes over the coming months. This expectation reflects (1) the continued disagreement among competing trade unions about a common policy stance, and (2) the ongoing decline of the union's relative importance – after a decade-long drop in union membership, unions now represent only about 10% of the workforce." (SB 25/10/9: 4)

⁵⁴ based on working days lost per annum (source: OECD: Statistical Compendium 01/1999; CD ROM.)

fiscal sustainability. It was feared not that they might significantly change the overall positive wage trend by pushing through substantial public sector wage increases, but that these increases might aggravate the fiscal deficit (see SB 23/04/93: 7-8).

Regarding France's labour market flexibility, Salomon Brothers demonstrated a good understanding of the specific nature of the French structures:

However, it is questionable how relevant this argument was for the credibility of the *franc fort*, in the face of calls for immediate political action to tackle rapidly rising unemployment.

6.3.3.3. Government Structures

Although significant, the influence of government structures on market sentiment was limited. They were addressed throughout the investigated period, with concerns discussed at similar levels in both crisis and non-crisis episodes, without ever reaching a level of acute alarm. Again, only Salomon Brothers displays a consistent concern with their capacity to underpin the government's ERM commitment. As predicted by rationalist institutionalism (e.g. Milner 1997, Haggard & McCubbins 2001), central to market sentiment was the question of whether these structures facilitate strong and stable government. One issue concerning financial market participants in this respect was the

[&]quot;The labor market rigidities and shortage of skilled workers that have made unemployment relatively insensitive to GDP growth in recent years, also would limit the effect of a devaluation on unemployment." (SB 24/07/92: 7)

⁵⁵ Only during non-crises episodes attention by Salomon Brothers to wage structures was above the significance threshold (30%).

stability of the minority socialist government before the March 1993 national assembly elections (e.g. GS, April 1992, 7/4: 3.08). In addition, Salomon Brothers paid attention to the spectre of internal divisions in the new centre-right government over the *franc fort* and the consequences of plans for constitutional reform in 1993 on the strength of the executive.

Concerns by Salomon Brothers about a possible internal split in the new right-wing majority government under Prime Minister Balladur, elected in March 1993, preceded the election and intensified towards summer 1993.⁵⁶ The focus was mainly on internal divisions in the Gaullist RPR. The split surfaced before the elections, when the leadership of the RPR, committing itself to the franc fort and central bank independence, faced resistance by key representatives of its own nationalist wing, causing Salomon to warn that "the risk could surface of an 'internal opposition' within the new majority in Parliament" (SB 12/02/93: 5-6). In March 1993, immediately before the change in government, these concerns were aggravated by worries related to government by coalition, allowing Salomon to predict the developments resulting in the 'Grande Gaffe' later in July:

"Market concerns have been heightened by perceptions that policy priorities may differ between the two parties of the center-right coalition, which is expected to lead the new Government: The centrist UDF has emphasized European integration, but leading politicians within the right-wing RPR have called for 'political pressure' on Germany to secure lower interest rates." (SB 19/03/93: 5)

Salomon Brothers nevertheless remained confident about the future of the franc fort, due to two considerations: firstly the realisation that Prime Minister Balladur's "coherent

⁵⁶ The Financial Times and Goldman Sachs did not comment on this issue.

pragmatic policy stance" was endorsed by former *franc fort* opponents (SB 02/04/93: 5), and secondly by an astute assessment of the nature of cohabitation between the centre-right coalition government and President Mitterrand:

"President Mitterrand approves of the 'franc fort' and of an independent Bank of France. Both the Constitution and tradition point to a strong Presidential role in defense and foreign – and hence, European – affairs. President Mitterrand likely would use his authority to oppose any shift by the future Government away from goals of European integration, if it were to depart from its pledged pro-Economic and Monetary Union (EMU) stance." (SB 05/03/93: 6)⁵⁷

Finally, Salomon's worries that presidential proposals for a constitutional reform of the electoral system might weaken strong government, by introducing proportional representation and changing the relationship between legislature and executive, displayed a detailed concern for political structures. In the end both concerns were of little influence. The majoritarian voting system was maintained, reducing "fears of political splintering that could result from a shift to proportional representation" (SB 10/04/92: 4). Also, there seemed to be little prospect for fundamental changes in the relationship between parliament and the executive:

"Markets could become worried that President François Mitterrand's plans to reform the constitution could eventually increase political instability. In particular, President Mitterrand's desire to rebalance power between the Government and Parliament in favor of the latter – if carried out – raise [sic!] threats of political paralysis and looser fiscal discipline. Currently parliamentary powers are limited by the Constitution, especially in the budgetary field. However, we expect Presidential plans to reform should fall short of undermining strong powers of government versus parliament." (SB 13/11/92: 6)

In contrast to the other two sources, Salomon Brothers demonstrated an impressive structural awareness of the different shades of the divided government problematique

⁵⁷ Salomon Brothers' awareness of the centralised presidential structure of the French political system is further demonstrated by its dismissal of regional elections as unimportant, pointing out the regions marginal power over economic policy (SB 20/03/92: 4)

pointed out by rationalist institutionalists. They considered not only the possible tensions resulting from coalition government, but also the intricacies of cohabitation characteristic for the French version of presidential systems and the constitutional hegemony of the French president. The exceptional attention of Salomon Brothers to government structures again might have to do with their particular ambivalent position towards the French franc, always holding positive fundamentals against negative political sustainability indicators.

However, in the 'Grande Gaffe' crisis Salomon Brothers followed the general swing of market sentiment, putting renewed emphasis on possible divisions within the ruling RPR-UDF coalition over a more expansionary policy, despite their earlier positive assessment of the capacity of French government structures to support the *franc fort* (SB 16/07/93: 7). This indicates that their institutional analysis was ultimately not sufficiently robust and consistent to justify continued support of the franc against a general change in market sentiment. The practical way out of this dilemma was rational herding, given that the structural analysis did not unambiguously discount the possibility that a self-fulfilling speculative crisis might succeed.

6.3.3.4. Financial Structures

France's financial structures (excluding the central bank) received market attention at low, but significant levels for two reasons: firstly markets recognised that the considerable remnants of state dirigism in the financial system allowed the French authorities to manipulate the credit system in support of the *franc fort* strategy. Secondly, as in the case of Britain, financial market participants were concerned about financial distress, and attempted to gauge the resilience of the credit structure to excessively tight monetary policy.

The capacity of the French financial system to shield the economy from disinflation by delaying the full passing on of increases in rates to borrowers, was noticed already in November 1991, when Salomon Brothers, under the headline "France: Its Other Tool for Monetary Policy" reported that

"...the Bank of France will lower the reserve requirement ratio in an attempt to cushion the impact of the defense of the franc on domestic credit policies. As a consequence, banks have agreed that last weeks increase in the intervention rate will not be passed through to their customers." (SB 29/11/91: 4).

Financial markets learned from their experience of the Danish-French referendum crisis that French financial dirigism would work to strengthen political sustainability, as indicated by Jim Hall, an economist at Swiss Banking Corporation in London: "The French managed to hold the franc without pushing up bank lending rates, a move which would have produced more No votes in the [Maastricht] referendum" (FT 19/09/92: 15). Subsequently, market participants took the structural capacity of the French financial system seriously. As Mr Steve Hannah, head of research at IBJ International, put it in reaction to growing pressure on the franc in winter 1992/93: "I simply do not believe in something like the devaluation of the franc. We have not seen anything like the number of rabbits that could be pulled out of the hat by the French." (FT 07/01/93: 23)

Still, market participants knew that the losses the banking sector incurred as a result of accommodating government policies could not be sustained over time by the financial

system. From winter 1992/93 onwards speculation grew that pressure on the franc might return when banks finally had to pass on rising official interest rates in full, shifting the focus back on the need for Bundesbank cuts (see FT 16/01/93: 11). When, in the 'Grande Gaffe' crisis, confidence in the political sustainability of the franc finally collapsed, renewed attempts by the French authorities to intervene in the operation of the banking system were dismissed as a return to "dirty tricks", and together with intervention considered as insufficient to address the increasingly desperate situation of the French economy (see FT 23/07/93: 29).

Therefore, although market participants understood that the French structures gave the authorities nothing but a temporary advantage to fudge the effects of a policy whose costs would have to be borne in the end, they underestimated the resilience of the French banking system, which managed to keep borrowing costs at bay well into 1993. Since markets were uncertain for how long the French financial structures could sustain these delaying tactics, their confidence building effects diminished over time, with no end of disinflation in sight.

Financial fragility in the credit system was understood by market participants as arising from bad debt in the banking system, resulting from distress in the corporate sector and a "significant debt overhang in the consumer sector" (GS, Oct. 1991, 6/10: 3.08). Concerns over the effect of high official interest rates added to fears of a "credit crunch" (see SB 06/12/91: 4). With banks particularly exposed to the depressed real estate market, market

participants' concerns resembled the structural worries significant for the crisis of pound sterling:

"Current monetary policy tightness results in tight credit conditions. Because of the increasing number of business failure and the weakening of asset prices (especially property prices), banks have adopted more restrictive lending policies." (SB 29/01/93: 6)

However, these worries never reached the scale of the UK, since market participants recognised that the vulnerability of French household and businesses to tightening credit conditions was structurally lower than in the case of Britain. They acknowledged that the self-financing ratio of French firms was high and improving, reducing the negative effect of high interest rates. Furthermore, the absence of earlier widespread asset price inflation in the more rigid French financial system was considered to limit the negative wealth effect of subsequent disinflation (see SB 20/11/92: 6). Finally, the French monetary transmission mechanism was seen to be weak, leading Salomon Brothers to conclude that floating the franc would not be as supportive of growth as a reduction in taxes, "...because the economy is not highly sensitive to short-term rates" (SB 19/03/93: 6).

Nevertheless, this structural rationale failed to support the franc when in summer 1993 markets began to realise that the need for an interest rate reduction came not so much from a weak financial system, but from the need to change perceptions and boost confidence:

[&]quot;In the event of a float, continental economies could begin a return to noninflationary growth next year. Although the French economy is much less sensitive to short-term interest rates than the U.K. economy, a significant drop in interest rates potentially could restore damaged confidence." (SB 30/07/93: 4)

Market sentiment was thus influenced as much by the psychology in the domestic financial system as by an assessment of its structural characteristics. The structural analysis of the financial system, although addressing theoretically important features as the treasury-bank-industry relationship and the monetary transmission mechanism, remained unsystematic and event driven. It failed to overcome uncertainty about the impact the structural capabilities and features of France's financial system would have on political sustainability. In the end market participants took negative sentiment by French firms and households about their financial position as a short-cut indicator to overcome uncertainty about the structural strength of the country's financial institutions.

6.4 Conclusion

After the widening of the ERM bands to +/- 15 percent in response to the 'Grande Gaffe' crisis at the end of July 1993 French policymakers did sustain the *franc fort* strategy, contrary to market expectations. Can the failure of market participants to recognise the time consistency of the French exchange rate commitment be explained by deficient awareness of domestic structures?

Market sentiment towards the French franc during the 1992/93 crisis is a classic example of the tension between balance of payments sustainability and political sustainability evaluations. Structural concerns came in within the context of this tension. Market participants behaved rationally by considering the relevance of domestic structures broadly in line with the analysis of rationalist institutionalism. But market rationality was bounded, pragmatic and ad hoc, rather than optimising and systematic. It failed to overcome uncertainty and was finally unable to prevent rational herding in response to prolonged and costly disinflation.

Of the three sources investigated, the daily reporting by the FT probably represents best the sporadic attention to domestic institutions already observed in the British case. More interesting in regard of the influence of domestic structures are the analyses by Goldman Sachs and Salomon Brothers. Goldman makes an early decision in favour of political sustainability concerns, dismissing the sound fundamentals argument as beside the point. Having established a relatively firm and consistent position emphasising the negative prospects of the franc, they spend comparatively little room on structural analysis. Salomon Brothers, in contrast, were much more ambivalent in their views, remaining torn between a positive fundamentals assessment, juxtaposed to political sustainability worries. Having to deal with greater uncertainty, they resort to a much broader structural analysis of the variables critical for the maintenance of the strong currency commitment.

The case of the French franc lends further support to the conclusion of the British case study that market participants mainly look into structures if and when they face a high degree of uncertainty. But in difference to Britain markets were more "institutionalist" when they had to come to terms with uncertainty about the sustainability of *franc fort*. This indicates that investors indeed underwent a process of "stochastic learning", taking on board the lessons of the "Black Wednesday" crisis that, in order to form more reliable expectations about time consistency, it was not enough to rely solely on government statements and monetary policy moves, but that a deeper analysis of the underlying determinants might be advisable.

As to the structures that have significantly influenced market participants, a pattern lending support to the assumptions of bounded rationality emerges. All three sources concentrated on structural variables that are linked to political or economic fault lines in the underpinnings of the *franc fort* strategy. Hence governmental and non-central bank financial structures became the focus of attention, being critical in a situation where elections caused uncertainty over the stability and future monetary policy course of government, and lasting disinflation put the financial system under distress. Structures, which in the academic discourse of rational political economy are highly important (as central bank independence and the wage bargaining structures) only got scant attention, since in the political reality of 1992/93 these institutions posed no problems for the sustainability of the franc peg in the ERM. What mattered was not so much which structures underpinned moderate wage increases, or whether the central bank was independent within the coherent structural backing of the franc fort, encompassing the whole governmental system, but whether splits in the government could threaten this strategy, and whether the structures of the financial system could cope with mounting strain. This confirms a pragmatic rational attitude by market participants towards structural analysis. They behaved reasonably from a practical point of view, focusing on institutions associated with apparent sustainability problems. As long as there was no obvious problem, the need for investigation was low; only when uncertainty was caused by economic or political developments, attention turns to the underlying structures.

However, such pragmatism came at the price of an analysis driven by events and shortterm economic indicators. By looking into domestic institutions only when these variables caused irritation, the structural analysis risked being ad hoc and superficial, failing to contain uncertainty through a clearer understanding of institutional risk.

The bounded rational nature of structural reasoning could explain why market participants, despite structural awareness, got it wrong in summer 1993. As far as structures are concerned, the key question was to what extent the sound fundamentals record of France was the product of a genuine French "stability culture", justifying the assertion by French policymakers that France had advanced to the status of a strong currency country in its own right, independent of the D-mark peg. Goldman Sachs obviously gave little credence to such assertions by maintaining that good fundamentals were essentially owed to the Bundesbank diktat over French monetary policy. In contrast Salomon Brothers made the case for sound fundamentals being the result of overall sound structures underpinning the *franc* commitment. From their point of view it was possible to make the case that France's good fundamentals indeed were the result of genuine structural soundness, with the *franc fort* the logical reward.

In the end it seems as if the structural analysis was not rigorous enough to produce robust results to sustain the latter view. On the contrary, by remaining uncertain, structural deliberations of Salomon Brothers could ultimately be sidelined to join rational herding, or could even be reinterpreted in support of speculative behaviour. Ironically it was the French policymakers themselves, banking on the strength of the structural analysis by market participants in support of the franc, who gave the final blow to structures based optimism by demanding co-leadership in the ERM. When the Bundesbank confronted financial markets with a choice between the structural capabilities of the German and the French monetary policy regime after the 'Grande Gaffe', market participants opted for the domestic institutional regime that they knew and trusted from long years of historical experience. As one London-based trader put it in reference to the D-mark – French franc cross at the height of the 'Grande Gaffe crisis episode: 'This is about confidence in two economies, not the level of interest rates,' (FT 13/07/93:27).

The practical-historical rather than optimising comparative rational approach to structural soundness by market participants might explain why markets misjudged the prospects of the *franc fort* strategy in summer 1993. By approaching the issue of French domestic structures mainly within the question of whether France could sustain shadowing Bundesbank policy, markets implicitly took French institutions as less credible than their German counterparts. Since neither sound fundamentals nor sound structures can sustain an externally imposed monetary policy stance forever which imposes excessive disinflationary costs on the domestic economy, the structures argument became increasingly irrelevant the longer Bundesbank hawkishness lasted. As long as the sustainability problem of the franc was approached within the conventions of the prevailing German leadership – French followership framework, political sustainability ultimately depended on the Bundesbank, and not on French structures or fundamentals, as the proponents of the political sustainability argument rightly maintained.

Ultimately, financial market participants did not draw abstract rationalist conclusions about potential capabilities of French structures, given their pragmatic bounded rational approach within a framework overdetermined by conventions on German regime strength drawn from historical experience. Domestic structural considerations were of critical importance for the credibility of the Franc. However, markets remained doubtful about French domestic institutions not because of abstract scientific conclusions, but because they had not experienced the *franc fort* to be sustainable without the external anchor of German monetary policy. Lacking the track record of autonomous monetary stability, the French authorities ultimately failed to win a vote of confidence in their domestic monetary policy regime from investors who relied more on historical experience than on abstract evaluation when it came to the credibility of domestic structures.

Regarding the explanatory value of the different crisis models, the French case, as the British case, provides, first of all, support for the expected policy change model. Essentially, the franc was attacked because markets lost confidence in the ability of office-seeking French policymakers to sustain their exchange rate commitment, facing growing unpopularity of further disinflation. From September 1992 onwards the franc was exposed to a series of speculative attacks testing the time consistency of the *franc fort* strategy, which had in the terminology of Krugman's second generation crisis model entered the crisis zone (Krugman 1996).

But the actual speculative attacks, especially the final crisis in summer 1993, also show that the contingent policy change model and the inconsistent policy view can complement the expected policy change model. Once the credibility of the franc had been eroded by expectations of a policy change, the actual attack was triggered by the perceived policy inconsistencies of the 'Grande Gaffe' move, which combined a commitment to the *franc fort* with pressure on the Bundesbank to follow French reflation. Furthermore, political sustainability concerns became self-fulfilling, as the escalating speculative attack entered into a feedback loop with French official interest rate hikes in defence of the franc. In contrast, the first generation competitiveness crisis explanation is of little relevance for the French case, given by-and-large sound French economic fundamentals.

Chapter 7: The D-Mark during the ERM Crisis

7.1. Introduction

In this chapter I undertake the case study of market sentiment towards the D-mark during the ERM crisis. How did market sentiment towards the D-mark develop? How and to what extent did domestic structures of Germany play a role?

Academic analyses of the ERM crisis generally focus on the excessive strength of the D-mark as the key feature of the ERM tensions in 1992/93. In my case study I pay particular attention to the phases of D-mark weakness, when its credibility as the de facto key or anchor currency of the system came under scrutiny by market participants.

My analysis of German domestic institutions in Chapter Four concluded that domestic structures in Germany provided only weak backing to the Bundesbank's hard currency strategy in the early 1990s. Fiscal profligacy by governments and inflationary wage bargaining signalled the breakdown of the stability consensus in governmental and wage bargain structures, in which the Bundesbank had been embedded in normal times. In particular, Germany's comprehensive wage bargaining structure had turned from a supporting factor of price stability to a factor pushing inflation. Furthermore, the strong relations bank – export industry relationship only supported a strong but stable currency, not rapid appreciation as the result of the Bundesbank's efforts to restore domestic price stability. As a consequence the central bank was socially isolated, except for the relief it received from political pressures for monetary easing from Germany's fragmented federal political system.

The chapter concludes that domestic structures influenced market sentiment towards the Dmark. But, as in the case of pound sterling and the French franc, direct attention of financial market participants to domestic structures remained superficial and ac hoc, confined to phases of heightened uncertainty. In Germany financial markets were concerned about the time consistency of Bundesbank anti-inflationary monetary policy. Market participants were as a rule satisfied to analyse fiscal policy decisions, wage bargaining demands, and regional election results as a shortcut to judge whether the industrial-financial, wage bargaining and political structures underpinning Germany's stability culture could still be relied upon.

The case of the D-mark is special in so far as it deals with the currency at the centre of an asymmetric key currency system. This chapter concludes that German domestic structures were important for market participants when it came to assessing whether the country's political economic institutions were consistent with continued Bundesbank leadership in the EMS.

Section two of this chapter reviews the role of the D-mark during the ERM crisis until the widening of bands on 2 August 1993 and how this role has been interpreted in analyses of the crisis, to set the context for the empirical analysis. Section three contains the results of my qualitative analysis of market sentiment towards the D-mark in this period, followed by the conclusion in section four.

7.2. The D-Mark and the ERM Crisis

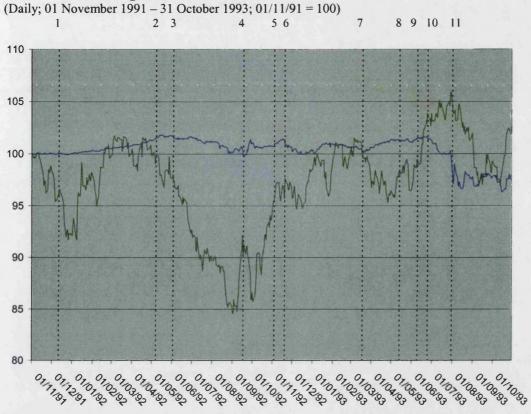


Chart 7.1: Exchange rates: DM to FF;\$

Source: Datastream

Events:

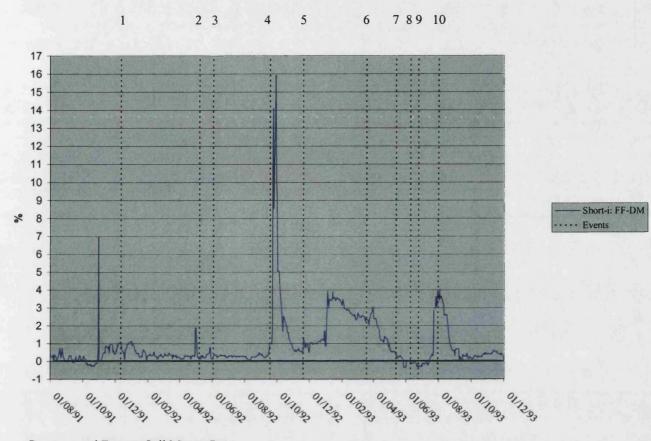
- 1: 11/12/91: Maastricht treaty agreed
- 2: $\sim 08/05/92$: public sector strike in Germany leads to wage hikes
- 3: 02/06/92: Danish referendum on Maastricht Treaty
- 4: 16/09/92: "Black Wednesday"
- 20/09/92: French referendum on Maastricht Treaty
- 5: 03/11/92: USA: presidential elections (first Clinton administration)
- 6: 19/11/92: Swedish Krona floated (mounting ERM tensions)
- 7: 16/03/93: Germany: "Solidarity Pact" agreed
- 20/03/93: Russia: Yeltsin declares direct rule (high point of political crisis)
- 21/03/93: France: first round of general elections
- 8: 13/05/93: Spanish peseta and Portuguese escudo devalued (Iberian currency crisis).
- 9: 09/06/93; George Soros speaks of "fundamental and long-term D-mark weakness"
- 10: 24/06/93: "La grande gaffe": France suggests concerted interest rate cuts to Germany
- 29/07/93: Bundesbank interest rate cuts insignificant (Lombard minus 0.5%)
 31/07 01/08/93: widening of ERM bands to 15%

DM/FF

DM/\$ Events

Chart 7.2: France: Short-term interest rates

(Daily; 01 August 1991 - 01 December 1993; differential with German rates)



Germany and France: Call Money Rate Source: Datastream

Events:

- 1: 11/12/91: Maastricht treaty agreed
- 2: $\sim 08/05/92$: public sector strike in Germany leads to wage hikes
- 3: 02/06/92: Danish referendum on Maastricht Treaty
- 4: 16/09/92: "Black Wednesday"
- 20/09/92: French referendum on Maastricht Treaty
- 5: 19/11/92: Swedish Krona floated (mounting ERM tensions)
- 6: 16/03/93: Germany: "Solidarity Pact" agreed
- 20/03/93 Russia: Yeltsin declares direct rule (high point of political crisis)
- 21/03/93: France: first round of general elections
- 7: 13/05/93: Spanish peseta and Portuguese escudo devalued (Iberian currency crisis)
- 8: 09/06/93; George Soros speaks of "fundamental and long-term D-mark weakness"
- 9: 24/06/93: "La grande gaffe": France suggests concerted interest rate cuts to Germany
- 10: 29/07/93: Bundesbank interest rate cuts insignificant (Lombard minus 0.5%)
 - 31/07 01/08/93: widening of ERM bands to 15%

The D-mark as key currency in an asymmetric system lay at the heart of the dynamic instability of ERM in the 1991-93 period. Germany's destabilising role is generally attributed to the restrictive monetary policy stance of the Bundesbank in response to inflationary

pressures stemming from fiscal and wage policies, which resulted in excessive D-mark strength within the ERM grid.¹ But the actual performance of the D-mark in the 1992/93, although resulting in its de facto appreciation against most ERM currencies, is characterised by volatility, in stark contrast to its usual stability as a hard currency. From late 1991 to August 1993 the D-mark shifted between weakness and strength, with episodes of heightened ERM tension characterised by D-mark strength and vice versa. This volatility became more pronounced towards August 1993, when, after period of severe weakening and growing doubts in the financial markets about its anchor position, the mark rebounded with the Bundesbank reasserting its dominant role in the ERM over the French franc.²

7.2.1. Global Factors: USA and Russia

The root causes for the disruptive behaviour of the D-mark in the ERM are associated with the economic and political consequences of German unification on 3 October 1990. Global political and economic factors outside the ERM also played an important role, notably the international weakness of the US dollar and developments in Russia. Whereas US weakness in general supported D-mark strength, events in Russia pushed it in the opposite direction. Benign neglect of the dollar by US policy makers, in response to the 1991 recession and possibly associated with the presidential elections in 1992, collided with German monetary policy, similarly preoccupied with domestic issues, but to the opposite effect (see Chart 2.2).³ The consequence was growing international exchange rate instability culminating in the

¹ For a review of the ERM crisis along these lines see e.g. De Grauwe (1995, 1997); Grahl (1997); Tsoukalis (1997).

