

**The London School of Economics and Political Science**

# **Why do countries implement Basel II?**

**An analysis of the global diffusion of Basel II implementation**

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## **Declaration**

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## **Abstract**

Like its predecessor, Basel II has profoundly shaped bank capital adequacy regimes across the world. However, there has been little systematic research on the state of Basel II implementation across developed and developing countries, and the factors that promote or hinder the implementation of these voluntary standards are particularly under-researched. By drawing on a new global dataset of Basel II implementation across 150 countries compiled by the author, this thesis evaluates the state of Basel II implementation at the global level and investigates why countries implement Basel II. Three novel channels of policy diffusion formed across supervisory authorities, global banks and financial sectors were specifically constructed to study the diffusion of Basel II policies using a mixed-method research design. A quantitative study tests the effects of policy diffusion on Basel II implementation across four distinct channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks, competition between financial sectors and the nexus of international economic exchange. This is complemented by in-depth case studies that unpack the causal process through which policy diffusion shaped the national implementation of Basel II in Chile, Hong Kong, Korea and Malaysia. I find that the state of Basel II implementation at the global level is highly uneven and clustered, and show that Basel II policy decisions in countries are highly interdependent on the policy decisions of other countries with which those countries are closely interconnected. Policy diffusion not only promotes the degree of convergence with Basel II, but also reinforces partial, gradual and delayed implementation. The diffusion of implementation policies can thus be a curse and a blessing for the future of Basel II and the broader global financial regulatory architecture due to its double-edged power to promote as well as hinder the degree of regulatory convergence with international financial standards.

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## List of Acronyms and Abbreviations

ASBA	Association of Supervisors of Banks of the Americas
BCPs	Core Principles for Effective Banking Supervision
BNM	Bank Negara Malaysia
BIS	Bank for International Settlements
CEBS	Committee of European Banking Supervisors
CEMLA	Centre for Latin American Monetary Studies
CP1	The New Basel Capital Accord: First consultative paper
CP2	The New Basel Capital Accord: Second consultative paper
CP3	The New Basel Capital Accord: Third consultative paper
CRD	Capital Requirements Directive
EC	European Commission
ECAI	External credit assessment institution
EMEAP	Executive Meeting of East Asia Pacific
EMEAP WBGS	Executive Meeting of East Asia Pacific Working Group on Banking Supervision
EU	European Union
FELABAN	Latin American Federation of Banks
FSAP	Financial Sector Assessment Program
FSA	Financial Services Authority (UK)
FSI	Financial Stability Institute
FSS	Financial Supervisory Service (Korea)
FSSA	Financial System Stability Assessment
G10	Group of Ten
G20	Group of Twenty
GFCI	Global Financial Centres Index
HKMA	Hong Kong Monetary Authority
ICAAP	Internal Capital Adequacy Assessment Process
ICBS	International Conference of Banking Supervisors
IDB	Inter-American Development Bank
IMF	International Monetary Fund
IRB approach	Internal Ratings-Based approach
MAS	Monetary Authority of Singapore
RWA	Risk Weighted Assets
SBIF	Superintendency of Banks and Financial Institutions (Chile)
SEACEN	South East Asian Central Banks Research and Training Centre
SMEs	Small and Medium-sized Enterprises
USD	United States dollar

# **Chapter One**

## **Introduction**

### **1.1 Why do countries implement Basel II?**

The global financial crisis of 2007-8 triggered a string of financial regulatory reforms. In particular, the Basel Committee on Banking Supervision (“Basel Committee”) developed a comprehensive set of reform measures at the behest of the G20 to strengthen global regulatory standards for bank capital, liquidity and macroprudential regulation. These new standards, called Basel III, constituted the centrepiece of the G20’s agenda on global financial reform and were regarded as a “decisive breakthrough” that would strengthen the resilience of banking systems around the world (Hannoun 2010:1). In the G20 Seoul Summit in November 2010, the G20 Leaders “endorsed the landmark agreement reached by the BCBS [Basel Committee] on the new bank capital and liquidity framework” and committed “to take action at the national and international level to raise standards, and ensure that... national authorities implement global standards developed to date, consistently, in a way that ensures a level playing field, a race to the top and avoids fragmentation of markets, protectionism and regulatory arbitrage” (G20 2010:2).

The shift in policy priorities at the international level from the agreement of new global financial regulatory standards to the national implementation of those standards signified a crucial turning point. This is because, Basel III, which includes Basel II, consists of non-binding best practice standards unlike the multilateral rules governing international trade. Although the Basel III negotiations were challenging and its agreement represented a feat in itself, the voluntary implementation of Basel II/III by national supervisory authorities from around the world constitutes a more challenging yet crucial next step. Beyond perhaps the non-binding policy commitments made in G20 meetings since 2010, there is no a priori reason to expect

the full, timely and consistent implementation of Basel II/III.<sup>1</sup> As the Chairman of the Basel Committee warned, implementation can be challenging because “memories fade quickly. Regardless of how tough the new standards are and how we expect them to increase the resilience of bank and banking systems, they must be effectively implemented and enforced” (Wellink 2010:5). The global financial regulatory framework risks being undermined if regulatory reforms at the international level are not followed up with robust voluntary implementation at the national level, but instead partial, inconsistent or non-implementation. According to the Basel Committee, the stakes are very high since the “[f]ull, timely and consistent implementation of Basel III [which builds on the implementation of Basel II] is fundamental to raising the resilience of the global banking system, in maintaining market confidence in regulatory ratios and in providing a level playing field. The benefits of the recent round of regulatory reforms will not be realised without implementation.” (BCBS 2012:1)

Thus, from a policy point of view, understanding the degree of global regulatory convergence with Basel II and the factors that explain why countries implement Basel II has become even more critical as countries embark on the implementation of Basel III.<sup>2</sup> This is more so the case due to the following reasons. Firstly, the new global financial regulatory framework that emerged following the global financial crisis of 2007-8 builds on the implementation of Basel II. While Basel II was intended to replace the Basel Accord of 1988 (“Basel I”), Basel II constitutes a core component of Basel III, which is additive to Basel II. However, there is evidence of considerable variations in the implementation of Basel II across countries, providing a key motivation for this thesis. Secondly, Basel II is a voluntary standard that was never intended to have legal force and the Basel Committee does not possess any formal supranational supervisory authority. Given

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<sup>1</sup> Basel II is formally called the “International Convergence of Capital Measurement and Capital Standards: A revised Framework” (BCBS 2004)

<sup>2</sup> The transition to Basel III is expected to commence in 2013 and end in 2019 (BCBS 2010a).

the lack of formal international coordination concerning the national implementation of Basel II, it is important to understand why countries implement Basel II.

In addition to being a question very pertinent to policymakers and banks around the world in the post-global financial crisis regulatory environment, understanding *how* and *why* countries implement Basel II is important as a topic for academic research. This is because the Basel Capital Accords have profoundly shaped bank capital adequacy regimes across the world over the past two decades. According to the Basel Committee, “during the 1990s the Accord [Basel I] became an accepted world standard, with well over 100 countries applying the Basel framework to their banking system” (BCBS 2001:11). Similarly, when Basel II was published in 2004, more than one-hundred countries indicated their intentions to implement it, creating expectations that Basel II would also become the next global standard for bank capital regulation like its predecessor (FSI 2004). The Basel Committee, IMF and World Bank were alarmed by the overly keen response of non-Basel Committee countries’ intent to implement Basel II, prompting them to warn countries against the risks of premature implementation (BCBS 2004a; IMF 2005a).<sup>3</sup> Although the delayed and partial implementation of Basel II turned out to be a greater problem several years later, supervisors in the G10 at that time were particularly concerned that there was “a serious risk that many countries will begin to adopt the advanced IRB approach, because they think this is the global standard to which they must aspire, when it may not be appropriate for their banks at their current stage of development” (Davies 2005:249; GRR 2004; Le Pan 2008:20).

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<sup>3</sup> References to the membership of the Basel Committee throughout this thesis refer to the G10, unless otherwise stated as the expanded membership of the Basel Committee. This is because the examination of the implementation of Basel II in this thesis mostly occurred before the membership was expanded. As discussed in the overview of the Basel Committee in Chapter Two, the membership of the Basel Committee was expanded to 27 countries in 2009. The G10 consists of Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, United Kingdom, United States and Luxembourg.

Despite being an important topic for academic research in light of the profound impact the Basel Accords have had on governing bank capital across developed and developing countries, there are two significant gaps in the International Political Economy (IPE) literature on the political economy of international finance and financial regulation with respect to Basel II.<sup>4</sup> Firstly, empirical research on the actual state of Basel II implementation is scarce and patchy and the state of implementation in developing countries is particularly under-researched. A preliminary data gathering exercise of Basel II implementation conducted in the beginning of this research project indicated considerable cross-national variations in implementation contrary to expectations that prevailed when Basel II was agreed amongst the G10 and published in 2004, undermining the extent to which Basel II had become globally accepted standards for regulating bank capital like its predecessor. Given the substantial differences between Basel I and Basel II, extrapolating how countries will implement Basel II based on their implementation of Basel I is likely to be invalid and unreliable. This is more so considering that even in the case of Basel I, the adoption of “domestic regulatory standards elaborated in a non-legally binding international arrangement among a dozen countries... by more than 100 countries that did not participate in the formulation of the standards” was a “development that [was] unusual if not unprecedented” (Tarullo 2008:65-6).

The second major gap in the literature is the lack of understanding of the factors that promote or hinder the national implementation of Basel II across developed and developing countries. Why did countries that were not members of the Basel Committee voluntarily implement Basel II, an arrangement they were not party to and took no part in formulating? Moreover, why have countries implemented Basel II in different ways? As discussed in the literature review in Chapter Two, the literature is far from offering a convincing answer to why

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<sup>4</sup> These gaps also exist in other literatures such as international law, finance and public policy.

countries around the world implemented Basel I, let alone Basel II. The untested theory which has become to be accepted as conventional wisdom is that Basel I was reputationally binding for non-members of the Basel Committee (see Simmons 2001:602; Tarullo 2008:65; Goodhart 2011:186). Some have anecdotally argued that “[t]he same perceptions seem to surround adoption of the revised Basel II framework” (Simmons 2006:11), although none have empirically tested the factors that promote or hinder the national implementation of Basel II in the literature.

## **1.2 Research question and central explanatory framework**

A systematic study of *how* and *why* countries implemented Basel II across developed and developing countries has not been undertaken in the literature despite the real-world importance of these questions for policy and as a topic for academic research. Hence, the aim of this thesis is to investigate the following research question. *Why do countries implement Basel II?* This question is answered in two steps as it is necessary to first establish how countries implemented Basel II before investigating why. Two sub-questions have been formulated accordingly. First, *what is the state of Basel II implementation across the world?* Second, *what explains the degree of convergence with Basel II across the world?* In answering the main research question, policy diffusion is adopted as the central explanatory framework. Policy diffusion is based on the premise that policy decisions in countries are interdependent on the policy decisions of other countries with which those countries are closely interconnected instead of being made independently across countries. It entails the adoption of policies in an interdependent yet uncoordinated way. Hence, this thesis examines whether Basel II policy decisions in a given country are systematically conditioned by the Basel II policy choices of other countries with which that country is closely interconnected to economically, politically or socially while controlling for the independent effects of economic and political conditions at the national level on countries’ decisions to implement Basel II.

Policy diffusion was adopted as the main explanatory framework for the following four empirical and theoretical reasons. First, empirical research on policy diffusion is often motivated by the observation that countries adopt similar policies or institutions within a fairly circumscribed period of time, resulting in temporal and spatial clusters of policy change (Elkins and Simmons 2005:34). In a preliminary data gathering exercise, clusters of cross-national variations in the implementation of Basel II were also observed across countries in East Asia, South Asia and Latin America. There seemed to be a high degree of regulatory convergence amongst certain groups of countries that adopted similar implementation strategies. However, different groups of countries exhibited different levels of convergence with Basel II, producing a highly uneven and clustered state of Basel II implementation at the global level. These preliminary observations were complemented by findings in the Financial Stability Institute (FSI) surveys on countries' plans to implement Basel II, which showed variations in regional trends (FSI 2004; 2006; 2008).<sup>5</sup> Although the identity of the countries that responded to the FSI surveys were not disclosed on confidentiality grounds, and countries' plans to implement Basel II in some regions turned out to be considerably different to how Basel II was actually implemented, combined with the observations from the preliminary data gathering exercise, the clustering of Basel II implementation policies across countries that had or were planning to implement Basel II provided sufficient prima facie evidence to merit the adoption of policy diffusion as a possible causal explanation. However, policy diffusion provides one possible explanation of why policies may have converged across countries and is by no means the only plausible explanation. Independent yet similar policy responses of countries that face similar economic or political conditions or cases of explicit policy coordination amongst countries also provide

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<sup>5</sup> Implementation plans in Europe, excluding members of the Basel Committee, and Asia tended to be front-loaded as most countries envisaged an early and full transition onto Basel II, while those in the Caribbean were significantly back-loaded. Countries in Latin America and the Middle East planned to implement Basel II gradually.



plausible competing explanations to policy diffusion. Hence, in testing the effects of policy diffusion, it is necessary to control for these competing explanations.

Secondly, upon examining the policy making process to identify how countries implemented Basel II in the preliminary data gathering exercise, it was evident that in domestic policy debates, supervisors often referred to supervisory policies adopted by their regional peers or by leading global financial centres. This indicated that national policy decisions were not made in isolation from that of their foreign counterparts. However, there is a difference between learning and diffusion, and whether learning about policies in other countries had any systematic casual effects on national policy decisions is unknown and has to be tested. If policy decisions are indeed interdependent on the policy decisions of other countries, attempting to explain Basel II implementation with only the independent effects of domestic economic and political factors or international factors alone will fail to capture the uncoordinated yet interdependent process of policy making amongst supervisory authorities around the world. In this respect, the policy diffusion theory offers a conceptually different explanation to those that assume that countries make policy decisions independently of each other. The simple yet compelling theory of policy diffusion, namely, countries' policy choices are shaped by those of other countries with which they are closely interconnected to economically, politically and socially when making their own policy decisions, provides a convincing theory to explain how and why countries implemented Basel II.

Thirdly, there are no a priori reasons to expect countries to implement Basel II in any particular way. Basel II is a voluntary standard and the Basel Committee does not possess any formal supranational supervisory authority over its members and non-members to require countries to implement Basel II. Had Basel II been a legally binding agreement to which non-G10 countries were party to, or had implementation across the world been formally coordinated by the Basel Committee, the potential scope for policy diffusion to explain variations in policy

implementation across countries may be limited because policy diffusion by definition is characterised as a process of interdependent yet uncoordinated policy adoption. The lack of formal international coordination concerning the national implementation of Basel II provides a highly relevant context to investigate policy diffusion on theoretical grounds.

Fourthly, the investigation of Basel II implementation addresses significant gaps in the policy diffusion literature in addition to the literature on the political economy of international financial regulation. As discussed in the literature review chapter, policy diffusion is a burgeoning area of research in IPE. However, whilst policy diffusion has been applied to explain the diffusion of various financial policies such as capital account and interest rate policies, it has not been applied to explain bank capital policies. Furthermore, although the diffusion of various standards, such as environmental and labour standards has been studied, financial regulatory standards have not. Hence, the investigation of the diffusion of bank capital standards, namely Basel II, makes an original contribution to the portfolio of policies investigated in the policy diffusion literature.<sup>6</sup>

In this thesis, a mixed-method research design is adopted to investigate both the effects of policy diffusion at the global level as well as the underlying process of policy diffusion in specific country cases. The policy diffusion hypotheses tested in the quantitative study and case studies are discussed in the next section, which outlines the overall research design of this thesis.

### **1.3 Overall research design**

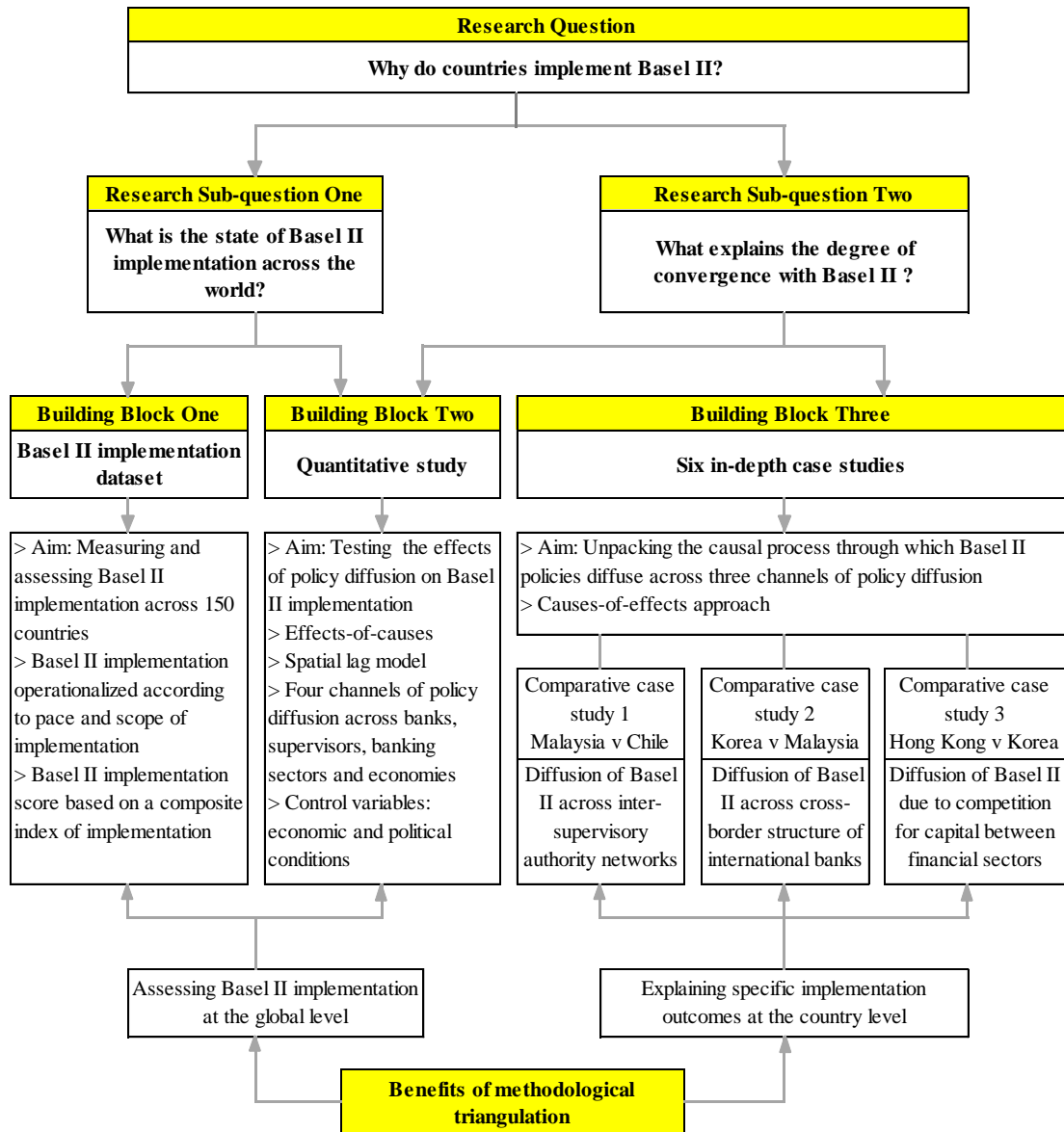
This thesis consists of three main building blocks. The first is a global dataset of Basel II implementation across 150 countries, the second is a quantitative study that tests the effects of policy diffusion on Basel II implementation across the world, and the third consists of six in-depth case studies that aim to unpack the causal process

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<sup>6</sup> The contributions of this thesis to the policy diffusion literature are summarized in section 8.3.2.

through which policy diffusion shaped the national implementation of Basel II. This is summarized in Figure 1.

**Figure 1: The three main building blocks of this thesis**



This section explains how the above three building blocks each contribute to answering the research question posed in this thesis.

### 1.3.1 A global dataset of Basel II implementation

To answer the first of the two sub-questions, a global dataset of Basel II implementation across 150 countries is compiled by the author in order to measure

and evaluate the state of Basel II implementation at the global level. The implementation of Basel II is operationalized according to the scope and pace of implementation. To capture the scope of implementation, the dataset measures whether key components of Basel II, namely the six approaches of Pillar 1 for calculating regulatory capital for credit and operational risk, Pillar 2 and Pillar 3 had been implemented across 150 countries. The dataset then records the year in which the above components of Basel II were implemented to capture the timing of implementation. Measures of the scope and pace of convergence with Basel II for each country are then coded and weighted to construct a composite Basel II implementation score. Doing so provides a single pragmatic measure that reflects the core structure of Basel II while summarizing how countries implemented Basel II in a comparable way across 150 countries. In addition to enabling the assessment of the state of Basel II implementation at the global level, the Basel II implementation dataset provides vital building blocks to answer the second component of the research question, that is, what explains the degree of convergence with Basel II? The dataset not only provides the underlying data to construct the dependent variable for the quantitative study, but also aids the selection of case studies by providing information on the population of candidate cases.

### **1.3.2 Quantitative study: Testing the effects of policy diffusion on Basel II implementation across the world**

The quantitative and qualitative studies are the second and third building blocks of this thesis and their aim is to investigate why countries implemented Basel II. A mixed-method approach is adopted in this thesis based on the recognition that certain aspects of the research question are more adequately addressed by statistical methods and others by the case study method. In contrast to the effects-of-causes approach adopted in the quantitative analysis that aims to test the average effects of policy diffusion on Basel II implementation across countries, the case studies are

firmly grounded on the causes-of-effects approach aimed at explaining specific implementation outcomes at the country-level (Mahoney and Goertz 2006:230). The benefits of methodological triangulation may be particularly high precisely because statistical analysis and case studies embody distinct and often contrasting methodological orientations that can produce unique synergies if combined effectively into the overall research design.

The objective of the quantitative study is to test whether on average policy diffusion systematically affects the degree of Basel II implementation across the world. Variables representing four distinct channels of diffusion are constructed to model how policies diffuse across channels formed by inter-supervisory authority networks, the cross-border structure of international banks, competition to attract international capital and the nexus of international economic exchange. Each policy diffusion variable consists of a unique connectivity matrix that describes how and to what extent each and every country are interconnected to all other countries across each channel of diffusion to test the following four policy diffusion hypotheses. First, inter-supervisory authority networks are hypothesized to reinforce the state of regulatory convergence amongst countries that are interconnected to one another, but at different levels of convergence with Basel II across different supervisory networks. There are more than a dozen established networks of banking supervisors, some dating back more than fifty years. Most supervisory networks organize regular meetings, conferences and training sessions, while some engage in achieving more ambitious goals such as formulating regional financial standards. Supervisory networks are expected to foster the diffusion of policies by serving as important channels of communication for supervisors to share experiences and policy ideas and learn about Basel II as well as each other's implementation policies.

The second policy diffusion variable investigates the diffusion of Basel II across channels of diffusion formed by the cross-border structure of international banks. International banks are hypothesized to promote the degree of regulatory

convergence with Basel II in the host country they operate in if the international bank had implemented Basel II in its home country, or otherwise hinder implementation if the home country of the international bank had not implemented Basel II. This is because Basel II implementation decisions by the parent bank at the banking group level, which is a function of implementation decisions made by the home supervisor, may have implications on the way Basel II is implemented across its subsidiaries in host jurisdictions.