 $^{^{2}}$ A detailed, but strongly anecdotal account of the events culminating in the 1993 speculative attack on the French franc has been given by Bernard Connolly (1995). For a more academic review see Loedel (1998), or Kaltenthaler (1998).

³ The US dollar fell from DM 1.95 in September 1989 to a low of DM 1.45 in September 1992 (Source: Deutsche Bundesbank). Real US GDP contracted in 1991 by -0.2 percent (Source: OECD). Authors emphasising the relevance of US interest rates and the weak US dollar as cause for the tensions within the ERM as a regional key currency system are Henning (1998), Loedel (1998), Buiter et al. (1998) and Cobham (1997).

dollar crisis of August 1992. When sluggish economic growth pointed at the possibility of a "double-dip recession" in autumn 1992 and even a "triple-dip" recession in spring/summer 1993, the Fed delayed monetary tightening until the beginning of 1994. During the ERM crisis financial markets faced a substantial official and short-term interest rate differential in favour of the D-mark, although this narrowed in 1993 with step-by step monetary easing by the Bundesbank. As a consequence the dollar managed to stage a recovery from a very weak position against the German currency during 1993 (see Charts 2.2 and 7.1).

The other international factor, beyond the EMS, which influenced the performance of the Dmark in the ERM, was the mounting political and economic crisis in Russia. Between the dissolution of the USSR in December 1991 and President Yeltsin's declaration of presidential rule over parliament in September 1993, followed by the storming of the parliament building in October, Russia went through a period of economic and political turmoil.⁴ Given Germany's proximity to eastern Europe and political and economic stake in Russian developments, period escalations of the crisis in Russia not only led to a temporary strengthening of the US dollar as safe haven currency, but also a weakening of the D-mark in international financial markets.

7.2.2. German Unification and the ERM Crisis

The impact of German reunification on the ERM has to be seen against the international backdrop. In the early 1990s the project of reunification was given overriding priority by the ruling Christian Democratic-Liberal coalition under chancellor Helmut Kohl.⁵ Kohl rushed through unification, exploiting original domestic enthusiasm for German unity to the full, in

⁴ According to the IMF, former SU output fell 18.2% in 1992, and annual inflation reached levels of above 1,200% in 1993 and 1993 (IMF, World Economic Outlook, May 1994, Tables A1 and A8)

particular in view of the first pan–German general elections on 16 October 1990, despite problematic political and economic consequences. These consequences had a domestic and international dimension (Table 7.1).⁶

Domestically the government chose to inflate domestic expectations by promising virtually self-financing reunification without the need of income redistribution from west Germany to east Germany through tax increases. Furthermore, east Germans were attracted by the prospects of a one-for-one rate for exchanging the mark of the GDR into D-marks, as well as rapid equalisation of wages (Sinn & Sinn 1992; Loedel 1998). Internationally the Kohl administration strategy succeeded in securing backing for the project of a united and fully sovereign Germany not only by the US and the USSR, but also by the initially apprehensive France and UK. This was achieved by a strong commitment to integrate a reunified Germany more firmly into the EU, by sharing monetary sovereignty in a monetary union (Anderson & Wascher 1999; Garrett 1994; Haggard et al. 1993; Sandholtz 1993b).

⁵ See Anderson & Wascher (1999), Marsh (1995).

⁶ For a good review of the national and international consequences see Gretschmann (1994).

		Domestic		International
Political	• Government	strengthened by general elections	•	Maastricht treaty (EMU)
	• Bundesbank	lefeated over GEMU	•	Franco-German axis strengthened
	• Mounting soc	ial and political tensions		
Economic	• GEMU at 1:1	rate	•	ERM rigidity (Maastricht criteria)
	• East-West wa	ge harmonisation	•	D-mark strength (N-1 problem)
	•	East German industry, but rising East German consumers	→	ERM tensions/crisis
	• Budget defici	t up (demand boost)		
	• West German	wage increases		
	➔ German inflat	tion up		
	➔ Buba assertiv	eness (tight monetary policy)		

Table 7.1: The political and economic consequences of German unification

- Domestic Consequences of German Unification

First to the domestic political and economic consequences: on the surface, the success of unification resulted in a substantial strengthening of the government's position relative to other actors in Germany's political structure. Firstly, in the parliamentary elections of 16 October, the ruling coalition was returned to power with an overwhelming majority of 134 seats in the wake of the reunification euphoria. This majority put the government in a position of strength against the opposition Social Democrats, even after it had lost its majority in the Bundesrat (upper house) in April 1991. Secondly, German monetary union on 1 July 1990 at an overvalued one-for-one conversion rate of east marks, was pushed through against the strong opposition of the Bundesbank. This constituted a de facto coup by the government against the traditional authority of the central bank in Germany's monetary affairs.

However, over the longer term these political advantages faded away with the social and economic strains resulting from unification beginning to show. In the course of 1991 to 1993 the disillusionment with Kohl's reunification project, tainted by mounting economic and social costs, corruption and mismanagement, became apparent in the poor performance of the governing coalition in state elections in 1992 and 1993, as well as the rise of the racist far right in regional and local elections. With the government seemingly losing control, 1992/93 saw increasing demands by the media and the public for a 'grand coalition' government including the opposition SPD. Furthermore, the defeat of the Bundesbank in pushing through GEMU turned out to be something of a phyrric victory for government. In May 1991 it led to the resignation of its popular President Pöhl, a Social Democrat strongly opposed to the terms and speed of GEMU and critical of EMU. He was replaced by the orthodox Bundesbank technocrat Helmut Schlesinger, heralding the reassertion of traditional Bundesbank assertiveness in defence of the value of the D-mark through drastic interest rate increases.⁷

The economic consequences of reunification are more complex. On the domestic front the inflationary consequences of a demand boost are most important, coinciding with a collapse supply from east Germany. Four factors combined to produce this outcome (Table 7.1): First, the original decision for German monetary union at a one-to-one rate boosted east German demand and German money supply, at the same time reducing the competitiveness and thus output of east German industry. The devastation of east German industrial competitiveness was amplified by the second factor, the decision to rapidly bring east German wages to west German levels, out of line with east German productivity, thus boosting demand and at the same time damaging competitive productive capacity. Thirdly,

⁷ Schlesinger was succeeded by Hans Tietmeyer on 01 October 1993. Tietmeyer took a softer line on what it means to defend the value of the D-mark, more amenable to the demands of government and the EMU project (Connolly 1995).

when both factors conspired to create a need for massive transfers and subsidies from west to east, the Kohl administration, for political reasons, chose to deficit finance these transfers, instead of increasing income and corporate taxes. This policy caused an inflationary demand shock across the German economy, driven by a rapidly deteriorating public sector deficit, culminating at 8 percent of GDP in 1993 (see Table 7.1, and Appendix, Table 2). Finally, inflationary demand was further boosted by excessive wage settlements agreed in the west in response to the surge in west German production and profitability to satisfy east German demand.

The overall result of these consequences was an explosion of the German money supply and an increase in inflation to over 6% in April 1992, well above the inflation rates of other core ERM countries. (See Chart 2.4 and Table 7.2). ⁸ With inflation rates increasing and money supply overshooting the Bundesbank's target corridor, the bank reasserted its control over German monetary policy by successively tightening monetary policy from the end of 1990 until September 1992. Afterwards, easing took place gradually through a long sequence of small steps until early summer 1994 (see Chart 2.2).⁹ The ensuing stabilisation crisis led to a recession in 1993, with unemployment reaching 10.5 percent (see Chart 2.8).

⁸ The German demand shock was reflected in the swing of the current account into deficit (see Appendix, Table 2).

^{2).} ⁹ The Bundesbank's M3 target corridor for 1992, the crucial benchmark for its monetary policy strategy, was set for 1992 for a growth rate of =3,5 to +5.5%. In reality M3 grew by more than 9% for the whole year. The Bundesbank consequently adjusted its corridor for 1993 upward, to a target range of +4.5% to +6.5%. Monetary tightening achieved a real M3 annual growth rate of just over 7%, close to the upper limit of the corridor. The key Bundesbank discount rate was increased from 6% in the beginning if 1991 to 8.75% in July 1992. It gradually fell to reach 4.5% in May 1994 (Source: Deutsche Bundesbank).

	East German Industrial Production (1989=100) ¹	Public Sector Transfers to Eastern Germany (% of GDP West) ²	Public Sector Deficit (% of GDP) ³	West German Wages (% change) ⁴	Consumer Prices (% change) ⁵
1989	100	States - Strengt	0.1	4.1	2.8
1990	77.4		-2.0	6.4	2.7
1991	56.0	3.8	-2.9	6.2	3.6
1992	61.7	4.5	-2.5	5.4	5.1
1993	67.4	4.6	-3.2	5.1	4.4
1994	76.8	4.2	-2.5	3.8	2.8

Table 7.2: German unification: economic indicators

Sources:

1. Tobler (1997), p. 228

2. 91-94 only; Council of Economic Experts, Jahresgutachten 1995/96, Table 40

3. General Government Fiscal Balances; OECD Economic Outlook 66, Dec. 1999, Annex Table 16

4. Hourly compensation for production workers; US Dept. of Labor, Bureau of Labor Statistics, Sept. 2000

5. OECD Economic Outlook 66, Dec. 1999, Annex Table 16

- International Consequences

The project to merge the ERM currencies into a single currency, shifting monetary autonomy from the Bundesbank to the new European Central Bank, was enshrined in the Maastricht treaty of December 1991.¹⁰ The success of further economic and political integration in western Europe to flank reunification assumed a pivotal position in the German government's foreign policy strategy, leading to a significant strengthening of the Franco-German axis.¹¹ The Maastricht convergence criteria de facto ruled out realignment as a political option for ERM countries aspiring to join EMU in the first round, thereby turning the ERM into a rigid exchange rate system. During the ERM crisis the German government was therefore interested in keeping the EMU project on track by supporting core currencies under attack, especially the French franc. The Bundesbank, to some extent obliged to support the

¹⁰ For details see Gros & Thygesen (1998).

government, lived up to its responsibilities within the ERM through large scale interventions. However, after massive interventions in September 1992 the Bundesbank was unwilling to support ERM parities beyond levels which could be sterilised. As de Grauwe put it, the Germans "refused to throw all their weapons into the battle" (1997: 110).¹² Furthermore, the central bank was unwilling to compromise on its tight domestic monetary policy stance which pushed the D-mark up within the ERM grid.

This meant that the ERM was confronted with the classic problem of "irresponsible" leadership, associated with the N-1 problem in asymmetrically structured key currency systems. Germany chose to exploit the exceptional domestic monetary policy autonomy of the key currency country and shifted the adjustment burden onto the follower countries.¹³ Due to the inflationary consequences of German reunification, the same anti-inflationary domestic monetary policy orientation, which had served as a stabilising disinflationary anchor for the ERM, now destabilised the system by imposing disinflation on the rest of the ERM.

¹¹ The importance of "high politics" for the move towards monetary union has been emphasised by Sandholtz (1993a), Dyson (1994), Tsoukalis (1997).

¹² Intervention by the Bundesbank in particular during the September 1992 crisis was indeed on an unprecedented and, in the eyes of the institution, intolerable scale (Bernholz 1999: 768-772). It amounted to DM 92.7bn in September 1992, plus another DM 60bn in July 1993 (Deutsche Bundesbank: Monthly Reports 01/93 and 08/93). These interventions were so high that German money supply could not be fully insulated through sterilisation.

¹³ For a discussion of asymmetry and the N-1 problem see Krugman & Obstfeld (2000), Ch. 18, or, applied to the ERM, de Grauwe (1996): 39-44. In IPE the classic analysis of the problem of hierarchy and hegemonic leadership in monetary relations was delivered by Kindleberger, e.g. (1986). Abdelal (1998) analyses the hierarchical nature of the ERM by both drawing on the N-1 and the hegemonic leadership paradigm.

- 1992/93: Domestic Tensions

The domestic and international consequences of reunification revealed the fault lines in the structures and political interests underlying the German stability consensus (see Table 7.3).¹⁴ Within the governmental structures, tensions grew between the chancellery and the foreign office on the one side and the Bundesbank on the other, supported by the finance ministry (Marsh 1995; Heisenberg 1999). The former were interested in an expansionary monetary policy, firstly to accommodate the economic and social strains of unification and, secondly, to relieve tensions in the ERM in view of the Maastricht treaty and the importance of the Franco-German axis. Against this stood a growing assertiveness by the Bundesbank to reign in inflationary pressures by means of restrictive monetary policy in adverse circumstances of ballooning budget deficits and wage demands.

The resurgence of trade union power due to the specific constellation of reunification led to increasing criticism of Bundesbank policy by the DGB, the trade union confederation. The central bank was accused of damaging growth, especially in the export sector, by undermining exchange rate stability. The BDI, the employers organisation representing big business, argued in a similar direction, partly supported by the peak organisation of Germany's big private banks, the BDB. Against this criticism the Bundesbank was only backed by the peak organisations representing smaller investors and German savers (GSDS). The DIHT, the business organisation representing more domestically orientated SMEs, took a roughly neutral position.

¹⁴ Kaltenthaler (1998), Marsh (1995) and Lange & Shackleton (1998) expand on the conflicts between government departments, political parties and key peak associations over the Bundesbank's monetary policy strategy in the wake of reunification. Connolly's (1995) highly personalised account of the events around the ERM crisis emphasises the split between the Chancellor Helmut Kohl and Bundesbank president Helmut Schlesinger.

In the political party landscape the consequences of reunification led to a strange reversal of roles between the ruling conservative-liberal coalition and the opposition Social Democrats (SPD). CDU (conservatives) and FDP (liberals), although traditional supporters of Bundesbank hawkishness, were ambivalent about the Bank's restrictive policies, concerned primarily with managing reunification and European integration. On the other hand, the SDP, sceptical about the loss of national economic policy autonomy through EMU and highly critical of the government's economic management of reunification, moderated its traditional criticism of Bundesbank independence. The conflict between government and opposition about monetary policy was played out not so much in the lower house (Bundestag), but between the executive and the upper house (Bundesrat), which was dominated by SPD-led 'Länder' (state) governments (Marsh 1995: 90). As a result, the German federal system gave the Bank some relief from the pressure it encountered, especially from the Chancellery.¹⁵ Similarly, Euro-sceptic public opinion, normally most critical of the Bundesbank when it triggered a 'stabilisation crisis' (Spahn 1988) to control inflation, now tolerated Bundesbank hawkishness as an expression of German monetary assertiveness against foreign challenges to national monetary autonomy (Connolly 1995).¹⁶

Altogether, the consequences of reunification can be summed up as a partial breakdown of the German stability consensus on monetary policy making, which underpinned Bundesbank autonomy (Tullio et al. 1996: 24), although the central support the Bundesbank received from the Germany's federal political structure remained intact. With its structural underpinnings in partial disarray, Bundesbank policy lacked consistency in 1993. Thomasberger (1993) describes this as "Schlingerkurs" (lurching course) of the Bundesbank between price and

¹⁵ Henning (1994) points out the crucial role of the Bundesrat and the German Constitutional Court in particular for procrastinating on the final ratification of the Maastricht treaty.

exchange rate stability. This "Schlingerkurs" can be observed in close relationship with the ups and downs of the D-mark during the ERM crisis. Adding the dollar-politics dimension,

Loedel (1999: 149) sees the Bundesbank in 1992/93 as being caught in a 'triple bind,

"(1) confronting the government's ill-defined financing plans for reunification and the developing economic slowdown in Germany on the domestic front; (2) confronting the EMS intervention commitments as well as the powerful driving forces of monetary integration surrounding Maastricht; and (3) confronting an indifferent U.S. dollar policy."

	DOMESTI			L POLICY
	DOMEST	DOMESTIC POLICY		
	Employment/ Growth	Price Stability	Exchange- Rate Stability	Realignment
Administration				
Bundesbank		++	-	+
Chancellor	+		++	
Finance Ministry		+	+	
Foreign Office			++	
Legislature				
Bundestag	++	+	++	-
Bundesrat	+	++		
Peak Associations				
BDI	+	+	++	
DIHT		+		
BDB	-	+	++	
GSDS		++	-	++
DGB	++		+	-
Political Parties				
CDU		+	÷	-
FDP		+	+	
SPD	+	+	+	

Table 7.3:Monetary policy interests in Germany in 1992/93

Based on Kaltenthaler (1998)

++ strongly in favour

+ in favour

- opposed

-- strongly opposed

blank: neutral

¹⁶ See Table 7.3. for the traditional interest constellation towards German monetary policy by key domestic institutions.

Despite these domestic tensions the Bundesbank eventually asserted itself in summer 1993. Paradoxically this was only possible against the background of prior Bundesbank weakness. It was the impression of loss of control in spring/summer 1993 which made it clear to key German interest groups that a repeat of the stabilisation of the ERM by the Bundesbank through intervention or even interest rate cuts would only be possible at the cost of a credibility crisis of the D-mark. In fact, what was at stake was Germany's monetary sovereignty itself (Kaltenthaler 1998: 101). The second ERM crisis, triggered by the French push for ERM co-leadership, assisted the Bundesbank in restoring its hegemony in the German political economy. It managed to resolve its "Schlingerkurs" in favour of domestic stability. Thus the domestic struggle and Bundesbank "Schlingerkurs" have to be seen as an interaction between the institution and financial markets, in the context of both external political pressures, mainly from France, and domestic pressures.

7.2.3. Periodization of the History of the D-mark in the ERM Crisis

In line with my other case studies, the analysis of the case of the German currency starts with the tensions around the Maastricht conference and the Nordic currency crisis of late 1991 and stretches to the widening of the ERM bands in summer 1993, mirroring the analysis of market sentiment towards the French franc. The period covered is from 1 October 1991 to 2 August 1993. Throughout this period, the D-mark never experienced an outright exchange rate crisis within the ERM grid. However, it went through distinct periods of weakness in its role as key currency, which were characterised by financial markets questioning the credibility of the Bundesbank's ability to anchor the system to German monetary policy.

Three periods of D-mark weakness have been defined:¹⁷

- the pre-Danish-referendum weakness episode (10 January 1992 2 June 1992);
- the post-French referendum weakness episode (29 October 1992 18 November 1992);
- the pre-'Grande Gaffe' weakness episode (04 Feb 1993 23 June 1993).¹⁸

As for the case of Britain and France, these episodes have been statistically analysed and interpreted individually. They have also been statistically aggregated as "DM weakness episodes". Periods during which the D-mark reasserts its position as anchor currency have been taken into account only in aggregated form as "DM-strength episodes". These are the periods associated with trouble in the ERM. In total, seven phases have been defined:

- D-mark strength during and after the Maastricht negotiations and the Nordic currency (01 October 1991 - 09 January 1992). The phase was characterised by Bundesbank monetary tightening, a consequential widening dollar-D-mark interest differential and resilient German economic growth.
- 2. D-mark weakness in the pre-Danish-referendum weakness episode (10 January 1992 2 June 1992). The 10th of January 1992 roughly marks the upward turning point for both the French franc and the dollar against the D-mark (Chart 7.1), combined with a beginning of short-term interest rate convergence between France and Germany (Chart 7.2). The period ends with the Danish referendum, marking the end of the upward trend of other ERM currencies, especially the French franc, against the D-mark.¹⁹ In Germany it was characterised by industrial disputes and excessive wage increases in the public sector in spring and fading popularity of the Kohl

¹⁷ For the definition criteria see Chapter Three. For a chronology of the events referred to in the following section, see Appendix, Table 1.

¹⁸ The term refers to the misjudged call by the French finance minister Alphandery on 24 June 1993 for joint German – French interest rate reductions, triggering a run in financial markets on the French franc. As Bernhard Connolly reports, the failed attempt became immediately known as "La gaffe Alphandery" (Connolly 1995: 309).

¹⁹ The dollar had peaked against the mark already on 21 April 1992 (Chart 7.2).

administration, signalled by calls for a grand coalition, heavy losses of the governing coalition in state elections and an upsurge of the far right. Externally, Germany was exposed to political and economic instability in the former Soviet Union after the resignation of President Gorbatchev.

- 3. D-mark strength during the first ERM crisis following the Danish referendum and culminating in the Black Wednesday and the French referendum (03 June 1992 29 September 1992). The period saw the conclusion of a tripartite "solidarity pact" for 1994 on budgetary consolidation and wage moderation. The Bundesbank's hawkish policy stance in the face of continuous high inflation came under pressure with the escalation of the ERM crisis in late summer. In response to pressure by the German and the French government the central bank accepted to shelter the French franc from the ERM crisis by massive intervention. The special treatment of the franc indicated that the Bundesbank was willing to compromise if 'high politics' was at stake.
- 4. D-mark weakness following the French referendum (29 October 1992 18 November 1992). On the 29th of October the Bank of France unilaterally lowered official interest rates for the first time after the September crisis. Foreign exchange markets responded positively to this unilateral cut, the French franc remained stable. The date thus marks the end of the "first" ERM crisis, although French short-term interest rates had been falling relative to German rates since late September. Short-term rates continued to fall back to pre-crisis levels in November 1992 (Chart 7.2). The franc started to strengthen against the DM already on 24 September and the dollar's volatile rally against the D-mark started on 16 September.
- 5. D-mark strength in the aftershocks of the first ERM crisis in winter 1992/93 (18 November 1992 - 03 February 1993). The rehabilitation of the D-mark was heralded by the floating of the Swedish krona on 19 November 1992. It was furthered by the

Bundesbank reasserting its anti-inflationary stance against political pressure to support the French franc through an interest rate cut. The winter crisis resulted in a round of devaluations in the ERM (Peseta, escudo, Irish punt).

6. D-mark weakness in the pre-'Grande Gaffe' weakness episode (04 Feb 1993 - 23 June 1993. The Bundesbank's official rate cut of 04 February marked the final end of the winter 1992/93 ERM tensions. From then onwards the Bundesbank followed a policy of continuous but piecemeal interest rate cuts. Although the bumpy dollar rally against the D-mark dated back to Christmas 1992, and the French franc had already started to strengthen against the D-mark from the beginning of January 1993 on the back of official interest rate increases (Chart 2.2), D-mark weakness was only really setting in with French short term interest starting to come down in relation to German rates after 04 February (Chart 7.2).

The 1993 D-mark weakness episode differed from the 1992 episode in so far as the domestic economic situation was much worse than in 1992, contributing for the first time to a sustainability problem for traditional Bundesbank anti-inflation policies. Despite its tough stance the central bank had not been able to bring inflation under control but had contributed to a recession and rising unemployment. In the first quarter of 1993 inflation rose to nearly 5%, whereas unemployment reached 9% (see Chart 2.4 and 2.8). In addition, budgetary consolidation was put into question by the prospect of the weakened government having to fight a general election in 1994. The danger of Germany's economy entering a phase of stagflation loomed, giving the impression of the Bundesbank loosing control. From the end of March, with the French parliamentary elections over and the Russian President Yeltsin declaring direct rule, D-mark weakness turned into an acute confidence crisis. On 9 June 1993 George Soros stated that D-mark weakness "was fundamental and long-term". The crisis

culminated with the rally of the French franc and the dollar against the mark in summer 1993.

7. D-mark strength after the triumph of the Bundesbank over the challenge of France for co-management of the ERM, starting with "La Grande Gaffe", the attempt by the French economics minister Edmond Alphandery to co-determine ERM monetary policy, and culminating in the widening of the ERM bands to ± 15% (24 June 1993 - 1 August 1993). The Bundesbank refusal to cooperate with the French demands turned a potential D-mark crisis into another round of ERM crisis, which assisted the reassertion of Bundesbank dominance in the ERM.

7.2.4. Interpretations of D-Mark Volatility

Most literature analysing the ERM crisis does not deal with the confidence crisis experienced by the D-mark in 1993. When it comes to the role of Germany in the ERM crisis, the general view is that the Bundesbank's management of the key currency caused tensions because it prioritised domestic stability over systemic stability (Kenen 1995; Andrews 1995; de Grauwe 1997; Grahl 1997; Tsoukalis 1997; Abdelal 1998). The severity of the disinflationary shock imposed on the system is explained by Tullio et al. (1996), Thomasberger (1993) and Spahn (1995) by the impotence of the Bundesbank to succeed in fighting domestic cost-tax push inflation because the wider domestic preconditions for price stability were not in place in 1992/93.

Domestic structure approaches (Henning 1994; Kaltenthaler 1998; Heisenberg 1999) show awareness of the institutional tensions and ambiguities underlying inconsistent Bundesbank behaviour in 1992/93. Although proponents of this view emphasise conflicts between German political and economic institutions and the central bank, they agree that the Bundesbank was responsive to domestic pressures to compromise its anti-inflationary stance only to the point where market confidence in the D-mark was at stake. Dyson (1994), investigating German domestic interests, suggests that the looming credibility crisis of the D-mark left social actors no other option than to restore the stability coalition, which had traditionally underpinned the Bundesbank paradigm.

The literature gives no indication as to the influence of German domestic institutional weaknesses on market sentiment towards the D-mark. Below, I will investigate the extent to which financial market participants had been aware of the stresses in the structural foundations of the Bundesbank reputation during the crisis.

7.3. Market Sentiment towards the Mark during the ERM Crisis

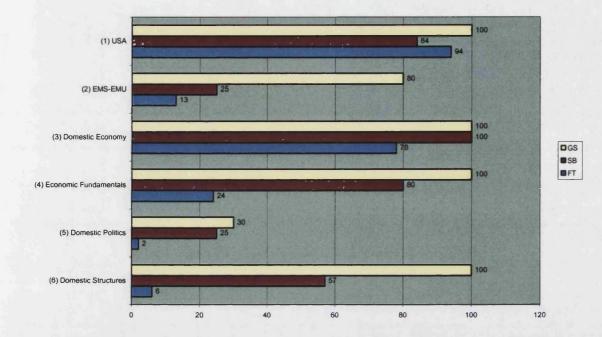


Chart 7.3: Market sentiment Germany: Economic, political, structural variables (as percentage of text units coded at German crisis episodes)²⁰

- (1) International developments: USA (mainly US monetary policy and US dollar)
- (2) International developments: EMS-EMU
- (3) Domestic developments: German economic performance and economic policy (including economic fundamentals)
- (4) Domestic developments: German economic fundamentals only (inflation, BoP, budget deficits)
- (5) Domestic developments: German domestic politics (especially elections)
- (6) Domestic structures (especially central bank; financial, wage bargaining, government structures)

As in the analysis of market sentiment towards pound sterling and the French franc, the issue of credibility must take central position. But whereas in the case of Britain and France, two 'follower countries' in the ERM, the credibility of the respective authorities to maintain their exchange rate commitment was at stake, in the case of Germany, as the ERM 'leader', it is

Category [1] = Node (4 1);

²⁰ The categories in this chart, and the following charts on 'market sentiment', refer to noded categories and their subordinated categories in the index tree (Appendix, Table 3).

Category [2] = Node (3 4), and Nodes (4 3 9), (4 3 10), (4 3 11);

Category [3] = Node (3 1) and Node (3 2);

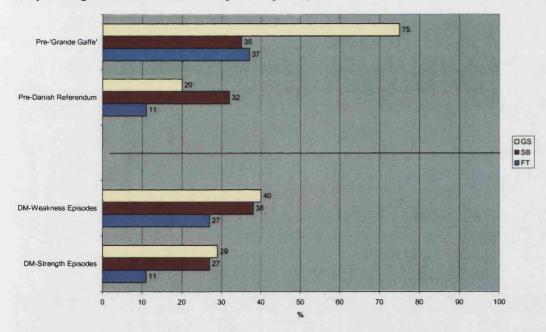
Category [4] = Nodes (3 1 1 1), (3 1 2 1), (3 1 1 2), (3 1 2 2), (3 1 1 6), (3 1 2 6);

the credibility of the D-mark as anchor currency which was questioned by market participants. As a result, the problems of the D-mark in financial markets in 1992/93 did not take the form of a classic currency crisis, i.e. a battle between markets and authorities about the sustainability of a peg, but were related to the question of whether the Bundesbank would lose its autonomy in setting monetary policy for Germany, as other European governments appeared to have wanted. Instead of crisis episodes, in the case of the D-mark these 'weakness-episodes' of the anchor have to be investigated.

Chart 7.4: Market sentiment Germany:

Expectations of DM exchange rate: uncertain or weakening

(as percentage of text units coded at respective episode)²¹



This section investigates the relative influence of economic and political developments as well as domestic structural features, on market sentiment. Following this overview, individual variables of these three categories are analysed for their respective relevance for market sentiment during these weakness episodes.²² One exception is the "post-French referendum

Category [5] = Node (3 3);

Category [6] = Node (3 5).

²¹ Nodes (3 6 1 2) and (3 6 1 4).

²² See Chapter 3 for the methodology.

weakness episode" (29 October 1992 - 18 November 1992), which is not investigated systematically. Since this episode lasted only three weeks, the small number of sample texts does not produce statistically significant results: it is difficult to gauge market sentiment for the weekly Salomon Brother's source, with a sample of only three, and even more so for the single publication by Goldman Sachs. This leaves the pre-Danish referendum and the pre-'Grande-Gaffe' weakness episodes. Market expectations of persistent D-mark weakness are exceptionally significant in the pre-'Grand-Gaffe' weakness episode, with the pre-Danish referendum episode concerns well within the range of market concerns about the D-mark during non-Crisis episodes (Chart 7.4).

The credibility of the Bundesbank as the stalwart of price stability underpinning Germany's hard currency strategy has been absolutely crucial for market sentiment. The interpretation of all economic, political and structural variables has been shaped by the questions of what their development might imply for the policy of the Bundesbank, and whether its anti-inflationary monetary policy stance was still credible. To gauge the prospects of Bundesbank policy, markets sentiment took account of variables stretching across the whole range of German political economy, starting from the surface, with Bundesbank policy statements, and going deeper to international and national political and economic variables. These variables have been analysed systematically to a considerable extent in all three sources, sometimes related to conclusions about the structural constraints of Bundesbank autonomy. Structural factors themselves have been taken into account by market participants in an ad-hoc fashion in reaction to growing uncertainty about the Bundesbank's position.

7.3.1. The Bundesbank: Policy Statements

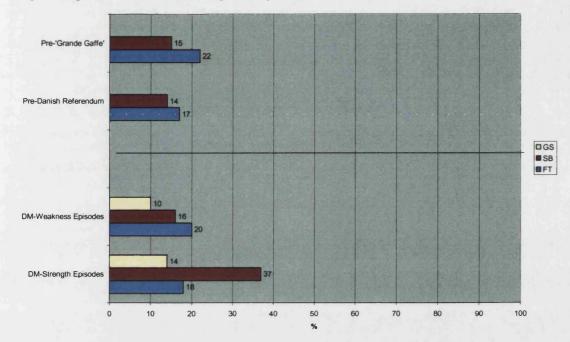


Chart 7.5: Market sentiment Germany: Bundesbank statements (as percentage of text units coded at respective episode)²³

Financial market participants paid considerable attention to the signals sent out by the Bundesbank, not only to official Bundesbank reports, press conferences after the two-weekly council meetings and other official statements, but also to speeches and virtually every utterance by Bundesbank president Helmut Schlesinger and the other 16 council members. This "Bundesbank watching" was of particular concern for the daily commentators in the FT, and to some extent the weekly comments of Salomon Brothers (see Chart 7.5). The in-depth analysis of Goldman Sachs, in contrast, rarely gave prominence to policy statements, relying instead on political-economic variables to interpret Germany's monetary policy stance.²⁴ As a rule, financial markets reported hawkish policy statements, confirming market sentiment about the Bundesbank's credibility on inflation. The picture began to change during the pre-

²³ Node (3 2 1 4)

²⁴ The disregard of this aspect by the monthly reports of Goldman Sachs puts the overall result close to the significance threshold, despite the reporting of Bundesbank statements by the FT and Salomon Brothers. This is

'Grand-Gaffe' weakness episode, when markets increasingly saw the Bundesbank taking a dovish attitude in its public statements (Table 7.4). This, given stubbornly high inflation in Germany, was taken as an indicator for defeatism emerging in the Bundesbank council in response to internal and external pressures. Analysts were firstly concerned with external constraints, posing the classic Bundesbank dilemma between internal and external stability.

Table 7.4: Hawkish Bundesbank statements (as percentage of all Bundesbank statements)²⁵ Pre-'Grande Gaffe' DM – Weakness Episodes Pre-Danish Referendum FT 85% 100% 68% SB

100%

_

66%

-

88%

100%

GS

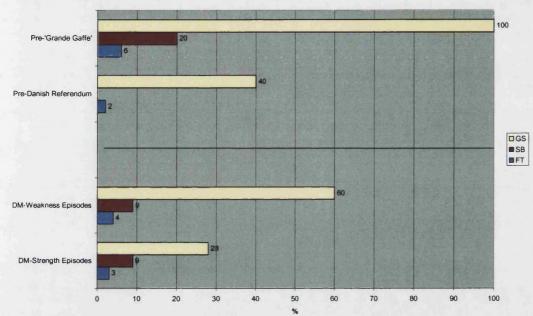
due to the more long-term view taken by Goldman Sachs, which paid attention to Bundesbank policy without highlighting the "news" of Bundesbank statements. ²⁵ Node (3 2 1 4 1)

7.3.2. International Variables

7.3.2.1. The D-Mark/US Dollar Cross

Chart 7.6: Market sentiment Germany: DM-\$ interest rate differential: expected narrowing

(as percentage of text units coded at respective episode)²⁶



International developments outside the EU-EMS region have been of the highest significance for market sentiment towards the Bundesbank strategy and the D-mark.²⁷ However, this concern revolved almost exclusively around the D-mark - US dollar relationship (see Chart 7.3).²⁸

The marginal statistical importance of Russia in particular is astounding given the post-Soviet political and economic turmoil in Russia between 1991 and 1993, and the specific vulnerability of Germany to these events. Markets took account of this vulnerability as a

²⁶ Node (4 1 1 3 2).

²⁷ Percentage of text units referring to D-mark weakness taking account of international developments outside the EU (see International Index Tree, excluding 4.3.; (Not in this Chapter)): FT: 95%; Salomon Brothers: 85%; Goldman Sachs: 100%.

²⁸ Non-US international developments outside the EU (Node 4 2; 4 4; 4 5) fall well below the significance threshold for each crisis episodes. The aggregate figures for all DM-crisis episodes are:

factor undermining the D-mark only in the two instances when economic and political tension boiled over in acute political crisis in April 1992 and March 1993. Attention to Russia in this ad hoc, event-driven fashion was considered by financial markets as sufficient, although analysts were aware of the importance of developments in Russia for the standing of the D-mark. A more systematic analysis of the risks to the D-mark emanating from Russia would have been costly and probably of limited practical value, given the state of flux of Russian politics in 1992/93.

Throughout the 1992/93 period, financial markets were preoccupied with the development of the dollar towards the D-mark. The short-term interest differential between the USA and Germany was systematically covered, with persistent hopes for a US recovery and a consequent narrowing of the interest rate differential being disappointed several times (see Chart 7.6). The consequent fluctuations in market sentiment towards the dollar crucially influenced the standing of the mark in the markets. The extraordinary importance of US developments for the D-mark in financial markets confirms that financial markets were aware that the leadership role of the Bundesbank within the ERM was constrained by the international role of US monetary policy in the international monetary system. The neglect of the dollar exchange rate by the US monetary authorities in 1992/93 had a destabilising impact on the ERM, since the asymmetric nature of the system meant that in periods of US-dollar weakness the D-mark strengthened against other ERM currencies (see Chart 2.1). Goldman Sachs pointed out as early as November 1991: "The recent sharp rise in the DM has been the main factor behind the recent increase in ERM tensions. ... The DM tends to benefit disproportionally, at least initially, from any weakness in the dollar." (GS, Nov./Dec. 1991, 6/11,12:2.03).

In addition, financial markets took into account the constraint imposed on the Bundesbank's domestic room for manoeuvre by the D-mark/dollar exchange rate. Goldman Sachs analysed the complex interaction between domestic price stability, ERM stabilisation, D-mark/dollar exchange rate under the headline "The Bundesbank Dilemma" in December 1992:

But why did the D-mark/dollar relationship and the respective interest rate differential become such a significant variable only in the 1993 pre-'Grande Gaffe' episode? Expectations of a stronger dollar and higher US interest rates were fluctuating throughout the period investigated. What finally pushed the D-mark/dollar relationship into the limelight was not a US recovery or American interest increases per se, but the perception in financial markets that the D-mark was losing the attributes of a hard currency representing an alternative to the dollar. Instead of dollar weakness being the independent cause for D-mark strength, despite German domestic weaknesses, the causality in market sentiment seems to have changed in early summer 1993. Now intrinsic D-mark weakness became the cause for dollar strength, despite continuously disappointing US economic performance and monetary policies. From the international point of view, market participants thought it unlikely that the Bundesbank would go for further on monetary easing, since now the credibility of the D-mark in the global context itself was at stake. This becomes clear in the analysis of Goldman Sachs, who point out the international vulnerability of the D-mark as a result of exceptional international borrowing to finance massive post-unification budget deficits:

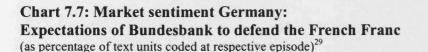
[&]quot;Economic weakening by itself does not provide sufficient justification for the Bundesbank for a substantial change in the stance of its monetary policy. Only when the slow-down is certain to lead to a decline in underlying inflation would such a change in policy appear to be appropriate. ... Monetary easing will also have to take into account exchange rate developments of the Deutschemark versus the U.S. dollar. A too rapid cut, if it leads to a sharp depreciation of the Deutschemark, could lead to a rise in imported inflation." (GS, December/January 1992, 7/11: S.14-S.16)

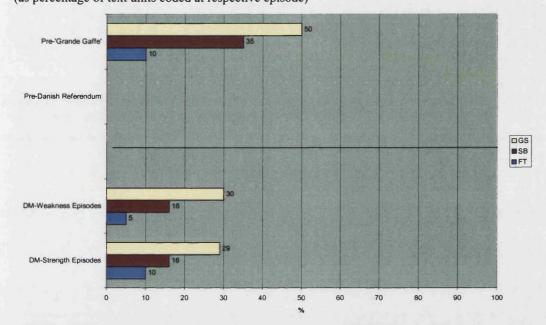
"A sharp depreciation of the Deutschemark versus the U.S. dollar could slow foreign capital flows into Germany as international investors could lose confidence in the Deutschemark. With fewer foreign capital inflows, German medium- to long-term credit rates ... could rise and raise the costs of financing investment projects" (GS, April 1993, 8/3: S.25)

The importance of the D-mark/dollar relationship in summer 1993 was such that it led to speculation that it might affect the intra-European political imperative for the Bundesbank to stabilise the ERM and in particular the French franc. This was indicated by Salomon Brothers: "If new Deutschemark weakness versus the dollar ... stalls Bundesbank easing, the 'franc fort' policy may not survive" (SB 09/07/93: 2).

Given the importance of the D-mark/dollar relationship for market sentiment, it seems unlikely for ERM tensions to have escalated into a crisis of such severity without the D-mark being boosted throughout 1992/93 by extreme dollar weakness. Markets treated the ERM currencies, including the D-mark, consistently in a global rather than a merely regional context, underlining the intrinsic weaknesses of a merely regional key currency system in a globalised financial system. In 1993, when uncertainty about the Bundesbank policy stance escalated, the focus on the D-mark-dollar relationship operated as a short-cut to avoid a systematic domestic structural analysis. Regardless of the possible structural weaknesses, uncertainty about domestic constraints faced by the Bundesbank was overcome by assuming that the external stabilisation against the dollar was of such importance to warrant it becoming an overriding priority in German policy making.

7.3.2.2. EMU Problems and ERM Tensions





Regional EMS and EMU related considerations played a less important role in market sentiment, compared to the D-mark/dollar relationship and to domestic economic and structural variables (see Chart 7.4). Markets were mainly concerned about whether the strong German commitment to EMU would lead the Bundesbank to stabilise the ERM. In contrast to Britain and France, political backing for EMU was never a serious issue.³⁰ Markets acknowledged the pro-European integration consensus in German party politics and dismissed a Euro-sceptic populist challenge to the Maastricht Treaty via a referendum for constitutional reasons:

"German support for close European political and social union remains firm, and the leading parties are supportive of the [Maastricht] Treaty... Furthermore, despite of loose talk of a 'groundswell' of anti-Treaty sentiment, German law does not provide for the use of a referendum. ... It is highly unlikely that German parliamentarians would risk isolation implied by a rejection of the Treaty." (SB 05/06/92: 3)

²⁹ Node (3 4 1 3).

Against this background the EMU project contributed to market expectations of Bundesbank action to stabilise the ERM, in particular the French franc/D-mark exchange rate, since the successful implementation of the Maastricht programme depended on the maintenance of exchange rate stability prior to monetary union. Expectations of ERM stabilisation were significant for both the DM weakness and DM strength episodes (Table 7.5).

Table 7.5:Expectations of Bundesbank to stabilise the ERM
(as percentage of text units coded at respective episodes)31DM-Weakness EpisodesDM-Strength Episodes

DM-Weakness Episodes	DM-Strength Episodes
8%	11%
23%	31%
50%	29%
	8% 23%

Two results stand out: first, the majority of market comments regarding Bundesbank stabilisation of the ERM concern the French franc³² and secondly, as far as weakness episodes are concerned, stabilisation expectations were confined exclusively to the pre-'Grande Gaffe' episode (see Chart 7.7).

The first feature indicates that financial markets did recognise the specific importance of stabilisation of the French currency for Germany's high politics of European integration. Stabilisation was pushed for especially by the German chancellery, against the narrow domestic economic interests of the Bundesbank. Financial market participants were aware of this constellation, and thus implicitly of the susceptibility of the Bundesbank to political

³⁰ The domestic politics of EMU (Node 3 4 1 1) was insignificant for all investigated episodes. The score for all D-mark weakness episodes was FT: 0%; SB: 0%, GS: 20%.

³¹ Node (3 4 1 2).

³² Units expecting FF stabilisation by the Bundesbank, as percentage of all units expecting ERM stabilisation: For DM-strength episodes: FT: 91%; SB: 52%; GS: 100%. For DM- weakness episodes: FT: 83%; SB: 70%; GS: 60%.

pressure, as growing expectations of a 'mini-EMU' between France and Germany in early 1993 demonstrate:

"Any announced 'fixing' of the Ffr/DM rate, without bands, would probably be perceived by market participants as a politically-imposed decision by Bonn and Paris rather than one made with the total agreement of the Bundesbank." (GS, March 1993, 8/2: 1.07).

As for the concentration of market sentiment expecting ERM-French franc stabilisation during the pre-'Grand Gaffe' episode of the first half of 1993, the question is why markets should have expected the Bundesbank policy to soften in favour of external stabilisation, when the D-mark was already going through a phase of weakness in the ERM. Markets normally expected the Bundesbank to act in support of exchange rate stability in phases of Dmark strength, which put the ERM and especially the franc under strain, not D-mark weakness.

The explanation seems to be that after a year of "Schlingerkurs", in which the Bundesbank gave priority to external stabilisation in situations of French franc distress and to domestic stabilisation in periods of ERM stability, in spring 1993 the pendulum was seen to have finally moved in favour of consistent relaxation of German monetary policy regardless of external weakness. The consolidation of market sentiment after a year of uncertainty was triggered by the Bundesbank's discount rate cut of 4 February 1993 after months of interest rate stability and despite continuously high inflation (see Chart 2.2 and 2.4). The cut was, according to the FT, "hailed as another indication that the Bundesbank is determined not to see the ERM break up" (FT 05/02/93: 23). Salomon Brothers concluded: "The Bundesbank has demonstrated that preserving stability within the ERM core has high priority – probably higher than most market participants had assumed" (SB 05/02/92: 1).