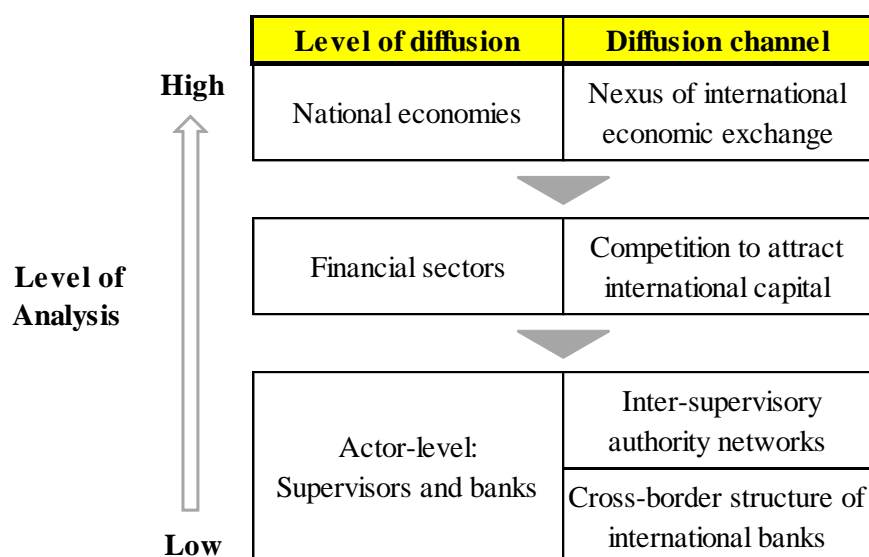
Thirdly, competition between financial sectors to attract international capital and banking business are hypothesized to translate into competitive pressures amongst policymakers to implement Basel II, leading to its diffusion amongst rivals. When a country's foreign competitors implement Basel II, investors may be drawn to that location since implementation may enhance financial stability, incentivize advancements in risk management or reduce compliance costs for international banks that want to adopt their preferred approaches of Basel II globally. Anticipating this outcome, countries may come under competitive pressures to match their rivals' Basel II policy, and they too may implement Basel II in response. As a result, Basel II policies are expected to diffuse amongst financial sectors that compete for capital.

Finally, the structure of international economic exchange may serve as a channel through which Basel II policies diffuse across countries. Greater levels of economic exchange between trading partners is hypothesized to lead to the diffusion of Basel II policies and reinforce the degree of regulatory convergence between them. Several studies in the literature have used bilateral trade flows to measure the spatial distance between countries. The level of economic exchange may reflect the degree to which two countries are likely to interact extensively, to be aware of each other's public policies, and to serve as prominent referents to each other, thus leading to the diffusion of policies due to emulation (Lee and Strang 2006:894). Other studies have used bilateral trade flows to model the structure of economic

competition, whereby countries decide to match the policies of those countries with which they trade relatively more with (Simmons and Elkins 2004:178-179). Both motivations are likely to be inter-related in practice.

These four channels of diffusion were devised based on the following considerations. First, they are intended to complement one another by contributing to distinct dimensions of analyses in terms of how policies diffuse not only due to interdependencies formed between countries at the level of national economies and financial sectors, but also at the level of supervisors and banks, both of which are key actors in the process of implementation. This is illustrated in Figure 2.

**Figure 2: Examining policy diffusion at different levels of analysis**



With this distinction, it may be possible to discern whether policy diffusion is most effective due to interdependencies formed across countries via the nexus of bank supervisors, banks, financial sectors or economies. Secondly, the channels of policy diffusion formed by the way banks and supervisors are interconnected to one another respond to a major weakness in the policy diffusion literature. Increased interest in policy diffusion has developed alongside growing criticisms of the weak empirical basis and theoretical underpinnings of the diffusion process, especially in relation to the channels through which policies diffuse and the role of key agents involved in the process of diffusion. The imprecise specification of the channels of

diffusion, which are often only vaguely related to the specific policies that are hypothesized to diffuse, produce very generic channels of diffusion that make the tests of policy diffusion less convincing and not very relevant to the policy under investigation. The analysis of policy diffusion across the cross-border structure of international banks and inter-supervisory authority networks are innovative channels of policy diffusion that are tailored to highlight the role of key actors in implementing Basel II, namely, banks and supervisors and their interdependent relationships with their foreign counterparts in forming the paths through which policies diffuse across countries. These novel channels of diffusion mark original contributions to the policy diffusion literature as they have not been studied elsewhere. To provide a stronger empirical test of policy diffusion, the quantitative study systematically controls for several economic and political variables. These variables control for two competing explanations to policy diffusion, that is, independent responses to similar economic or political conditions and explicit policy coordination amongst countries.

### **1.3.3 Six country case studies: Unpacking the process of policy diffusion**

Notwithstanding the strengths of quantitative methods in testing the effects of policy diffusion, a key weakness is their lack of ability to offer in-depth accounts of the process through which policies diffuse across the channels of diffusion modelled in the analysis. This limitation is addressed in the third building block of this thesis by adopting the case study method, the aim of which is to build on the results of the quantitative study by unpacking the causal process through which policy diffusion reinforces convergence with Basel II in some countries whilst reinforcing partial, gradual or delayed implementation in others. Case studies allow the attainment of high levels of conceptual validity by enabling the identification and measurement of indicators that best represent the concepts that is intended to be measured, and thus help to mitigate the risk of “conceptual stretching” associated with statistical studies



that lump together dissimilar cases to obtain a larger sample (George and Bennett 2005:19).

The case studies in this thesis combine within-case analysis and cross-case comparisons within a single study to exploit the strongest means of drawing causal inferences from case studies (ibid. p18). Detailed within-case analysis employing a variant of the process tracing method is conducted to unpack the casual process of policy diffusion in six case studies, which consist of three pairs of cases from Chile, Korea, Malaysia and Hong Kong. Each pair of cases investigate the process of policy diffusion and Basel II implementation across each of the three channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks and competition for capital.<sup>7</sup> Then, the cross-case comparative method of controlled comparison is undertaken for each pair of case studies to investigate how policy diffusion reinforces the degree of regulatory convergence with Basel II in some countries while reinforcing lower levels of convergence with Basel II in others. To ensure that the most theoretically, empirically, and methodologically relevant cases are selected, a rigorous case selection procedure involving three selection steps are applied to the population of candidate cases. These selection steps take into account binding scope conditions that may apply to the theory of policy diffusion, cases of explicit policy coordination and methodological considerations that aim to maximize variations in the policy diffusion variable under investigation, while controlling for the effects of other diffusion channels and statistically significant explanatory variables from the quantitative study.

The first pair of case studies examines the diffusion of Basel II across inter-supervisory authority networks in Malaysia and Chile. The supervisory authorities implementing Basel II, Bank Negara Malaysia (BNM) in Malaysia and the

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<sup>7</sup> The fourth diffusion channel modelled by the structure of international economic exchange in the quantitative study is not investigated in the case studies due to the lack of variation in its effect on Basel II implementation. This point is discussed in detail in Chapter Four.

Superintendence of Banks and Financial Institutions (SBIF) in Chile, belong to different supervisory networks in East Asia and the Americas respectively. The policy choices of BNM and SBIF regarding when and how to implement Basel II in Malaysia and Chile are hypothesized to be systematically conditioned by, and thus interdependent on the policy choices of other supervisors with which BNM and SBIF are closely interconnected to via inter-supervisory authority networks. Stated generally, countries that are interconnected to other countries that have attained a high level of convergence with Basel II across channels of diffusion formed by inter-supervisory authority networks are also expected to adopt implementation policies that attain a high level of convergence with Basel II, and vice versa. In order to uncover the process through which policy diffusion led to convergent Basel II policies amongst supervisory authorities within the same supervisory network, but at divergent levels of convergence with Basel II across different supervisory networks, the case studies first examine the initial formative years of BNM and SBIF's implementation strategy and their participation in supervisory networks. This is followed by an examination of how supervisory networks function as channels through which policies diffuse.

The second pair of case studies investigates the diffusion of Basel II across channels of diffusion formed by the cross-border structure of international banks in Korea and Malaysia.<sup>8</sup> Whilst Malaysia's banking sector was more protected and foreign players maintained a non-negligible yet stable share of the banking sector, Korea experienced an abrupt surge in the number of foreign players to levels unprecedented in the domestic banking sector, producing a contrasting configuration in the way Malaysia and Korea were interconnected to the rest of the world when Basel II was implemented. The cross-border structure of international banks are expected to form powerful channels of diffusion by creating very specific and direct

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<sup>8</sup> Both countries are selected from the same supervisory network to control for its effects when investigating policy diffusion across international banks.

linkages between the host and home countries of global banks. These linkages are expected to not only provide information to host supervisors regarding who their competitors are, but also facilitate the cross-border transfer of implementation capabilities. Furthermore, aided by the international supervisory architecture that defines the rules of the game between home and host supervisors, the influence of global banks and home supervisors are expected to be even more compelling in host countries. Countries that are interconnected to the home countries of international banks that have attained a high level of convergence with Basel II are hypothesized to adopt implementation policies that also attain a high level of convergence with Basel II, and vice versa. To uncover the process of policy diffusion, the case studies first investigate the diffusion paths formed by the network of international banks that link Basel II policies in Korea and Malaysia to those of other countries. Then, the way international banks shaped various steps in the implementation process, from the initial policy consideration of whether to implement Basel II to the supervisory approval process of allowing banks to adopt the advanced approaches, are examined.

The third pair of cases studies examines how implementation policies in Hong Kong and Korea were shaped by the Basel II policies of financial sectors they competed with to attract international capital and banking business.<sup>9</sup> Countries may come under competitive pressures to match their rival's financial regulatory policies, leading to the cross-border diffusion of Basel II. However, because Hong Kong and Korea compete with different financial sectors around the world, different Basel II policies are expected to diffuse in these countries. Put generally, financial sectors that compete for capital with other financial sectors that have attained a high level of convergence with Basel II are hypothesized to adopt domestic implementation policies that also attain a high level of convergence with Basel II, and vice versa. To uncover the process of policy diffusion, the case studies first trace the paths through

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<sup>9</sup> Two countries that are in the same supervisory network and where the level of foreign bank presence is generally high in both cases have been selected to control for the effects of policy diffusion across different supervisory networks and the cross-border structure of international banks.

which policies diffused across financial sectors that competed for capital, before investigating how policy choices in Hong Kong and Korea were shaped by the policy choices of these financial sectors.

For each pair of case studies, comparative analyses with respect to what, how and why policies diffused is undertaken to understand how and why policy diffusion reinforces convergence with Basel II in some cases, whilst reinforcing partial, gradual or delayed implementation in others. The next section explains how the above three building blocks are presented in the subsequent chapters of this thesis.

#### **1.4 Chapter plans and summary of main arguments**

The chapter plans and the main arguments in each chapter are outlined in this section. This thesis consists of eight chapters. *Chapter Two* presents the literature review, which is conducted in four steps. First, a brief history of the Basel Committee is provided followed by an overview of Basel I and Basel II. Then the empirical literature on the Basel Accords, which is the literature that this thesis primarily aims to contribute to, is reviewed to understand the questions that have been addressed in relation to why countries implemented Basel I and Basel II, including the theoretical explanations tested in these empirical studies. In order to select a relevant theory to explain why countries implemented Basel II, the third and fourth steps of the literature review focus on the theoretical literature. A review of six general theories of compliance with international norms is undertaken in order to understand the core tenets of each approach in explaining compliance outcomes and their implications for understanding the implementation of Basel II. Then, a comprehensive overview of the theoretical and empirical literature on policy diffusion is conducted. Policy diffusion offers a fundamentally distinct theory in contrast to other general theories of compliance because it is based on the premise that policy decisions are not made independently across countries, but instead, as a function of one another. The strengths and weaknesses of the theoretical and

empirical literature on policy diffusion are also discussed in this chapter in order to formulate a research design that maximizes the strengths and addresses the weaknesses of this literature. The subsequent five chapters constitute the empirical chapters of this thesis devoted to investigating the state of Basel II implementation across the world and answering the question of why countries implemented Basel II.

*Chapter Three* examines Basel II implementation at the global level. The aim of this chapter is twofold. The first is to measure and assess the degree of regulatory convergence with Basel II across 150 countries and the second is to investigate the factors that explain the implementation of Basel II, in particular, by testing the effects of policy diffusion on implementation. Issues relating to the measurement of Basel II implementation and the methods used to compile the Basel II implementation dataset are discussed, followed by an examination of the state of implementation across the world. The findings suggest that the degree of regulatory convergence with Basel II at the global level is limited by considerable cross-national variations in implementation, from early-comprehensive adopters to late-partial adopters and non-implementers. These variations produce a highly uneven and clustered global regulatory landscape for bank capital regulation, where convergence and divergence coexist. There is a high degree of regulatory convergence amongst groups of countries that adopted similar implementation policies. However, different groups of countries exhibit different levels of convergence with Basel II. Furthermore, the unevenly clustered global regulatory landscape is more permanent than transitional as a large proportion of developing countries were either late-partial adopters or non-implementers. Since the aim of this thesis is to investigate how and why countries implemented Basel II, an assessment of the effects of implementation on policy objectives such as financial stability, financial sector development or levelling the playing field are not conducted. Hence, arguments about whether more or less implementation is good or desirable are not made in this respect. Not only is it too early to reliably assess the effects of Basel

II/III implementation, a systematic study of how and why countries implemented Basel II across developed and developing countries has not been undertaken yet.

To investigate the cause of the highly uneven and clustered global regulatory landscape, regression analysis is undertaken to test whether Basel II policy decisions in countries are interdependent on the policy decisions of other countries with which those countries are closely interconnected while controlling for the effects country-specific economic and political conditions may independently have on national decisions to implement Basel II. The results provide strong and consistent evidence to support the policy diffusion hypothesis tested in the analysis. There is a positive and statistically significant relationship between the level of Basel II implementation in one country, and the average implementation score of those countries with which that country is closely interconnected to across channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks, competition for capital, and the structure of international economic exchange. Furthermore, countries that are not developing countries, have a sizeable and developed banking sector, maintain lower levels of regulatory capital in the banking system, experienced a systemic banking crisis and have adopted international accounting standards are on average associated with higher levels of Basel II implementation than those that are not.

The findings and methods of the quantitative analysis are put to an even stronger test in the subsequent four chapters that aim to unpack the process through which variations in the type and strength of policy diffusion reinforces convergence with Basel II in some countries whilst reinforcing partial, gradual or delayed implementation in others. *Chapter Four* outlines the overall design of the case studies, which combines detailed within-case analyses with cross-case comparative analyses, and the case selection procedure, which consists of three case selection steps. A truth table is constructed to methodologically organize the vast amount of information on all candidate cases and apply the case selection steps in a systematic

way.<sup>10</sup> Three pairs of cases from Chile, Korea, Malaysia and Hong Kong are selected to investigate the process of policy diffusion and Basel II implementation across three channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks and financial sectors that compete for capital. The case studies highlight considerable variations in implementation, from late-partial adopter Chile, to gradual comprehensive adopter Malaysia and early comprehensive adopters Korea and Hong Kong.

*Chapter Five* examines how the implementation of Basel II in Malaysia and Chile was shaped by the diffusion of Basel II across inter-supervisory authority networks. Supervisory networks emerged as powerful channels of diffusion that promoted convergence in implementation policies amongst countries by shaping the formation of implementation norms amongst supervisors from very early in the implementation process, thus, changing the trajectory of how countries implemented Basel II. Both BNM and SBIF extensively shared experiences and ideas on various aspects of Basel II with their foreign counterparts when formulating their own national implementation policy. However, divergent implementation policies diffused across supervisory networks in East Asia and the Americas. In Malaysia, policies diffused not only at the strategic level in terms of deciding on the speedy pace and comprehensive scope of implementation, but also at the more detailed tactical level. In contrast, whether supervisors should implement Basel II at all was an open question amongst policymakers in ASBA, which decided to adopt a more gradual and layered approach. Although divergent implementation policies diffused, the implementation of Basel II in Malaysia and Chile were strongly shaped by considerations of how their supervisory peers were implementing Basel II as there were pros and cons for not moving ahead with the rest of one's peers in the case of Malaysia, and moving ahead without the rest of one's peers in the case of Chile.

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<sup>10</sup> The truth table sorts the data into different combinations of the independent variables and their associated outcomes, producing a cross-tabulation of causes and effects for 150 countries. See Chapter Four.

*Chapter Six* investigates how the implementation of Basel II in Korea and Malaysia was shaped by the diffusion of Basel II across the cross-border structure of international banks. The case studies found two channels of diffusion within the cross-border structure of international banks to be particularly important. Firstly, the way one country was interconnected to another at the level of banks had significant implications on the degree of convergence with Basel II attained in the host countries. In some cases, convergence with Basel II was facilitated as foreign banks that benefited from their Basel II-knowledgeable parent banks were the first to adopt the advanced yet operationally onerous approaches of Basel II in Korea and Malaysia. In other cases, foreign banks hindered the full and timely implementation of Basel II due to delays and uncertainty in implementation in the home country. Secondly, international banks also created a channel of diffusion between home and host supervisors, which tended to promote convergence in line with the home supervisors' Basel II policies, except for some areas where host country-specific divergences were reinforced.

In *Chapter Seven*, the diffusion of Basel II policies between financial sectors that compete for capital is investigated. The practice of evaluating how implementation in Hong Kong and Korea compared with that of other financial sectors was systematically embedded into the policy making process of the HKMA and FSS. However, differences in the financial sectors Hong Kong and Korea competed with created distinct paths through which policies diffused, contributing to differences in the way they implemented Basel II. The case studies found that policy diffusion not only promoted convergence with Basel II, but also explained implementation delays and divergences from Basel II in Hong Kong and Korea. These divergences and delays were not only based on careful evaluation of how one's main competitors were implementing Basel II, but also provided an outlet to accommodate domestic constraints and challenges in implementation, which in part emanated directly from supervisors' efforts to match the policies of their



competitors in the first place. This highlighted that both divergences from and convergences with international financial standards were inseparable consequences of policy diffusion.

In addition to finding compelling evidence in support of policy diffusion, the findings also underscored the importance of the level of development. The quantitative study suggested that on average, developing countries were constrained by their level of development when implementing Basel II. In the case studies, even relatively developed countries such as Hong Kong and Korea faced capacity constraints of various sorts. A closer examination of implementation across countries suggested that the capacity to implement Basel II was a necessary but insufficient condition for Basel II policies to diffuse. No matter how strong the effects of policy diffusion in encouraging high levels of implementation, policy diffusion mechanisms were unable to overcome low capacity constraints. Moreover, less developed countries were rarely exposed to strong policy diffusion effects that encouraged convergence with Basel II across the channels of diffusion in the first place. Thus, when the level of development was low, the prospects for converging with Basel II were even poorer as policy diffusion tended to reinforce low levels of Basel II implementation.

In *Chapter Eight*, the main empirical findings of this thesis and their contributions to the IPE literature on the political economy of international financial regulation and policy diffusion are discussed. Three key policy implications that follow from the findings are also presented, followed by a discussion on how this thesis informs the wider debate on power in the world economy. In the world of global standard setting, it is widely accepted that the “great powers”, namely the US and EU, “remain the primary actors writing the rules that regulate the global economy” (Drezner 2007:5). This was also true for the Basel standards, where they had a monopoly in setting the rules governing bank capital. This thesis sheds light on the implications of power on the implementation of Basel II, in particular,

regarding whose policies diffuse and how. Although Basel II was not formally enforced and remained a voluntary standard outside the G10, implementation in the EU and US had repercussions on how other countries implemented Basel II around the world because both the EU's full and timely implementation and the US's delayed and partial implementation diffused. Moreover, it is argued that the influence of the EU and US permeates through the process of diffusion at a deeper level by shaping the channels of diffusion, and in doing so, have indirectly, but profoundly shaped the global regulatory landscape for bank capital regulation. In sum, not only are the EU and US "great powers" in setting international standards, they are also leading powers in shaping the implementation of Basel II around the world.

Overall, this thesis finds strong and consistent evidence that Basel II policy decisions in countries are highly interdependent on the policy decisions of other countries with which those countries are closely interconnected. Inter-supervisory authority networks, the cross-border structure of international banks and competition for capital proved to be effective channels through which policies diffused and national supervisors and banks, key agents of policy diffusion. Even though the way one country is interconnected to another may change over time as countries reconfigure the way they integrate into the global economy, the dynamics of policy diffusion that underlie these channels of diffusion are expected to persist and shape the international regulatory landscape on an on-going basis as long as countries operate in a globalized world economy, where one country is interconnected to another economically, politically and socially. To this end, it is argued that the dynamics of policy diffusion constitute the very fabric of the globalized world economy, and that this can be a curse and a blessing for the future of Basel II and the broader global financial regulatory architecture due to the double-edged power of policy diffusion to reinforce as well as to hinder the degree of regulatory convergence with international financial standards.

## **Chapter Two**

### **Literature Review**

#### **2.1 Introduction**

The literature review presented in this chapter is conducted in four steps. First, a brief history and summary of the main activities of the Basel Committee on Banking Supervision (“Basel Committee”) is presented followed by an overview of Basel I and Basel II to provide a background to the global financial regulatory framework for bank capital and highlight the differences between Basel I and II. This is followed by a review of the empirical literature on the Basel Accords, which is the literature that this thesis primarily aims to contribute to. This literature is reviewed with the aim of understanding the questions that have been addressed in relation to why countries implemented Basel I and Basel II and the theories that have been tested in these studies. As the first step of selecting a relevant theory to test in explaining why countries implemented Basel II, the third and fourth steps of the literature review focus on the theoretical literature that could help explain the implementation of Basel II. A literature review of six general theories of compliance with international norms is undertaken in step three to understand the core tenets of each theory and examine their implications for explaining why countries implemented Basel II. This is followed by a review of the policy diffusion literature, which offers a fundamentally distinct theory from other general theories of compliance. The reasons for adopting policy diffusion as the central explanatory framework in this thesis were discussed in Chapter One. The review conducted in this chapter complements those arguments by providing a comprehensive overview of the theoretical and empirical literature on policy diffusion. The literature is reviewed with the aim to first define policy diffusion and explain how policy diffusion mechanisms are hypothesized to work. Then the empirical literature is

reviewed with a particular focus on the methodology utilized to operationalize policy diffusion. The strengths and weaknesses of the theoretical and empirical literature are also discussed in order to formulate a research design that builds on the existing literature and maximizes its contribution to the policy diffusion literature.

This chapter proceeds in the following order. An overview of the Basel Committee, Basel I and Basel II is presented in section 2.2. This is followed by a review of the empirical literature on the Basel standards in section 2.3. Then the six general theories of compliance are discussed in section 2.4, followed by a comprehensive review of the policy diffusion literature in section 2.5.

## **2.2 The Basel Committee, Basel I and Basel II**

### **2.2.1 The Basel Committee**

The Basel Committee was established in 1974 by the central bank governors of the Group of Ten (G10) countries in the aftermath of severe disturbances in international currency and banking markets following the failure of Bankhaus Herstatt in West Germany.<sup>1</sup> Until 2009, the membership of the Basel Committee consisted of the G10, namely, Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, United Kingdom, United States and Luxembourg.<sup>2</sup> The Basel Committee provided a forum for regular cooperation

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<sup>1</sup> This section primarily draws on the ‘History of the Basel Committee and its Membership’ by the Basel Committee (2009).