Two factors combined to underpin expectations of further ERM stabilisation despite a weakening of the D-mark. Firstly the usual recognition of ERM high politics: financial markets were concerned about the outcome of the French parliamentary elections in March 1993, and the Bundesbank was seen to mitigate lingering ERM pressure through pre-emptive monetary easing. Alison Cottrell of Midland Global Markets was quoted in the FT saying: "The Bundesbank is buying time until after the French elections" (FT 05/02/93: 23). Secondly, and more importantly, the step-by-step lowering of official German interest rates from February onwards was interpreted as final confirmation that the German economy was in such a poor state that the Bundesbank had to give in to domestic pressures for monetary stimulation. Consequently Salomon Brothers commented two days before the first round of the French general elections: "The Bundesbank is playing both a domestic and an external audience. ... The timing of the Bundesbank moves indicate that they have been intended to ease ERM tensions as well as to temper pessimism about the outlook for the German economy" (SB 19/03/93: 2).

The feeling of uncertainty about the Bundesbank's course returned in summer 1993 when, after the 'Grande Gaffe', the central bank failed to come to the support of the French franc. It took market participants until the end of July to conclude that the Bundesbank had been able to reassert its tough stance. As late as mid-July the FT reported:

[&]quot;Mr Brian Hilliard, international economist at Societe Generale Strauss Turnbull in London, said that ultimately the existing parities would survive. 'What is happening is a scare, not a fatal blow,' he commented. 'The fact that the Bundesbank did not reduce rates yesterday morning may led many people to write off further German moves to help the franc,' he added. 'But there is plenty more they can do to help the French. The Bundesbank's commitment to support the franc is total.' On the other side of the spectrum was Mr Neil McKinnon of Citibank London: 'The absence of the Bundesbank rate move puts another nail in the coffin of the ERM.' " (FT 16/07/93: 25)

To sum up, market participants took the broader political realities of European monetary policy into account consistently. They were acutely aware that the reality of international monetary and financial interdependence was of crucial importance for Bundesbank policy making, despite the official emphasis by the central bank itself on the priority of domestic objectives. The oscillation of the D-mark exchange rate between strength and weakness in the period investigated is crucially due to the changing interpretation of the Bundesbank dilemma. The volatility of market sentiment thus reflected the actual "Schlingerkurs" in the central bank's policy signals. Given the appearance of Bundesbank inconsistency, the policydriven analysis ultimately failed to determine what factors shaped Bundesbank policy moves in the long run, and uncertainty prevailed. The pragmatic attitude of financial markets to rely on the policy communications of the German central bank, which had proved sufficient in normal times of unquestioned Bundesbank credibility, became ineffective in the specific conditions in post unification Germany. Bundesbank policy statements and decisions were, in these conditions, poor indicators by which to understand the state of the German stability consensus.

7.3.3. Domestic Variables:

7.3.3.1. The Bundesbank: Monetary Policy, Disinflation and Sustainability

Chart 7.8: Market sentiment Germany: French decoupling from DM-anchor (as percentage of text units coded at respective episode)³³

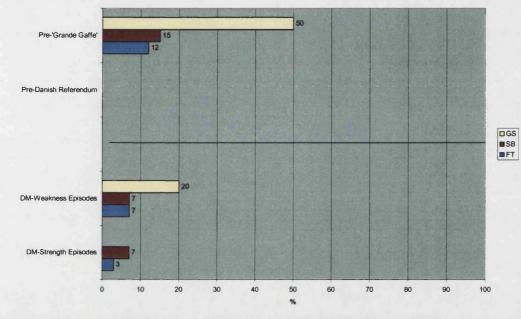


Chart 7.9: Market sentiment Germany: Expectations of recession (as percentage of text units coded at respective episode)³⁴

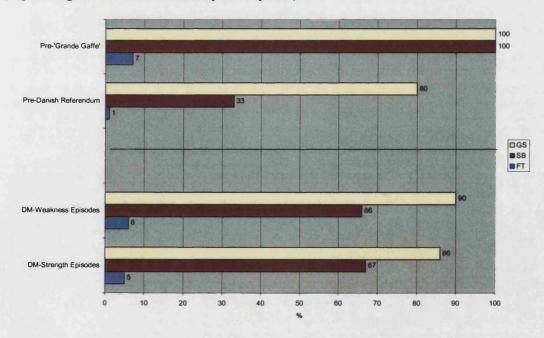


Chart 7.10: Market sentiment Germany: Rising unemployment (expectations and fact)

(as percentage of text units coded at respective episode)³⁵

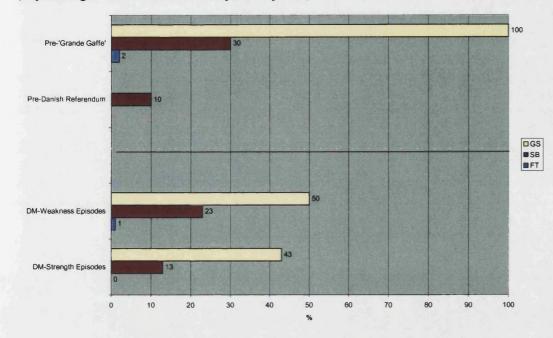
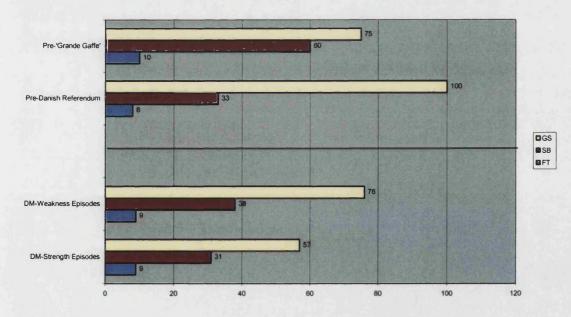


Chart 7.11: Market sentiment Germany: Rising inflation (fact) (as percentage of text units coded at respective episode)³⁶



The credibility of the Bundesbank depended to a large extent on its capability to sustain a disinflationary monetary policy stance in order to bring excessive post-unification inflation

³⁵ Node (3 1 1 5 2) and (3 1 2 5 2)

³⁶ Node (3 1 2 1 2)

rates back to 'normal' German levels. Despite resilient inflation, from February 1993 onwards the Bundesbank embarked on a path of monetary easing through successive small interest cuts until the end of the year (see Chart 2.4 and 2.2). Financial markets reacted to this policy shift by losing confidence in the Bundesbank's capacity to defend the D-mark's hard currency status, as is indicated by both market sentiment towards sustainability of disinflation (Table 7.6) and growing expectations of a decoupling of the French interest rates from Bundesbank dictate (Chart 7.8). It took financial markets until the pre-'Grande-Gaffe' episode to take the problem of domestic sustainability seriously, resulting in the D-mark (see Chart 7.2).

Table 7.6: Market sentiment Germany: Bundesbank tight monetary policy domestically unsustainable (as percentage of text units coded at respective episode)³⁷

	DM – Weakness Episodes	DM-Strength Episodes	Pre-Danish Referendum	Pre-'Grande Gaffe'
FT	1%	0%	0%	1%
SB	5%	6%	0%	10%
GS	40%	29%	40%	50%

Bundesbank Monetary Policy and 'Fundamentals'

How exactly did economic variables contribute to the pre-Grand Gaffe confidence crisis of the D-mark and why did confidence finally break down in May/June 1993? Firstly, the influence of Germany's 'fundamentals' on markets has to be investigated. The country's balance of payments deteriorated in the wake of re-unification, signalled by the current account moving into deficit in 1991 (see Chart 2.5). The economic fundamentals which concerned financial markets were not the balance of payments position, as the first generation

³⁷ Node (3 4 1 5).

crisis model would imply.³⁸ What mattered was the constellation of inflation and growth relative to other European countries. To quote Goldman Sachs: "The D-mark's fall from favour probably reflected renewed scrutiny of economic fundamentals in individual countries. ... In terms of both growth and inflation, fundamentals in west Germany are, and will probably continue to be, unfavourable relative to other continental Europe countries" (GS June 1993, 8/6: 2.03). A limited, but systematic analysis of fundamentals concentrating on only those variables that mattered for the D-mark's anchor status in the ERM, sufficed for financial market participants.

- Bundesbank Monetary Policy and Stagflation

The loosening of monetary policy in the first half of 1993 was interpreted by markets as the central bank's recognition that its monetary policy course had become domestically unsustainable, signifying its failure. Consistently concerned about Germany's high inflation rates, market participants began to question the efficacy of tight monetary policy in delivering low inflation through a stabilisation crisis in the German economy (see Chart 7.11). In particular during the pre-'Grande Gaffe' weakness episode they diagnosed the problem of stagflation: of a deadlocked economy, caught in a pattern of tight monetary policy, which was unable to defeat stubborn inflation, but undermining the sustainability of its policy by imposing intolerable costs in terms of negative growth and unemployment (see Charts 2.4, 2.7 and 2.8). The concerns about the costs of unsuccessful disinflation are reflected in the growing attention markets paid to these two variables. Expectations of a continued recession reached a significant peak in the pre-'Grand Gaffe' weakness episode in contrast to the normal relative neglect of this outcome of disinflation (see Chart 7.10). As Salomon Brothers pointed out on 12 March 1993, rising unemployment played a crucial role in market expectations

³⁸ For all investigated episodes the balance of payments variable falls well below the significance level.

assuming a prolonged recession: "One key factor that points to a deeper, broader, and more persistent recession in west Germany is the accelerating loss of jobs" (p. 4).

Against this backdrop it seems to have been only the reputation of the Bundesbank that supported the D-mark until May 1993. A comment by Goldman Sachs from March 1993 is significant in this context:

"It is quite difficult to understand the relative attraction of the D-Mark. ... Perhaps it is the underlying credibility of the Bundesbank ... Whatever it is, we find it difficult to believe that it will outweigh the negatives of a declining economy ... on-going fiscal difficulties and socio-economic frictions. ... These latter factors will intensify and lead to downward pressure [on the D-Mark]." (GS April 1993, 8/3:1.05-1.06)

Markets remained uncertain about their assessment of the Bundesbank until as late as May.

On the one hand they continued to rely on the convention that the central bank was resolved

to fight inflation through high interest rates:

"The Bundesbank's intrinsic credibility and a stubborn inflation rate are probably all that stands between the D-Mark's present level and a more comprehensive weakness." (GS, May 1993, 8/5: S.02)

On the other hand, they began to wonder whether this strategy had not become counter-

productive, putting the capability of the Bundesbank itself in question:

"Given the depth of the recession, an excessive delay in rates cuts could backfire by reducing market confidence in the economy and the currency, thereby leaving the Bundesbank on a tightrope." (SB 28/05/93: 5)

Market sentiment seems to have finally been tilted against the D-mark by a leading market

player, George Soros, speaking out on 09 June 1993. The relevance of his comments is clear

from the FT report:

"The D-Mark weakened against the dollar and most European currencies yesterday after dealers were impressed by a comment from Mr George Soros, the foreign exchange operator, that the German currency was in the throes of long-tem weakness, writes James Blitz. The timing of Mr. Soros' comments, in yesterday's Times, helped to concentrate minds on the fertile issue of the D-Mark's potential weakness. ... The potential weakness of the D-Mark clearly worries the Bundesbank. The repo rate ... was yesterday left unchanged. ... A battle is developing between a market that wants to sell the D-Mark and a central bank that wants its value to be maintained." (FT 10/06/93: 33) Financial market participants seem to have taken these comments as a trigger to finally make up their mind about the capabilities of the Bundesbank.

"What is needed to reduce inflation and lay the ground for economic recovery is a restoration of the social consensus that allowed west Germany low-inflationary growth during most of the post-war period. Although there are hopes for fiscal consolidation and a more conciliatory stance of the unions in next year's wage round, we remain sceptical." (GS, June 1993, 8/6:3.05)

As a rule, financial markets relied mainly on a systematic analysis of key economic variables as proxy indicators to come to terms with the structural sustainability of Bundesbank disinflation. This analysis was supplemented by past experience and conventions about the Bundesbank reputation. When this approach failed to resolve uncertainty, market participants took the short-cut of relying, in an ad-hoc fashion, on the view of a leading market participant, which shifted market sentiment against the D-mark until the trend was reversed by another comment by a key figure, this time the French finance minister.

7.3.3.2. **Domestic Economic Variables Constraining Bundesbank Monetary Policy** In April 1993 Goldman Sachs, in a special section on "Cyclical Weakness and Structural Frictions in the German Economy" stated that at the centre of market concerns about the Dmark lay the "realisation that the German political system has not been able to respond adequately to the economic challenges of German unification" (GS, April 1993, 8/3: S.01). Critical was "the inability of the government, the employers, and the unions, to make the necessary corrections to unsustainable policies" in deficit spending and wage setting, leaving the Bundesbank to deal with the inflationary consequences (GS, April 1993, 8/3: S.20). Consequently, financial markets were systematically concerned about whether the government would be able and willing to cut the federal deficit and whether unions and employers could return to non-inflationary wage settlements. Concerns about fiscal profligacy dovetailed with elections concerns, demonstrating financial awareness of the political business cycle. Only when the Bundesbank seemed to lack the determination to counter policy weakness in the fiscal and wage area with a tough anti-inflationary stance, did markets take limited account of the institutional structures determining monetary, fiscal and wage policy outcomes.

Chart 7.12: Market sentiment Germany: Fiscal deficit and fiscal policy (expectations and fact)

(as percentage of text units coded at respective episode)³⁹

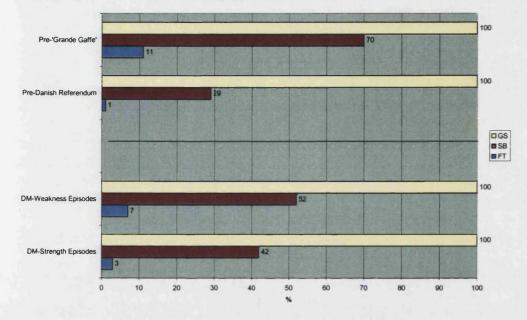
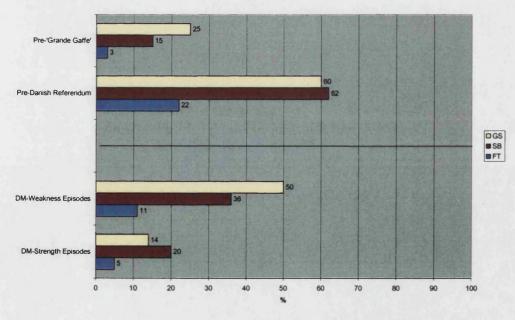


Chart 7.13: Market sentiment Germany:

Negative assessment of wage bargaining (expectations and fact) (as percentage of text units coded at respective episode)⁴⁰



³⁹ Nodes (3 1 1 2), (3 1 2 2), (3 2 1 2), (3 2 2 2).

⁴⁰ Nodes (3 2 1 3 2), (3 2 2 3 2).

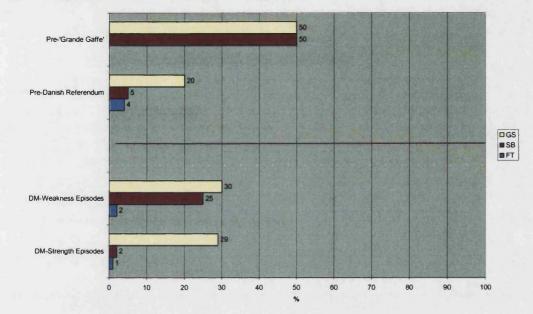


Chart 7.14: Market sentiment Germany: Election concerns (expectations and fact) (as percentage of text units coded at respective episode)⁴¹

Fiscal Policy

Public deficits and the related fiscal policies of government are a key variable in market sentiment.⁴² As Chart 7.14 indicates, Germany's budgetary performance was significant for all three sources throughout the whole ERM crisis, especially for Goldman Sachs, which covered budgetary and fiscal policy issues systematically in each report. In contrast to other ERM countries, the attention to inflationary deficit spending did not translate directly into worries about the sustainability of a hard currency strategy, but was filtered by the Bundesbank as key intervening variable.

Markets assumed that the Bundesbank would respond to the inability of the German government to bring inflationary deficit spending under control by continuing its restrictive monetary policy. This offered the prospect not only of high and rising nominal and real interest rates, but also ultimately of restoring price stability. Thus, as a general rule, market participants reacted to bad news on budget deficits by pushing the D-mark up, and vice versa.

Only when the Bundesbank's credibility to maintain disinflationary policies came under scrutiny in late spring 1993, did the German fiscal mess undermine confidence in the D-mark.

This pattern can be explained by changing market expectations concerning the Bundesbank response to fiscal policy developments. Until summer 1993 the paradoxical pattern high deficits = high interest rates = strong D-mark (and vice versa) was prevalent in market sentiment. Consequently, D-mark weakness in early 1992 is partly explained by expectations that the deficit would come down, leading to a softening of Bundesbank monetary policy. By March 1992 these hopes had evaporated. When fiscal consolidation failed, market sentiment shifted back in favour of the D-mark even before the Danish referendum:

This paradox was further confirmed when speculations for a successful conclusion of the "solidarity pact" on fiscal and wage restraint drove the D-mark down in autumn 1992 and winter 1993.

But the pattern changed around March 1993 when the belatedly concluded solidarity pact was perceived as insufficient. Fiscal policy was seen to be in greater disarray than ever before, but now the Bundesbank began to show signs of inconsistency against the backdrop of a deepening recession and growing political discontent with its strategy. With the central bank now lowering interest rates in spite of still rising inflation, fiscal problems were finally acknowledged as a negative factor for the D-mark:

[&]quot;The thrust of fiscal and monetary policy, and the link between them, has proved to be among the more reliable indicators of an exchange rate's path. ... Germany has had the ... mix of tight monetary and loose fiscal policy. This is unambiguously good for the D-Mark as it tends to produce high interest rates and a robust economy." (GS May 1992, 7/5: 1.09)

⁴¹ Nodes (3 3 1 1 2), (3 3 2 1 2).

⁴² For the German General Government Fiscal deficit, see Chart 2.3.

"The latest Bundesbank moves will not inspire market confidence. The unusual nature of the latest series of Bundesbank's policy decisions hints at painfully reached policy compromises. After the disappointing achievements of the recently agreed solidarity pact with respect to fiscal consolidation – and the latest warning from Finance Minister Theo Waigel that economic weakness was going to boost the Federal deficit above budget targets –doubts likely will grow about how successfully German policymakers are meeting the daunting challenges that they face." (SB 23/04/93: 2)

Against this background Goldman Sachs asserted that "the D-Mark is no longer perceived as 'guaranteed' to remain 'stable' or to revalue in the ERM." (GS May 1993, 8/5:1.09).

The credibility of Bundesbank policy, despite its formal independence, was in the pre-'Grande-Gaffe' weakness episode thus highly dependent on sound fiscal policy making. Once tight monetary policy was seen not only as helpless against inflationary government spending, but even more as counterproductive by contributing to economic recession, markets lost confidence in the Bundesbank's willingness and ability to continue its tough stance. But market sentiment swung back behind the D-mark when, in response to the French challenge to the D-mark anchor status, the Bundesbank demonstrated that it still had the capacity to reassert the priority of domestic monetary stability despite the wider German economic malaise.

These mood swings of financial market participants, shadowing the "Schlingerkurs" of the Bundesbank, demonstrate, on the one hand, that markets where aware that the efficacy of the central bank was conditional on wider sound economic policies. On the other hand they demonstrate a lack of expectational stability, hinting at poor structural awareness. If markets had better understood how strongly the support for a strong Bundesbank was anchored in the wider German political economy, they might have been less prone to be alarmed by its shortterm weakness.

Table 7.7:Germany: Wage bargaining and industrial action 1992/1993

Wage Round 1992:	
January - February 1992: Steelworkers (IG Metall).	
2 February: Revised pay offer accepted (wage increase of 6.35%), after having balloted in favour action at end of January.	of strike
February – April 1992: Banking Industry (BHI Union).	
4 February: BHI begins balloting over strike action (demand wage increases in excess of 10%. En 5%). 4 April: Banking wage dispute settled (5.4% wage increase)	nployers:
March-April 1992: Public Sector (ÖTV Public Sector Union).	
27 April – 11 May: industrial action by public sector workers (first since 1974): demand pay rise 11 May: Settlement with pay increase of 5.4%, well above April inflation of 4.6%. April-May 1992: Metal Industry (Manufacturing) (IG Metall).	of 9.5%.
 29 April: Lightning strikes, 9.5% wage increase demand). May: Settlement at 5.4%, sets benchmark of German private sector (printing, construction) 	k for rest
Wage Round 1993:	
December 1992 – February 1993: Steel (IG Metall) and Public Sector (ÖTV)	
4 February: Public sector pay settlement (modest pay rise of 3%, well below 1992 inflation ra benchmark for remaining west German wage rounds.	ite). Sets
March-April 1993: pay dispute over equalisation of east German wages with west Germany (IG Metal)	
26-28 April: East German steel workers vote in favour of industrial action (26% pay rise to bring line with west)	wages in
3-23 May: East German metal and steel workers strike. Dispute settled with agreement on wage it	increases
to provide for parity between east and west in 1996 (rather than 1994, as provided for by agreement).	original
3-23 May: East German metal and steel workers strike. Dispute settled with agreement on wage is to provide for parity between east and west in 1996 (rather than 1994, as provided for by	

Source: Keesing's Record of World Events, 1992/1993

West German wages rose steeply in response to the deficit financed unification boom, with increases culminating in the first half of 1993 as a result of high pay settlements in the 1992 wage round (see Chart 2.9). East German wage increases were considerably higher, since unions here were able to push through wage equalisation for mid 1996, starting from a very low level compared to western Germany. Not surprisingly these wage developments were of major concern to market participants, since they posed a threat to the attempts by the Bundesbank to bring inflation under control. Furthermore, drastic wage increases in the wage bargaining rounds for western Germany in spring 1992 and in eastern Germany in spring 1993 were forced through by strikes, or at least the threat of industrial action (see Table 7.7), pointing at an erosion of the social consensus underpinning Germany's stability culture.

Overall financial market attention of negative wage bargaining developments was significantly associated with D-mark weakness episodes (see Chart 7.13). High levels of concern during the pre-Danish referendum weakness episode are explained by the importance of the 1992 comprehensive west German wage round, which resulted in wage push inflation. The eastern German wage dispute of early 1993, although less significant for overall German inflation, inflicted disproportionate damage on market confidence in the D-mark, due to the antagonistic attitude of the unions in this dispute.