<sup>2</sup> Spain was invited to join the Basel Committee in 2001. References to the membership of the Basel Committee throughout this thesis refer to the G10, unless otherwise stated as the expanded membership of the Basel Committee. Following the global financial crisis of 2007-8, the Basel Committee and its governing body, the Group of Central Bank Governors and Heads of Supervision, decided at its March 2009 meeting to expand its membership and invite representatives from Australia, Brazil, China, India, Korea, Mexico and Russia to join the Basel Committee at the behest of the G20 (BIS 2009). In June 2009, the Basel Committee’s membership was broadened further to include major international financial centres such as Hong Kong and Singapore, and countries from the G20 that were not already represented in the Basel Committee, namely, Argentina, Indonesia, Saudi Arabia, South Africa and Turkey. The membership of the Basel Committee doubled in size to 27 jurisdictions as a result. (BIS 2009a)

between member countries on banking supervisory matters and initially focused on modalities to close gaps in the international supervisory net for internationally active banks. The Basel Concordat of 1975, which aimed to ensure that no international bank escaped adequate supervision, marked one of the most important earlier achievements of the Basel Committee.<sup>3</sup> The Basel Committee's "wider objective has been to improve supervisory understanding and the quality of banking supervision worldwide" by exchanging information on national supervisory arrangements, improving the effectiveness of techniques for supervising international banks, and most importantly, by setting minimum supervisory standards (BCBS 2009:1). To this end, the Basel Committee has produced more than one-hundred documents providing supervisory standards and guidance on a wide range of supervisory topics.

Of the supervisory standards formulated by the Basel Committee, the Basel Committee "is best known for its regulations on capital adequacy requirements, CARs. The 1988 Accord, or Basel I, as it became more widely known, put the BCBS on the map for banks and policy-makers" (Goodhart 2011:194). According to the Basel Committee, "[t]he merits of the Accord [Basel I] were widely recognised and during the 1990s the Accord became an accepted world standard, with well over 100 countries applying the Basel framework to their banking system" (BCBS 2001:11). By the time Basel II was agreed, over 140 countries claimed to have implemented Basel I (Barth et al 2008). The Basel Committee decided to undertake a thorough revision of Basel I in 1998, and after six years of intense negotiations, Basel II was published in June 2004. There were strong expectations that Basel II would succeed its predecessor and become the next global standard for capital regulation when more than 100 countries indicated their intentions to implement Basel II in 2004 (FSI 2004). However, as countries were transitioning onto Basel II,

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<sup>3</sup> In 1983, the Concordat was revised to establish principles for sharing supervisory responsibilities for banks' foreign branches, subsidiaries and joint ventures between host and home supervisors. These principles were revised in 1990 to improve the cross-border flow of prudential information between supervisors and were reformulated into minimum principles in 1992.

the Basel Committee was yet again at the centre of reforming global financial regulatory standards, but this time at the behest of the G20 following the global financial crisis of 2007-8. The Basel Committee formulated a set of new global regulatory standards for bank capital, liquidity and macroprudential regulations, collectively called Basel III.

In addition to developing standards for regulating bank capital, the Basel Committee also produced standards in other areas, such as the Core Principles for Effective Banking Supervision (BCPs), which also received almost universal acceptance. The BCPs were “conceived as a voluntary framework of minimum standards for sound supervisory practices” and consisted of twenty-five “principles that are needed for a supervisory system to be effective” (BCBS 2006b:2).<sup>4</sup> Since its publication in 1997, the BCPs have become “the de facto minimum standard for sound prudential regulation and supervision of banks and banking systems” around the world (BCBS 2012b:1). Moreover, according to Goodhart, the BCPs represented “a radical change in the Committee’s relationships with the rest of the World” as the Basel Committee “emerged upon the world stage as the institution responsible for establishing norms for the regulation of banking systems... right around the world” (2011:299).

The emergence of the Basel Committee as the pinnacle of authorities for establishing standards for regulating banking systems around the world has occurred under quite unique circumstances.

“The Committee does not possess any formal supranational supervisory authority. Its conclusions do not have, and were never intended to have, legal force. Rather, it formulates broad supervisory standards and guidelines and recommends statements of best practice in the expectation that individual

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<sup>4</sup> The BCPs “have been used by countries as a benchmark for assessing the quality of their supervisory systems and for identifying future work to be done to achieve a baseline level of sound supervisory practices... [and] have also been used by the IMF and the World Bank in the context of the Financial Sector Assessment Program to assess countries’ banking supervision systems and practices.” (BCBS 2006b:1)

authorities will take steps to implement them through detailed arrangements – statutory or otherwise – which are best suited to their own national systems. In this way, the Committee encourages convergence towards common approaches and common standards without attempting detailed harmonisation of member countries’ supervisory techniques.” (BCBS 2009:1)

Despite the lack of formal supranational supervisory authority over its members and non-member countries, the Basel Committee’s voluntary standards have had profound effects in shaping national regulatory regimes across the world. In particular, the Basel Capital Accords, which are explained next, have had far reaching implications for national and international banks and supervisors across developed and developing countries.

### **2.2.2 Basel I**

In the early 1980s, the Basel Committee became concerned that the capital ratios of the main international banks were deteriorating at a time when international risks, notably those vis-à-vis heavily-indebted Latin American countries, were growing. The two principal aims of Basel I were “to ensure an adequate level of capital in the international banking system and to create a “more level playing field” in competitive terms so that banks could no longer build business volume without adequate capital backing” (BCBS 2001:11). Members of the Basel Committee resolved to halt the erosion of capital standards in their banking systems by working towards greater convergence in the measurement of capital adequacy. This resulted in the emergence of a broad consensus on a weighted approach for measuring risks both on and off the balance sheet. Following comments on a consultative paper published in December 1987, Basel I was approved by the G10 Governors and released to banks in July 1988.

Basel I was a regulatory capital measurement system that required internationally active banks from G10 countries to hold a minimum ratio of capital to risk-weighted assets of 8% by 1992. Two tiers of capital were distinguished

depending of their ability to absorb losses. Tier 1 included shareholders' equity and retained earnings and Tier 2, supplementary internal and external capital resources such as general provisions and subordinated debt. To measure risk-weighted assets, assets were classified into four buckets, 0%, 20%, 50% and 100%, according to their riskiness, which in the case of Basel I varied by who the debtor was. Capital was not required against government assets such as Treasury Bills and bonds whilst claims on banks attracted a 20% weight, which translated into a capital charge of 1.6% of the value of the claim. Claims on the non-bank private sector generally received the standard 8% capital requirement.<sup>5</sup> Basel I was supplemented a number of times mostly to deal with the treatment of off-balance-sheet activities, although the most significant amendment was made in 1996 with the Market Risk Amendment. This required the removal of trading positions in bonds, equities, foreign exchange and commodities from the credit risk framework in place for explicit capital charges related to the bank's open position in each instrument. Basel I is generally seen to have succeeded, "brilliantly" according to Goodhart, in achieving its goals of raising capital levels and moving towards a level playing field, and "has largely, though recently less so, stood the test of time" (Goodhart 2011:195).

### **2.2.3 Basel II**

Due to rapid developments in financial markets, the simple and ad hoc bucket approach in Basel I created incentives for banks to move high quality assets off the balance sheet, thus reducing the average quality of banks, and became increasingly outdated as regulatory capital requirements conflicted with sophisticated internal measures of economic capital. The rationale of Basel II was to reduce the scope for regulatory arbitrage and make regulatory capital requirements more risk-sensitive by incorporating advances made in banks' internal risk management practices in

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<sup>5</sup> Off-balance sheet exposures through guarantees, commitments and forwards were converted into a credit equivalent amount through a scale of conversion factors and then weighted according to the counterparty's risk weighting.



calculating regulatory capital requirements. The ‘International Convergence of Capital Measurement and Capital Standards: A revised Framework’, known as Basel II, was agreed in 2004 and consisted of three pillars corresponding to minimum regulatory capital requirements in Pillar 1, the supervisory review process in Pillar 2 and market discipline in Pillar 3 (BCBS 2004).

The first Pillar sets out a menu of approaches to determine minimum capital requirements for credit, operational and market risk. For credit risk, there are three options that allow banks and supervisors to choose from depending on the sophistication of banks’ activities and internal controls. The standardized approach (“SA”) draws a distinction between the type and riskiness of an exposure in an effort to improve the risk sensitivity of capital requirements. Fixed risk weights are established for different types and riskiness of exposures. To assess the credit quality of borrowers, banks can use external credit assessments by rating agencies. Where an external rating is not applied to an exposure, the SA mandates a risk weighting of 100%, equivalent to a capital requirement of 8%. Compared to Basel I, an expanded range of credit risk mitigants, such as collateral, guarantees and credit derivatives are recognised based upon which capital requirements could be reduced. Furthermore, the SA provides special treatment for retail exposures, whereby the risk weights for residential mortgage exposures and other retail exposures were reduced relative to Basel I. Also, loans to small- and medium-sized enterprises (SMEs) received retail treatment, enabling them to receive lower risk weights.

Under the IRB approaches, risk weights, and hence capital charges, are determined through the combination of quantitative inputs provided by banks’ own risk estimates and formulas specified by the Basel Committee. The formulas, or risk weight functions, translate a bank’s inputs into a specific capital requirement. They are based on modern risk management techniques that involve quantitative assessments of risk. The IRB approaches utilize four quantitative risk inputs. The probability of default (PD) measures the likelihood that a borrower will default over

a given time horizon, loss given default (LGD) measures the proportion of an exposure that will be lost if a default occurs, exposure at default (EAD) measures the amount of a facility that is likely to be drawn if a default occurs, and maturity (M) measures the remaining economic maturity of an exposure. The IRB approaches consist of the Foundation IRB (“FIRB”) and Advanced IRB (“AIRB”) approaches. The FIRB approach utilizes banks’ own estimates of PDs whilst using supervisory values set by the Basel Committee for LGD, EAD and M. In contrast, the AIRB approach utilizes banks’ own estimates of PD, LGD, EAD and M as quantitative inputs in calculating the risk weight of assets. The latter is generally considered “the fundamental innovation of Basel II that breaks with the Basel I method” (Tarullo 2008:139). For the treatment of credit mitigants, different types of collateral are reflected in the supervisory values for LGD for FIRB banks, whilst greater flexibility is accorded to AIRB banks to assess the value of collateral. For retail exposures, there is only a single AIRB approach and no FIRB alternative. The key inputs in the IRB retail formulas are PD, LGD and EAD, all of which are based on banks’ internal estimates for pools of similar retail exposures rather than for individual exposures.

In addition to capital requirements for credit risk, the Basel Committee created a new capital charge for operational risk in Basel II. Operational risk is defined as “the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events” (BCBS 2004:137). There are three approaches for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity. These are the Basic Indicator Approach (“BIA”), Standardized Approach (“TSA”) and Advanced Measurement Approach (“AMA”). In the BIA, banks are required to hold capital for operational risk equal to a fixed 15% of the average positive annual gross income over the previous three years. In the TSA, banks’ activities are divided into eight business lines and the capital charge for each business line is calculated by multiplying the

gross income of each business line by a factor ranging from 12% to 18%.<sup>6</sup> In the AMA, banks are allowed to use their own internal method for assessing their exposure to operational risks, as long as it is sufficiently comprehensive, systematic and meets the quantitative and qualitative criteria set out in Basel II.

The supervisory review process of Pillar 2 requires banks to develop an internal capital adequacy assessment process (ICAAP) and set capital targets to ensure that banks have adequate capital to support their risks beyond the core minimum requirements. Supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene where appropriate. Pillar 2 consists of the following four key principles.

**Table 1: Pillar 2 principles**

<b>Pillar2: Four key principles of supervisory review</b>
Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.
Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.
Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.
Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Principle 1 requires bank to undertake a comprehensive assessment of risks, including those not explicitly captured in Pillar 1, such as interest rate risk in the banking book, credit concentration risk and liquidity risk. Principles 2 and 3 empower supervisors to review and intervene when necessary and require banks to hold capital above the minimum requirement per Pillar 1. Pillar 3 sets out market disclosure requirements in relation to the scope of application, capital structure and adequacy, risk exposures, risk assessment processes, and the overall capital adequacy of banks. The intention is “to encourage market discipline by developing a

<sup>6</sup> The eight business lines and betas (in parentheses) are corporate finance (18%), trading and sales (18%), payment and settlement (18%), commercial banking (15%), agency services (15%), retail banking (12%), asset management (12%) and retail brokerage (12%).

set of disclosure requirements which will allow market participants to assess key pieces of information” (BCBS 2004:175).

Basel II significantly overhauled the definition and method for calculating risk-weighted assets, that is, the numerator of the capital adequacy ratio, and introduced a capital requirement for operational risk and Pillars 2 and 3 for the first time. However, it also retained key elements of Basel I. The minimum capital ratio of 8%, the definition of eligible regulatory capital (i.e. the numerator of the capital adequacy ratio), and the 1996 Market Risk Amendment remained unchanged.<sup>7</sup> Regarding the minimum 8% requirement, the Basel Committee decided to “broadly maintain the aggregate level of such requirements, while also providing incentives to adopt the more advanced risk-sensitive approaches” in the form of slightly lower capital requirements for banks adopting the IRB approaches relative to the SA (BCBS 2004:4). However, to avoid excessive reductions in capital requirements following implementation, capital requirements for banks using the IRB approaches or the AMA were subject to capital floors as part of a transitional arrangement.

The implementation plan envisaged in Basel II for its members was for Basel II to be available for implementation as of year-end 2006, except for the most advanced approaches, which were to be made available for implementation as of year-end 2007. Parallel calculations for banks adopting the FIRB approach was to start from 2006 and banks moving directly from Basel I to the advanced approaches for credit or operational risk were subject to parallel calculations or impact studies from 2006 and parallel calculations from 2007 (BCBS 2004:58). For non-member countries, Basel II was “circulated to supervisory authorities worldwide with a view to encouraging them to consider adopting this revised Framework at such time as they believe is consistent with their broader supervisory priorities” (BCBS 2004:1). Basel II also states that the Basel Committee “acknowledges that moving toward its adoption in the near future may not be a first priority for all non-G10 supervisory

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<sup>7</sup> These components were substantially revised in Basel 2.5 and III.

authorities in terms of what is needed to strengthen their supervision. Where this is the case, each national supervisor should consider carefully the benefits of the revised Framework in the context of its domestic banking system when developing a timetable and approach to implementation” (ibid.). Hence, although there were clear expectations that Basel II would be implemented by national supervisors in the G10 and that Basel II would become the new global standard for regulatory practice elsewhere (FSI 2004), Basel II remained a non-legally binding framework for members of the Basel Committee and a voluntary standard for the rest of the world. The next section examines the empirical literature on the Basel Accords.

### **2.3 The empirical literature on the Basel Accords**

The concepts of implementation, compliance and effectiveness are defined before reviewing the empirical literature on the Basel Accords because some studies examine implementation while others examine compliance or the effectiveness of compliance. Implementation can be defined as “measures that states take to make international accords effective in their domestic law. Some accords are self-executing; that is, they do not require national legislation to become effective. But most international accords require national legislation or regulations to become effective” (Brown Weiss and Jacobson 1998:4).<sup>8</sup> On the other hand, “[c]ompliance goes beyond implementation. It refers to whether countries in fact adhere to the provision of the accord and to the implementing measures that they have instituted.” (ibid.)<sup>9</sup> Put another way, compliance is a broader concept that “includes

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<sup>8</sup> Other scholars offer similar definitions. According to Shelton “[i]mplementation of international norms refers to incorporating them in domestic law through legislation, judicial decision, executive decree, or other process” (2000:6). Raustiala and Slaughter define implementation as “the process of putting international commitments into practice: the passage of legislation, creation of institutions (both domestic and international) and enforcement of rules” (2002:539).

<sup>9</sup> Young provides the most widely cited definition in the literature, namely, that “[c]ompliance can be said to occur when the actual behavior of a given subject conforms to prescribed behavior, and

implementation” (Shelton 2003:5). To this end, implementation can be seen in terms of “compliance to opt in” to international norms and thus “a precondition for compliance” (Ho 2002:650). Other scholars however, argue that although “[i]mplementation is typically a critical step toward compliance... implementation is conceptually neither a necessary nor a sufficient condition for compliance” (Raustiala and Slaughter 2002:539). This is because, “compliance can occur automatically without implementation; that is, without any effort or action by a government or regulated entity” (ibid.), or conversely, because implementation may not necessarily result in compliance and be incomplete or contrary to the prescribed goals (Raustiala 2000:391-399). Effectiveness, which refers to “whether the goals of the norm are achieved” (Shelton 2003:6), “is related to, but is not identical with, compliance” because countries may be in compliance with an international norm, but the norm may nevertheless be ineffective in attaining its stated objectives, and even international norms that are effective in attaining their stated objectives may not be effective in addressing the problems they were intended to address (Brown Weiss and Jacobson 1998:5).<sup>10</sup>

### **2.3.1 The empirical literature on Basel I**

Different empirical studies offer competing explanations of how and why Basel I was agreed and implemented in the G10 and subsequently in non-G10 countries. On the one hand, Kapstein attributes Basel I to international policy coordination, but one which “reflected the interplay of knowledge and power” because “the development of consensual knowledge regarding systemic risks, combined with decisive leadership on the part of the United States and Great Britain” were important factors in explaining Basel I (1989:324). This view is also held by

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noncompliance or violation occurs when actual behavior departs significantly from prescribed behavior” (1979:3).

<sup>10</sup> The definitions of implementation and compliance adopted in this thesis are consistent with those outlined in this section.

Goodhart, who argues that although Basel I was initially borne out of a “general agreement on the need for a common framework” (2011:151), when major countries dissented and the Basel Committee was in a deadlock over the negotiations, “it was essentially a power play, to overcome resistance at the BCBS which was based on consensus” (ibid. p170). These arguments are based on the standard theory of international cooperation, where G10 policymakers were seen to have collective interests to realize joint gains by adopting minimum capital standards to address rising systemic risks and the erosion of regulators’ capacity to ensure the soundness of national banking systems in the face of financial globalization (Singer 2007:534; Oatley and Nabors 1998:35).

On the other hand, Oatley and Nabors contend that the “creation of the Basle Accord corresponds more to a redistributive rent-seeking than to a market-failure logic” (1998:42). They argue that efforts to reconcile US voters’ demand by raising capital standards in the US without imposing costs on US commercial banks relative to their more competitive foreign competitors led Congress to initiate an international agreement on capital that satisfied voters’ demands whilst preserving the ability of US commercial banks to compete against foreign banks, in particular Japanese banks. The Basel Accord essentially represented a forced wealth transfer from foreign banks to US banks because other “G-10 policymakers confronted a choice between a costly multilateral accord and an even more costly bilateral accord.” (ibid. p49) The domestic political origins of Basel I is also highlighted in Singer’s (2007) account of Basel I. Singer argues that regulators, willing to preserve their policy autonomy from the legislature, were incentivized to create international regulatory standards as a way of solving the dilemma caused when the domestic financial sector lost international competitiveness vis-à-vis their foreign rivals and domestic public confidence in financial stability declined.

Although the aforementioned studies provide different accounts of why Basel I was created, they all agree that the market power of the US and the tacit

threat of exclusion to the US market played a decisive role in getting the rest of the G10 to agree and implement the Basel Accord. Implementation was induced through “an Anglo-American “zone of cooperation” that would prompt other countries to sign on lest they be excluded... The tacit threat being made was that foreign bank activity could be reduced in the U.S. and U.K. markets unless these banks adopted the new risk-based standard.” (Kapstein 1989:340-1)<sup>11</sup> US financial market power and the implicit threat of market punishment are thus central to understanding the agreement and implementation of the Basel Accord amongst the G10. This, combined with the unique market conditions at the time when “Japanese banks were intent on expanding their activities in New York and London” are critical in understanding how the implicit threat of the US “had to be taken seriously” by the Japanese (ibid.).

Explanations based on US financial power and coercion, however, are not very helpful in understanding why countries outside the Basel Committee implemented Basel II. The role that a financially dominant US could have played in coercing countries to implement Basel II is limited. According to Goodhart, although “the special, almost hegemonic, role of the USA, with the British playing a subsidiary role in achieving international financial cooperation via the BCBS” emphasized by Kapstein “was largely true in the case of the 1988 Accord, this was an atypical occasion, a once-off from the normal affairs of the BCBS.” (Goodhart 2011:195) In the case of Basel II, the US was the last in the Basel Committee to implement Basel II. Rather than playing a leading role, the US struggled to

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<sup>11</sup> Similarly, Goodhart argues that “[t]he choice of the British as the key bilateral partner was not only that they were amenable to the main principles and approaches that the US authorities wanted to adopt, but also, indeed probably rather more so, that London was the main international financial centre besides New York. If the British and the Americans would, as they might, refuse to accept foreign banking establishments into London/New York unless they agreed to abide by the UK/US requirements, then all the international banks would have to do so, willy-nilly, whatever their own national regulations might require. In short, it was essentially a power play, to overcome resistance at the BCBS which was based on consensus. (2011:170)



implement Basel II domestically, which was delayed and only partially implemented even by the standards of many non-members of the Basel Committee.

For countries that were not Basel Committee members, the theory which has become conventional wisdom is that Basel I was reputationally binding. Tarullo contends that “[t]he voluntary implementation of an arrangement to which these states were not party appears to have been motivated by the expectation that both capital markets and other banks would look less favourably upon banks that did not meet the Basel minimum ratios” (2008:65). Likewise, Goodhart argues that “right from the outset the BCBS found that recommendations and standards developed and intended only for large G10 international banks became regarded by all other countries, and their banks, as reputationally binding” (2011:186). Simmons (2001) develops a more formal argument along similar lines in which the hegemonic role of the US is central. Simmons argues that “strong incentives exist to emulate the standards adopted in the dominant financial center” because “once the dominant financial center has adopted a clear standard, there is very little incentive to reduce standards and risk developing a reputation as “poorly regulated” as most banks are simply in no position to forgo reputational concerns and compete for international business on price alone.” (Simmons 2001:602; 2006:11) Simmons goes further to argue that “[t]he same perceptions seem to surround adoption of the revised Basel II framework” (2006:11).

The arguments based on reputational repercussions appear particularly convincing in light of the high implementation rates for Basel I. In particular, Simmons’ framework helps explain why countries around the world might be keener to implement Basel I compared to other financial standards such as accounting or anti-money laundering standards. However, they do not provide much insight in explaining variations in the implementation of the Basel standards across countries. Although countries around the world may face strong incentives to implement Basel II, incentives alone do not explain the considerable variations in national

implementation. Different countries have implemented Basel II in different ways, and more importantly, certain groups of countries have implemented Basel II in different ways. The question of why some non-G10 countries are more susceptible than others in responding to such pressures point to the role of country-specific explanatory variables. Moreover, there are several other obstacles in applying the above explanations to understand the implementation of Basel II amongst non-G10 countries. The hegemonic role of the US is taken as given in the case of Basel I. This central assumption may be questioned in the context of explaining the implementation of Basel II as the US did not play a hegemonic role and struggled to implement Basel II domestically. It may well be the case that the role of the US constitutes an explanatory variable rather than being an assumption, whereby the lack of progress in implementation in the US can be expected to have repercussions on the implementation of Basel II across the world. Hence, to explain cross-national variations in implementation outcomes, it may be necessary to expand Simmons' framework by relaxing the assumption about the exogenous and dominant role of the US and incorporate country-specific explanatory variables or policy diffusion to explain why and how countries implemented Basel II.

In this regard, although there are no studies on the diffusion of Basel I, Ho (2002) and Quillin (2008) test a number of domestic-level variables using different measures of the dependent variable. Ho uses a binary measure of Basel I implementation as at 1999 from data compiled by Barth et al (2001) to test whether bank and national preferences explain countries' decision to implement Basel I. Banks' exposure to international markets was hypothesized to be positively related to implementation since the reputational costs of noncompliance would be higher and the benefits greater. The analysis also controls for several macroeconomic and institutional variables that could condition preferences to implement Basel I (ibid. p655). The results showed that indicators of openness, namely, financial exposure and trade, were consistently insignificant, disconfirming the author's hypothesis.

However, the level of democracy consistently outperformed all other explanatory variables across the models. According to Ho, these findings gave credence to democratic legalist theories of international law in explaining compliance with voluntary international financial standards (ibid. p676).<sup>12</sup> Ho concludes that “[e]conomic interests and capacity variables alone cannot explain the variation in Basle Accord implementation. Institutional variables that reflect the domestic regulatory and legal environment, as well as the capacity of states to commit to international legal obligations must be taken into account to explain implementation with soft law” (ibid. p683).

Ho’s research makes an original contribution to the literature by testing domestic-level variables in a systematic way across developed and developing countries. However, there are three critical shortcomings that undermine his findings. First, the binary measure of Basel I implementation fails to capture when and how countries implemented Basel I, reducing the validity of the measure. Also, the self-reported nature of the original survey in which the dependent variable was derived from makes the measurement of Basel I less reliable. Secondly, the empirical test is considerably weakened by the lack of variation in the dependent variable. Of the 118 countries in the original dataset, only seven countries had not adopted risk-weighted assets in line with Basel I and five countries had minimum capital ratio requirements below 8% (Barth et al 2001), which Ho defined as being noncompliant.<sup>13</sup> As the author points out, with only ten countries that are arguably peripheral to the international financial system classified as noncompliant, the small degree of variation in the dependent variable make it particularly difficult to assess the relative importance of the explanatory variables (Ho 2002:682). Thirdly, the causal link

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<sup>12</sup> Support is also found for measures of economic development, corruption and government fragmentation, but not for bank concentration, government and foreign ownership and use of IMF credit.

<sup>13</sup> The former category includes Lesotho, Cambodia, Bhutan, Burundi, Philippines, Bahrain and St. Kitts, and the latter, Lesotho, Cambodia, Rwanda, Ghana and Kenya.

between the key explanatory variables and Basel I implementation is empirically weak, especially the empirical relationship between democracy and Basel I implementation. The causal mechanism through which the lack of democratic institutions in Bhutan and Bahrain hindered the implementation of Basel I is not specified. Ho's argument that the findings support democratic legalist theories of international law can also be questioned as it is not obvious why the rule of law argument should apply to voluntary international standards. Until a convincing empirical relationship between the key explanatory variables and Basel I implementation is established, it is difficult to make strong causal claims based on the findings of the statistical analysis alone.

Quillin's study of compliance with Basel I draws "heavily on Ho's study of the implementation of the Basel Accord" (2008:36), but makes significant improvements on two fronts. First, more variance in the dependent variable is created by constructing a composite measure of Basel I implementation based on the stringency of national interpretations in six areas amongst Basel Committee member countries (except Italy), Australia, Austria, Denmark, Finland, Ireland and New Zealand. Secondly, Quillin builds on Ho's hypotheses to test more specific theories of implementation, such as whether path-dependency measured by the difference between Basel I and existing national standards, the degree of market supervision or economic instability explained why countries adopted more strict or lax interpretations of Basel I.<sup>14</sup> More relevant to this thesis were the hypotheses that countries will adopt similar interpretations to other countries in the same region and that countries will follow the interpretation of the US (ibid. p45). These hypotheses resonate with the policy diffusion hypotheses tested in this thesis.

Notwithstanding the limitations associated with using a sample size of eighteen countries for a quantitative study, Quillin finds the strongest support for the

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<sup>14</sup> The path-dependency hypothesis is that "[b]anks with relatively lax (strict) pre-Basel CARs or subject to weak capital adequacy standards will be more likely to support a lax (strict) interpretation of the Accord" (Quillin 2008:39).

path-dependency hypothesis and mixed results for the market supervision and economic instability hypotheses. However, “fairly weak evidence was found for a regional clustering effect” and “no support was found for the hegemonic argument in the qualitative or quantitative tests” (ibid. p170). The latter result is particularly interesting as it disagrees with Simmons’ argument (2001). The weak evidence on clustering may be due to the lack of variation in the independent variable of predominately Western developed countries and their offshoots. Moreover the small sample size does not allow a meaningful test of policy diffusion that can be generalized across countries. The case studies of the US, France, Germany and Japan further reinforce the path-dependency hypothesis leading Quillin to argue that “the Accord may not have impacted state behavior as much as believed” (2008:168). Although interesting, this finding in part reflects the fact that Basel I was formulated to accommodate various aspects of individual countries’ existing practices into the final agreement, a compromise which Herring refers to as “a remarkable feat of financial diplomacy” that was necessary to break out of the deadlock in the negotiations due to the dissent amongst Basel Committee members that may have delayed or blocked the agreement on Basel I altogether (2007:413). In other words, Basel I itself was to some extent a path-dependent Accord.

Some studies have taken the concept of compliance further by distinguishing substantive compliance from formal compliance by measuring the quality of compliance, albeit in a smaller number of cases. For example, Walter (2008) tests a theory to explain mock compliance with international financial standards, including the Basel standards in East Asia.<sup>15</sup> Mock compliance is expected to be more likely “when private sector compliance costs are high, when the costs of outright noncompliance are high, and when outsiders find it difficult to monitor the true quality of compliance with international standards” (ibid. p43). Walter finds

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<sup>15</sup> Mock compliance occurs when government, bureaucratic and private sector actors formally signal compliance when in fact their underlying behavior is inconsistent with the adopted standards (Raustiala and Slaughter 2002:539).

considerable variations in gaps between formal rules and substantive compliance across different international financial standards and across the four East Asian countries studied.<sup>16</sup> The former arises because different international standards entail varying compliance and monitoring costs, and the latter, due to variations in domestic interests and institutions across countries that affect the costs of compliance. In the case of compliance with the BCPs, which includes the implementation of Basel I in Principle 6, compliance was mixed across countries and most improved in Korea.

Chey (2006) studies compliance with Basel 1 in Japan and finds that the Japanese government was able to manipulate the implementation of Basel I to help banks formally comply with its explicit provisions whilst still allowing them in practice to defect from the objectives of Basel I as a way of responding to domestic opposition against Basel I. Chey calls this “cosmetic compliance” as opposed to “comprehensive compliance” and argues that the former occurs when the high costs of complying with Basel I can be diverted from banks to other sectors of the economy. If the sectors negatively affected by banks’ compliance are politically important or influential, and the damage substantial, the likelihood of political intervention to oppose substantive compliance is expected to increase, leading to cosmetic compliance outcomes that reduce the effectiveness of Basel I (ibid. p275). Thus, the domestic distributional consequences of Basel I is seen to affect the political capacity of national authorities to ensure that banks complied with Basel I. Both studies by Walter and Chey highlight the importance of domestic political causes of noncompliance and argue that while external pressure from other states or market actors may induce formal compliance, it is sometimes ineffective in inducing “substantive” or “comprehensive” compliance with international financial standards.

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<sup>16</sup> Compliance with the IMF’s Special Data Dissemination Standards, BCPs, the OECD’s Principles of Corporate Governance and International Financial Reporting Standards are examined in the cases of Indonesia, Thailand, Malaysia and South Korea.

### **2.3.2 The empirical literature on Basel II**

In contrast to the literature on Basel I, the literature on Basel II is much less developed. The Basel II negotiations during 1999 and 2004 are documented by Wood (2005), Tarullo (2008) and Claessens et al (2008a). These studies provide only indirect insights for explaining why countries outside the G10 implemented Basel II since most of the analyses focus on the negotiations that took place within the G10 to develop Basel II rather than to test a theory on implementation. Outside the academic literature, the IMF conducted assessments of Basel II implementation in Australia (2009) and the US (2010) in the form of a technical note to the Financial Sector Assessment Program (FSAP) country reports, but is not expected to conduct any assessments in non-advanced countries. In the EU, a detailed legal review of the transposition of the CRD was conducted by a law firm at the request of the European Commission (DLA Piper 2009). Despite the relatively high level of convergence amongst EU member states in the global context, the review revealed divergences in implementation arising from the transposition of the CRD. There were evidence of gold-plating resulting from national regulators elaborating on the CRD as well as divergences in interpretation resulting in ambiguous terminologies and concepts at the national level. Although the EU is an exceptional case since member states were required to implement Basel II, the findings highlight a range of interesting motivations on the part of national supervisors that may help explain variations in national implementation more generally. These include the motivation to ensure continuity by adopting an evolutionary approach rather than a revolutionary approach, to adopt a more conservative approach on prudential grounds, and to reduce the regulatory burden on banks by minimizing the legal complexity of regulations (ibid. p24-72).

While these studies document how countries implemented or were implementing Basel II, they are not theory testing studies that aim to explain why countries implemented Basel II the way they did. There are only a few country-level

studies that aim to explain the driving factors behind the implementation of Basel II, although they primarily focus on members of the Basel Committee. In explaining the bifurcated approach to implementation adopted by the banking authorities in the US, Herring (2007) argues that three unanticipated obstacles led to the erosion of crucial pre-deal understandings, which threatened to derail the implementation process in the US. These were the perceived competitive inequalities in the US between large and small banks, the low and variable capital charges revealed from quantitative impact studies and the request for permission to implement the simpler SA by four leading US banks that were mandated by the Federal Reserve to implement the AIRB approach. In the case of the EU, Ayadi (2008) examines the institutional rule-making process that was involved in recasting the CRD to implement Basel II, which was then applied to approximately 8,000 banks and 2,000 investment firms across the EU.

In short, empirical research on the state of regulatory convergence with Basel II is scarce and patchy and implementation in developing countries is particularly under-researched. Moreover, the factors that promote or hinder the implementation of Basel II across developed and developing countries are not well understood. In fact, a systematic study of Basel II implementation has not been undertaken in the literature despite the real-world importance of understanding why countries implement Basel II for policy and as a topic for academic research. This has created major gaps in the IPE literature on the political economy of international finance and financial regulation. This thesis is the first systematic study of Basel II implementation across developed and developing countries and to this end represents an original contribution to the literature. In order to select relevant explanations of why countries implemented Basel II, a literature review of six general theories of compliance with international norms is undertaken in the next section.



## **2.4 The theoretical literature: Explaining compliance with international norms**

There are several theories in the literature that aim to explain compliance with international norms, but like many theories in IPE, they tend not to be mutually exclusive and often share as many commonalities as differences. Nonetheless, some derive from long-standing theoretical traditions and continue to inform our understanding. Given the interdisciplinary nature of this topic, scholars in IPE have drawn on a range of related disciplines, including international relations, comparative politics, international law, public policy and institutional economics. Six theories of compliance are reviewed in this section, the aim of which is to understand the core tenets of each approach in explaining compliance outcomes and examine their implications for explaining why countries implement Basel II.

### **2.4.1 The state-based enforcement approach**

The enforcement approach is rooted in the political economy tradition of game theory and collective action theory. States are conceived as rational actors that make compliance decisions based on cost-benefit calculations. Thus, noncompliance is a premeditated and deliberate violation because states have incentives to free-ride and take advantage of other states' compliance by defecting from a regime. If all states faced incentives to defect, regimes would not be sustainable or be ineffective, hence, coercive enforcement measures are required to deter defections and compel compliance. Enforcement theorists argue that "[a] punishment strategy is sufficient to enforce a treaty when each side knows that if it cheats it will suffer enough from the punishment that the net benefit will not be positive" (Downs et al 1996:385). Coercive measures can take the form of economic, political or military sanctions, and exposing defectors by monitoring and imposing sanctions that raise the cost of defection are deemed to constitute key elements of an enforcement strategy. These strategies are expected to work effectively if the costs to the states imposing

sanctions on defectors are not high and the sanctions can be specifically targeted at violators.

In the absence of a punishment mechanism or an ad hoc enforcer, it is difficult to apply the enforcement model. Basel I and Basel II are voluntary standards that do not have any “teeth” built into the framework and the Basel Committee does not possess any supranational authority to enforce compliance. The role of power and economic coercion exercised by a dominant financial centre that acts like an ad hoc enforcer may be pertinent to explaining the agreement on Basel I as discussed above. However, this is less so the case with Basel II. Although the absence of formal enforcement measures in Basel II or that available to the Basel Committee to draw on had remained the same across Basel I and II, the role of a dominant financial centre in enforcing compliance across countries is much less pronounced in the latter. The US is arguably a defector rather than an enforcer in implementing Basel II and the EU, which led the way in implementation, has not enforced compliance on other non-implementing countries outside the EU. Hence the enforcement approach provides limited explanatory leverage in explaining why countries around the world implemented Basel II. A different source of external pressure may be exerted by market actors, which provide a distinct “enforcement” mechanism from that envisaged here.

#### **2.4.2 The market-based approach**

Market forces can facilitate compliance with international norms if market actors monitor compliance and penalize noncompliance or reward compliance. International financial standards may provide a focal point for market participants to evaluate banks’ competitiveness or how well they are managed, and noncompliance may be penalised if noncompliant banks are considered uncompetitive or poorly regulated. For example, Simmons argues that there was considerable market pressure to adopt “global standards” because when “[r]ules regulating capital

adequacy may convey important information on the quality of a firm... appropriate prudential regulations are a competitive advantage that other jurisdictions have an incentive to copy... to avoid the risk of developing a reputation as “poorly regulated” as most banks are simply in no position to forgo reputational concerns and compete for international business on price alone” (Simmons 2001:602; 2006:11).

There are a number of caveats to market-based explanations. First, market forces may not always operate to ensure compliance with international regulatory standards. Moreover, credible market enforcement mechanisms depend on market participants embracing the regulatory standards as part of their decision-making process since “[o]nly where markets provide governments with clear incentives to follow standards will governments adopt and comply with them.” (Mosley 2003:333)<sup>17</sup> Secondly, the source of market pressures for compliance may derive from national regulatory enforcement if market participants pressure banks to comply with international financial standards not because they perceive it as increasing the quality of banks, but because they expect noncompliant firms to be penalized by national regulatory authorities (Chey 2007:296). The latter underscores the importance of domestic factors in inducing market pressures.

### **2.4.3 The managerial approach**

In contrast to the state-based enforcement or market-based model where external pressure from states or market actors was required to induce compliance, the managerial approach is based on the premise that there is a general propensity of countries to comply with their international obligations and that noncompliance is inadvertent. According to Chayes and Chayes (1998), the propensity to comply derives from concerns about saving transaction costs, the assumption that parties’ interests were secured by entering into a treaty in the first place and a fundamental

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<sup>17</sup> Mosley argues that market pressures failed to provide a credible enforcement mechanism because market participants were slow to embrace the IMF’s Special Data Dissemination Standard (2003:333).

normative obligation to comply with international laws, namely, *pacta sunt servanda*, that treaties are to be obeyed (ibid. p3-9). They contend that “the Realist argument that national actions are governed entirely by a calculation of interest is essentially a denial of the operation of normative obligation in international affairs.” (ibid. p8) According to Chayes and Chayes, noncompliance is seen to arise from ambiguity and indeterminacy of treaty language, limitations on the capacity of parties to carry out their understandings, and the temporal dimensions of social, economic, and political changes contemplated by regulatory treaties (ibid. p10). Hence, they argue that if “the principal source of noncompliance is not wilful disobedience but the lack of capability or clarity or priority, then coercive enforcement is as misguided as it is costly” and a strategy for managing compliance by ensuring transparency, establishing a dispute settlement mechanism, capacity building or the use of persuasion is more effective (ibid. p22).

The causes of noncompliance such as capacity constraints or the complexity of agreements are highly relevant for explaining how countries implemented Basel II. However, the underlying assumptions relating to why countries have a propensity to comply, which is the main building block and presumption of the managerial approach, does not fully apply to non-Basel Committee countries that did not participate in the standard setting process. If countries do not have a natural propensity or have different propensities to comply, the managerial approach provides limited insights into explaining why these countries might voluntarily decide to implement Basel II in different ways. Hence, the reasons for noncompliance and the policy prescriptions to induce compliance lay on weak foundations, at least in terms of how the managerial approach conceives noncompliance. This is a significant limitation in applying this theory to explain the implementation of Basel II.<sup>18</sup>

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<sup>18</sup> Haas argues that the lawyers’ dictum that ‘most treaties are complied with most of the time’ is premature and exaggerated because studies of compliance find variations in compliance. Moreover,

#### **2.4.4 Functional institutionalism**

Neoliberal institutionalists contend that international institutions, defined as “persistent and connected sets of rules (formal and informal) that prescribe behavioral roles, constrain activity and shape expectations” (Keohane 1989:3), shape patterns of compliance to international norms. They share the core assumption with the managerial approach that “states already desire to cooperate (or comply) and merely require reinforcement to indulge their initial inclinations” (Haas 2003:54). However, the reasons why countries may want to comply are more narrowly defined in terms the efficiency argument, that is, the possibility to reduce transaction costs and realize joint gains as opposed to the emphasis on the normative obligations in the managerial approach. To this end, to induce states to comply, neoliberal institutionalists seek to design “powerful” institutions that perform the functions of monitoring and verifying compliance, providing capacity-building resources and mobilizing public opinion, as well as having a high public profile within a dense horizontal network of other institutions (ibid. p54-58).

Although neoliberal institutionalism sheds light on the features of international institutions that promote compliance across different institutions, it is not very effective in explaining variations in compliance outcomes across countries for a given international institution, such as the Basel Committee’s Basel II. That Basel II is associated with weak monitoring, verification and capacity-building functions, making it a relatively weak international institution, does not help explain country-level variations in compliance outcomes across countries, other than that one might expect low levels of compliance overall. Institutional analysis is thus insufficient on its own to account for considerable variations in national compliance. The possibility of varying national sensitivities to institutional incentives invariably leads one to turn to domestic-level variables or ideational factors.

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“[e]ven if a state believes that signing a treaty is in its best interest, the political calculations associated with the subsequent decision to comply with international agreements are distinct and different.”(Haas 2003:44-5)

### 2.4.5 Role of ideas

In contrast to the enforcement and market-based explanations that rely on external pressure to induce compliance and the institutionalists' approach that highlight the role of institutional design, but building on the normative aspects of the managerial approach, constructivists emphasize the role of ideas. Constructivists view shared norms and legitimacy as the primary drivers of compliance with international norms (Ruggie 1998). Modernist constructivists argue that "norms matter in a constitutive, interest-shaping way not captured by rationalist arguments" (Checkel 2001:554). Hence, it is necessary to focus on the process of norm internalization, after which "compliance was not an issue of choice in any meaningful sense; agent behavior was governed by rules and driven by certain logics of appropriateness." (ibid. p557) The spread of norms may be facilitated via technocratic, knowledge-based networks of authoritative experts known as epistemic communities that transfer ideas and best practices (Haas 1992).<sup>19</sup> Social mobilization and social learning have been identified as causal mechanisms through which social actors comply with norms. The causal pathway envisaged in the former has parallels with rationalists' account to the extent that "state compliance is a function of coercion (social sanctioning) and instrumental calculations (strategic social construction)" whereas the latter is a process of "complex social learning, a process whereby agent interests and identities are shaped through and during interaction", particularly through persuasion, that is, "*convincing* someone through argument and principled debate" (Checkel 2001:561-2).

According to Walter, however, "[t]hese conditions are more likely to be met in the international standard-setting process than in the domestic compliance process.

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<sup>19</sup> Haas argues that norms spread due to the "role that networks of knowledge-based experts – epistemic communities – play in articulating the cause-and-effect relationships of complex problems, helping states identify their interests, framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation." (1992:2) Hence, "control over knowledge and information is an important dimension of power... [because] the diffusion of new ideas and information can lead to new patterns of behaviour and prove to be an important determinant of international policy coordination." (ibid.)

International standard-setting bodies may be composed of relatively like-minded experts who meet frequently over long periods of time, engage in persuasive argumentation and information sharing, and acquire loyalties to the network” (Walter 2008:35). Hence, the extent of norm internalization may be limited and vary across non-members of the Basel Committee that had no or very limited involvement in the standard setting process. Moreover, it may be the case that “[f]or elites, the answer is clear: Norms are not internalized, they merely constrain behavior. Rationalist models easily explain elites’ compliance because they view social structures in this behavioral, constraining sense.” (Checkel 2001:557) Delineating constructivism from rational explanations is thus empirically challenging, and constructivism may be insufficient on its own to account for why non-G10 countries implemented Basel II.

#### **2.4.6 Domestic-level explanations**

A single theory for domestic-level explanations does not exist, but instead a collection of economic and political explanations have been explored in the literature to understand why countries implement and comply with international norms. One branch of domestic-based explanations contends that domestic administrative and technical capacities may affect compliance outcomes. According to Jacobson and Brown Weiss, “administrative and bureaucratic capacity is essential for implementing accords... The greater the capacity of the political unit to implement the accord, the more likely it is that it will comply.” (1998:11)<sup>20</sup> Capacity depends not only on economic resources, but also involves education, technical training, skills and attitudes. Hence, “while states may wish to comply, not all are capable” because administrative and technical capacities such as knowledge and training, adequate authority and financial resources, and access to relevant

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<sup>20</sup> Weiss and Jacobson (1998) examine how eight countries and the EU implemented and complied with five international environmental accords and conclude that administrative and technical capacities such as knowledge, financial resources and access to information are crucial to compliance.

information may limit compliance (Haas 2003:46). Capacity issues are particularly crucial for achieving compliance with positive obligations where states have to take action that “may have costs that are absent when states are merely obliged to refrain from certain actions” (Shelton 2003:15). The implications of domestic capacity constraints may be significant as it could limit the effects of the normative logic of appropriateness or enforcement by third parties. The view that countries may wish to comply but face limitations due to capacity constraints is consistent with the managerial approach. However, there are differences in that although administrative and bureaucratic capacity is essential for implementing accords, they are seldom treated as sufficient conditions to explain implementation and compliance outcomes. This is because the ability to comply does not mean that countries are willing, and thus will comply. To this end, it may not be the economic costs of implementation per se that matters most, but the political costs associated with compliance or non-compliance. Walter (2008) outlines a theory based on domestic political costs to explain when mock compliance outcomes with international regulatory standards are likely to emerge. When the cost of private sector compliance, outright noncompliance and third party monitoring costs are high, domestic policymakers are likely to pursue mock compliance strategies (Walter 2008:43).