Compared to the effect of fiscal profligacy on market sentiment, wage increases resulted more directly in negative sentiment towards the D-mark. The key here is that wage increases were pushed through by unusual union militancy. The role of strikes in ultimately turning wage increases into bad news, despite expectations of Bundesbank interest rate increases in response, is well documented in the FT for the spring wage round of 1992, coinciding with the pre-Danish referendum weakness episode:

The concern of markets about industrial action was even more pronounced during the pre-'Grande-Gaffe' weakness episode, when the militancy of IG Metall, Germany's most powerful union, pushing for rapid wage parity between East and West, raised fears of a "worrisome breakdown of social consensus" (SB 19/02/93: 4). The FT explained the "D-Mark's intrinsic weakness" by the "fresh support for strike action" for the IG Metall (FT 11/05/93: 27). The erosion of confidence in German wage bargaining is indicated by

[&]quot;Some economists feared that the 6.4 per cent mark would be used as a basis for the next round of pay talks, due to begin this week. Such a move would eliminate any remaining hopes for an easing of German monetary policy. 'People are changing their minds about the course of German rates,' said Dr Mark Austin, an economist with HongKong Bank" (FT 05/02/92: 27).

But two months later the FT concludes that:

[&]quot;The German currency is suffering in the wake of Germany's worst industrial unrest for 18 years" (FT 29/04/92: 39).

Goldman Sachs, who, even after the moderate benchmark west German IG Metall settlement of February 1993, suggested that "with slower growth, income distribution struggles are likely to intensify as unions will resist a sustained slow-down in wage growth" (GS, April 1993, 8/3: S.23).

This gloomy assessment of the state of the German stability culture in industrial relations in spring 1993 was a major factor contributing to the impression in financial markets that the Bundesbank was losing control. The fact that financial market participants did not simply offset concerns about wage increases against positive prospects for Bundesbank tightening, but were deeply concerned about strike action demonstrates structural awareness about the embeddedness of Bundesbank efficacy in moderate and cooperative trade union behaviour. However, the extent of gloom in 1993 in the face of significant wage moderation in the key benchmark agreement raises questions about the institutional understanding of Germany's comprehensive wage bargaining system by market participants.

- Elections

Political developments in Germany mattered little for market participants except in respect of elections.⁴³ As indicated by Chart 7.14, even election concerns only became significant during the pre-'Grande Gaffe' weakness episode, when Goldman Sachs and Salomon Brothers took heightened interest in domestic political developments.⁴⁴ Markets mainly viewed elections, whether actual or prospective, as negative for the prospects of the D-mark (100% for Goldman Sachs and FT, 73% for Salomon Brothers), worrying about both actual

⁴³ For example during the pre-'Grande Gaffe' episode 90% of comments on domestic politics by Goldman Sachs and 91% by Salomon Brothers were on German elections.

⁴⁴ The FT's political comments fell well below the significance threshold throughout 1992/93, with only occasional ad hoc political comments.

election results in 1992/93 and forthcoming elections in 1994.⁴⁵ As far as the reaction to election results in 1992/93 goes, it was the rise of extremist, mainly far right parties that contributed to D-mark weakness, since it was seen to indicate the progressive erosion of the social basis for continued disinflation. As Goldman Sachs put it when commenting on the rise of extremist parties: "voters express their dissatisfaction with rising unemployment and high real interest rates." (GS April 1993, 8/3: 2.03)

The shift towards extremism made a return to sound fiscal management by government less likely, putting the disinflationary strategy of the Bundesbank at risk. But even more than the election results of 1993 the forthcoming general election of 1994 worried market participants who feared political business cycle behaviour by government. As early as April 1993 Salomon Brothers wrote that "...the inertia of election-year politics make doubtful any notable additional progress on reducing structural fiscal imbalances in 1993 and 1994" (SB23/04/93: 2-6).

The culmination of electoral concerns during the pre-'Grand Gaffe' crisis can therefore be explained by a combination of devastating poll results 1993 for the Kohl government up to March (indicating how unpopular disinflation and the still insufficient tax increases and spending cuts to finance reunification were with the electorate) and darkening the prospects for the political business cycle before the 1994 general election.

Markets showed little concern for the possibility of a social democratic victory in the general election. Obviously, they did not expect the German political system to deliver on necessary consolidation regardless of which of the main parties would dominate the next coalition

⁴⁵ In 1992 and 1993 only state (Länder) and local elections took place. 1992: state elections in Baden Württemberg and Schleswig-Holstein in April; 1993: local elections in Hesse in March, state elections in

government. This indicates some structural understanding of the complex fragmented German political system by markets, with its inbuilt tendency towards inertia. But it also signals a misunderstanding of the ability of the system to deliver through broadly based compromise as it did with fiscal consolidation from 1994 onwards.⁴⁶

Hamburg in September. In contrast 19 elections on the municipal, state, national and European level were scheduled for 1994, plus the critical general elections set to take place on 23 October. ⁴⁶ See Appendix, Table 2.

7.3.4. Domestic Structures

Chart 7.15: Market sentiment Germany:

Domestic structures: Comparative significance

(text units coded at respective domestic structures node, as percentage of all text units)⁴⁷

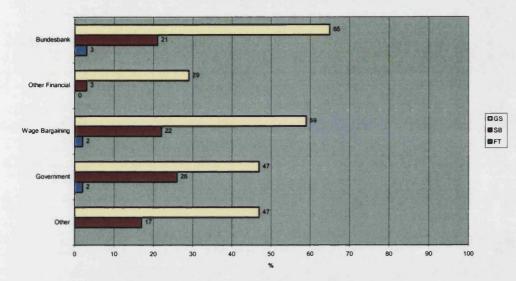
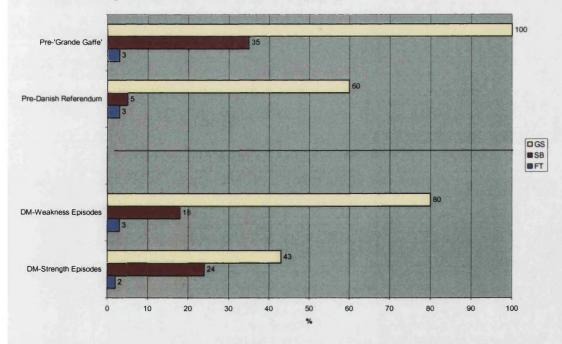


Chart 7.16: Market sentiment Germany: **Domestic structures: Central bank**

(as percentage of text units coded at respective episode)⁴⁸



⁴⁷ Bundesbank: Node (3 5 1 1); Other Financial: Node (3 5 1 2); Wage Bargaining: Node (3 5 2); Government: Node (3 5 3); Other: Node (3 5 4). ⁴⁸ Node (3 5 1 1).

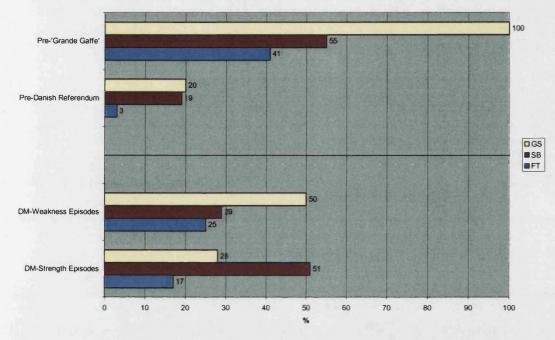
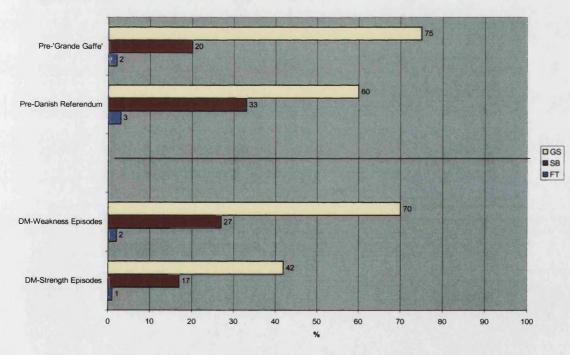


Chart 7.17: Market sentiment Germany: Expectations of falling official interest rates (as percentage of text units coded at respective episode)⁴⁹

Chart 7.18: Market sentiment Germany: Domestic structures: Wage bargaining (as percentage of text units coded at respective episode)⁵⁰



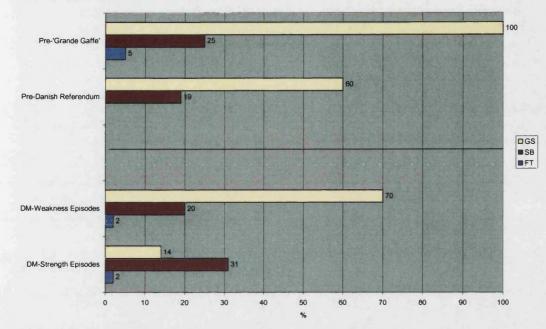


Chart 7.19: Market sentiment Germany: Domestic structures: Government (as percentage of text units coded at respective episode)⁵¹

Domestic structures influenced market sentiment to a considerably higher degree in the case of Germany, compared to Britain and France (see Charts 7.15, 6.22, and 5.19). The high degree of attention indicates the specific importance market participants attributed to the domestic structural backing of Germany's hard currency strategy, which, in difference to other ERM countries, allowed for relative international monetary policy-making autonomy. Clearly, the institutional position of the Bundesbank was most influential, with the degree of attention to the broader financial structure, the wage bargaining structure and the government structure reflecting market concerns about the central bank's capacity to implement tight monetary policy (see Chart 7.15).

The fact that the wage bargaining structure and the government structure take close second and third place indicates that market participants were attentive mainly to those structures which were indicating cracks in the wider structural underpinnings of the central bank. This

⁵¹ Node (3 5 3).

is indirectly confirmed by the insignificance of the wider financial structure and the irrelevance of other domestic structures not strongly related to the success of Germany's hard currency strategy.⁵²

The relative neglect of the wider financial-industrial structures by financial markets is remarkable given their theoretical importance for the policy capacity of the Bundesbank.⁵³ Market analysis occasionally mentioned the financial profile of the private sector, i.e. the role of bank lending in household and firm balance sheets and the structure of government bond market, all indicating sustainable amounts of leverage.

The lack of interest can firstly be explained by the long-term, solid nature of the German private financial structure. This had become conventional knowledge in financial markets and was taken for granted as long as an occasional look into debt exposure showed few problems. Bank lending and balance sheet indicators, combined with conventions on financial structural robustness, served as a pragmatic short-cut to avoid a systematic institutional analysis of Germany's bank-industry relationship, in spite of its critical importance for the societal embeddedness of the Bundesbank. Secondly, market disinterest was linked to the character of Germany's monetary transmission mechanism which sheltered borrowers from the immediate effects of official interest rate increases. This allowed the Bundesbank to send out strong anti-inflationary signals without being overly constrained by the credit structure. In July/August 1992 Goldman Sachs concluded that, given Germany's weak monetary transmission mechanism, Bundesbank discount rate changes were "unlikely to have anything but a marginal impact on credit growth". Nevertheless, interest increases were seen as useful in

⁵² Only Goldman Sachs discussed an eclectic array of other institutions occasionally, for example the tax and pension system, without any broader conclusions relevant to the sustainability of Bundesbank policy.

order to "reaffirm the Bundesbank's anti-inflationary credentials" (GS, July/August 1992, 7/8: 1.09). The power of Bundesbank policies was thus very much located in the realm of psychology, in sending out credible signals rather than in its technical operation within Germany's financial structure.

The awareness of the psychological deterrence aspect of Bundesbank policy-making indicates an implicit, deep understanding of the functional role of the Bundesbank in Germany's stability culture, rooted not so much in systematic analysis of the wider financial structure, but in historical experience.

7.3.4.1. The Bundesbank

The institutional position of the Bundesbank in Germany's political and economic system is clearly the most significant structural variable influencing market sentiment. Structural attention is more pronounced in phases of D-mark weakness, when the Bundesbank's role as guarantor of a strong mark came under scrutiny. It peaks during the pre-'Grande Gaffe' episode, when credibility of the central bank itself was at stake (see Chart 7.16). Financial market participants were above all concerned about the underpinnings of Bundesbank independence. They realised that the Bundesbank was caught up in a persistent struggle to defend its credibility as an independent institution, trying to assert itself against domestic and international political pressures.

Throughout the period investigated the Bundesbank failed to bring inflation under control. Nevertheless, financial markets were, towards summer 1993, increasingly expecting a loosening of monetary policy in response to internal and external pressure, contrary to the Bundesbank's own stated policy objectives (Chart 7.17). These expectations were fuelled by

⁵³ Attention to the non-Bundesbank financial structure stays well below the significance threshold (Node 3 5 1

growing concerns about the erosion of the domestic post-war political and social consensus, incorporating labour, employers and government, which formed the structural foundation for the unchallenged legal status of the Bundesbank. Fears that legal independence might be restrained were voiced in this context:

Furthermore, the markets realised how much the Bundesbank's own thinking was not simply dominated by price stability, but also by concerns as to whether its strategy benefited German industry. This may suggest market awareness of the influence of industry on central bank decision-making through the banking system. In spring 1993, in the face of stagflation, Goldman Sachs concluded that "with little or no hope for a fundamental correction of fiscal and east German wage policies, the Bundesbank probably realised that continuation of a rigorous non-accommodating monetary policy could only further weaken German industry" (GS May 1993, 8/5: 3.05). This assessment implies that financial markets were aware that the effectiveness of the central bank's anti-inflationary policy stance for the German economy, the bedrock of its reputation, was conditional on complementary policies by government and labour market institutions.

Bundesbank independence was also questioned by market participants when regarding its position in the ERM. Firstly, markets knew that Bundesbank independence was constrained here not only de facto, but also de jure, in particular by the Basle-Nyborg agreement's requirement for intramarginal intervention in defence of the ERM grid (SB 23/11/92: 2). More importantly, market participants assumed that the political importance of the ERM, in particular in view of EMU, would translate into effective domestic political leverage over the

[&]quot;Recent widespread domestic and international criticism of the Bundesbank – including the latest call by IG Metall union leader Franz Steinkuehler to limit Bundesbank independence – should encourage [Bundesbank] policymakers to seek a lower profile." (SB 14/08/92: 4)

^{2).} For all DM-weakness episodes the FT complete ignores these structures, and they are only mentioned in 5% of Salomon Brothers briefings, and 30% of Goldman Sachs reports.

Bundesbank by government. As early as autumn 1992, Goldman Sachs saw the Bundesbank's independence compromised by ERM politics: "The interest rate cut in the wake of the Lira devaluation ... created serious doubts about the independence of the Bundesbank from political interference at home" (GS, October 1992, 7/9: 3.05). In spring 1993 this worries culminated in growing fears that German and French high politics would lead to a government imposed fixing of the French franc/D-mark exchange rate, adding to earlier instances in which the Bundesbank autonomy was overridden by high politics:

Against this backdrop, financial markets started to closely scrutinise the behaviour of the central bank for any signs of inconsistency signalling a crisis of what Goldman Sachs had described as "the central bank's intrinsic credibility" (GS, May 1993, 8/5: 1.05; S.07). As early as December 1992/January 1993 Goldman Sachs detected "seemingly erratic moves" in Bundesbank interest rate policies, reflecting domestic and external pressures for monetary loosening (7/11: 1.07). In April 1993, after the Bundesbank rate cut of 18 April, Salomon Brothers noted the move as a sign of the unified institutional stance of the bank's policy-making body breaking up under political pressure from both Chancellor Kohl and Prime Minister Balladur to stabilise the franc.

[&]quot;Such a commitment may take the shine off the Bundesbank's hard-won and long standing inflation-fighting credibility. As such, any announced fixing of the Ffr/DM rate would be perceived by market participants as a politically-imposed decision by Bonn and Paris rather than one made with total agreement of the Bundesbank (This would be similar to the "imposed" exchange rate between the Ostmark and D-mark, or the political refusal to allow the D-mark to have been revalued in early 1991). Consequently the D-Mark would weaken on the foreign exchanges." (GS, March 1993, 8/2: 1.08).

[&]quot;The unusual nature of the latest series of the Bundesbank's policy decisions hints at painfully reached policy compromises. ... The implicit picture of dissension within the Bundesbank's Central council cannot be comforting to markets in the long run" (SB 23/04/93: 2).

The growing sentiment that the Bundesbank's autonomy was increasingly constrained by ERM politics culminated during the pre-'Grande Gaffe' weakness episode, when markets

"Most important, the Bundesbank remains willing to act beyond purely domestic considerations to preserve the franc's participation in the ERM. ... In our view, these arguments for flexibility will outweigh the usual case for caution still being stressed within Germany." (SB 16/07/93: 5)

Escalating market uncertainty about the political underpinnings of the Bundesbank came to an end when the central bank proved its capability by refusing to bail out the French franc in July 1993. This signalled to financial markets that the German social consensus could still be mobilised to back its autonomy when it came to defence of the D-mark as hard currency. Market credibility not only of the bank and the D-mark, but of the whole German socioeconomic structural coherence returned, signalling market understanding for the role of the central bank as the linchpin of the German system.. As 'one London-based trader' opined at this point, not even a cut in German rates would be enough to avert a French franc crisis: "this is about confidence in two economies, not the level of interest rates" (FT 13/07/93: 27).

Thus, although financial market participants rarely commented on the institutional status of the Bundesbank, they were well aware of the broader structural conditions for effective central bank independence. The de facto position of the Bundesbank in the German system influenced market participants whenever the conventions on the Bundesbank's intrinsic credibility came under strain in the face of mounting domestic and external pressures. Nevertheless a systematic analysis of the state of specific socio-economic constellation, especially in the financial structure that backed autonomous Bundesbank policy making, was not undertaken. The analysis remained eclectic and ad hoc, driven by policy decisions. Consequently structural considerations as such were inconclusive, adding to, rather than diminishing uncertainty in financial markets about the future development of the D-mark exchange rate. In the end it was Bundesbank policy steps which removed these uncertainties, a demonstration of the predominance of the influence of direct policy outcome variables as surrogates for consolidated structural opinions.

7.3.4.2. Wage Bargaining Structures

Wage bargaining structures were of great importance to the Bundesbank's capability to deliver price stability. Although the collective bargaining structure typical of west Germany was extended to include the east by the Kohl administration, in line with its centrist 'social market' policies, wage settlements became excessive for German standards in both 1992 and 1993 (see Table 7.4). As a result, financial markets should have paid attention to whether Germany's comprehensive wage bargaining system still had the capacity to deliver on low inflation under the pressures of reunification. Market participants did indeed start looking more closely at the performance and development of Germany's wage bargaining structure, as is indicated by the significant occurrence of related comments (Chart 7.18).⁵⁴ Structural considerations were related to uncertainty about the efficiency of the Bundesbank in fighting inflation, as the particular attention during D-mark weakness episodes indicates.

Market commentators showed awareness of the complexities typical of the German wage bargaining system. They considered Germany's regional pay deals in detail (SB 04/12/92: 5; GS, April 1992, 7/4: 3.05), paying specific attention to the crucial public sector and metal industry negotiations in the annual wage rounds which were recognised as setting a benchmark for the overall system (GS, May 1992, 7/5: 1.06; SB 07/02/92: 3). Political decisions and developments were interpreted for their effect on the bargaining position of union wage negotiators (SB 03/01/92: 2). The long, drawn out negotiation and bargaining

⁵⁴ The more in depth the analysis, the more attention is paid to structural issues: whereas the FT pays scant attention to wage bargaining structures, Goldman Sachs' comprehensive monthly reports score highly.

procedures, typical of the German system, were grudgingly accepted as inherent to a structure which was expected to deliver modest settlements (SB 29/01/93: 4).

Market expectations of wage restraint are also furthered by the hope that Bundesbank "moral suasion" would work on union power (GS, June 1992, 7/6: 3.05). This hope was based on the assessment that unions were susceptible to real exchange rate movements. Salomon Brothers, for example, analysed that with labour costs in Germany rising at a faster pace than those of Germany's principal trading partners, and with the Bundesbank indicating that a depreciation of the D-mark would not be tolerated, 'union wage pressures are likely to moderate' (SB 28/02/92: 3).

Beyond these occasional insights, analysts were clearly aware of the fact that Germany's trade union power, institutionalised in a system of nation-wide collective bargaining, would only result in wage settlements conducive to the Bundesbank's price stability objective if the unions were willing to play their part in the famed German social stability culture. When strike action spread across the whole of Germany in 1992/93, led by the IG Metall, the union at the centre of the German comprehensive bargaining system, Salomon Brothers voiced "market doubts about the strength of Germany's social contract", concluding that "such anxieties could weaken the Deutschemark" (SB 08/04/93: 4). Goldman Sachs went further by pointing out that under the specific conditions of eastern integration facilitated by massive public transfers, the German system of collective labour market management, extended to the east, backfired:

[&]quot;By encouraging east Germans to bid up their wages quickly – and relying on institutional barriers to wage competition between east and west – German labour unions succeeded ... in suspending the working of market forces" (GS, April 1993, 8/3: S.19).

With the unions seen to be operating outside the social consensus, market analysts started to look into the efficacy of their encompassing organisational power for the Bundesbank's stability strategy under the conditions created by unification, with uncertain outcomes. Salomon Brothers simply concluded that the German system was the key reason for stubborn inflation, but predicted that that the system of collective bargaining might be crumbling under the pressures of recession and unemployment in east Germany. Consequently they welcomed increasingly confrontational labour relations, hoping that inflation would fall because of the "employers' willingness to cancel the 1991 [comprehensive] agreement – a first in post-war collective bargaining" (SB 08/04/93: 4).

Goldman Sachs provided a more differentiating analysis of the prospects for changes in labour market structures, and, as a result, came to a more ambiguous conclusion about the future of the German wage bargaining structures and their long term role in providing the conditions for price stability. They considered a break-up of the existing structures to be highly unlikely, given that this would put the consensus seeking system of German economic policy-making itself at risk:

Accepting the structural inertia of the German wage bargaining system they concluded that only a renewed incorporation of the unions into the stability culture would provide a solution, but remained sceptical about the time scale:

[&]quot;The Government has tried to press unions into a more restrained wage policy for east Germany by threatening to change labour market regulation giving unions and employers' organisations de-facto monopoly power to set wages. ... The Government has suggested to 'open-up' these regulations by allowing east German companies in economic difficulties to opt out of generally agreed wage contracts, provided both management and staff agree. Since the Government's proposal would undermine the unions' power to negotiate wages that are binding for all employees, they have strongly resisted and made their participation in a 'solidarity pact' conditional upon the Government's dropping the envisaged new regulation." (GS December 1992/January 1993, 7/11: S.19)

[&]quot;What is needed to reduce inflation and lay the ground for economic recovery is a restoration of the social consensus that allowed west Germany low-inflationary growth during most of the post-war period." Although there are hopes for ... a more conciliatory stance of the unions in next year's wage round, we remain sceptical" (GS, June 1993, 8/6: 3.05).

Overall, the analysis of the wage bargaining structure is typical of the bounded rationality employed by market analysts. Firstly, there was some eclectic general awareness of the structure of the German wage bargaining system in line with the analysis put forward by rationalist institutionalism. An example of this is Salomon Brother's understanding of the aspect pointed out by Hall and Franzese (1998), that Bundesbank and unions engage in a policy dialogue promoting cooperative behaviour. Secondly, market participants turned pragmatically to structural evaluations only when the two direct indicators for the capacity of the German system, wage setting agreements and industrial unrest, set the alarm bells ringing. This policy outcome driven, ad hoc analysis was then unable to deliver conclusive assessments as not only to whether deteriorating German industrial relations did or did not indicate longer term structural inefficiency, but also as to whether comprehensive wage bargaining was in a terminal crisis. As in the case of the Bundesbank, confidence in the German wage bargaining system was restored ex post, after the key policy outcome variables had indicated a return to wage moderation and peaceful social dialogue in the course of 1993/94. Hence the limited structural analysis in financial markets contributed to the volatility of market sentiment towards the D-mark during 1993.

7.3.4.3. Government Structures

Government structures were significant for the formation of financial market sentiment, but focused narrowly on fiscal consolidation. It critically depended on the ability of the federal government to get the respective measures approved by the legislature, giving prominence to the issue of a specific German version of 'divided government' within the political institutional structure. Due to Germany's federal structure, the problems of the Christian Democrat–Free Democrat coalition government originated from the constitutional requirement that fiscal legislation requires the approval of the upper house, the Bundesrat. This chamber, comprising representatives from state (Länder) governments, was dominated in 1992/93 by the Social-Democratic opposition. Consequently, fiscal consolidation could only be achieved through a compromise solution, negotiating a burden-sharing agreement for fiscal consolidation between the federal and state fiscal authorities, at the same time reconciling the federal government's spending cuts proposal of with the more moderate ideas of the opposition, which emphasised tax increases. Traditionally, the consensus-seeking German political culture had successfully managed to come up with viable compromises in support of sound finances. The question for financial markets in 1992/93 was whether a successful compromise for fiscal consolidation could be achieved to counter the excesses of reunification.

Financial markets took this issue seriously. Government structures were a relevant variable influencing market sentiment during the D-mark weakness episodes and in particular during the pre-Grande Gaffe episode (see Chart 7.19), but the concern revolved almost exclusively around the issue of fiscal consolidation.⁵⁵ As for other structural variables, the analysis was limited to the in depth reporting of Goldman Sachs and Salomon Brothers, with the FT only occasionally referring to the issue.

The institutional obstacles to fiscal consolidation were already noted during the pre-Danish referendum weakness period in 1992. Salomon Brothers, for example, put it quite clearly:

[&]quot;The Federal Government's encouragement to the states and local Governments to limit spending growth to 3% appears difficult to enforce: The opposition SPD is leading governments in nine of 16 states, which constitutes the majority in the Upper House (Bundesrat) of the Federal Parliament." (SB 15/05/92: 3)

⁵⁵ Out of all text units raising the issue of government structures, 82% (FT), 96% (SB), and 80% (GS) discuss the prospects for fiscal consolidation and related monetary easing. The other structural aspect mentioned was the power of the Federal Constitutional Court to block the Maastricht treaty. The issue fails to gain wider importance, since analysts rightly assumed that the court would approve the treaty.

With the government initiative for a solidarity pact in autumn 1992, the prospects for a compromise became more tangible. Financial market attention focused on two issues: firstly, the time scale for conclusion of the pact and secondly, the question of burden-sharing of fiscal consolidation between federal and state governments. The in-depth reports of Goldman Sachs, in particular, came up with a detailed structural analysis of both aspects. In its March 1993 issue the timetable for the solidarity pact is presented against a detailed outline of "Who meets Whom", mapping out the complex procedure of negotiations between the prime ministers and finance ministers of the federal states, the federal cabinet and the chancellor, and the heads of the majority parties' parliamentary factions in preparation of a consensus package to be presented to both houses of parliament (GS March 1993, 8/2: 1.12). After the conclusion of the pact on 13 March 1993, the April issue then gave a similarly detailed structural analysis of the system of financial burden-sharing at the level of federal states as the key structure influencing the implementation of the compromise (GS April 1993, 8/3: S.08).

More important than this detailed technical analysis for the deteriorating market sentiment during the pre-'Grande Gaffe' episode was the general conclusion that the solidarity pact had failed to deliver, interpreted as demonstrating the inefficient, divided nature of the federal government system. The pessimistic view taken by Salomon Brothers on renewed proposals by government to bring spending under control is typical, stating that

In conclusion, the importance of divided government structures for the capacity of the political system to deliver, as emphasised by rationalist institutionalism (e.g. Simmons 1994,

[&]quot;.... the opposition SPD - which successfully opposed social spending cuts in the solidarity negotiations and enjoys a blocking majority in the Upper House (Bundesrat) – already is objecting to the renewed proposals. Thus, a new agreement on social spending appears to be unlikely before the late-1994 parliamentary elections." (SB 28/05/93: 5).

Milner 1997), was recognised by financial markets with regard to the prospects of fiscal consolidation in Germany. However, this structural awareness was narrow, shallow and ad hoc. It focused almost exclusively on the confrontation between the two chambers of parliament concerning the solidarity pact. Despite detailed technical analysis, the underlying bargaining mechanisms, which produced a shared understanding of the need to restore a sound fiscal position, were poorly understood. As a consequence, markets failed to grasp that the solidarity pact of March 1993 did indeed signal the establishment of a consensus for medium-term budgetary consolidation. Instead, market participants relied on the lack of tangible immediate spending cuts as a proxy indicator by which to gauge the capacity of the government to come to grips with the deficit. The result was excessive pessimism towards summer 1993.

A wider analytical focus, which could have taken into account the positive effect of the fragmented structure of Germany's governmental system on Bundesbank policy-making autonomy, as suggested by rationalist institutionalism, is missing. Such a focus might have mitigated the pre-'Grande Gaffe' gloom and furthermore avoided the mistake of underestimating the Bundesbank's ultimate capability to reassert itself.

7.4. Conclusion

Structural-institutional variables mattered for financial market participants in the case of Germany as factors influencing the credibility of the Bundesbank as a guarantor of strong mark, backed by low inflation. When Bundesbank policies appeared to be increasingly ambiguous in this respect in 1993, market participants turned their attentions to the political reality of Bundesbank independence. This entailed not only growing awareness of domestic and international constraints on, and challenges to Bundesbank independence, but also of the

embeddedness of Bundesbank autonomy in the broader structures constituting the German political economy.

In accordance with the findings of rationalist institutionalism, markets recognised that the effectiveness of German central banking, the crucial factor behind D-mark credibility, was dependent not just on constitutional independence, but also on the capability of divided government and the comprehensive wage bargaining structures to produce non-inflationary fiscal and wage policy outcomes. German monetary policy autonomy was rightly understood in market sentiment as being dependent on whether these structures functioned in accordance with the German stability culture. This structural awareness of market participants in the German case compares positively not only with the almost complete lack of such awareness in the case of sterling, but also with the less coherent structural analysis in the case of France. Similar to the French case, greater structural sensitivity by market participants, compared to Britain, can be explained by boundedly rational stochastic learning from the experience of the September 1992 crisis. But this does not explain the differences in structural awareness between Germany and France, since their respective confidence problems were closely intertwined over the course of 1993. Market awareness of and ultimately confidence in the structural underpinnings of Bundesbank stability policies was not so much the result of structural evaluation over 1992/93 having been deeper than it had been in the case of France, but of markets having paid for decades special attention to the domestic determinants of the strength of the ERM anchor currency, resulting in a legacy of historical experience of the capabilities of the German monetary policy regime.

However, this structural awareness did little to reduce the growing feeling of uncertainty about the prospects of German monetary policy and the D-mark in the ERM, which permeated market sentiment towards summer 1993. On the contrary, by understanding that Bundesbank independence was conditional on the wider political and structural environment of central bank policy making, the feeling of uncertainty increased.

Why did structural awareness increase uncertainty, instead of reducing it? The reason seems to be that this awareness was not based on consistent, systematic analysis of the complex interaction between different agents, constrained by specific interdependent structures within the German regime. Although better than in the case of the French franc, structural awareness was still essentially ad hoc, superficial and narrow. Although the sense that Germany underwent a regime crisis challenged the conventions prevalent in markets concerning the autonomy of the Bundesbank, rooted in Germany's stability culture, it did not lead to a systematic institutional analysis of how fragile this culture had actually become. The pragmatic approach of market reasoning to rely first of all on clear policy outcome variables as an indicator of institutional strength or weakness failed to produce stable expectations about Germany's long-term institutional solidity. Instead, institutional uncertainty and overreliance on a short-term deterioration of policy-making outcomes resulted an excessive swing in market sentiment from negative to positive in summer 1993.

Motivated by bad news, the eclectic institutional analysis of market participants contributed to a feeling that the structural coherence underpinning the Bundesbank's disinflationary stance was disintegrating. Similar to the developments observed in the case of sterling and the French franc, market pressure on the D-mark mounted as traditional structural convention came under scrutiny in the first half of 1993. In contrast to the British and French cases, belated but decisive action by the central bank in response to the French challenge of the Dmark anchor role succeeded almost immediately in restoring market confidence. Although this U-turn in market sentiment demonstrated the lack of consolidated systematic structural analysis during 1992/93, it also showed how strong the historically grounded underlying reputation of the Bundesbank was.

As for Britain and France, the structural dimension of market sentiment in the German case supports the expected policy change model. Neither the first generation competitiveness model, nor the contingent policy change model are supported by the development of market sentiment in the case of the D-mark. Small current account deficits did not raise the prospect of a looming balance of payments crisis and the D-mark credibility problems never reached a stage, at which they triggered a self-feeding, self-fulfilling run on the currency. Domestic structural deliberations, combined with the recognition of the high politics constraints on the external front raised expectations of a defeat of the Bundesbank commitment to safeguard the currency in Germany's economic policy-making, putting the anchor position of the D-mark in the ERM at risk.

In addition to the second generation expected policy change approach, the analysis of Germany confirms the inconsistent policy view. When Bundesbank interest rate decisions gave the appearance of growing inconsistency with the Bundesbank's own commitment to price stability, markets started to lose confidence. Since the Bundesbank had a long-term reputation for time consistency, its return to a policy consistent with its commitments in June/July 1993 was euphorically accepted as restoring the credibility of the D-mark.

Chapter 8: Conclusion

When, how, why and under which circumstances do financial market participants take account of domestic institutions? What does the influence of domestic institutions imply for national economic policy-making autonomy in the age of international finance, and to what extent do the assertions of rationalist institutionalism hold? And finally, what are the practical implications of my findings for financial market analysts and politicians?

The findings of my thesis can be summarised as follows: firstly, although market participants, when taking account of domestic structures, do so in a broadly rational manner, their analysis is insufficient to produce robust conclusions. Market rationality is bounded, leading to inefficient market outcomes manifested in unstable institutional expectations and lack of robustness in institutional analysis. Secondly, this leaves market sentiment with a high degree of uncertainty about the structural underpinnings of political exchange rate commitments, allowing considerable room for national policy-making autonomy through strategic interaction between national policymakers and international financial market participants, contrary to the assertions of the orthodox globalisation thesis. Thirdly, the practical nature of decision-making by financial market participants has not been recognised by rationalist institutionalism. In the following I will expand on these three key findings, and finish with some suggestions as to what they might imply for policymakers and investors.

My study shows that the institutional conclusions of rationalist institutionalism are confirmed by financial market behaviour in so far as domestic institutions that matter for the time consistency of a strong currency commitment can affect the credibility of currencies in international financial markets. As the cases of France and Germany in particular have shown, international financial markets did take account of some of the institutions that were identified by my analysis in Chapter Three as critically important for time consistency of the respective currency commitment. Although these institutions are pivotal in the universality of abstract institutionalist models, market participants paid closer attention to them not because of their abstract theoretical insights, but because they featured prominently in the current politicaleconomic affairs surrounding the volatility in the ERM in 1992/93. The assertions of rationalist institutionalism that the central bank's institutional design, the wider financial structure, the government structure and the wage bargaining structure in particular matter for the time consistency of monetary policy were confirmed for exchange rate policy making in the main developed capitalist democracies in western Europe in 1992/93. However, market participants only recognised this in an inconsistent fashion.

Market analysts focused in a selective manner on domestic institutions. In the case of Britain they reflected almost exclusively on the exceptional vulnerability of households and corporations to disinflation in Britain's liberal market economy; in the case of Germany, the focus lay on the autonomy of the Bundesbank especially in the functional context of the wage bargaining structure, demonstrating understanding of the pivotal role of the German central bank for safeguarding the strong D-mark and eclectic awareness of some of the factors constituting its broader institutional embeddedness in Germany's coordinated market economy; and in the case of France, on the political and financial structures, as two key components for the sustainability of the *franc fort* in the country's étatist – centralist economy. These variations in institutional emphasis for each country by investors indicate that market participants sensed that the efficacy of individual domestic institutions is dependent on the nation-specific wider structural conditions that determine their operation in practice rather than on their formal constitutional design, although they were unable to follow up this awareness by robust analysis. This is confirmed by market behaviour in recent currency crises, where market sentiment reflected a wide range of country specific structural concerns in assessing the capabilities of governments and central banks to maintain monetary policy commitments, but failed to overcome overall institutional uncertainty.¹

Institutional attention was strongest for all three currencies in response to mounting uncertainty about the political time consistency of the strong currency commitment. Conversely, market participants paid little attention to domestic institutions in situations of calm in the ERM and in phases of tension when the political capacity to adjust was of little relevance. As depicted in Chart 8.1, domestic institutions mattered little when competitiveness concerns about a country's balance of payments sustainability, emphasised by the first generation crisis model, dominated markets, normally in the early phases of a confidence crisis. Markets then relied on the clear and unambiguous key economic variables indicating the balance of payments position. Only when market attention shifted to the political sustainability concerns pointed out by the second generation expected policy change model, acknowledging that improved competitiveness due to disinflation came at the cost of falling output

¹ When the credibility of the respective currencies was at stake, market sentiment was influenced by, among other structural concerns, the role of organised labour in Brazil, the de facto veto power of the military in Turkey, the bank-industry relationship in South Korea, regional disparities in Mexico, and organised crime in Russia.

and rising unemployment, did domestic institutional concerns gain in importance. Finally, once market participants had concluded that because of institutional fragility the time consistency of the exchange rate commitment was vulnerable to speculative attack, institutional reasoning ceased. Market sentiment was then dominated by selffulfilling speculative herding, as predicted by the contingent policy change crisis model.

Institutional factors thus played a role in market participants forming exceptions about possible monetary policy changes, in line with the assertions of rationalist institutionalism about political sustainability. Furthermore, my empirical study of the ERM crisis provides empirical support for the causal explanations of the second generation crisis model, but also indicates that its proponents should go further to comprehensively integrate the possibility that a much wider range of country-specific institutional factors might selectively influence market sentiment.²

Although this behaviour indicates that markets understood that policymakers had to rely on robust social and economic structures, capable of sustaining prolonged disinflationary monetary policy measures, the pragmatic approach to institutional analysis risks analytical ad hoccery and inconsistency. By including institutional aspects into their deliberations only in moments of heightened monetary policy uncertainty, research departments of banks managed to do with limited institutional research capacity, but failed to build solid sociological expertise as the basis for a robust analysis of the domestic structural context of monetary policy making.

² In the wake of the Asian financial crisis, the second generation model and its derivatives have developed a stronger institutional dimension, but only by mainly taking domestic financial structures into account.

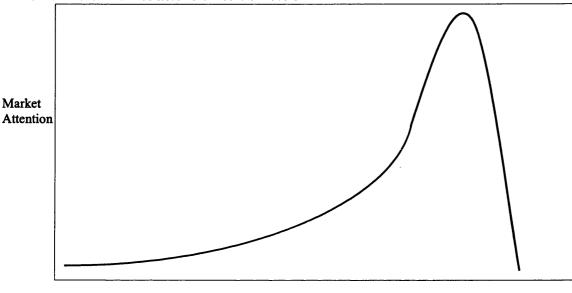


Chart 8.1: Market attention to domestic institutions

Economic fundamentals concerns Political sustainability concerns Herding

What kind of rationality did market participants apply towards domestic institutions? The rational pattern of market analysis was characterised not by optimising, systematic rational calculation, but by bounded rational behaviour. Most importantly, market participants relied on what Simon called "sociological assumptions" to determine what domestic institutions mattered and how they mattered (see Simon 1997: 282). Market analysts attempted to overcome uncertainty about the functionality of domestic institutions to support the government's exchange rate strategy commitment by drawing on conventions, commonly held beliefs and attitudes towards the characteristics of domestic institutional arrangements, rather than by systematically evaluating these arrangements against possible alternatives. This lack of "scientific" evaluation is demonstrated by the fact that market analysts never relied upon academic literature about institutions. This behaviour implies the satisficing nature of market reasoning under the daily stresses of decision-making in a currency-trading environment with limited analytical capacity specialised on domestic

structures. Although pragmatic in the prevailing circumstances, it resulted in "too late, too much" volatility and critical misjudgements in monetary policy forecasting particularly in the case of France and Germany.

As predicted by bounded rationality theory, satisficing arguments replaced optimising rationality in all three cases. Market participants used conventions as mental shortcuts to make decisions about the robustness of domestic institutions, with the real work done not by systematic institutional analysis, but by ad hoc auxiliary assumptions. In the case of Britain, conventions about the stability of majoritarian single chamber unified government substituted for sophisticated analysis, confirmed by the superficial and ad hoc interpretation of election results and a naïve acceptance of government rhetoric. In the case of France, conventions about the political rootedness of the *franc* fort strategy in the country's dirigiste administrative and financial structure were unstable because they did not rely on rigorous structural investigation. Instead financial markets took the ability of the French political class to elicit Bundesbank support for the *franc fort* as a substitute for the capability of the political system to sustain disinflation. In the case of Germany, financial markets ultimately backed the Bundesbank's strong currency commitment not because they had come to a conclusive assessment of the severity of the structural tensions in Germany's stability culture, but because of the mythical reputation of the Bundesbank. Markets relied mainly on Bundesbank statements and interest rate decisions as auxiliary indicators for structural capability, changing their mind in an ad hoc fashion following mixed central bank signals.

In the case of both the French franc and sterling political signalling and rhetoric by policy makers of both the follower and the leader country mattered greatly for market sentiment. It was possible for both France and Britain to borrow credibility by exploiting market participants' susceptibility to strong currency rhetoric as long as the Bundesbank cooperated by not discrediting this rhetoric by statements and signals to the contrary. Rationalist approaches, by overemphasising investors' capabilities for rigorous institutional analysis, fail to explain how over time perceptions of time consistency can be maintained and conventions reinforced through political statements and credibility be "borrowed" through the symbolic act of a currency peg, despite questionable domestic institutional foundations.

In addition, the satisficing pragmatic nature of market participants' bounded rationality is reflected in their selective and ad hoc attention to domestic structures. Firstly, markets were narrow in their choice of structures for closer attention, focusing exclusively on those structures which showed obvious strains in regard of the sustainability of disinflation. In Britain this was the financial structure, with markets neglecting the equally important, but less obvious problems in the political structure. In Germany the important role of the bank-industry relationship for the Bundesbank's hegemonic position in the German economic policy regime was neglected, because it did not pose sustainability concerns, at the risk of underestimating the structural backup the Bundesbank could rely upon in a moment of critical decision making after the French 'Grande Gaffe'.

Attention to the narrow set of domestic structures was ad hoc, often following the electoral cycle. The price of this behaviour was either a lack of understanding of the

long term embeddedness of the monetary policy strategy of governments in domestic structures, regardless of electioneering, as in the case of Germany and France, or, conversely, a neglect of structural inconsistencies with the exchange rate strategy in periods where the government did not have to face the electorate in the medium term, as in the case of Britain after April 1992.

Finally, market participants showed themselves capable of stochastic learning, as suggested by bounded rationality theory. Market participants did learn from practical experience of domestic institutional capability over the course of a specific currency crisis, as in the case of the resilience of the French financial structure to interest rate increases. This learning took place in incremental fashion to take greater notice of domestic structures from one currency crisis to the next. Structural awareness grew from the 1992 sterling crisis to the 1993 problems of the French franc and the D-mark, after the ejection of the pound from the ERM had proved an unexpected structural vulnerability of the UK currency commitment. But this learning was stochastic in so far as it did not consist in systematic optimising analysis of experience with domestic structures. Instead, the ad hoc formation of new conventions or greater attention to existing conventions satisficed. Market participants pragmatically adapted to changing circumstances by assuming that past experience would be a guide to future structural performance, as a surrogate for rigorous analysis as to whether these experiences could be generalised.

Stochastic learning from experience, contradicting the standard reasoning issued by market analysts themselves that 'past performance' is no guide to 'future performance', represents a good case for the pros and cons of bounded rationality.

Institutional structures indeed evolve historically along path dependent lines and rarely undergo revolutionary change, supporting the practical case for relying on past experience when forming future expectations, in particular if optimising rational analysis is unrealistic. However, the case of the D-mark indicates the problems inherent to such an approach, if it is not backed up by continuous robust structural analysis. In Germany, market sentiment suffered from inertia, denying the possibility of a fundamental structural break for too long after reunification, only to react in ad hoc fashion once structural conventions could no longer be reconciled with deteriorating outcomes of Bundesbank monetary policy. Furthermore, the German central bank could exploit the inertia of institutional market sentiment to regain credibility despite severe structural strains. Market confidence in the workings of the German monetary regime, resulting from long historical experience of the domestic factors underpinning the ERM key currency, was restored at the cost of France, which, as a follower country, lacked such a deeply entrenched positive institutional track record. As a result market sentiment reinforced the hierarchical structure of the ERM. Germany was spared from a speculative attack as the ultimate test of structural resilience, whereas France's attempts to build credibility were devastated by a potentially self-fulfilling speculative crisis that thwarted its leadership ambitions. Sociological assumptions, grounded in traditional conventions and past experience, rather than consistent critical reassessment of these images in the light of recent political-economic developments, can thus be self-fulfilling.

Bounded rational analysis was not robust enough to overcome market uncertainty about the time consistency of strong currency commitments. When financial market participants focused on domestic structures in reaction to uncertainty about the political sustainability of disinflation, they confined their analysis to what was good enough in the short term. Confirming Odell's (2001) assertions on bounded rational behaviour, market participants failed to apply stable analytical criteria in regard of domestic institutions, but adopted different outlooks when changing circumstances created uncertainty about the validity of conventional views. The result was superficial conclusions about institutional vulnerability that satisficed in the short run, at the cost of forming consistent and robust expectations. If the institutional analysis of market participants had produced more robust results, it should have allowed for the transformation of uncertainty in the face of institutional ambiguities into institutional risk, thus stabilising market sentiment. Instead, as illustrated by the evolution of market sentiment in all three cases, structural concerns alternated with phases of market euphoria, in which structural stresses were generally dismissed.

The weak and opportunistic nature of the boundedly rational approach market analysis took towards domestic institutions led to bandwagon effects which differed from rational herding, which would have been the result of robust and conclusive institutional analysis indicating the existence of multiple equilibria. In both the cases of Britain and France, herding was triggered by policy inconsistencies against the background of heightened uncertainty as a result of weak and ultimately inconclusive institutional analysis. As, in particular, the case of Salomon Brothers' analysis of the credibility of the *franc fort* demonstrated, isolated market participants' nonconformist institutional conclusions lacked the robustness to withstand the general trend in market sentiment. In the German case, weak insights into the structural crisis of the German monetary policy regime were easily swept away when the conventions on the institutional strength of the Bundesbank, arrived at not through systematic analysis, but historical experience, were confirmed by decisive monetary policy action.