Other domestic-level theories emphasize the role of political institutions or domestic regimes in understanding compliance with international norms. Governments that are based on the rule of law and maintain independent judicial branches are expected to be more likely to comply with international obligations than those that are not (Slaughter 1995). Slaughter argues that democratic states regularly comply more willingly with international laws because the rule of law is ingrained in them and the transparency of their governmental structure operates to ensure that they will implement the provisions of treaties ratified by domestic due process (Slaughter 1995). This argument is developed in democratic legalist theories of international law. Democracies are more likely to implement and comply with



international norms because leaders face powerful pressures exerted through public opinion and the electoral process to comply with the decisions of international institutions, especially those that are perceived to be legitimate by the public (Slaughter 1995; Simmons 2000). Building on the role of electoral pressures, Dai (2007) argues that compliance with international agreements is enhanced through new information generated by treaty bodies and monitoring systems that inform and empower domestic voters to punish governments for actions voters disapprove. Hence, a large pro-compliance constituency and an international agreement that provides significant new information on the government's compliance record are expected to induce governments not to violate international norms. However, as noted above in discussing whether Ho's findings gave credence to democratic legalist theories of international law, it is not obvious why the above arguments should apply to voluntary standards.

Economic variables such as the degree of international economic integration measured by the value of international trade or financial flows to GDP may also shape countries' compliance with international norms.<sup>21</sup> Rising levels of international integration can increase the functional needs to create international institutions as Keohane (1989) would suggest in light of rising systemic risks, raise reputational considerations to become an accepted member of the international system as Chayes and Chayes suggest (1993:27) or increase the influence of market pressures emanating from international market actors.

In contrast to the above theories, policy diffusion offers a fundamentally distinct theory to explain the implementation of Basel II. It is based on the premise that decisions to implement policies are not made independently across countries, but instead, in consideration of the policy choices of other countries with which countries are closely interconnected to economically, politically and socially. There

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<sup>21</sup> This relationship is not linear if countries have the ability to resist international economic pressures. For example, Lukauskas and Minushkin (2002) highlight government's bargaining power vis-à-vis international actors and domestic groups with respect to financial policies in middle-income countries.

are several distinct policy diffusion mechanisms that may lead to policy diffusion, namely, competition, learning, emulation and coercion, which have many parallels with the aforementioned theories of compliance except for the fundamental difference that policy decisions are interdependent on the decisions of other countries. The policy diffusion literature is discussed next.

## **2.5 The policy diffusion literature**

### **2.5.1 Policy diffusion: definitions and features**

Diffusion refers to the process by which the “prior adoption of a trait or practice in a population alters the probability of adoption for remaining non-adopters” (Strang 1991). Policy diffusion can thus be defined to occur “when government policy decisions in a given country are systematically conditioned by prior policy choices made in other countries... what theorists of diffusion explicitly reject is the notion that processes of policy change can adequately be understood by conceiving of national governments as making decisions independently of each other” (Simmons, Dobbin and Garrett 2006:787). There are several notable properties of policy diffusion that distinguish this concept from others. Policy diffusion is characterized by interdependent, but uncoordinated decision making, or in short “uncoordinated interdependence” (Elkins and Simmons 2005:35). Governments are independent as they make their own policy decisions without formal cooperation or coercion. Yet, they are interdependent because governments take the policies of other governments into account when making their own policy decisions.

Furthermore, policy diffusion is not an outcome but a process, and a cause rather than effect. This creates a crucial distinction between diffusion and convergence. Policy convergence, defined as a significant increase in policy similarity across countries (Holzinger and Knill 2005), can, but need not follow from diffusion. Diffusion entails the adoption of policies in an interdependent and voluntary way. However, policy choices may converge if, for instance, policies are

imposed on countries. Diffusion is only one reason why policies may converge (Knill 2005). Hence, although research on policy diffusion is often motivated by observations that countries choose similar policies or institutions within a fairly circumscribed period of time, resulting in temporal and spatial convergence in policy reforms (Elkins and Simmons 2005:34), an examination of policy diffusion requires examining the process of policy adoption, that is, the interdependent policy making process rather than the extent of convergence that can result from it.

Conceptualized this way, there are two main competing explanations to policy diffusion that nonetheless may lead to convergence in policies across countries. First, countries that face similar economic or political conditions may independently respond in similar ways to Basel II implementation. For example, convergence in Basel II implementation policies could be an independent response to a common external shock such as a financial crisis. Alternatively, similarities in implementation across countries may reflect the degree of banking sector development that can also cluster in time and space. The underlying assumption here is that policy decisions are made independently by national supervisors in response to the political and economic conditions they face without regards to the behaviour of other states' Basel II implementation decisions. Secondly, countries may adopt similar policies as a result of explicit policy coordination by a group of countries, a hegemonic power or an international organization. Explicit policy coordination to achieve policy harmonization can be found in the case of the EU, where the implementation of Basel II was coordinated amongst member states. In order to develop a stronger empirical test of the effects of policy diffusion on regulatory convergence, it is important to control for these competing explanations.

### **2.5.2 Four policy diffusion mechanisms: How do policies diffuse?**

Although different diffusion theorists share the view that policy choices of one country are shaped by the choices of others, there are several distinct theories

concerning the *mechanisms* through which policies diffuse. The emerging consensus in the literature is that most policy diffusion mechanisms can be grouped into four broad categories consisting of competition, learning, emulation and coercion (Dobbin et al 2007:450). In this section, the policy diffusion literature is reviewed thematically according to these four diffusion mechanisms. The aim of this section is three-fold. The first is to define the four policy diffusion mechanisms and provide a theoretical explanation of how each mechanism is hypothesized to work. The second is to review the empirical literature, in particular, the methodology utilized to operationalize each policy diffusion mechanism. Thirdly, in order to maximize the contribution of this thesis to the policy diffusion literature, the strengths and weaknesses of the theoretical and empirical literature on policy diffusion are discussed so that they can be taken into account in formulating a research design that maximizes the strengths and addresses the weaknesses of the literature.

First, in competition-based diffusion mechanisms, policy changes that give the implementing country a competitive edge may lead others to follow suit as governments compete to attract international capital or gain market share for their domestic goods and services. When a government from a competing jurisdiction breaks ranks and undergoes policy reforms that give it a competitive edge, other governments will come under strong pressure to follow accordingly for fear of large scale losses in investment, income or jobs, even if those countries would have preferred not to have adopted them, *ex ante* in a world of independence rather than interdependence. As a result, policies are expected to diffuse across competing jurisdictions. (Simmons et al 2006:792) Two types of competition-based diffusion can be distinguished depending on whether the most important relationships amongst competing countries are horizontal or vertical. In horizontal models, policies are expected to “spread most readily among units that are similar on important competitive dimensions, among the Davids and among the Goliaths but not necessarily from the Goliaths to the Davids of the world” (Simmons et al

2006:793). In contrast, vertical models assume a hierarchical relationship, whereby policies diffuse due to competition between countries with disproportionate market power, that is, between the Goliaths and the Davids of the world.

Simmons and Elkins (2004) test whether the diffusion of liberalization in capital account, current account and exchange rate policies across the world can be attributed to the competition-based diffusion mechanism. Competition in export markets and capital markets are operationalized by measuring bilateral trade flows and similar sovereign credit ratings to capture competition between countries that compete for the same pool of international capital. They find that economic competition, most notably competition for global capital, has the most pronounced effect, and argue that policymakers “clearly tend to liberalize when their competitors do” and “the desire to attract capital is a far more powerful motive than trade competition” (p182). In another study, Elkins, Guzman and Simmons (2006) investigate the diffusion of bilateral investment treaties (BITs) and argue that potential hosts are more likely to sign BITs when their competitors have also done so. This is because BITs allow governments to credibly commit themselves to protect investors’ property rights, which lowers risks and increases expected returns to investments, making that jurisdiction more attractive to invest relative to its competitors. To measure the “competitive distance” between countries, they measure the degree to which governments compete in the same foreign export markets, export the same basket of goods and have similar educational and infrastructural resources. They find “fairly consistent and convincing evidence of the importance of competition for capital among developing countries in explaining the proliferation of BITs over the past four decades. In all cases, higher rates of BIT signing among competitors (however measured) appear to have increased the rate at which a given country itself enters into a BIT at statistically significant levels.” (ibid. p836) Competition-based diffusion has also been used to explain the diffusion of tax policies, in particular the reduction in corporate tax rates during 1998 and 2006 (Cao

2010). Competition is operationalized using measures of bilateral portfolio investment flows, competition for export markets and FDI inflows. Strong evidence is found for the first two measures, based upon which it is argued that tax policies diffuse due to international competition for mobile capital, which induces national governments to lower corporation tax rates in order to make domestic markets more or no less attractive than those of competitor countries.

Secondly, policy diffusion through learning can be defined to occur “when governments in one country draw lessons from the experiences of others, and apply these lessons in designing their own policies” (Simmons et al. 2008:25).<sup>22</sup> However, learning does not necessarily lead to convergence in policies if countries learn to adopt policies contrary to those adopted in other countries. Learning entails “an improved understanding of the cause-and-effect relationships of policies in light of experience” (Meseguer 2009:11).<sup>23</sup> The process through which information is gathered and interpreted constitutes central issues in learning models. Three learning-based diffusion mechanisms can be distinguished. First, the generation of social knowledge may spur the diffusion of policies as “policy innovation spreads in the wake of the diffusion of a shared fund of often technical knowledge among elites about what is effective” (Simmons et al 2006:795).<sup>24</sup> Epistemic communities can play a critical role in the development of social knowledge and can be especially influential in the policymaking process. Secondly, changes in policymakers’

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<sup>22</sup> There are parallels between learning-based diffusion and the concept of policy transfer in public policy analysis. The latter refers to “the process by which knowledge about how policies, administrative arrangements, institutions and ideas in one political setting (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political setting” (Dolowitz and Marsh 2000:5).

<sup>23</sup> Learning can also be defined as “a change in beliefs (or the degree of confidence in one’s beliefs) or the development of new beliefs, skills, or procedures as a result of observation and interpretation of experience” and can take place at both the simple tactical level about how to better achieve a particular goal and at a deeper level in terms of what goals to pursue (Levy 1994:293-286).

<sup>24</sup> Knowledge can be defined as “the sum of technical information and of theories about that information which commands sufficient consensus at a given time among interested actors to serve as a guide to public policy designed to achieve some social goal.” (Haas 1980:367-8)

individual beliefs may shape policies in institutionally thin environments where decision makers have the ability to act on their own beliefs. Thirdly, Bayesian learning is a rational process through which actors are assumed to make optimal use of available information. From an initial state of high uncertainty, individuals add new information to prior knowledge and beliefs to revise their behaviour accordingly. Consequently, greater certainty about an assessment is expected to solidify in light of subsequent rounds of new information over time.

Meseguer adopts a model of policy learning based on rational updating, which “presumes that policy makers scan for information around the world, draw conclusions about what works and what does not, and finally make policy choices consistent with what they have learned from the available evidence” (2009:215). This model of learning is applied to explain the diffusion of market-oriented policies that include decisions to adopt an export-oriented development strategy, liberalize the trade regime, privatize, liberalize the capital account and enter into agreements with the IMF. Meseguer finds that “rational learning played a significant role in the adoption of all policy decisions. Yet, when it comes to comparing the magnitude of the effects, it is clear that rational learning was particularly relevant in the adoption of privatization.” (ibid. p220-221)<sup>25</sup>

However, the process of learning may not be rational. Some studies in the literature adopt the behavioural assumption that policymakers are bounded rational actors or “cognitive misers” as they have difficulty assessing the consequences of various policies (Fiske and Taylor 1991). Consequently, policymakers do not look at all available information, do not process the available information in the same way, and acquire a series of cognitive biases when analyzing the flow of information (Kahneman and Tversky 1988). Due to bounded rationality, actors rely on a set of cognitive heuristics to make sense of complicated policy choices. Weyland (2007)

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<sup>25</sup> Rational learning had a marginal effect on decisions to liberalize the capital account and less so in decisions to keep it open and “fell somewhere in between in the decisions to change development strategies and to liberalize trade... and enter into agreements with the IMF” (Meseguer 2009:221).

examines the role of representativeness heuristics where policymakers overemphasize initial success, availability heuristics where policymakers turn to experiences that are close and relevant to them, and anchoring heuristics whereby the same policy innovation is adopted in countries with very different functional needs to explain the diffusion of the radical Chilean model of pension privatization and the moderate spread of health reforms in Latin America in the 1990s. In another study, the aforementioned heuristics are used to explain the diffusion of revolutionary attempts following the French Revolution (Weyland 2009).

The third mechanism is emulation-based diffusion, which embodies the core tenets of constructivism. The diffusion of policies is regarded as a matter of ideology reflecting shifting normative and socially constructed consensus about the optimal means to achieve economic objectives. Although policymakers believe they can, should and do adopt the best practices in a given policy area, they are unable to accurately judge which policy is best or an improvement upon the status quo. Instead, theory and rhetoric serve as a basis of decision making. Policy decisions are thus driven by certain “logics of appropriateness” rather than the logic of consequences (Checkel 2005). Broad consensus on what is “appropriate” in terms of actors, policy goals, and the means for achieving those goals are expected to diffuse across countries (Simmons et al 2006:799).

A number of causal processes fit into the emulation category. Epistemic communities may influence governments to adopt new policies by advocating a given policy through the provision of seemingly disinterested and objective analysis of their benefits (Simmons et al 2006:800). Policies may also diffuse because countries embrace new norms for symbolic reasons, even if they cannot put them into practice (Strang and Chang 2003).<sup>26</sup> Strang and Chang argue that ratification of the ILO convention “may have intrinsic value” not only by providing a “more

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<sup>26</sup> This may not represent bad faith so much as the power of new international norms even in countries that are not developmentally capable of implementing them (Simmons et al 2006:800).



favorable international image and enhance its ability to speak with authority in the international community” but also by “serve[ing] to symbolically move policies out of the realm of zero-sum, partisan politics and into the realm of fundamental, universally recognized rights” (2003:242). Another emulation-based approach draws on reference group theory in social psychology. Policymakers may emulate the behaviour of their self-identified peers even when they cannot ascertain that doing so will be in their best interests. At the international level, socio-cultural linkages such as common language, history and religion may contribute to “psychological proximity” among countries. For example, Elkins et al (2006:831) use predominant religion, colonial heritage and predominant language as measures of the cultural distance between countries to explain the diffusion of BITs, although the authors do not find these variables to be significant. Simmons and Elkins also test the diffusion of capital account, current account and exchange rate policies across cultural reference groups and find the effects of religion to be significant while common language and colonial heritage were not (2004:185).

Finally, in coercion-based diffusion mechanisms, policies diffuse top-down because powerful countries impose their policy preferences on weaker states by explicitly or implicitly manipulating the opportunities and constraints they encounter. Coercion may involve the use of coercive tools such as the threat or actual use of physical force, the manipulation of economic costs and benefits or the monopolization of information or expertise in order to influence policy changes in other countries (Simmons et al 2008:11-12). As many as there are ways to manipulate actors’ interests there are variations in coercion-based diffusion mechanisms. Coercion mechanisms can be distinguished depending on whether the manipulation of incentives is explicit, implicit or absent. Coercion can be applied explicitly when powerful governments or the intergovernmental organizations they dominate, use a strategy of formal conditionality that link policy reforms to political

membership or use economic assistance in a quid pro quo fashion.<sup>27</sup> Coercion can be informal where there is no explicit quid pro quo, but weaker actors expect that they will receive benefits by making the policy change favoured by the more powerful actor. Finally, coercive diffusion may occur in the absence of explicit and implicit conditionality. For example, “go-it-alone power” refers to the ability to unilaterally influence a government’s policy choice by altering the nature of the status quo it faces and shaping the choice set of other governments (Gruber 2000). This is a passive yet profound form of coercion among countries with asymmetric power since the powerful government need not worry about enforcement and the credibility of threats. To test coercion empirically, studies have examined whether countries that seek assistance from the IMF have adopted policies it prescribed (Meseguer 2009; Elkins et al 2006).

### **2.5.3 Strengths and weaknesses of the policy diffusion literature**

The empirical studies cited above are a small sample of a burgeoning research agenda in IPE and IR.<sup>28</sup> Policy diffusion has been applied to explain the spread of a diverse range of policies or phenomena other than those mentioned above, from social expenditure rates (Jahn 2006), interest rate liberalization (Way 2005), double-taxation treaties (Barthel and Neumayer 2012), labour rights (Greenhill, Mosley and Prakash 2009), market-oriented infrastructure reform (Henisz, Zelner and Guillén 2005), legal systems (Kelemen and Sibbitt 2004), environmental standards (Prakash and Potoski 2006), central bank independence (Polillo and Guillén 2005), higher education (Schofer and Meyer 2005), regulatory capitalism (Levi-Faur 2005), democracy (Gleditsch and Ward 2006) and even mass revolutions (Weyland 2009)

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<sup>27</sup> The characterization of conditionality as being coercive can be questioned in cases where governments accept conditionality because they want the conditions imposed on them and not the other way round (Drazen 2002).

<sup>28</sup> That the theme of the 2013 ISA Convention was “The politics of international diffusion: Regional and global dimensions” is just one example showing the increasing interest in policy diffusion.

and suicide terrorism (Horowitz 2010). The subjects of policy diffusion include not only specific policies, but also institutions, events and even policy principles that represent paradigmatic shifts. Indeed, one of the key strengths of the policy diffusion literature is the wide range of issues to which policy diffusion had been applied. The high applicability of policy diffusion in part underscores the importance of the dynamics of policy diffusion in constituting the very fabric of the globalized world economy by capturing the simple yet compelling idea that countries do not make policies in isolation from one other. Interdependencies that lead to policy diffusion are likely to be more powerful than ever in the economically, politically and socially interconnected world that we live in. However, although the diffusion of various financial policies such as capital account and interest rate policies has been studied in the literature, the diffusion of bank capital policies has not. Furthermore, the diffusion of various standards such as environmental and labour standards has been studied, but not financial standards. Hence, there is a clear gap in the policy diffusion literature that could be addressed by investigating the diffusion of bank capital standards, namely Basel II. To this end, the study of the diffusion of Basel II in this thesis makes an original contribution to the portfolio of policies investigated in the policy diffusion literature.

Another key strength of the policy diffusion literature is how it refines and advances the debate on the impact of globalization on domestic policies theoretically and empirically. Earlier studies focused on levels of economic or financial openness measured by, for example the proportion of trade or FDI to GDP to operationalize globalization (see for example Garrett 1999; Garrett and Mitchell 2001). However, the diffusion literature makes the decisive step of unpacking the specific ways in which countries are economically, politically and socially interconnected to the rest of the world. Hence, it is not only the aggregate level of international integration that matters in shaping domestic policies, but the way countries integrate with the rest of the world that matters since this shapes who a country competes with, learns from

and shares norms with.<sup>29</sup> For example, more accurate indicators of international competition as opposed to generic measures of economic openness enables a more precise analysis of the underlying competition dynamics that shape policy decisions. This shift from general openness towards specific patterns of interdependence results in a more accurate conceptualization and analysis of the nature and consequences of globalization (Jahn 2006).

However, increased interests in policy diffusion and its mechanisms have developed alongside growing criticisms of the weak empirical basis and theoretical underpinnings of the diffusion process, especially in relation to the channels through which policies diffuse and the role of key agents involved in the process of diffusion. There are several other weaknesses. First, although the four policy diffusion mechanisms are conceptually different, they are not mutually exclusive and have overlapping assumptions and predictions. For example, differences between learning and emulation boils down to a few theoretical assumptions, while the process of diffusion may be very similar such that distinguishing learning from emulation may be far from simple and clear cut. The difficulty in delineating different policy diffusion mechanisms are often exacerbated when several mechanisms may be at work simultaneously. Competitive pressures may be coercive and involve learning or emulation about the policies of one's competitors.

Secondly, the challenge in clearly delineating one policy diffusion mechanism from another conceptually is often translated into weaknesses in empirical studies. Empirical studies "more often... suggest different mechanisms to explain diffusion processes but fail to prove, in the quantitative studies that are emblematic of diffusion research, that their favored mechanism is at work... Perhaps the most frustrating empirical tendency across these studies is that champions of

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<sup>29</sup> This idea is at the core of the debate on the political economy of global value chains and economic development where the way countries integrate into the global economy via global value chains has significant consequences on their prospects for economic development (Gereffi, Humphrey and Sturgeon 2005).

each theory often take simple evidence of diffusion to be adequate to prove their particular theory.” (Dobbin et al 2007:436). As discussed in more detail in the section on the limitations of the quantitative study undertaken in Chapter Three, this is particularly the case in quantitative studies because the structure of interdependencies between countries as specified by the connectivity matrix is assumed to be known a priori to the researcher and not estimated in the regression model. Furthermore, measuring the process of policy diffusion with the structure of interdependencies across observations significantly simplifies and standardizes a complex process of diffusion into a single quantifiable variable, making it even more difficult to attribute a structure of interdependencies to a policy diffusion mechanism.

Finally, the way empirical studies have operationalized the channels through which policies diffuse can be criticized on empirical grounds. The use of country-level measures that are only indirectly related to the specific policies that are hypothesized to diffuse in specifying the connectivity matrix produce very generic and imprecise measures of policy diffusion channels. Also, the same generic channel of diffusion is often used to test the diffusion of different policies or to test different policy diffusion mechanisms. Although this is partly due to the lack of available data on bilateral relationships between countries, the imprecise specification of the channels of diffusion and their arbitrary application across different policy areas make the tests of policy diffusion less convincing. For example, Simmons and Elkins (2004), Elkins et al (2006) and Cao (2010) all use bilateral trade flows in their studies to operationalize channels of diffusion due to competition. The findings of these studies suggest the diffusion of quite disparate policies across the channel of diffusion formed by bilateral trade flows, ranging from capital and current account policies, signing of BITs to corporate tax rates. Furthermore, Lee and Strang use measures of bilateral trade flows not to operationalize the diffusion of policies due to competition, but instead emulation-based diffusion. As a result, these empirical

studies are subject to the following limitations. Firstly, other than that countries are interdependent trading partners, bilateral trade flows do not reveal much about *which* policies have and have not diffused across this channel of diffusion. Secondly, a generic channel of policy diffusion does not reveal much about *why* policies actually diffused, whether it was due to competition, emulation or both. Thirdly, operationalizing international interdependencies at the country level does not shed light into *how* policies diffused, especially in terms of who the key actors were and what they did to facilitate the diffusion of policies. Bilateral trade flows are used only as an example. The above limitations apply to any generic method for operationalizing international interdependencies using macroeconomic indicators, common religion or language, geographical proximity or any other variable which may not be empirically relevant to the policy under examination.

This thesis aims to address some of the weaknesses of the policy diffusion literature in the following ways. First, the empirical basis of the paths through which policies are hypothesized to diffuse is strengthened by devising innovative channels of diffusion that are empirically relevant to the policy under investigation. This may be challenging conceptually and operationally as the bilateral relationships of each and every country in the world will need to be specified, but may nonetheless be worth the effort if interdependencies between countries can be specified more precisely. This will make the test of policy diffusion more convincing. Secondly, this thesis aims to strengthen the empirical underpinnings in relation to the key agents of policy diffusion. In the empirical chapters of this thesis, novel channels of diffusion are constructed to highlight the role of key actors in implementing Basel II, namely, banks and bank supervisors and their interdependent relationships with their foreign counterparts, in forming the paths through which policies are hypothesized to diffuse. Thirdly, to strengthen the overall empirical foundation of this thesis and overcome several methodological limitations associated with the use of quantitative methods, a mixed-method research design is adopted. This will contribute to

understanding both the effects of policy diffusion at the global level as well as the underlying process of policy diffusion in specific country cases, which combined, will provide a rich yet comprehensive account of how Basel II diffused across countries. The benefits of methodological triangulation may be particularly high precisely because statistical analysis and case studies embody distinct and often opposing methodological orientations than can produce unique synergies if combined effectively into the research design.

## **2.6 Conclusion**

This chapter started with an overview of the history of the Basel Committee and the two Capital Accords it produced. This was followed by a review of the empirical literature on the Basel Accords, which is the literature that this thesis primarily aims to contribute to. Despite the importance of the Basel standards in profoundly shaping bank capital adequacy regimes around the world, empirical research on this topic does not extend very far. In the case of Basel I, there has been some advances in investigating its implementation, although primarily in developed countries and in East Asia while the implementation of Basel II outside these countries has not received much academic attention. Empirical research on the state of regulatory convergence with Basel II is scarce and patchy, and the state of implementation in developing countries is particularly under-researched. Moreover, the factors that promote or hinder the implementation of Basel II across developed and developing countries are even less well understood. In fact, a systematic study of Basel II implementation has not been undertaken in the literature despite the real-world importance of this issue for policy and as a topic for academic research. These are major gaps in the IPE literature, which this thesis will aim to contribute to. This chapter also examined the theoretical literature that could help explain why countries implemented Basel II. A review of six general theories of compliance was followed by a review of the theoretical and empirical literature on policy diffusion.

Policy diffusion offered a fundamentally distinct theory in contrast to other theories of compliance because it was based on the premise that policy decisions in countries were interdependent on the policy decisions of other countries, rather than being independent of each other. Such dynamics are expected to help explain why countries implemented Basel II in different ways. The subsequent chapters consist of the quantitative and qualitative empirical studies that investigate the global implementation and diffusion of Basel II.



## **Chapter Three**

### **Basel II implementation at the global level:**

#### **A quantitative analysis of Basel II implementation and its diffusion across 150 countries**

### **3.1 Introduction<sup>1</sup>**

Despite the importance of the Basel standards in profoundly shaping bank capital adequacy regimes across the world, empirical research on the state of Basel II implementation across developed and developing countries is scarce and patchy and the factors that promote or hinder the implementation of these voluntary standards are particularly under-researched. The aim of this chapter is thus two-fold. The first is to measure and assess the degree of regulatory convergence with Basel II across the world. A global dataset of Basel II implementation measuring the pace and scope of Basel II implementation across 150 countries is compiled by the author in order to evaluate the state of Basel II implementation at the global level. The second aim is to investigate the factors that explain the implementation of Basel II across the world, in particular, by testing the effects of policy diffusion on implementation. Regression analysis is undertaken to test whether Basel II implementation decisions in a given country are systematically conditioned by the policy choices of other countries with which that country is closely interconnected. To model how Basel II policies diffuse, four distinct policy diffusion variables are constructed to describe how bank supervisors, banks, financial sectors and economies are interconnected with their foreign counterparts, thereby producing distinct channels of diffusion.

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<sup>1</sup> An earlier version of this chapter was selected as one of the Top Ten Essays in the ‘International Centre for Financial Regulation–Financial Times Research Prize 2010 Competition’. Earlier versions were also presented at the International Centre for Financial Regulation PhD Network on Financial Regulation hosted by the Bank of England in 2012 and the International Studies Association Convention in San Diego (2012) and Montreal (2011). This chapter has benefited significantly from the comments of several discussants, in particular, Professor Miles Kahler and Dr Iain Hardie.

Furthermore, to devise a strong empirical test, the model controls for macroeconomic, banking sector and political variables to address two contending explanations of policy diffusion that may also explain the state of international regulatory convergence.

This chapter proceeds in the following order. The methods used to measure the implementation of Basel II and compile the Basel II implementation dataset is discussed in section 3.2. This is followed by an examination of the state of Basel II implementation across the world. Section 3.3 presents the statistical model used to test the effects of policy diffusion on the implementation of Basel II. The hypothesized effects of the policy diffusion variables that model four distinct channels of diffusion and control variables that take into account country-specific economic and political conditions are also discussed in this section. The findings of the quantitative analysis are presented in section 3.4. Notwithstanding the value of the quantitative study in testing the effects of policy diffusion, four methodological weaknesses that limit its explanatory power are discussed in section 3.5.

## **3.2 A global overview of Basel II implementation**

### **3.2.1 Measuring Basel II implementation across 150 countries**

To measure and assess the degree of regulatory convergence across 150 countries, Basel II implementation is operationalized according to the *scope* and *timing* of implementation. As explained in Chapter Two, Basel II consists of three Pillars. Pillar 1 includes a menu of approaches from the relatively simple approach that utilizes external credit ratings to the more complex approaches that utilize banks' own internal risk assessments as key inputs for calculating regulatory capital requirements for credit risk. Likewise, the standards for calculating capital requirements for operational and market risks also consists of a menu of approaches from the basic approaches based on the use of standard indicators to the sophisticated approaches that utilize quantitative inputs from banks' internal models.

Pillar 1 is complemented by Pillar 2, which consists of standards on supervisory and internal capital review processes, and Pillar 3 on market disclosures. In order to devise a measure of Basel II implementation that reflects the structure of Basel II, the dataset measures whether and when the above key components of Basel II were implemented across 150 countries. First, to capture the *scope* of implementation, the dataset measures whether domestic legislation or regulations implemented (a) the Standardised Approach (SA), Foundation and Advanced Internal Ratings-Based (FIRB and AIRB) approaches for credit risk, (b) the Basic Indicator Approach (BIA), Standardised Approach (TSA) and the Advanced Measurement Approach (AMA) for operational risk in Pillar 1, (c) Pillar 2 and (d) Pillar 3 as at December 2010. Second, to measure the *timing* of implementation, the dataset records the year in which (a) the SA, FIRB and AIRB approaches for credit risk, and (b) the BIA, TSA and AMA for operational risk were implemented for Pillar 1, and likewise for Pillars 2 and 3.<sup>2</sup> For example, Table 2 shows the information captured in the Basel II implementation dataset for Pakistan and the Philippines. This method produces 1200 data points across 150 countries.

**Table 2: Sample of Basel II implementation dataset**

	Pillar 1						Pillar 2	Pillar 3
	Credit Risk			Operational Risk				
	SA	FIRB	AIRB	BIA	TSA	AMA		
Pakistan	2010	2010	2010	2008	2008	N/A	2009	2008
Philippines	2007	2010	2010	2007	2007	2010	2011	2007

Although the 1996 Market Risk Amendment to Basel I was retained in Basel II, it was not measured in the dataset because its pre-dates the publication of Basel II in 2004. The 1996 Market Risk Amendment is among several other key elements of Basel I that were retained in Basel II, such as the minimum required capital adequacy ratio of 8% and the definition of eligible regulatory capital. The Basel II framework negotiated and agreed amongst the G10 in 2004 does not cover these components. In order to make the analysis of the data feasible, measures of the

<sup>2</sup> Basel Committee members were due to implement Basel II published in 2004 from year-end 2006.

scope and pace of implementation for each country are coded and equally weighted to construct a composite Basel II implementation score ranging from zero to forty. Doing so provides a single pragmatic measure that summarizes how countries implemented Basel II in a comparable way across 150 countries. The method for computing the implementation composite score, which is also used as the dependent variable for the quantitative analysis, is explained in the analysis of the dependent variable in section 3.3.2.

The Basel II implementation dataset was compiled by gathering information from a diverse range of sources. To ensure the reliability and validity of the data, a pecking order for the sources of information was adopted during the data compilation process depending on whether the information was from official public sources, namely, documents published by supervisory authorities responsible for implementing Basel II and disclosed to the public, non-official public sources or private sources as listed in Table 3.

**Table 3: Pecking order of information sources**

Order	Type of source	Detail of information source	Pros and Cons
1	Official public sources	Regulations implementing Basel II.	Reliable and comprehensive, but regulations only published when Basel II is implemented and often not translated into English.
		Annual reports of supervisory authorities.	Reliable but information generally available if Basel II was being implemented. Difficult to find information if Basel II was not implemented. Updated annually.
		Website of supervisory authorities.	Generally reliable, but difficult to determine publication date. Press releases, speeches and conference materials can be inaccurate, partial and out of date.
2	Non-official public sources	Studies by academics, rating agencies and professional firms.	Generally reliable, but limited country coverage. Often out of date as information is not updated. Mostly relies on the above sources of information.
3		Media sources (e.g. newspaper articles).	Widely available, but often unreliable. Heavy reliance on the above sources of information.
4	Private sources	Private sources of information from banks.	Difficult to verify, but often only source of information to confirm the non-implementation of Basel II.

In keeping with this pecking order, the majority of information was sourced from supervisory authorities' annual reports, supervisors' websites and national regulations. Where public information was not readily available, which was often the case when countries had not implemented Basel II, private sources of information were also used to confirm the non-implementation of Basel II, that is, the negative outcomes. Articles from the media were not used in the construction of the dataset due to their low reliability and heavy reliance on information sources that are higher up in the pecking order.

In addition to the dataset compiled by the author, there are now three alternative datasets that measure Basel II implementation, namely, the World Bank's research dataset on Bank Regulation and Supervision (Barth et al 2001; 2008), the Financial Stability Institute (FSI) survey of implementation amongst non-Basel Committee countries (FSI 2004; 2006; 2008; 2010; 2012), and the Basel Committee's survey of members' implementation (BCBS 2011; 2012a). The World Bank's research dataset includes a question asking supervisors whether they planned to adopt the various approaches of Basel II in the form of a yes or no answer. This was of no use to this thesis as the dataset did not capture whether countries had actually implemented Basel II or when they were intending to implement it. Furthermore, the self-reported nature of the survey made the data prone to errors, reducing the overall reliability of the survey.

The FSI conducted biennial surveys of Basel II implementation in non-G10 countries since 2004. Although these surveys were global in scope as responses were received from 133 jurisdictions, including members of the Basel Committee, the identity of the countries that responded to the survey or the forty-four countries that did not respond were not disclosed on confidentiality grounds (FSI 2010). Only the aggregated results of six regions were disclosed. Hence, the surveys were not useful for the purpose of academic research because it was impossible to investigate how individual countries had implemented Basel II and why. It was only in July

2012, several years after the author had first compiled the Basel II implementation dataset that the FSI disclosed information on the seventy non-Basel Committee countries that responded to its survey.<sup>3</sup> Nevertheless, the Basel II implementation dataset used in this thesis is superior in terms of the coverage of countries since the 2012 FSI survey measures implementation across only seventy countries and the same level of detail is measured as the FSI survey, that is, when the various components of Basel II were implemented.<sup>4</sup> The highly consistent methodology used to measure Basel II implementation in the 2012 FSI survey and the Basel II implementation dataset compiled by the author to some extent validates the method of measurement used in this thesis, based upon which the state of Basel II implementation was assessed, econometric analysis was conducted and case selections were made. The FSI survey also potentially complements the Basel II implementation dataset used in this thesis by providing an update as of July 2012.

Similarly, it was only after the 2007-8 global financial crisis that the Basel Committee published reports on the implementation of Basel II in its member countries. The domestic rule-making process was measured by classifying the status of implementation into four categories, namely, draft regulation not published, draft regulation published, final rule published and final rule in force (BCBS 2011:2). The coverage of countries and measurement method used by the Basel Committee falls short of that adopted in the dataset compiled by the author as the implementation of the different components of Basel II were not distinguished. The latter two datasets, which combined offers the most comprehensive country coverage, did not exist in the public domain let alone in academia when the Basel II implementation dataset was compiled and statistical analysis was conducted for this thesis.

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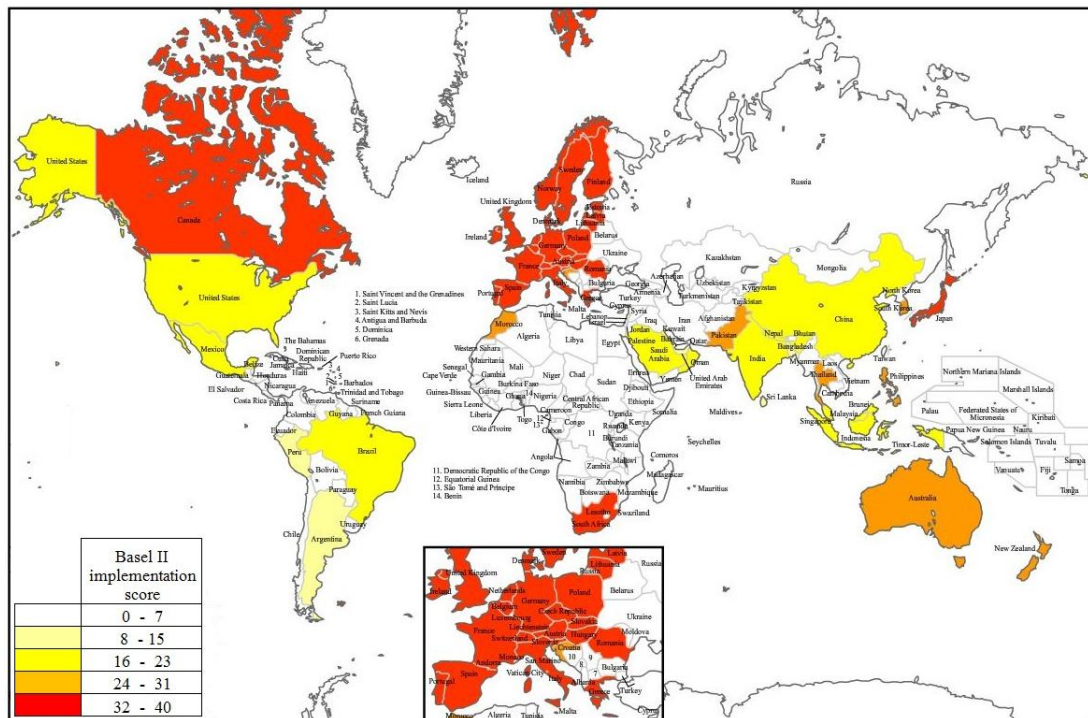
<sup>3</sup> The July 2012 survey represents a significant advancement in terms of public disclosure of information and is in line with greater disclosures by other international economic organizations such as the World Bank and IMF, which have been asked to do so by the G20.

<sup>4</sup> The FSI survey is based on self-reported responses from supervisory authorities rather than being centrally compiled in a systematic way as was done for this research project.

### 3.2.2 The state of Basel II implementation across the world

Considering that over 140 countries claimed to have implemented Basel I (Barth et al 2008), and that over 100 countries indicated their intentions to implement Basel II (FSI 2004; 2006), the actual state of regulatory convergence with Basel II at the global level is limited and highly uneven. The world map in Figure 3 provides an illustration of the overall state of Basel II implementation as of year-end 2010. Countries are colour-coded according to their Basel II implementation score, with the darker tones representing higher levels of convergence with Basel II than the lighter tones.

**Figure 3: World map of Basel II implementation**



Whilst around thirty countries fully transitioned onto Basel II according to the timeline stipulated in Basel II for members of the Basel Committee, around half the world made minimal progress in implementing Basel II. In between these extremes however, are considerable cross-national variations in the degree of regulatory convergence with Basel II, from early-comprehensive adopters that fully implemented all the approaches of Pillar 1, Pillar 2 and Pillar 3 at a timetable

comparable with most Basel Committee members, to late-partial adopters that gradually and selectively implemented Basel II.

To complement the depiction of the overall state of implementation across the world, countries are grouped into six stylized categories to highlight the different ways in which they implemented Basel II in Table 4. Depending on the pace and scope of Basel II implementation, countries are categorized into early-comprehensive, gradual-comprehensive, late-comprehensive, early-partial, late-partial or non-implementers.<sup>5</sup> Countries that implemented both the basic and advanced approaches of Pillar 1 as well as Pillars 2 and 3 at a timetable consistent with that prescribed in Basel II for members of the Basel Committee are categorized as *early-comprehensive adopters*. This group includes the likes of Australia and Hong Kong. Countries that have implemented the basic approaches of Basel II and Pillars 2 and 3 at a timetable consistent with Basel II but have implemented the advanced approaches of Basel II more gradually over a longer time horizon are classed as *gradual-comprehensive adopters*. There are variations within this group depending on the gradualness of implementation where countries like India adopted a more prolonged implementation timetable than Malaysia. In contrast, countries that initially delayed implementation for several years before embarking on the implementation of Basel II, but nonetheless has prepared to implement both the basic and advanced approaches of Basel II are called *late-comprehensive adopters*. Countries that delayed the implementation of Basel II and have also selectively implemented elements of Basel II are categorized as *late-partial adopters*, whereas countries that have implemented only the basic approaches of Pillar 1 or only Pillars 2 and 3 at a timetable consistent with Basel II but will not implement the advanced approaches of Basel II are categorized as *early-partial adopters*. The former includes the likes of the US and China whereas the latter includes most countries in

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<sup>5</sup> Gradual-partial adopters do not exist by definition since countries have either partially implemented Basel II early or at a later time.



the Middle East. The non-implementers include countries that have not yet implemented Basel II or have made minimal progress, including countries that drafted regulations to implement Basel II that have not come into effect.

**Table 4: A classification from early-comprehensive adopters to late-partial adopters**

Early-comprehensive	Gradual-comprehensive	Late-comprehensive	Non-implementers	
EU27	Brazil	Bangladesh	30 countries in Africa	Jordan
Australia	India	Central African Rep.	Afghanistan	Kazakhstan
Canada	Indonesia	Chad	Albania	Kosovo
Croatia	Israel	Chile	Anguilla	Kyrgyz Republic
Gibraltar	Malaysia	Egypt, Arab Rep.	Antigua and Barbuda	Macao, China
Guernsey	Mexico	Macedonia, FYR	Armenia	Moldova
Hong Kong	Pakistan	Nigeria	Azerbaijan	Mongolia
Iceland	Philippines	Peru	Bahamas	Montenegro
Isle of Man	Saudi Arabia	Russian Federation	Barbados	Montserrat
Japan	Sri Lanka	Turkey	Belarus	Netherlands Antilles
Jersey	Thailand		Belize	Nicaragua
Korea, Rep.			Bhutan	Palestine
Liechtenstein			Bolivia	Panama
New Zealand			Bosnia and Herzegovina	Papua New Guinea
Norway			British Virgin Islands	St. Kitts and Nevis
Singapore			Brunei	St. Lucia
South Africa			Cambodia	St. Vincent
Switzerland			Colombia	Suriname
Taiwan			Cook Islands	Syrian Arab Republic
Early-partial adopters	Gradual-partial adopters	Late-partial adopters	Costa Rica	Tajikistan
Bahrain		Argentina	Dominica	Trinidad and Tobago
Kuwait		Aruba	Dominican Republic	Ukraine
Mauritius		Bermuda	El Salvador	Uruguay
Morocco		Cayman Islands	Fiji	Vanuatu
Nepal		China	Grenada	Venezuela, RB
Oman		Ghana	Guatemala	Vietnam
Qatar		Lebanon	Guyana	
UAE		Maldives	Honduras	
		United States	Jamaica	

The following subsection provides a more detailed descriptive account of the state of Basel II implementation on a regional basis, highlighting the different ways countries implemented Basel II, starting from those that made the least progress.

### Africa

Of the thirty-five African countries surveyed, although most authorities publicly announced plans to implement Basel II since 2004, the degree of convergence with Basel II actually attained is very low. Only two countries implemented Basel II. South Africa implemented all the components of Basel II in 2008, thus being the

only early-comprehensive adopter in the region and Morocco adopted a gradual strategy by implementing the basic approaches of Basel II in 2007. The rest are late-partial adopters. Implementation is significantly back-loaded and partial because less than half the countries planning to implement the basic approaches intended to implement the advanced approaches. There are numerous episodes of delayed implementation across Africa, highlighting the significant implementation challenges countries face. For example, the Reserve Bank of Malawi embarked on an ambitious plan to implement Basel II in 2005, viewing Basel II as “new breeds of animals to be tamed by supervisory authorities”, only to abandon this plan the following year after realizing that priority should be placed towards compliance with the BCPs instead (Reserve Bank of Malawi 2006:6-35). The Central African Banking Commission’s 2003 plans to implement Basel II gradually for countries in the Economic and Monetary Community of Central Africa was also postponed to 2015 following advice from the IMF and World Bank (COBAC 2009). Similarly, the Bank of Uganda decided to adopt a wait-and-see approach to implementation according to a resolution adopted by the Monetary Affairs Committee for East African Countries to “continue studying Basel II... pending full implementation of Basel II in the region” (Bank of Uganda 2008:49). This shows how regional integration may reinforce regulatory convergence amongst countries, but at low levels of convergence with Basel II.

### **Europe (Non-EU)**

The degree of regulatory convergence with Basel II in Europe outside the European Union (EU) is limited. None of the countries except Croatia and the British Crown Dependencies implemented Basel II, although progress was underway. Key differences distinguished this group of non-implementing EU neighbours to the rest of the world. Countries indicated plans to implement the EU’s Capital Requirements Directive (CRD) to implement Basel II although they were not members of the EU. This in part reflected the EU’s effort to promote regulatory convergence with its

standards, in particular, amongst countries preparing for EU accession, which requires harmonization with the *acquis communautaire*, as well as in neighbouring countries that do not have any prospects of EU membership but strong economic ties with the EU. In the latter case, the EU offered its closest neighbours deeper economic integration through the European Neighbourhood Policy, which was conditional on making progress towards various reform objectives, including the “enhancement of a prudential regulatory framework for financial services and supervision equivalent to that existing in the EU” (EC 2007:5-6). The EU monitored and supported these reforms through various forms of EC-funded financial and technical assistance. As a result, although the degree of regulatory convergence with Basel II in this region was low, the implementation of the CRD was kept in motion as the EU incentivized convergence by monitoring the progress of implementation and offering some financial and technical assistance.

### **The Middle East**

Most countries in the Middle East are early-partial implementers of Basel II. Kuwait and Qatar moved onto Basel II earlier than any other country in the world by implementing the basic approaches of Pillar 1 in 2006. This early transition was hailed as an achievement by the Central Bank of Kuwait, which claimed that Basel II was implemented “one year ahead of the date scheduled by the Basel Committee for its application”, making it also the first Arab country to apply Basel II (Central Bank of Kuwait 2006:13). Other countries in this region converged with the basic approaches of Basel II during 2007-8. However, despite the initial speedy move to implement the basic approaches, the degree of convergence with Basel II is partial, and will remain so because the advanced approaches for calculating capital for credit and operational risks will not be implemented in this region (FSI 2010:53-55).

### **South Asia**

Regulatory convergence amongst South Asian countries is high due to the similar adoption of a gradual yet comprehensive approach to implementation across

countries. The basic approaches of Pillar 1 were implemented in 2008, followed by the gradual implementation of the advanced approaches. India, Pakistan, Nepal and Sri Lanka moved onto Basel II by adopting the basic approaches for credit and operational risk in 2008, whilst the Maldives and Bangladesh followed in 2009 and 2010, respectively. Meanwhile, India, Sri Lanka and Bangladesh planned to implement the IRB approaches after 2013 but before 2015, while Pakistan implemented the IRB approaches in 2010. The planned implementation of the advanced approaches of Pillar 1 before 2015 distinguishes implementation in South Asian countries from that of the Middle Eastern countries.