What theoretical and practical conclusions can be drawn from my analysis? In view of these findings, Mosley's (2000) "strong but narrow" thesis on the influence of macroeconomic variables on market sentiment can be supplemented by a "narrow and weak" hypothesis for the influence of domestic institutions, given the selective attention of market participants to domestic structures and the lack of robust stable conclusions. My empirical analysis has confirmed that financial market sentiment is indeed strongly influenced by only a narrow set of macroeconomic and political variables, including the balance of payments, inflation, GDP growth, monetary policy decisions, key exchange rate crosses and, on the political side, election forecasts and results. In addition, markets selected one or two country specific key structures for closer investigation from a narrow set of institutional variables, including the institutional position of the central bank, the wider financial structure, the wage bargaining structure and the government structure. But the few structures selected for attention influenced market sentiment only in conjunction with more direct strong indicators of possible political time consistency problems as inconsistent, weak monetary policy decisions.

Willett's (2000) "too much, too late" hypothesis on investor behaviour in currency crisis is by and large supported by my empirical case studies. Institutional analysis was only belatedly undertaken in response to mounting uncertainty, as in the case of Britain. Conventional views on domestic institutions prevailing at critical junctures tended to reinforce market uncertainty, thus amplifying mood swings, as demonstrated by the market rally behind the Bundesbank in summer 1993.

What does my finding that market reasoning is boundedly rational and pragmatic, rather than optimising and systematic, say about rationalist institutionalism, and its critique of the globalisation thesis? As to the latter aspect, broad assertions by proponents of the globalisation thesis that international finance is imposing "embedded financial orthodoxy" on governments (Cerny 1993), constraining not only monetary policy making autonomy, but also the ability of policymakers to pursue Keynesian-style counter-cyclical deficit spending, have not been confirmed by my analysis. Financial market sentiment took a pragmatic attitude to rising fiscal deficits in circumstances of disinflationary monetary policy in defence of the exchange rate. The assessment that these deficits were in the short run not inflationary, but would improve the political sustainability of the exchange rate commitment was satisfactory enough for market participants to disregard the possibility of long run inflationary outcomes or solvency problems. Contrary to orthodox liberal views this suggests that fiscal Keynesianism can actually stabilise market expectations.³

Beyond this aspect, my findings suggest that, contrary to the orthodox globalisation thesis, the influence of domestic structures on market sentiment allows for a considerable degree of practical national monetary policy-making autonomy. Contrary to rationalist institutionalist suggestions, this practical room for manoeuvre does not stem from market participants taking a fully rational account of institutions, but from them taking a bounded rational, pragmatic attitude. If market participants

³ This aspect of my empirical analysis of the evolution of market sentiment supports the statistical findings of Garrett (1998) on the continuous possibility of social democratic deficit spending under conditions of international capital mobility.

had been capable of systematic and rigorous optimising analysis of the domestic structural constraints that governments face, their foresight on the structural time consistency of monetary policy commitments would have resulted in only currencies with strong institutional underpinnings enjoying market credibility. Governments with weak credibility would have had little choice but to devalue under the pressure of selffulfilling speculative attacks during which market participants, fully aware of domestic structural fragility, would have demanded self-defeating risk premia. Governments with strong institutions that would have been fully acknowledged by financial markets would in practice have had little incentive to renege on their currency commitments, despite theoretically having the strategic choice to devalue.

However, since the assessment of domestic institutions by bounded rational markets did not arrive at robust conclusions about the structural underpinnings of a strong currency strategy, it left room for markets and governments to enter into a strategic game about time consistency, in which uncertain assertions about institutional strength and vulnerability played a critical part. On the one hand, governments could combine market credibility with considerable monetary policy autonomy even in situations of institutional vulnerability by exploiting conventions on institutional strength. On the other hand, markets did threaten to punish superficially inconsistent policy moves with a full scale speculative attack, even if a deeper systematic analysis would have indicated the long term consistency of domestic structures with the governments exchange rate strategy.

The former situation is demonstrated by the case of Britain and Germany in the ERM crisis. The UK government temporarily managed to manipulate market participants to

believe that cutting official interest rates below those of the anchor currency was a sign of strength, by exploiting market conventions on the stability of majority government and only limited and ad hoc awareness of problems in the financial structure. In Germany the mythical reputation of the Bundesbank allowed during a considerable period for the loosening of monetary policy in the face of unbroken inflationary pressures and signs of systemic structural fragility, without causing an outright credibility crisis of the D-mark. The fact that the Bundesbank could exploit its reputation to fend off the French challenge for ERM leadership demonstrates how conventional views of domestic structures by market participants granted policymakers considerable monetary policy making autonomy not only domestically, but also for pursuing international strategic monetary policy objectives towards other governments.

France finally represents a case of the risks coming from bounded market rationality. Although the French 'Grande Gaffe' challenge was undertaken not only from an economic fundamentals position superior to that of Germany, but also within the context of strong structural underpinnings of the *franc fort*, institutional awareness in financial markets was not robust enough to hold out against the strong historical track record of German institutions pertaining to the hard currency strategy. The result was the speculative attack on the franc of summer 1993. Market participants accepted the strong structural underpinnings of the *franc fort* only ex post, after French policymakers had sustained the peg in the face of speculative pressure despite room for reflation after the widening of the ERM fluctuation bands at the beginning of August. Whereas the Bundesbank seems to have been aware that in practice historical experience would be decisive for market participants when it came to judging the

credibility of domestic structures, the French authorities seem to have taken a more abstract rationalist view of market behaviour. They hoped that market participants would comprehend that the logic of competitive disinflation had become the defining rationale of the French political-economic regime. The French 'Grande Gaffe' thus clearly illustrates the risks policymakers take by strategically playing on abstract structural awareness of financial markets to assert monetary policy autonomy.

What do these results imply for rationalist institutionalism as a theory? My analysis shows that its ambiguities with regard to the relevance of domestic institutions for the credibility of exchange rate commitments stem from its failure to understand bounded rational market behaviour. Only because market sentiment in practice was happy to do with satisficing structural deliberations, rather than attempting to optimise, national policymakers could enter into a strategic game with international financial markets market sentiment with the realistic expectation of maintaining relative monetary policy-making autonomy. Rationalist institutionalists are correct in so far as they point out against the globalisation thesis that domestic institutions interfere with the constraint global finance imposes on national policy autonomy. But contrary to rationalist institutionalist suggestions, markets only ponder institutional factors in a partial way, up to a point that is satisficing under given information asymmetries and computational constraints. It is because of this behaviour that a strategic game between domestically constrained policymakers and institutionally aware financial market participants about national monetary policy-making autonomy can take place. Rationalist institutionalism failed to clarify the exact circumstances of this interaction, because of its excessively abstract rationalist assumptions on market efficiency. These narrow assumptions have the advantage of allowing for rigorous scientific empirical analysis, but at the price of neglecting the procedural and contextual nature of practical decision-making by market participants. My empirical analysis shows that it is possible to undertake a disciplined qualitative longitudinal analysis of market sentiment for a single historical cluster of currency crises through focused and structured comparison. This approach, exploring the possibility of "bounded rationality institutionalism", provides a necessary corrective to the parsimonious scientific rigour of rationalist institutionalism. It produces empirically more valid conclusions about the behaviour of market agents confronted with the complex workings of specific domestic regimes, without giving up the assumption that this behaviour is driven by the rationale of individual utility maximisation.

What do my findings imply for practitioners? How could market analysis by investors and international monetary policy making by politicians be improved? Despite the limitations of bounded rationality, its ad hoccery and superficiality, boundedly rational investor behaviour is distinguished by a realistic approach to the assessment of domestic economic regimes. This is because markets look at the institutions critical for exchange rate policies in the context of changing circumstances and the historical track record, to come to a conclusion which is satisficing for a specific moment. Although this procedure is unsystematic and influenced by conventions, the pragmatic approach can potentially result in realistic approximations of complex institutional circumstances, if markets draw on solid evaluation of socio-historical evidence. In contrast, fully rational optimising behaviour is impractical for investors, given incomplete information, excessive search costs and limited computational capacity. In the practice of foreign exchange trading it is impossible to disaggregate the institutional complexities of national variations of capitalism in specific situations in order to measure them against ideal-typical constructs, deduced from rational choice modelling. Hence, although it is possible to point out the weaknesses of a boundedly rational approach towards domestic institutions by confronting it with an ideal of rigorous and optimising rational choice analysis, in practice such analysis does not represent a viable alternative. Market analysis would have made fewer mistakes if it had been more thorough, but it is heroic to assume that markets are capable of adopting an optimising full rational choice approach to achieve such thoroughness.

Since there exists no practical reasonable alternative to boundedly rational analysis for market participants, this analysis itself has to be improved to contain institutional uncertainty in market sentiment. To reduce ad hoccery, superficiality and eclecticism, boundedly rational institutional analysis should expand on the advantages coming with its contextual, historical and interpretative approach. Given that it is practical experience and not abstract analysis which assists such concrete understanding, international financial market agents should build and rely more on domestic knowledge and long-term experience of local practitioners. Furthermore, investment banks should hire more political scientists and political economists, whose expertise lies with the qualitative analysis of the political and social life of a country. This would bring a more robust sociological interpretation of domestic structures into country risk assessment, to augment the quantitative approach of country analysts who are economists by training. Such a quantitative/qualitative approach seems to have been attempted rudimentarily by some banks, who employed political analysts to assess the risks political conditions posed in severely indebted developing countries in the late 1970s (Gibson 1996: 301). However, my investigation of how financial market reports are compiled found that country analysis is still an exclusive domain of economists, at least for the case of major industrialised countries. My thesis indicates that investment banks should integrate specialists in comparative political economy into their country analysis teams to exploit their expertise on the structural variations of capitalism for a better assessment of the time consistency of monetary policy commitments. Banks might have extensive knowledge of the performance of major developed economies and follow these countries current political affairs, but currently they suffer from a limited understanding of their domestic structural complexities.

Politicians should first of all realise that strong currency rhetoric and verbal commitments to exchange stability, although providing a temporary reassurance to markets about the time consistency of these commitments, will not suffice if the domestic costs of maintaining external stability mount over prolonged periods. Furthermore, greater transparency of financial and governance structures and accountability of these institutions is not enough to assure smooth integration with international finance, if these institutional arrangements are not consistent with the societal preferences for internal and external currency stability, reflecting the wider political-economic characteristics of a country. It is not so much through the adoption of abstract best practice solutions, but through domestic structures that are suited for the specific national variety of capitalism, that market participants will be reassured that monetary policy commitments do enjoy broad societal acceptance.

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Appendix

Appendix Table 1: A Political Economic Chronology of the 1992/93 ERM Crisis

[1991					
April	G	Regional elections: government looses majority in Bundesrat					
May	G	Bundesbank President Pöhl resigns after conflict with government					
July	G	Bundesrat rejects tax increases					
Autumn	F	Scandals weaken PM Edith Cresson					
17 Oct	F	Banque de France cuts intervention rate unilaterally					
14-15 Nov	FIN	Finish markka devalued by 14%					
19 Nov	USA	\$ at 8-month low against DM					
25 Nov	ERM	Tensions, realignment speculation before Maastricht Treaty					
27 Nov	Scan	Nordic currency crisis starts					
11 Dec	EC	Successful conclusion of the Maastricht Treaty					
Dec	RUS	Political instability					
19 Dec	G	Buba increases discount rate by 0.5% to 8%					
20 Dec	USA	Fed cuts discount rate by 1% to 3.5%					
27 Dec	RUS	President Gorbatchev resigns as president of the SU					
		1992					
04 Feb	SP	Spain removes remaining capital controls					
11 March	UK	Date for general election announced (09 April 92)					
02 April	F	Beregevoy replaces Cresson as new PM					
04 April	G	Heavy losses for the ruling coalition in important regional elections					
05 April	I	Parliamentary elections in Italy: Democracia Christiana looses majority					
06 April	P	Escudo enters the ERM at +/- 6% band					
09 April	UK	General elections: Conservative majority government confirmed (21 seat					
		majority)					
06 May	UK	Bank of England cuts Bank rate unilaterally by 0.5%					
07 May	F	Banque de France increases official rates unilaterally					
08 May	G	Start of public sector strikes resulting in high wage settlements					
02 June	USA	Fed cuts discount rate to 3%					
02 June	DK	Danish referendum rejects Maastricht Treaty					
03 June	F	Referendum on Maastricht Treaty announced for 20 September 92					
05 June	I	Bank of Italy increases official interest rates					
18 June	IR	Resounding approval of Maastricht Treaty in Irish referendum					
16 July	G	Buba raises discount rate by 0.75% to 8.75%, Lombard rate steady					
23 July	SP	Central bank increases official interest rates					
03 Aug	Ι	Bank of Italy lowers discount rate unilaterally by 0.5%					
11 Aug	ERM/	Massive concerted intervention by central banks in support of the US \$, led					
Ū	USA	by Fed, to stop the fall of the \$					
27 Aug	ERM	Record intervention in support of £ fails to lift £ from ERM floor					
28 Aug	ERM	ItL falls below ERM floor					
03 Sep	UK	Britain borrows ECU10bn in DM to augment reserves					
04 Sep	I	Bank of Italy increases discount rate sharply by 1.75%					
05-06 Sep	ERM	Bath meeting of EC officials on ERM crisis inconclusive					
06 Sep	G	Ruling coalition fails to agree upon tax increases					
08 Sep	G	Chancellor Kohl announces more massive transfers to east Germany					
08 Sep	Scan	Finnish markka floated, Swedish Riksbank raises interest rates to 75%					
10-11 Sep	ERM	Heavy intervention by Buba and Bank of Italy fails to support ItL					
12-13 Sep	ERM	Germany and Italy announce 7% ItL devaluation and Buba rate cut					
14 Sep	G	Buba cuts discount rate by 0.5% to 8.25%, Lombard rate by 0.25%					
15 Sep	ERM	ItL falls below new parity, £ and peseta under pressure					
16 Sep	UK/	"Black Wednesday": Bank of England raises Bank Rate to 12% and					
r	ERM	announces further increase to 15%; £ falls below ERM floor despite heavy					
		intervention; Britain suspends ERM membership and rescinds second rate					
		rise, Swedish Riksbank raises rates to 500%					
	.						

		1992 (cont.)						
16-14 Sep	ERM	"Battle for the French franc						
17 Sep	Ι	Lira suspended from ERM						
17 Sep	UK	Bank of England lowers Bank rate to 10%						
19 Sep	UK	Britain announces that £ will not return to EMS until it is reformed						
20 Sep	F	French referendum endorses Maastricht Treaty by a narrow margin						
21 Sep	F/G	Banque de France and Buba intervene to support FFr						
22 Sep	ERM	FFr, peseta, escudo weak; Ir punt falls below ERM floor despite intervention						
23 Sep	ERM	Intramarginal intervention by Buba and Banque de France to support FFr; Banque de France raises official interest rates to by 2.5% to 13%; Spain imposes capital controls						
24 Sep	IR	Ireland imposes capital controls						
02 Oct	G	No cut in key Buba interest rates, but repo rate lowered						
15 Oct	G	No Buba rate cuts, against expectations						
29 Oct	G	Buba again fails to cut official interest rates						
29 Oct	F	Banque de France lowers official interest rates unilaterally						
03-31 Oct	ERM	Gradual lowering of official interest rates in most crisis-hit ERM countries, but rates remain above pre-crisis levels.						
03 Nov	USA	Presidential elections: Clinton replaces Bush Sen.						
12 Nov	F	Banque de France cuts official interest rates unilaterally, FFr strenghtens						
19 Nov	S	Swedish krona floated						
22 Nov	SP/P	Peseta and escudo devalued by 6%, Spain rescinds capital controls						
23 Nov	ERM/ N	Norwegian, Irish and , Spanish Central Banks increase official interest rates						
26 Nov	G	Buba keeps official interest rates stable, despite new ERM tensions						
03 Nov	G/F	Intramarginal intervention by Buba to support FFr						
Dec	ERM	IMF calls for substantial German interest rate reductions						
03-28 Dec	ERM/ Scan	Continued market pressure against FFr, Danish krone, punt,; official interest rates lowered in Belgium, Italy, the Netherlands, and Scandinavian countries						
10 Dec	N	Norwegian krone floated						
10 Dec	G	Buba keeps rates stable, but announces it will raise M3 for 1993						
13 Dec	EU	Edinburgh summit adopts growth initiative and grants Denmark binding exemptions from Maastricht Treaty: Maastricht Treaty project saved						
16 Dec	Р	Portugal rescinds capital controls						
17 Dec	F	PM Beregovoy reaffirm existing FFr/DM parity as "inviolable"						
05 Jan	F/G	1993 Joint intervention by Banque de France and Buba to support FFr; Banque de						
UJ Jan	170	France raises overnight interest rates						
06 Jan	IR	Central bank increases official interest rates to 50%						
07 Jan	G	Buba cuts repo rate, but keeps key official rates steady						
08 Jan	IR	Central bank increases official interest rates to 100%						
12-16 Jan	ERM	Several central banks, including the Irish central bank, lower official rates						
28 Jan	IR	Central bank increases official interest rates back to 100%						
30 Jan	IR	Irish punt devalued by 20%						
01 Feb	DK	Central bank raises official rates, pushing overnight rate above 100%						
04 Feb	G	Buba lowers discount rate by 0.25% to 8.25% and Lombard rate by 0.5% to 9%						
05 Feb	F	Banque de France lowers official interest rates						
05 March	G	Buba lowers repo rate						
10 March	ERM	Central banks in Spain, the Netherlands and Belgium lower official interest rates						
13 March	G	"Solidarity Pact" agreed						
13 March 18 March	G G	"Solidarity Pact" agreed Buba lowers discount rate again by 0.5% to 7.5%, Lombard unchanged						
	G G F	"Solidarity Pact" agreed Buba lowers discount rate again by 0.5% to 7.5%, Lombard unchanged First round of French parliamentary elections: conservative victory likely						

27/2016 1	1993 (cont.)						
27/28 March	F	Second round of parliamentary elections: new centre-right coalition					
		government (RPR/UDF: PM Balladur), 'cohabitation' with socialist					
	<u> </u>	President Mitterrand					
09 April	F	PM Balladur announces steps towards Banque de France independence					
13 April	SP	Spain schedules elections for 7 June					
13 April	F	Banque de France lowers official interest rates					
19 April	F	Banque de France lowers official interest rates					
22 April	G	Buba lowers discount rate to by 0.25% to 7.25% and Lombard rate by 0. to 8.5%					
23 April	ERM	Concerted intervention to support the Spanish peseta					
May	G	Metal sector strikes in east Germany					
06 May	F/G	Buba keeps rate steady, but Banque de France lowers official interest rate					
13 May	SP/P	Peseta and escudo devalued by 8% and 6.5%, respectively					
13 May	F	Banque de France lowers official interest rates					
18 May	DK	Second Danish referendum endorses Maastricht Treaty					
24 May	F	Balladur government announces job creation programme					
25 May	F	Banque de France lowers official interest rates					
09 June	G	Soros speaks of "fundamental and long-term" DM weakness					
14 June	F	Banque de France lowers official interest rates					
16 June	F	Phillipe Seguin, PRP president of the National Assembly, attacks franc fort					
10 June	r	strategy as "social Munich"; demands drastic interest rate cuts to fight					
01 Terrs	+	unemployment					
21 June	F	Banque de France lowers official interest rates					
22/23 June	IR/SP	Central banks lower official interest rates					
24 June	F	"Le Grande Gaffe": French economics minister Alphandery convenes					
		Franco-German meeting to plan concerted interest rate cuts, but German					
	L	finance minister Waigel cancels meeting					
24 June	DK	Central bank lowers official interest rates					
End June	G	Ruling coalition agrees upon big social spending cuts					
01 July	G	Buba lowers discount rate bu 0.5% to 6.75% and Lombard rate to 8.25%					
02 July	F	Banque de France lowers official interest rates					
09 July	F	Banque de France intervenes to support the FFr					
12 July	G/F	FFR falls close to ERM floor; German finance minister pledges support; Buba says it has intervened to support the FFR					
15 July	G	Buba leaves official interest rates unchanged					
16 July	ERM	Concerted central bank intervention to support the Danish krone					
22 July	ERM	FFr, Danish krone, peseta, escudo under pressure; uncertainty about outcome					
		of next Buba council meeting; Banque de France raises official interest rates;					
		Buba intervenes to support the FFr.					
28 July	G	Buba lowers repo rate					
29 July	G/	Buba lowers Lombard rate by 0.5% to 7.75%, but does not change discount					
27 July	ERM	rate; market disappointment; central bank intervention to support Belgian					
	Lidii	franc, Danish krone, FFr, peseta, escudo has little effect					
30 July	ERM	Belgian franc, FFr, Danish krone fall below ERM floor; massive intervention					
50 July		by Buba to support FFr					
21 1.1.	EDM	EC finance ministers and central bank governors exam measures to cope with					
31 July –	ERM						
01 Aug		the crisis; decide to widen ERM band from +/-2.25% to +/-15%, effective					
00.02.4	+ <u></u>	from 02 August					
09-23 Aug	F	Banque de France lowers overnight lending rate five times, by total of					
		2.25%, but leaves 5-10 day rate unchanged					
09 Sep	G/F	Buba lowers discount and Lombard rates to 6.25% and 7.25%, respectively;					
		Banque de France lowers 5-10 day rate from 10% to 7.75%, but leaves					
		intervention rate at 6.75%.					
08 Dec	F	FFr rises above its old narrow band ERM floor					

Sources: IMF (1993: 42-47) Kenen (1995: 152-155) Financial Times: <u>Foreign Exchanges,</u> Salomon Brothers: <u>Economic & Market Analysis: International Market Roundup</u> Goldman Sachs: <u>The International Economic Analyst</u>

Abbreviations: DK Denmark ERM European Exchange Rate Mechanism EC European Community F France FIN Finland G Germany I Italy IR Ireland P Portugal R USSR/Russia S Sweden Scandinavia Scan

- SP Spain
- UK United Kingdom
- USA United States

		France	Germany	UK	USA
Real GDP	1988	4.2	3.7	5.2	4.2
	1989	4.3	3.6	2.1	3.5
	1990	2.6	5.7	0.6	1.7
	1991	1.1	5.0	-1.5	-0.2
	1992	1.4	2.2	0.1	3.3
	1993	-1.0	-1.1	2.3	2.4
	1994	1.8	2.3	4.4	4.0
Output Gaps	1988	-0.8	-0.3	5.6	1.3
	1989	0.9	0.5	5.2	2.0
	1990	1.2	2.8	3.1	0.9
	1991	0.3	2.1	-0.9	-1.8
	1992	0.0	1.7	-2.8	-1.1
	1993	-2.3	-1.0	-2.8	-1.4
	1994	-2.0	-0.6	-0.6	-0.4
Unemployment Rates *	1988	9.8	6.2	8.7	5.5
1	1989	9.3	5.6	7.3	5.3
	1990	9.0	4.8	7.1	5.6
	1991	9.5	4.2	8.9	6.8
	1992	10.4	4.5	10.0	7.5
	1993	11.7	7.9	10.5	6.9
	1994	12.3	8.4	9.6	6.1
Consumer Prices	1988	2.7	1.3	4.9	4.1
	1989	3.5	2.8	7.8	4.8
	1990	3.6	2.7	9.5	5.4
	1991	3.2	3.6	5.9	4.2
	1992	2.4	5.1	3.7	3.0
	1993	2.1	4.4	1.6	3.0
	1994	1.7	2.8	2.5	2.6
Public Sector Deficit ^b	1988	-1.7	-2.1	0.6	-3.6
	1989	-1.2	0.1	0.9	-3.2
	1990	-1.6	-2.0	-1.5	-4.3
	1991	-2.2	-2.9	-2.8	-5.0
	1992	-4.2	-2.5	-6.5	-5.9
	1992	-4.2	-3.2	-8.0	-5.0
	1993	-5.6	-2.5	-6.8	-3.6
Current Account ^c	1988	-0.5	4.4	-3.8	-2.4
Current Account	1988		4.4 4.8	-3.8 -4.6	-2.4 -1.8
		-0.5			
	1990	-0.8	3.2	-3.6	-1.4
	1991	-0.5	-1.0	-1.4	0.1
	1992	0.4	-0.7	-1.7	-0.8
	1993	0.8	-0.5	-1.7	-1.3
	1994	0.5	-1.1	-0.2	-1.7