### **Americas**

Canada converged with Basel II in 2007. Implementation in the US remained in flux. Although the advanced approaches were mandatory for some large banks, the SA remained as proposals and it was unclear when the US would fully transition onto Basel II (IMF 2010:6-7). Latin American countries such as Brazil, Mexico, Chile, Colombia and Peru are gradually moving towards full implementation with various local adaptations. Countries in the Caribbean have not implemented Basel II, some after suspending implementation plans following the 2007-8 financial crises. However, offshore financial centres such as Bermuda and the Cayman Islands implemented the basic approaches of Pillar 1 in 2009 and 2011, respectively.

### **East Asia Pacific**

The scope and pace of Basel II implementation in Hong Kong and Singapore was consistent with that in Japan, the only original non-western member of Basel Committee. This was followed closely by the transition of Australia and New Zealand onto Basel II in 2008 and Korea in 2008-9. The next group of countries that implemented Basel II were Indonesia, Malaysia, Philippines and Thailand. These countries adopted a more gradual approach, with convergence with the advanced approaches of Basel II being achieved after 2009. The key feature of implementation in this region was that all three pillars of Basel II, including the basic and advanced

approaches of Pillar 1, were implemented at a timeframe that was generally comparable to that of most G10 countries. Ten out of thirteen countries in this region implemented the basic approaches by 2008 and most countries implemented the IRB approaches by 2010. Pillars 2 and 3 were implemented concurrently with Pillar 1, except in the Philippines and Malaysia, where Pillar 2 implementation continued until 2011. Countries in this region exhibited a relatively high degree of regulatory convergence with Basel II as well as producing a high degree of regional convergence by adopting similar implementation strategies.

### **European Union**

The CRD implemented Basel II across the twenty-seven EU member states in two stages, the first in 2007 for banks applying the basic approaches for credit and operational risk and the second in 2008 for banks applying the advanced approaches. This implementation timetable was consistent with that prescribed by the Basel Committee for its members. Furthermore, the CRD applied to all credit institutions and investment firms irrespective of their size, scope of activities or level of sophistication. Implementation in the EU is unique because, first, the decision to implement Basel II was made at the EU-level and adopted as an EU directive by means of recasting the existing CRD, which is legally binding in member states. Secondly, the institutional framework of the EU facilitated regulatory convergence across member states. In particular, the Committee of European Banking Supervisors (CEBS), established by the European Commission (EC) as part of Level 3 of the Lamfalussy Process, was formally charged “to deliver convergence of supervisory practices, and to contribute to the level playing field in Europe” (CEBS 2005:4). The EC also set up the CRD Transposition Group to facilitate the correct and coherent transposition of the CRD in member state’s legislation. Thirdly, although the CRD largely retained the same provisions contained in Basel II, variations were incorporated to accommodate the Single Market context. Thus, the high degree of convergence across member states and the high convergence as a

group with Basel II was a clear outcome of policy coordination aimed at attaining policy harmonization.

In short, the state of regulatory convergence at the global level is highly uneven and clustered, whereby convergence and divergence coexist. There is a high degree of regulatory convergence amongst some groups of countries that adopted similar implementation strategies. However, different groups of countries exhibited different levels of convergence with Basel II. Furthermore, the uneven implementation of Basel II appears to be more permanent than transitional for a large proportion of developing countries that were either non-implementers or late-partial adopters. To investigate the cause of the fragmented global regulatory landscape and the considerable variations in the way countries implemented Basel II, regression analysis is undertaken in the next section.

### **3.3 Testing the effects of policy diffusion on Basel II implementation**

The objective of the quantitative study is to test whether on average policy diffusion systematically affects the level of Basel II implementation across the world. This section presents the model used to test the effects of policy diffusion, followed by an explanation of how the dependent variable that measures Basel II implementation was constructed. Then, the hypothesized effects of the policy diffusion variables and control variables that take into account country-specific economic and political conditions are discussed. The findings are presented in section 3.4.

#### **3.3.1 The Model**

Policy diffusion occurs when Basel II implementation decisions in a country are systematically conditioned by the Basel II policy choices of other countries. Hence, Basel II policy decisions depend not only on country-specific economic and political conditions, but also on the policy decisions of other countries. A spatial lag model is used to capture how Basel II implementation policy decisions in one country affect those in others because it provides ways to test and accommodate various forms of

interdependencies between observations (Beck et al 2006; Franzese and Hays 2007). The feedback between the dependent variable in spatial lag models reflects how diffusion mechanisms work. A unit change in the independent variable has an impact on Basel II implementation in one country, which then feeds through to how Basel II is implemented in all the other countries through the spatial lag, and these then feed back to the current country, until the feedback effects in the second and subsequent round of adjustments get subsequently smaller (Beck et al 2006:34). The spatial lag model has the following form.

$$y_i = \beta x_i + \mathbf{k}w_i \mathbf{y} + \varepsilon_i$$

The dependent variable  $y_i$  represents the level of Basel II implementation in country  $i$ .  $\mathbf{x}$  is the vector of the non-diffusion regressors with coefficient  $\beta$ . The spatial lag variable consists of the product of  $w_i$ , the  $i^{\text{th}}$  row of the connectivity matrix denoted by  $\mathbf{W}$ ,  $\mathbf{y}$ , the vector of values for  $y$  denoting Basel II implementation in all other countries and  $\mathbf{k}$ , the spatial autoregressive coefficient. The connectivity matrix,  $\mathbf{W}$ , specifies the nature and degree of interdependencies between each and every observation. The spatial lag variable is thus the weighted average of the dependent variable with which observation  $i$  is interdependent to and can be written in the following form where  $y_j$  is the dependent variable for country  $j$ .

$$Wy_i = \sum_{j=1, \dots, N} W_{ij} * y_j = \frac{w_{ij}y_j^* + w_{ik}y_k^* + \dots + w_{in}y_n^*}{w_{ij} + w_{ik} + \dots + w_{in}}$$

The structure of dependence between observations as specified by the connectivity matrix is assumed to be known a priori to the researcher and is not estimated in the regression model (Beck et al 2006:28). Thus, defining and operationalizing each channel of policy diffusion from a theoretical concept to a connectivity matrix that makes sense in the context of the implementation of Basel II is a critical empirical task in the application of the spatial lag model. Each of these variables is discussed in turn next.

### **3.3.2 The dependent variable**

The dependent variable is constructed by drawing on the Basel II implementation dataset used in the previous section to measure and assess the state of Basel II implementation across the world. It is constructed in two steps. First, the six options for calculating regulatory capital for credit and operational risk in Pillar 1 are individually coded from zero to five depending on the year in which a particular approach was implemented. A score of five is assigned to the implementation of an approach at the date prescribed in Basel II for members of the Basel Committee, that is, 2007 for the SA, FIRB approach, BIA and TSA, and 2008 for the AIRB approach and AMA. The coding decreases by a one-point scale for each successive delay in the year of implementation, and implementation planned during 2011-15 was discounted further and given a score of 0.5. This coding method produces six scores that measure the implementation of the different approaches to compute regulatory capital requirements for credit and operational risk. Similarly, the implementation of Pillar 2 and 3 are coded by assigning a value between one and five depending on the year of implementation. A score of five is assigned to the implementation of Pillar 2 and 3 in 2007, which decreases by a one-point scale for each successive delay in the year of implementation. The second step involves aggregating the sub-scores for the different approaches of Pillar 1, Pillar 2 and Pillar 3 using equal weights to produce a single summary score of Basel II implementation for each and every country. Whilst the coding for each of these components capture the pace of implementation, the aggregation of these scores across the key components of Basel II capture the scope of implementation. The coding scheme for the implementation of the three pillars of Basel II is summarized in Table 5. To put the magnitude of these values into context, a five-point reduction in the Basel II implementation score for example is equivalent to an outright non-implementation of Pillar 2 (i.e. partial implementation) or delaying the move onto the basic approaches of Basel II, that is, the SA, BIA and Pillars 2 and 3, by approximately a year.



**Table 5: Basel II implementation score coding scheme**

Basel II implementation Score															
Pillar 1 implementation sub-score										Pillar 2		Pillar 3			
Credit Risk					Operational Risk										
SA		Foundation IRB		Advanced IRB		BIA		SA		AMA		Pillar 2		Pillar 3	
Year	Coding	Year	Coding	Year	Coding	Year	Coding	Year	Coding	Year	Coding	Year	Coding	Year	Coding
2007	5	2007	5	2008	5	2007	5	2007	5	2008	5	2007	5	2007	5
2008	4	2008	4	2009	4	2008	4	2008	4	2009	4	2008	4	2008	4
2009	3	2009	3	2010	3	2009	3	2009	3	2010	3	2009	3	2009	3
2010	2	2010	2	2011	2	2010	2	2010	2	2011	2	2010	2	2010	2
2011-15	0.5	2011-15	0.5	2012-16	0.5	2011-15	0.5	2011-15	0.5	2012-16	0.5	2011-15	0.5	2011-15	0.5

The scale and weighting provides a pragmatic measure of Basel II implementation. There are infinite ways to scale and weight the Basel II implementation dataset, although the above method has the advantages of being simple and easy to understand, preserving the way Basel II implementation was operationalized, reflecting the core structure of Basel II and most importantly, making more sense on empirical grounds. The coding reflects the way policymakers actually tended to compartmentalize the implementation of Basel II into the above components in practice.<sup>6</sup>

### 3.3.3 Policy diffusion variables

Four spatial lag variables test whether and to what extent the policy choices of one country are shaped by the choices of others. Each spatial lag variable consists of a unique connectivity matrix that describes how and to what extent each and every country in the world are interconnected to all other countries across channels of policy diffusion formed by inter-supervisory authority networks, the cross-border business structure of international banks, competition between financial sectors to attract capital and the nexus of international economic exchange. The specification

<sup>6</sup> Other weighting schemes were also tried, for example, by weighting the implementation of all three Pillars of Basel II equally. This did not substantially change the ordinal properties of the Basel II implementation score, but more importantly, it was more difficult to justify on empirical grounds. If all three pillars were weighted equally, the weighting of the implementation of Pillar 3 by a factor of six relative to the implementation of the SA would not reflect the way Basel II was actually implemented in practice because countries could choose to implement only the SA to implement Pillar 1. Hence, it makes more sense to equally weight the implementation of Pillar 3 and the SA.

of each spatial lag variable and their hypothesized effects on Basel II implementation are discussed next.

### **Inter-supervisory authority networks**

As discussed in section 1.3.2, national bank supervisors are interconnected to their counterparts in other countries via inter-supervisory authority networks. Most countries belong to at least one of eleven inter-supervisory authority networks and several are members of multiple networks. Descriptive data on the average and standard deviations of Basel II implementation scores by inter-supervisory authority networks is presented in Table 6.<sup>7</sup> Two features characterize how policy diffusion may reinforce convergence in implementation policies amongst supervisors that are interconnected with one another across supervisory networks. First, some inter-supervisory authority networks have on average attained a higher level of Basel II implementation than others. Basel II implementation in countries in the EMEAP Working Group on Banking Supervision is relatively high with an average Basel II implementation score of twenty-nine whilst the degree of regulatory convergence with Basel II in supervisory networks across Africa or the Caribbean is very low. Second, lower standard deviations in supervisory networks that attained a high or low level of Basel II implementation suggest higher degrees of convergence amongst countries within such networks. There is greater variation in implementation amongst countries that belong to supervisory networks that have on average neither attained a very high or low level of Basel II implementation. Thus, inter-supervisory authority networks are hypothesized to positively reinforce the state of regulatory convergence amongst countries that are interconnected to one another, but at different levels of convergence with Basel II, and more so in supervisory networks that have attained high and low levels of Basel II implementation.

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<sup>7</sup> Supervisory groups organized by language or religion are not modelled due to the considerable overlap between these and regional supervisory groups, but the Basel II implementation scores are presented in Table 6.

**Table 6: Basel II implementation by supervisory networks**

Name of international regional supervisory group	Average score	Standard Deviation	Number of countries
Committee of European Banking Supervisors (CEBS)	40.0	0.0	27
Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) Working Group on Banking Supervision	29.1	8.0	11
Group of Banking Supervisors from Central and Eastern European Countries	22.8	19.2	21
(excluding EU member states)	4.0	8.1	10
South East Asia, New Zealand, Australia (SEANZA) Forum of Banking Supervisors	21.3	12.7	20
The Arab Committee on Banking Supervision	10.9	10.2	19
Association of Supervisors of Banks of the Americas (ASBA)	5.2	9.7	35
SADC (Southern African Development Community) Subcommittee of Bank Supervisors (SSBS)	4.6	11.0	14
(excluding South Africa)	1.6	5.1	13
Regional Group on Banking Supervision of Transcaucasia, Central Asia and the Russian Federation	0.9	2.2	9
Committee of Banking Supervisors of West and Central Africa	0.8	1.7	25
Caribbean Group of Banking Supervisors	0.5	1.4	16
Association of Financial Supervisors of Pacific Countries (AFSPC)	0.0	0.0	9
Islamic Financial Services Board	14.6	10.7	20
Group of French-Speaking Banking Supervisors	11.8	17.5	33
Offshore Group of Banking Supervisors	15.6	16.9	16

To test whether Basel II policies diffused across inter-supervisory authority networks, a connectivity matrix describing how supervisors are interconnected with their foreign counterparts across eleven established inter-supervisory authority networks is constructed. The Basel II implementation scores of countries that belong to the same supervisory network are weighted positively, whilst the implementation scores of countries that do not belong to the same network are not.

### **The cross-border structure of international banks**

The second policy diffusion variable tests the diffusion of Basel II across channels of diffusion formed by the cross-border structure of international banks. Foreign banks are hypothesized to promote regulatory convergence with Basel II in host countries if the foreign banks had implemented Basel II in their home countries, or otherwise hinder implementation if the home countries of foreign banks had not implemented Basel II. The spatial lag variable is constructed using data on foreign banks presence compiled by Claessens et al (2008) and Barth et al (2008). Since the

former dataset comprise of banking sectors in 103 developing countries, foreign bank presence in developed countries is drawn from the latter dataset. The average Basel II implementation score across developing countries is computed and weighted according to the proportion of the host countries' banking sector assets owned by banks from developing countries. Then, the average Basel II implementation score of developed countries is computed and weighted by the proportion of domestic banking sector assets owned by banks from developed countries. Domestic banks' assets are unweighted.

### **Competing for capital**

Competition among financial sectors to attract international capital and banking business are hypothesized to translate into competitive pressures to implement Basel II, leading to its diffusion. Hence, the spatial lag variable tests whether and to what extent countries respond to the Basel II implementation policies of other countries they compete with for investments and capital when devising their own Basel II implementation policies. The operationalisation of policy diffusion across countries that compete for capital follows the method adopted by Simmons and Elkins (2004:179).<sup>8</sup> The connectivity matrix describes how countries that compete for the same pool of capital are interconnected with one other. According to standard portfolio theory, where investors allocate assets according to the level of risk, countries that pose similar levels of risk are assumed to be close substitutes from investors' point of view. For example, the US with a AAA sovereign credit rating may compete with the UK, which also has a AAA rating, but not with Brazil with a BB rating or Ecuador with a CCC rating. Thus, from the perspective of countries that are potential investment destinations, countries in the same risk category are seen as rivals that compete for the same pool of international capital. Regulatory policies are expected to diffuse amongst such rivals rather than across non-rivals.

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<sup>8</sup> Two other methods are adopted in the case studies in Chapter Seven. See section 7.2.1 for a more detailed discussion on the plausibility of using sovereign risk ratings to measure one's competitors.

Standard & Poor's long term sovereign foreign credit ratings for 126 sovereign governments have been used to construct the spatial weights matrix, which weighs the Basel II implementation scores of those countries with the same sovereign credit rating as one, or zero otherwise before row-normalizing. Credit ratings as of year-end 2005 are used to capture the state of competition before countries formally started to implement Basel II and to avoid credit ratings being influenced by Basel II implementation. Table 7 provides a descriptive overview of Basel II implementation scores by credit ratings.

**Table 7: Basel II implementation scores by credit ratings**

	Credit rating	Meaning of credit rating	Basel II implementation score		Number of countries
			Mean	S.d.	
Investment Grade	AAA	Extremely strong capacity to meet financial commitments.	38.1	5.1	19
	AA	Very strong capacity to meet financial commitments.	36.0	8.2	10
	A	Strong capacity to meet financial commitments but somewhat susceptible to adverse economic conditions and changes in circumstances.	23.8	16.1	23
	BBB/B BB-	Adequate capacity to meet financial commitments, but more subject to adverse economic conditions / considered lowest investment grade by market	21.0	16.1	12
Speculative grade	BB+/B B	Considered highest speculative grade by market participants / Less vulnerable in the near-term but faces major on-going uncertainties to adverse business, financial and economic conditions.	6.2	9.4	23
	B	More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments.	2.6	6.3	33
	CCC	Currently vulnerable and dependent on favourable business, financial and economic conditions to meet financial commitments.	0.0	0.0	3
	CC	Currently highly vulnerable.	n/a	n/a	0
	C	A bankruptcy petition has been filed or similar action taken, but payments of financial commitments are continued.	n/a	n/a	0
	D	Payment default on financial commitments.	n/a	n/a	0
	Unrated		2.6	7.4	27

Countries with higher credit ratings tend to be associated with higher levels of Basel II implementation whilst countries with lower ratings are associated with lower levels of implementation. The distinction in the level of Basel II implementation is most apparent between investment and non-investment grade countries. The

standard deviation of the Basel II implementation scores is lowest amongst countries in the highest and lowest end of the credit rating spectrum, indicating that the degree of competition, and hence the degree of regulatory convergence may also be highest amongst countries that compete for capital in these groups.

### **International economic exchange**

The structure of international economic exchange measured by bilateral trade flows may serve as channels through which Basel II policies diffuse across countries. Following Lee and Strang's operationalization of measuring economic distances between countries, the connectivity matrix consists of the value of imports between all countries in the world (2006). For a given country, the spatial lag variable consists of the Basel II implementation score of all other countries weighted by their relative value of imports to that country. Countries that engage in extensive international economic exchange with one another are expected to be more interdependent when formulating their Basel II implementation policies.

### **3.3.4 Control variables**

To develop a strong empirical test of the effects of policy diffusion on Basel II implementation, it is necessary to control for two competing explanations. First, countries that face similar economic and political conditions may independently respond in similar ways to Basel II implementation. If Basel II implementation is an uncoordinated response to common features of the economy or the banking sector, these control variables are expected to exhibit strong effects to the extent that they also cluster in time and space. Secondly, clustered policy making may result from formal policy coordination. These competing explanations are taken into account through the inclusion of the following control variables.

#### **Economic variables**

The level of economic development is hypothesised to be positively associated with the degree of convergence with Basel II because it proxies for countries' capabilities

to implement Basel II. Basel II was originally designed to establish minimum levels of capital for internationally active banks in the developed economies of the G10 (BCBS 2004:3). Banks from developing countries may not have the capabilities to implement the advanced approaches, which require them to run internal risk models similar to those used by large international banks in the G10. According to the Vice Chairman of the Basel Committee, “there is a lot of difference in the starting point of individual banks and supervisors within and outside of the G-10... The advanced approaches under Basel II are not appropriate for a wide range of banks and banking supervisory systems in the world today. Even getting to the standardised approach and Pillar 2 should not be the priority for a range of countries” (Le Pan 2008:20). In addition to banks, supervisory authorities from non-Basel Committee countries may also face capacity constraints in implementing Basel II. In a survey conducted by the FSI in 2004, supervisors from non-G10 countries indicated that implementing Basel II would require new training for approximately 9,400 supervisors (FSI 2004:10). This demonstrates the significant scale of up-skilling required on the part of supervisors to implement Basel II. However, despite warnings against the risks of premature implementation (BCBS 2004a, IMF 2005), and the view of the Basel Committee that “[y]ou can’t buy advanced or even foundation approaches under Basel II ‘off the shelf’ in a box” (Le Pan 2008:20), it may still be possible that “many countries will begin to adopt the advanced IRB approach, because they think this is the global standard to which they must aspire, when it may not be appropriate for their banks at their current stage of development” (Davies 2005:249). Hence, the effect of economic development on Basel II implementation is tested.

Experiencing a systemic banking crisis may subsequently lead to greater regulatory convergence in line with international standards, as crises may produce strong domestic political pressures that act as a catalyst to reform domestic banking regulations in line with international best practice standards, especially if the cause of a crisis is attributed to failures in prudential regulation or the absence of adequate

risk management practices in banks. For example, following the Asian financial crises, “many important actors... saw the adoption of international standards as a means of importing superior regulatory practices and restraining what they saw as destructive behaviour in their domestic political economies” (Walter 2007:95; 2008). Conversely, countries may delay implementing Basel II due to relatively higher implementation costs in the aftermath of a crisis or adopt a protracted implementation timetable by adopting lenient phase-in arrangements with long transitional periods to enable banks to meet new standards while supporting economic recovery. The empirical question of whether systemic banking crises affect Basel II implementation positively or negatively is tested through the inclusion of the banking crisis variable. However, given the possibility that financial crises can also occur across interconnected countries, the results that drop the crisis variable are also reported. The literature on financial crises highlight how crisis can spread across countries due to spillover effects created by bank lending (Van Rijckeghem and Weder 2001), trade linkages (Eichengreen et al 1996) or “fast and furious” contagion effects (Kaminsky et al 1998) in addition to being caused amongst countries that share common domestic macroeconomic fundamentals or experience common external shocks. Finally, the extent to which economic integration into the world economy, an important facet of economic globalization, is a driver of regulatory convergence with international standards is also investigated by measuring the level of countries’ international trade. Countries that are highly integrated into the global economy are expected to converge with Basel II earlier and fully.

### **Banking sector variables**

The size of a banking system, measured by the value of private credit to GDP, is an important dimension of banking sector development. This variable measures the asset side of a bank’s balance sheet and captures the relative importance of credit allocation by the banking sector in the economy. Banking sector size is expected to



be positively associated with the degree of convergence with Basel II. Where credit intermediation through banks is relatively less important for the economy, the pace and scope of convergence with Basel II is expected to be lower. The presence of foreign banks is also expected to be an important driver of Basel II implementation in host countries. This is partly because “most subsidiaries of global banks... will be in a better position to adopt the more sophisticated versions of Basel II once they are allowed by domestic regulations, as they can leverage on the progress made by their European and U.S.-based parents” (Standard & Poor’s 2007). Indeed, the FSI found that “[o]ne of the major drivers for moving to Basel II in non-BCBS jurisdictions seems to be the intended implementation of this framework locally by foreign-controlled banks or local branches of foreign banks” (FSI 2004:1). However, its effect may be conditional on whether international banks have implemented Basel II in their home country and implementation costs not being prohibitively high due to the lack of basic banking infrastructure to support implementation in host countries.