Appendix Table 2: Main Economic Indicators

¹⁵⁷⁴ 0.3 -1.1 -0.2 -1.7
 ^a Standardised Unemployment Rates. Prior to 1993 data refers to Western Germany.
 ^b General Government Fiscal Balances, as percentage of GDP.
 ^c As percentage of GDP

Source: OECD Economic Outlook 66, Dec. 1999, Statistical Annex

Appendix Table 3: Index Tree

The tree structure gives the index-number for each node, followed by its descriptive title, followed by the number of text units coded at these nodes for each of three texts in the sample. The first figure gives the numbers of Goldman Sachs texts coded, the second figure the number of Salomon Brothers texts, and the third the number of Financial Times texts, so that the parenthesis giving these statistics reads (GS/SB/FT). If no texts have been coded it is indicated by a dash (-).

```
(1)Britain (-/-/-)
        (1 1)economic performance (-/-/-)
                 (1 1 1)expectations (-/-/-)
                         (1 \ 1 \ 1 \ 1) inflation – money supply etc. (-/-)
                                  (1 1 1 1 1)down (9/18/5)
                                  (1 1 1 1 2)up (-/2/2)
                         (1 1 1 2)public deficit/debt (2/6/2)
                         (1 1 1 3)Balance of Payments – competitiveness (4/5/3)
                         (1 1 1 4)GDP and related indicators (-/-/-)
                                  (1 1 1 4 1)up (3/4/4)
                                  (1 1 1 4 2)down (5/11/5)
                         (1 1 1 5)unemployment (-/-/-)
                                 (1\ 1\ 1\ 5\ 1)down (1/-/1)
                                  (1 1 1 5 2)up (5/4/4)
                         (1 1 1 6)"fundamentals" (-/1/1)
                         (1 1 1 7)other (-/-/-)
                (1 \ 1 \ 2)facts (-/-/-)
                         (1 1 2 1)inflation – money supply etc. (-/-/-)
                                  (1 1 2 1 1)down (5/7/5)
                                 (1 1 2 1 2)up (-/2/3)
                         (1 1 2 2) public deficit/debt (3/2/4)
                         (1 1 2 3)Balance of Payments – competitiveness (3/7/-)
                         (1 1 2 4)GDP and related indicators (-/-/-)
                                 (1 1 2 4 1)up (-/-/2)
                                 (1 1 2 4 2)down (6/4/15)
                         (1 1 2 5)unemployment (-/-/-)
                                 (1 1 2 5 1)down (-/-/-)
                                 (1 1 2 5 2)up (3/3/3)
                         (1 1 2 6)"fundamentals" (1/-/2)
                         (1 1 2 7)other (-/-/-)
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(1 2)economic policy (-/-/-)(1 2 1) expectations (-/-/-) $(1\ 2\ 1\ 1)$ monetary policy (-/-/-) $(1\ 2\ 1\ 1\ 1)$ official interest rates up (1/4/7)(1 2 1 1 2)official interest rates down (5/13/21) (1 2 1 1 3)official interest rates steady (1/5/12) (1 2 1 1 4)official interest rates uncertain (-/2/21) $(1\ 2\ 1\ 1\ 5)$ intervention (1/2/28)(1 2 1 1 6) reserves (-/-/1)(1 2 1 1 7)decoupling (-/-/-) $(1\ 2\ 1\ 2)$ fiscal policy (4/3/3)(1 2 1 3)wage bargaining (-/-/-)(1 2 1 3 1)positive (-/6/-) (1 2 1 3 2)negative (-/-/-) (1 2 1 4)Bundesbank statements (-/-/-) (1 2 1 4 1)hawkish (2/21/62) (1 2 1 4 2)soft (-/3/13) $(1 \ 2 \ 1 \ 4 \ 3)$ other (1/14/38)(1 2 1 5)other (-/-/-) (1 2 2) facts (-/-/-) (1 2 2 1)monetary policy (-/-/-) (1 2 2 1 1) official interest rates up (-/1/1)(1 2 2 1 2)official interest rates down (2/1/9) (1 2 2 1 3)official interest rates steady (2/-/3) (1 2 2 1 4) official interest rates uncertain (-/-/-)(1 2 2 1 5)intervention (-/-/21) (1 2 2 1 6)reserves (-/1/6) (1 2 2 2)fiscal policy (2/-/3) (1 2 2 3)wage bargaining (-/-/-) (1 2 2 3 1)positive (-/4/-) (1 2 2 3 2)negative (-/-/-) (1 2 2 4)other (-/-/-) (1 3) politics (-/-/-)(1 3 1) expectations (-/-/-) (1 3 1 1)elections (-/-/-) (1 3 1 1 1)positive (-/-/9) $(1 \ 3 \ 1 \ 1 \ 2)$ negative (1/4/38) $(1 \ 3 \ 1 \ 1 \ 3)$ other (1/7/7)(1 3 1 2) other (-/-/2)(1 3 2)fact (-/-/-) (1 3 2 1)elections (-/-/-) (1 3 2 1 1)positive (1/1/5) (1 3 2 1 2) negative (-/1/-) (1 3 2 1 3)other (3/1/-) (1 3 2 2) other (-/-/2)

(1 4 1)Expectations (-/-/-)

- (1 4 1 1)EMU politics (backbenchers) (2/-/1)
- (1 4 1 2)ERM strategy (commitment; move to narrow band) (9/14/31)
- (1 4 1 3)Franco-German axis (-/-/-)
- (1 4 1 4)contagion (-/-/-)
- (1 4 1 5)sustainability (5/4/14)
- (1 4 1 6)other (-/-/-)
- (1 4 2)Fact (-/-/-)
 - (1 4 2 1)EMU stance (public-politicians) (-/-/1)
 - (1 4 2 2)ERM strategy (-/1/18)
 - (1 4 2 3)Franco-German axis (-/-/-)
 - (1 4 2 4)contagion (-/1/-)
 - (1 4 2 5)other (-/-/1)
- (1 5)domestic structures (-/-/-)
 - (1 5 1) financial structures (-/-/-)
 - (1 5 1 1)central bank (-/1/-)
 - (1 5 1 2)financial structures (non-CB) (4/14/4)
 - (1 5 2)wage bargaining structures (-/-/-)
 - (1 5 3)government structures (1/1/5)
 - (1 5 4)other (-/4/-)
- (1 6)exchange-rate (-/-/-)
 - (1 6 1)expectations (-/-/-)
 - (1 6 1 1)up (4/11/17)
 - (1 6 1 2)down (3/14/56)
 - (1 6 1 3)steady (1/4/-)
 - (1 6 1 4)uncertain (-/15/25)
 - $(1 \ 6 \ 15)$ other (-/-/1)
 - (1 6 2)fact (-/-/-)
 - (1 6 2 1)up (-/2/61)
 - (1 6 2 2)down (4/8/103)
 - (1 6 2 3)steady (-/-/69)
 - (1 6 2 4)other (-/-/-)
- (1 7) crisis episodes (-/-/-)
 - (1 7 1)pre-Maastricht crisis episode (1/4/18)
 - (1 7 2)post-Maastricht crisis episode (1/4/18)
 - (1 7 3)pre-election crisis episode (1/5/33)
 - (1 7 4)"Black Wednesday" crisis episode (2/15/89)

(2)France (-/-/-) (2 1)economic performance (-/-/-) (2 1 1) expectations (-/-/-) (2 1 1 1)inflation – money supply etc. (-/-/-) (2 1 1 1 1)down (17/34/-) (21112)up (-/-/-) (2 1 1 2)public deficit/debt (3/15/-) (2 1 1 3)Balance of Payments – competitiveness (9/11/-) (2 1 1 4)GDP and related indicators (-/-/-) (2 1 1 4 1)up (-/10/1) (2 1 1 4 2)down (15/37/3) (2 1 1 5)unemployment (-/-/-) (2 1 1 5 1)down (1/-/-) (2 1 1 5 2)up (13/15/2) (2 1 1 6)"fundamentals" (2/-/1) (2117)other (-/-/-) (2 1 2)facts (2 1 2 1)inflation – money supply etc. (-/-/-)(2 1 2 1 1)down (11/6/6) (2 1 2 1 2)up (-/2/1) (2 1 2 2)public deficit/debt (4/6/-) (2 1 2 3)Balance of Payments – competitiveness (9/12/9) (2 1 2 4)GDP and related indicators (-/-/-) (2 1 2 4 1)up (2/5/1) (2 1 2 4 2)down (11/28/9) (2 1 2 5)unemployment (-/-/-) (2 1 2 5 1)down (-/-/1) (2 1 2 5 2)up (11/16/4) (2 1 2 6)"fundamentals" (-/-/-) (2 1 2 7)other (-/1/4)

(2 2)economic policy (-/-/-) $(2\ 2\ 1)$ expectations (-/-/-)(2 2 1 1)monetary policy (-/-/-) $(2\ 2\ 1\ 1\ 1)$ official interest rates up (3/12/9)(2 2 1 1 2)official interest rates down (6/24/40) (2 2 1 1 3) official interest rates steady (3/11/6) $(2\ 2\ 1\ 1\ 4)$ official interest rates uncertain (-/2/5)(2 2 1 1 5)intervention (1/4/13) $(2\ 2\ 1\ 1\ 6)$ reserves (2/-/2)(2 2 1 1 7)decoupling (2/6/26) (2 2 1 2)fiscal policy (5/28/1) (2 2 1 3)wage bargaining (-/-/-) (2 2 1 3 1)positive (2/10/-) (2 2 1 3 2)negative (-/1/-) (2 2 1 4)Bundesbank statements (-/-/-) (2 2 1 4 1)hawkish (2/18/40) (2 2 1 4 2)soft (-/3/9) (2 2 1 4 3)other (1/12/25) $(2\ 2\ 1\ 5)$ other (1/-/-)(2 2 2)facts (-/-/-) (2 2 2 1)monetary policy (-/-/-) (2 2 2 1 1)official interest rates up (1/3/8) (2 2 2 1 2)official interest rates down (2/8/25) (2 2 2 1 3) official interest rates steady (-/-/16) (2 2 2 1 4)official interest rates uncertain (-/-/-) (2 2 2 1 5)intervention (-/-/43) $(2\ 2\ 2\ 1\ 6)$ reserves (1/-/3)(2 2 2 2)fiscal policy (3/3/1) (2 2 2 3)wage bargaining (-/-/-) (2 2 2 3 1)positive (-/12/1) (2 2 2 3 2)negative (-/1/2) (2 2 2 4) other (-/1/1)(2 3)politics (-/-/-) (2 3 1)expectations (-/-/-) (2 3 1 1)elections (-/-/-) (2 3 1 1 1)positive (-/5/2) (2 3 1 1 2)negative (7/15/13) $(2\ 3\ 1\ 1\ 3)$ other (3/10/4)(2 3 1 2)other (2/7/10) (2 3 2)fact (-/-/-) (2 3 2 1)elections (-/-/-) (2 3 2 1 1)positive (2/2/3) $(2\ 3\ 2\ 1\ 2)$ negative (2/2/4)(2 3 2 1 2) other (1/1/2)

(2 3 2 2)other (1/6/9)

(2 4 1)Expectations (-/-/-)

- (2 4 1 1)EMU politics (public-politicians) (6/13/11)
- (2 4 1 2)ERM strategy (*franc fort*; commitment to ERM parity) (11/57/43)
- (2 4 1 3)Franco-German axis (Buba defence of the FFr) (5/14/37)
- (2 4 1 4) contagion (1/2/7)
- (2 4 1 5)sustainability (11/30/31)
- (2 4 1 6)other (1/-/3)
- (2 4 2)Fact
 - (2 4 2 1)EMU stance (public-politicians) (1/2/3)
 - (2 4 2 2)ERM strategy (franc fort) (2/2/2)
 - (2 4 2 3)Franco-German axis (Buba defence of the FFr)(-/-/-)
 - (2 4 2 4)contagion (3/-/1)
 - (2 4 2 5)other (-/-/-)

(2 5)domestic structures (-/-/-)

- (2 5 1) financial structures (-/-/-)
 - (2511)central bank (1/2/3)
 - (2 5 1 2) financial structures (non-CB) (2/10/15)
 - (2 5 2)wage bargaining structures (-/8/-)
 - (2 5 3)government structures (4/21/3)
 - (2 5 4)other (1/13/-)

(2 6)exchange-rate (-/-/-)

- (2 6 1)expectations (-/-/-)
 - (2 6 1 1)up (2/15/52)
 - (2 6 1 2)down (3/5/49)
 - (2 6 1 3)steady (1/14/11)
 - (2 6 1 4)uncertain (5/24/38)
 - (2 6 1 5)other (-/-/-)
 - (2 6 2)fact (-/-/-)
 - (2 6 2 1)up (1/4/107)
 - (2 6 2 2)down (3/7/87)
 - (2 6 2 3)steady (-/-/53)
 - (2 6 2 3)other (-/-/-)

(2 7)crisis episodes (-/-/-)

- (271)Maastricht Treaty weakness episode (2/8/40)
- (272)Danish-French referendum crisis episode (2/17/99)
- (2 7 3)Swedish krona crisis episode (1/5/35)
- (2 7 4)pre-election crisis episode (3/10/57)
- (2 7 5)"Grande Gaffe" crisis episode (1/6/32)

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(3)Germany (-/-/-)
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(3 1)economic performance (-/-/-)

(3 1 1)expectations (-/-/-)

(3 1 1 1)inflation – money supply etc. (-/-/-)

- (8 3 1 1 1 1)down (14/55/18)
- (8 3 1 1 1 2)up (2/10/43)
- (3 1 1 2)public deficit/debt (12/16/3)
- (3 1 1 3)Balance of Payments competitiveness (9/5/-)
- (3 1 1 4)GDP and related indicators (-/-/-)
 - (3 1 1 4 1)up (2/2/2)
 - (3 1 1 4 2)down (15/60/25)
- (3 1 1 5)unemployment (-/-/-)
 - (3 1 1 5 1)down (1/1/-)
 - (3 1 1 5 2)up (8/12/-)
- (3 1 1 6)"fundamentals" (1/1/2)
- (3 1 1 7)other (-/2/13)

(3 1 2)facts (-/-/-)

- (3 1 2 1)inflation money supply etc. (-/-/-)
 - (3 1 2 1 1)down (1/2/11)
 - (3 1 2 1 2)up (13/34/43)
- (3 1 2 2)public deficit/debt (9/9/6)
- (3 1 2 3)Balance of Payments competitiveness (2/5/2)
- (3 1 2 4)GDP and related indicators (-/-/-)
 - (3 1 2 4 1)up (4/2/1)
 - (3 1 2 4 2)down (5/29/37)
- (3 1 2 5)unemployment (-/-/-)
 - (3 1 2 5 1)down (-/-/1)
 - (3 1 2 5 2)up (4/8/2)
- (3 1 2 6)"fundamentals" (5/7/5)
- (3 1 2 7)other (1/1/4)

(3 2)economic policy (-/-/-) $(3\ 2\ 1)$ expectations (-/-/-)(3 2 1 1)monetary policy (Bundesbank) $(3\ 2\ 1\ 1\ 1)$ official interest rates up (3/12/46)(3 2 1 1 2)official interest rates down (7/40/100) (3 2 1 1 3) official interest rates steady (8/26/87) (3 2 1 1 4)official interest rates uncertain (-/1/39) (3 2 1 1 5)intervention (3/4/29) $(3\ 2\ 1\ 1\ 6)$ reserves (-/-/-)(3 2 1 1 7)decoupling (-/-/-) $(3\ 2\ 1\ 2)$ fiscal policy (17/36/15)(3 2 1 3)wage bargaining (-/-/-) (3 2 1 3 1)positive (10/33/4) (3 2 1 3 2)negative (2/12/26) (3 2 1 4)Bundesbank statements (-/-/-) (3 2 1 4 1)hawkish (2/21/73) (3 2 1 4 2)soft (-/3/18) (3 2 1 4 3)other (1/14/47) $(3\ 2\ 1\ 5)$ other (5/3/10)(3 2 2)facts (-/-/-) (3 2 2 1)monetary policy (Bundesbank) (-/-/-) $(3\ 2\ 2\ 1\ 1)$ official interest rates up (3/2/2)(3 2 2 1 2)official interest rates down (6/8/25) (3 2 2 1 3) official interest rates steady (-/4/38) (3 2 2 1 4)official interest rates uncertain (-/-/-) (3 2 2 1 5)intervention (2/1/32) (3 2 2 1 6)reserves (-/-/-) (3 2 2 2)fiscal policy (5/2/4) (3 2 2 3)wage bargaining (-/-/-) (3 2 2 3 1)positive (2/13/9) (3 2 2 3 2)negative (5/15/14) (3 2 2 4)other (3/-/-) (3 3)politics (-/-/-) (3 3 1) expectations (-/-/-)(3 3 1 1)elections (-/-/-) (3 3 1 1 1)positive (-/-/-) (3 3 1 1 2)negative (3/5/-) $(3\ 3\ 1\ 1\ 3)$ other (1/8/-)(3 3 1 2)other (-/1/2) (3 3 2)fact (-/-/-) (3 3 2 1)elections (-/-/-) (3 3 2 1 1)positive (-/-/-) (3 3 2 1 2)negative (2/-/2) (3 3 2 1 3) other (-/-/1)

(3 3 2 2) other (-/1/3)

(3 4)EMS-EMU (-/-/-)

(3 4 1)Expectations (-/-/-)

- (3 4 1 1)EMU politics (public-politicians) (4/3/1)
- (3 4 1 2)ERM strategy (action to stabilise ERM) (7/17/18)
- (3 4 1 3)Franco-German axis (Buba defence of the FFr) (5/14/37)
- (3 4 1 4)contagion (-/-/-)
- (3 4 1 5)sustainability of Bundesbank disinflation for
- Germany (6/5/2) (3 4 1 6)other (-/2/-)
- (3 4 2)Fact (-/-/-)
 - (3 4 2 1)EMU stance (public-politicians) (-/1/-)
 - (3 4 2 2)ERM strategy (action to stabilise ERM) (-/2/11)
 - (3 4 2 3)Franco-German axis (Buba defence of the FFr)(-/-/-)
 - (3 4 2 4)contagion (-/-/-)
 - (3 4 2 5)other (-/-/-)

(3 5)domestic structures (-/-/-)

- (3 5 1)financial structures (-/-/-)
 - (3 5 1 1)central bank (11/19/11)
 - (3 5 1 2) financial structures (non-CB) (5/3/1)
- (3 5 2)wage bargaining structures (10/20/9)
- (3 5 3)government structures (8/23/10)
- (3 5 4)other (8/15/-)

(3 6)exchange-rate (-/-/-)

- (3 6 1) expectations (-/-/-)
 - (3 6 1 1)up (2/26/83)
 - (3 6 1 2)down (5/23/61)
 - (3 6 1 3)steady (-/2/6)
 - (3 6 1 4)uncertain (1/10/26)
 - (3 6 1 5)other (1/-/-)
- (3 6 2)fact (-/-/-)
 - (3 6 2 1)up (6/11/162)
 - (3 6 2 2)down (-/5/123)
 - (3 6 2 3)steady (-/-/69)
 - (3 6 2 4)other (-/-/-)

(3 7)weakness episodes (-/-/-)

(3 7 1)pre-Danish referendum weakness episode (5/21/112)

- (3 7 2)post-French referendum weakness episode (1/3/18)
- (3 7 3)pre-"Grande Gaffe" weakness episode (4/21/116)

(4) international developments (-/-/-)

(4 1)USA (-/-/-) (4 1 1)Monetary Policy (-/-/-) (4 1 1 1) expectations (15/22/144) $(4\ 1\ 1\ 2)$ fact (3/1/25)(4 1 1 3) expectations on interest rate differential Germany-US (-/-/-) (4 1 1 3 1)widening or steadily high (2/3/37) (4 1 1 3 2)narrowing (8/8/17) (4 1 1 3 2)other (3/-/9) (4 1 2)other economic variables (14/31/341) (4 1 3)US \$ (-/-/-) (4 1 3 1)\$ expectations (-/-/-) (4 1 3 1 1)positive-up (12/31/91) (4 1 3 1 2)negative-down (3/17/70) (4 1 3 1 3)steady (-/3/6) (4 1 3 1 4)uncertain (2/13/61) (4 1 3 1 5)other (-/-/10) (4 1 3 2)\$ facts (-/-/-) (4 1 3 2 1)positive-up (5/4/171) (4 1 3 2 2)negative-down (4/6/170) (4 1 3 2 3)steady (-/1/78) (4 1 3 2 4)other (-/-/1) (4 1 4)other (6/15/53) (4 2)Russia (-/-/-)

 $(4\ 2\ 1)$ economic (-/1/10)

(4 2 2)political (-/1/21)

(4 2 3)other (2/-/-)

(4 3)EU (-/-/-) (4 3 1)Netherlands (3/5/24) (4 3 2)Portugal (2/1/48) (4 3 3)Ireland (3/-/54) (4 3 4)Italy (3/10/60) (4 3 5)Spain (9/15/160) (4 3 6)Belgium (-/5/25) (4 3 8)ERM tension-crisis (-/-/-) (4 3 8 1)(expected) realignment/ speculative pressure (-/-/-) (4 3 8 1 1)Britain (2/7/18) (4 3 8 1 2)France (4/11/31) (4 3 8 1 3)Italy (3/3/18) (4 3 8 1 4)Germany (revaluation) (6/-/7) (4 3 8 1 5) expectations increase in general (4/12/46) (4 3 8 1 6)other (3/15/52) (4 3 8 2) expectations recede (-/-/-) (4 3 8 2 1)Britain (1/2/-) (4 3 8 2 2)France (3/14/21) (4 3 8 2 3)Italy (-/-/-) (4 3 8 2 4)Germany (revaluation) (-/-/-) (4 3 8 2 5)Expectations recede in general (5/4/50) (4 3 8 2 6)other (2/-/16) (4 3 9) French referendum (9/27/57) (4 3 10)Danish referendum (8/13/69) (4 3 11)"hard core" mini-EMU (4/12/6) (4 3 12)other (-/-/-)

(4 4)yen (5/18/183)

(4 5)other (2/6/90)

(5)other (-/-/-)