Governments with large stakes in the banking sector may have considerable effects on Basel II implementation, although whether they promote or hinder implementation is unclear. For example, state-owned banks are major providers of credit in China and India (Mihaljek 2006:42-43). Despite the lack of financial sector development, India was one of the first developing countries to implement the basic approaches of Basel II and China implemented the advanced approaches, but not the SA (CBRC 2007). On the other hand, in Uruguay, because government-owned banks retained a 50% share in the financial system, while the remaining half was predominantly controlled by Basel II-knowledgeable global banks, market players either fell in the category of little risk management sophistication or up-to-date risk management practices. However, due to the relatively more influential government-owned banks, the regulators’ choice was to implement only the basic approaches of Basel II. (Standard and Poor’s 2007) The effect of market concentration on Basel II implementation is expected to be positive since a few large banks are likely to

possess the necessary resources to implement Basel II and benefit from greater economies of scale from the high upfront investments required for implementing Basel II. Furthermore, for supervisors, the presence of a few large banks that are of systemic importance to the financial system may act as an added incentive to encourage systemic banks to enhance risk management standards by implementing Basel II. The bank concentration ratio is measured by the assets of the three largest banks as a share of total commercial banks' assets.

To test whether the level of capital in the banking system prior to the implementation of Basel II affects the level of Basel II implementation, regulatory measures based on Basel I and non-regulatory measures of capital to asset ratios are included in the regression analysis. Countries with higher capital ratios are hypothesized to implement Basel II earlier and adopt the IRB approaches. This is based on the expectation that incentives to save capital costs will drive convergence with Basel II. The IRB approaches were calibrated by the Basel Committee to produce lower capital requirements compared to Basel I and the SA as a way of incentivising banks to adopt more sophisticated risk management practices. The incentives to save capital may be greater for countries, especially emerging economies, where supervisors have historically required regulatory capital adequacy ratios above the Basel minimum of 8% and banks have held capital buffers above the already higher regulatory requirements.

Variables measuring the development of infrastructure, in particular, those that are seen as prerequisites for implementing Basel II are also included. Countries may face similar practical constraints that lead them to adopt similar implementation policies. The IAS dummy variable captures the adoption of internationally accepted accounting standards, which is seen by the Basel Committee as a precondition to the effective implementation of Basel II because it increases the transparency and consistency of capital ratios and thus their comparability across countries (BCBS 2004a:6). The adoption of internationally accepted accounting standards may also

proxy for countries' general propensity to adopt international financial standards. Secondly, since SA implementation in most countries is the first step towards implementing Basel II, the availability and access to credit information is potentially a significant precondition towards achieving convergence with Basel II and is thus captured in the regression analysis.

### **Political variables**

In a study of Basel I implementation, Ho (2002) finds that the measure of democratic institutions was the most robust variable affecting the likelihood of implementation and gives credence to democratic legalist theories of international law which contend that democracies are more likely to comply with international agreements. To test whether this is also the case for Basel II, Polity IV (2009) is used to compute the POLITY 2 score, a unified polity scale ranging from +10 (strongly democratic) to -10 (strongly autocratic). In addition, the effects of party orientation and the proportion of seats held by the government in office are also incorporated in the analysis. Party orientation tests whether right of centre governments tend to favour the implementation of Basel II on grounds that it represents international best practices that may enhance the functioning of the domestic banking market, or are against the regulation of private enterprise compared to leftist governments.

Regulatory policies may also converge across countries not due to policy diffusion, but because governments are responding to pressures from powerful creditors such as the IMF to strengthen prudential standards for regulating bank capital. The official position of the IMF was that countries would not be criticized for not implementing Basel II and that it would not push countries to implement Basel II or any of the specific approaches in Pillar 1 (IMF 2005). However, there is also some anecdotal evidence to suggest that although not explicitly required by the IMF, borrowing countries may feel under pressure to commit to undertake policy reforms which they believe will please the IMF (i.e. implicit coercion). For example,

some countries, such as Ghana, have expressed their intent to implement Basel II in their Letters of Intent to the IMF (IMF 2009a; 2010a).<sup>9</sup> Although not explicitly coerced, persuasion, especially amongst sympathetic national elites, may foster the diffusion of policies (Chwieroth 2009). To test for any effects that borrowing from the IMF may have on the degree of convergence with Basel II, countries in receipt of IMF credit have been coded with a dummy variable to proxy IMF pressure.

Finally, it is necessary to control for cases where Basel II implementation was explicitly coordinated among countries. The CRD is legally binding in EU member states, necessitating the need to control for EU membership. Since the implementation of Basel II in the EU is an exceptional case of explicit policy coordination, the regression analysis also tests whether treating the EU as one observation rather than twenty seven individual observations makes any difference to the results. In addition, G20 membership may be another instance of policy coordination. The London summit declaration stated that “all G20 countries should progressively adopt the Basel II capital framework” (G20 2009), and a 2011 deadline was attached in the subsequent Pittsburgh Summit (G20 2009a:8). However, when these commitments were made, most non-Basel Committee members of the G20 had already implemented Basel II and of the countries that had not, G20 policy commitments merely repeated implementation plans already in place and did not conflict with measurements in the dataset. Hence, a variable controlling for G20 membership is not included considering the direction of causality between these variables. Table 8 summarizes the variables and data sources.

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<sup>9</sup> Countries such as Georgia (IMF 2012), Mozambique (IMF 2012a), Malawi (IMF 2012b) and Bosnia and Herzegovina (IMF 2012c) have also indicated their intents on implementing Basel II in their letters of intent to the IMF.

**Table 8: Summary of Variables and Data Sources**

<b>Variables</b>	<b>Description</b>	<b>Data Source</b>
<b><i>Dependent variable</i></b>		
Basel II implementation	Based on Basel II implementation dataset compiled by the author	Basel II implementation dataset
<b><i>Policy Diffusion Variables</i></b>		
Networks of bank supervisors	Membership of 11 established international supervisory groups.	Report on International Developments in Banking Supervision (BCBS 2006); Basel II implementation dataset.
Cross-border bank structure	Percentage of foreign bank presence in the domestic banking sector.	Claessens et al (2008); Barth et al (2008); Basel II implementation dataset.
Competition for capital	Standard & Poor's long term sovereign foreign credit ratings for 126 sovereign governments.	RatingsDirect: Sovereign Ratings And Country T&C Assessments (Standard and Poor's 2009); Basel II implementation dataset.
International economic exchange	Imports in US dollars.	IMF Direction of Trade Statistics Database (IMF 2010); Basel II implementation dataset.
<b><i>Macroeconomic variables</i></b>		
GDP per capita	GDP per capita is gross domestic product divided by midyear population in constant U.S. dollars in thousands.	World Bank national accounts data (WDI).
Systemic banking crisis	Dummy variable to indicate occurrence of a systemic banking crisis during 1996-2007.	Laeven and Valencia (2010).
Trade (% of GDP)	Trade is the sum of exports and imports of goods and services measured as a share of GDP.	World Bank national accounts data (WDI).
<b><i>Banking sector variables</i></b>		
Private credit / GDP	Private credit by deposit money banks and bank-like other financial institutions to GDP.	IMF's International Financial Statistics (2008).
Bank capital to assets ratio (% per Basel I)	Actual risk-adjusted capital ratio in banks using Basel I as of yearend 2005 (only Nigeria and Venezuela had indicated that risk weights were not in line with Basel I)	Barth et al (2008).
Market concentration	Equals the ratio of the three largest banks' assets to total banking sector assets in 2005	Fitch's BankScope database.
Government ownership	Fraction of the banking system's assets in banks that are government owned.	Barth et al (2008).
Foreign ownership	Fraction of the banking system's assets in banks that are foreign owned.	Claessens et al (2008).
IAS adoption	Adoption of accounting practices for banks in accordance with International Accounting Standards.	Barth et al (2008).
Credit depth of information index	Measures rules affecting the scope, accessibility, and quality of credit information available through public or private credit registries (0=low to 6=high).	World Bank, Doing Business project.
<b><i>Political variables</i></b>		
Democracy	The POLITY score is computed by subtracting the AUTOCL score from the DEMOC score.	Polity IV (2009).
Partisanship	Right to Centre party orientation with respect to economic policy. EXECRLC variable,	DPI (2010).
Government fragmentation	Fraction of seats held by the government.	DPI (2010)
EU membership	Dummy variable to indicate 27 EU Member States and Iceland, Lichtenstein and Norway which implemented EU's CRD as part of EEA membership.	<a href="http://europa.eu">http://europa.eu</a>

The variables are measured as at year-end of 2005 to avoid them being affected by Basel II implementation rather than the other way round, and to reflect the circumstances when countries were formulating their Basel II implementation policies.

### **3.4 Findings**

The results of the regression analysis are presented in Table 9. Models (1)-(6) show the results of models including the spatial lag variables that test the effects of policy diffusion across inter-supervisory authority networks, the cross-border structure of international banks, competition for capital and the structure of international economic exchange. Models (7)-(10) regress only the non-diffusion explanatory variables. In the model selection process, government ownership, market concentration and international trade from Models (8)-(9) were dropped because they were persistently statistically insignificant. The results presented here are that of the spatial ordinary least squares (OLS) model, or the S-OLS model, where the coefficients are OLS estimates. The estimation of spatial lag models using S-OLS in Models (1)-(6) could lead to inconsistent estimates of the regression parameters because spatial models exploit the dependence structure between observations, resulting in the regressors and the error term being correlated (Beck et al 2006; Franzese and Hays 2007). However, Franzese and Hays show that S-OLS “performs acceptably under low-to-moderate interdependence strength and reasonable sample dimensions” (2007:140). Jahn argues that “S-OLS is most effective when diffusion is significant but not dominant” (2006:412; see also Swank 2006; Cao 2010).<sup>10</sup> The S-OLS and maximum likelihood estimation should not make much difference and perform reasonably well for the following reasons.<sup>11</sup>

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<sup>10</sup> See Franzese and Hays (2007) for a summary of the statistical debate.

<sup>11</sup> Comments provided by Dr Eric Neumayer (LSE) and Dr Steve Gibbons (LSE).

**Table 9: Results of Regression Analysis**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
<i>Policy Diffusion Variables</i>										
Supervisory networks	0.36 ***				0.24 **	0.34 ***				
Cross-border bank structures		1.08 ***			0.70 **	0.89 ***				
Competition for capital			0.64 ***		0.39 **					
Economic exchange				0.41 **	0.16					
<i>Macroeconomic variables</i>										
GDP per capita	0.45 ***	0.39 **	0.16	0.42 ***	0.25	0.43 ***	0.44 ***	0.57 ***		
Systemic banking crisis	3.73 *	6.01 ***	3.52 *	5.06 **	3.98 *	4.70 **	4.95 **	4.59 ***		
International trade								0.01		
<i>Banking sector variables</i>										
Private credit to GDP	7.55 **	9.41 ***	1.90	7.75 **	2.41	7.51 **	9.78 **		18.37 ***	
Foreign ownership	0.06 **	-0.23 **	0.03	0.04	-0.14	-0.17 *	0.05		0.11 **	
IAS	3.26	5.50 **	5.93 **	3.93	6.37 ***	5.16 **	3.63		10.14 ***	
Credit information	0.46	1.00	0.73	1.18 *	1.05 *	0.82	0.66		1.81 **	
Bank capital to assets ratio	-37.63	-37.03 *	-33.98 *	-34.77 *	-37.01 **	-40.14 **	-36.38 *		-65.75 **	
Government ownership									0.02	
Market concentration									1.97	
<i>Political variables</i>										
EU	12.89 ***	20.20 ***	14.41 ***	17.73 ***	9.16 **	12.53 ***	21.30 ***	25.70 ***		28.16 ***
Democracy	-0.13	-0.36	-0.22	-0.25	-0.26	-0.28	-0.24			0.36 *
IMF Coercion	-0.27	0.56	1.92	-1.40	2.53	1.04	-1.41			-7.38 ***
Righth-Centre government	-3.62 *	-3.10	-7.68 ***	-4.43 *	-4.75 **	-2.59	-4.79 **			1.25
Majority	-3.53	-6.71	-13.49 **	-5.99	-11.17 **	-5.94	-5.31			4.00
R-squared	0.84	0.83	0.85	0.82	0.87	0.86	0.81	0.73	0.57	0.68

\*\*\* Statistically significant at 1%; \*\* Statistically significant at 5%; \* Statistically significant at 10%

First, the degree of contagion is not very strong because the coefficient of the spatial lag variables are not high and between 0.36 and 0.64 (except in Model (2)), in which case the S-OLS and maximum likelihood estimation does not make much difference. Secondly, the S-OLS should not be far off since the degree of contagion is not strong on empirical grounds. This is because the adoption of a particular Basel II policy in one country does not automatically or necessarily translate to changes in implementation policies in other countries. Finally, the degree of endogeneity may not be severe since the variables and the connectivity matrices are lagged in time, a chronology that makes more sense for the causal logic of diffusion as well (Elkins, Guzman and Simmons 2006:830).

#### **3.4.1 The effects of policy diffusion**

The statistical results provide strong and consistent evidence to confirm the hypothesis that on average, policy diffusion is an important driver of regulatory convergence with Basel II around the world. The coefficients of all spatial lag variables are positively associated with Basel II implementation and statistically significant at the 1% level in models (1)-(3) and at 5% in model (4). The magnitude of these effects are moderate at the global level in the sense that countries on average do not over-react to policy changes in other countries by responding disproportionately more to such changes, but instead match their policies at most. Of the four channels of diffusion modelled in the analysis, the diffusion of Basel II across the cross-border structure of international banks appear to have the largest effect on the degree of regulatory convergence with Basel II.

The effect of policy diffusion across networks of bank supervisors in Model (1) is statistically significant at the 1% level and provides strong evidence that policy diffusion is positively associated with the level Basel II implementation across this channel of diffusion. The magnitude of the diffusion effect is positive and 0.36, suggesting that the Basel II implementation score increases by that amount on



average in a given country for a point increase in the average Basel II implementation score amongst other supervisors in the same supervisory network. The spatial lag variable representing the diffusion of Basel II across the cross-border structure of international banks in Model (2) is also statistically significant at the 1% level. The coefficient is positive and the largest in magnitude compared to the other spatial lag variables, indicating that the effects of policy diffusion across global banks is strongest in driving Basel II implementation. When foreign banks have the capacity to implement Basel II because their parent bank in the home jurisdiction had already done so, the host jurisdictions respond to the policies of the foreign banks' home jurisdiction almost on a like-for-like basis. Furthermore, in developing countries, international banks potentially provide the most powerful channel for high levels of Basel II implementation to diffuse because diffusion across bank supervisors and financial sectors tend to reinforce only low levels of implementation.

Model (3) provides strong evidence that competition among financial sectors to attract international capital may lead to the diffusion of Basel II and hence promote the degree of Basel II implementation at the global level. The positive and statistically significant coefficient of 0.64 suggests policymakers believe that the implementation of Basel II will provide a positive competitive edge for the implementing country relative to their rivals. This may motivate other countries that compete for the same pool of international capital to follow suit in implementing Basel II. The results in Model (4) show that the effect of policy diffusion across the structure of international economic exchange is statistically significant at the 5% level. On average, a country increases its Basel II implementation score by 0.41 in response to a point increase in the average Basel II implementation scores of those countries with which that country has relatively extensive economic ties.

All the spatial lag variables are combined in Model (5). The connectivity matrices should be sufficiently different, and not contain entirely overlapping information in order to reduce the degree of endogeneity (Beck et al 2006:31). Table

10 presents the correlations of the spatial lag variables. The diffusion of Basel II across inter-supervisory authority networks and countries that compete for capital appear to be moderately correlated.

**Table 10: Correlation between spatial lag variables**

	Supervisory networks	Cross-border bank structure	Competition for capital	International economic exchange
Supervisory networks	1.000			
Cross-border bank structure	0.186	1.000		
Competition for capital	0.598	0.041	1.000	
International economic exchange	0.404	0.118	0.400	1.000

The parameter estimates in model (5) suggest that the spatial lag variables representing supervisory networks, international banks and competition for capital are statistically significant at the 5% level although the variable for international economic exchange is insignificant. The first two variables are statistically significant at the 1% significance level when the variable representing competition for capital is dropped in Model (6). In this model, the diffusion of policies across the cross-border structures of international banks has a stronger impact on Basel II implementation than diffusion across networks of bank supervisors. These results also indicate that the diffusion of Basel II due to interdependencies formed at the actor-level, that is, the way banks and bank supervisors are interconnected to their foreign counterparts, has stronger and more convincing effects on the implementation of Basel II than the effects of policy diffusion at the financial sector or economy-level. Diffusion channels at the industry sector- or economy-level may be too blunt to capture the way countries are interdependent with one another in explaining the timing and scope of Basel II implementation relative to the diffusion of policies across interdependencies formed at the actor-level. To this end, the more precise and empirically relevant specification of the channels of diffusion in relation to the policy that was hypothesized to diffuse produced stronger results in favour of the policy diffusion hypothesis.

### **3.4.2 The effects of control variables**

The regression analysis underscores the significance of the effects of economic development on Basel II implementation across the world. Economic development measured by GDP per capita has relatively consistent and statistically significant effects on Basel II implementation across the estimated models. Evidence that low income countries tend to be associated with lower levels of Basel II implementation highlights the challenges developing countries face in implementing Basel II to the extent that economic development reflects the implementation capabilities of banks and supervisors in those countries. In countries where credit intermediation through banks is relatively more important for the economy and the credit market more developed, the pace and scope of convergence with Basel II is greater. Of the variables that measured banking sector infrastructure, adopting internationally accepted accounting standards is statistically significant in several models. The positive and large point estimates suggest a potentially sizeable effect on Basel II implementation, equivalent to a country that has not adopted IAS to delay implementing the basic approaches of Pillar 1 and Pillars 2 and 3 by a year on average. This may be evidence that countries that meet the preconditions for implementing Basel II do indeed implement Basel II earlier and in full or be a reflection of countries that generally have a higher propensity to adopt international standards. The coefficient of the variable measuring the average level of regulatory capital in the banking system based on Basel I prior to the implementation of Basel II was statistically significant and negative. This disconfirmed the expectation that potential capital incentives to benefit from lower capital requirements arising from the implementation of the advanced approaches of Basel II motivated the timely and full implementation of Basel II across countries. In the face of high upfront implementation costs, it may be the developed banking systems that also tend to maintain lower capital levels than emerging and developing countries that attain

higher levels of convergence with Basel II. The results also provide support to the argument that experiencing a systemic banking crisis prior to the implementation of Basel II promotes greater regulatory convergence in line with international standards. The magnitude of the partial effect of experiencing a systemic banking crisis is approximately 5. This is equivalent to implementing the basic approaches of Pillar 1, Pillar 2 and Pillar 3 approximately one year earlier on average in countries that experienced a systemic banking crisis. Conversely, countries that did not experience a crisis may adopt a more protracted implementation timetable. Furthermore, dropping the crisis variable to account for the possibility that crises could occur amongst interrelated countries did not affect the robustness of the results. The coefficients of the spatial lag variables were positively associated with Basel II implementation and statistically significant at the 1% level in models (1)-(3) and at 10% in model (4) without the crisis variable. The size of the coefficient increased marginally to 0.42, and 0.71 in models (1) and (3), and decreased marginally to 0.71 and 0.4 in models (2) and (4).

The results provide mixed support to the hypothesis that the overall level of foreign bank presence promotes Basel II implementation. This may be due to the following countervailing factors. Subsidiaries of global banks tend to be better prepared to adopt the advanced approaches of Basel II by leveraging the progress made by their Basel II-knowledgeable parent banks, and hence can promote Basel II implementation. Furthermore, the marginal cost of implementation is likely to decrease as international banks roll-out centrally developed Basel II models and processes across a greater number of jurisdictions with minimum divergences, and this could give them an advantage against local banks for which implementation costs could be higher. Yet, despite potentially possessing the resources and capabilities to implement Basel II, their effect is conditional on whether the home country supervisor had implemented Basel II and implementation costs not being prohibitively high due to the lack of basic banking infrastructure to support

implementation in host countries. The coefficient of the government ownership variable was statistically insignificant despite anecdotal evidence of the effects government-owned banks had on the way Basel II was implemented. This may indeed be due to the lack of regularities across countries in relation to the role of government-owned banks as discussed in the cases of China, India and Uruguay.

As for the political variables, the party orientation variable suggests that right of centre governments tend to disfavour introducing more extensive regulations by implementing Basel II, and do not see Basel II as representing international best practices that may enhance the functions of the banking market. Leftist governments may be more willing to regulate banks by implementing Basel II. The coefficient estimates for the level of democracy is not statistically significant in explaining Basel II implementation across the world. This contradicts Ho's argument that democracies are more likely to comply with international standards. There is also no evidence to support the argument that IMF coercion via conditionality had systematic effects on the implementation of Basel II. However, EU membership is highly significant as expected. From the perspective of understanding the drivers of convergence across the world, the EU is probably the single most significant factor in explaining the degree of convergence with Basel II, since outside the EU, convergence with Basel II is limited. Considering the importance of the EU variable and that it is an exceptional case of explicit policy coordination to achieve policy harmonization, the regression analysis also tested whether treating the twenty-seven EU member states as one observation made any difference to the results. Doing so did not affect the variables that were statistically significant. That EU membership explains a significant proportion of the degree of regulatory convergence with Basel II at the global level suggests that formal institutions and explicit policy coordination, rather than policy diffusion, is more effective in promoting convergence with Basel II. This in turn underscores the limitations of the current global regulatory framework, which consists of voluntary standards, in producing

convergence at the global level. Policy diffusion is a compelling driver of regulatory convergence, but with limitations in achieving the degree of convergence that legally binding arrangements are able to achieve.

### **3.5 Limitations of the quantitative analysis**

To ensure the results of the quantitative analysis were robust, alternative weighting schemes were used to construct the Basel II implementation score and the twenty-seven EU member states were treated as a single observation to account for the effects arising from formal policy coordination. Furthermore, the crisis variable was dropped in light of the possibility that financial crisis may also occur amongst interrelated countries. The results proved to be robust. There are however, more fundamental methodological problems to address. Although the quantitative analysis is highly informative in terms of assessing the average effects of variables on the degree of Basel II implementation across the world, it provides very limited insight into the policy making process at the country-level where policies actually diffuse across the various channels of diffusion modelled in the analysis. Statistical models tend to have clear and specific boundaries in terms of what can and cannot be explained and the spatial lag model is no exception. The following section discusses four limitations of the quantitative study and potential ways to overcome them in the case studies that are conducted in the subsequent three chapters.

Firstly, to assess the degree of global regulatory convergence, measurements of the scope and timing of implementation were scaled and weighted to construct the Basel II implementation score. The objective of this measure was to devise a pragmatic measure of implementation that succinctly summarized, albeit with major simplifications, how countries implemented Basel II in a consistent and comparable way across 150 countries. This was by no means a comprehensive measure of Basel II implementation due to the highly simplified and standardized method for measuring implementation. This poses a significant drawback since there are no two

countries in the world that have implemented Basel II in exactly the same way. Even within the EU, there were variations in the way member states transposed the CRD into national legislation in the form of gold plating, non-implementation or partial implementation of the CRD (DLA Piper 2009) although these variations were less significant in the context of larger variations across the world. In order to attain a higher level of validity in the measurement of Basel II implementation, it is necessary to measure the substance of implementation, that is, the content of the regulations that implemented the three pillars of Basel II, albeit in a smaller number of cases. To this end, case studies allow the attainment of high levels of conceptual validity by enabling the identification and measurement of indicators that best represent the concepts that are intended to be measured and thus help to mitigate the risk of “conceptual stretching” associated with statistical studies that lump together dissimilar cases to get a larger sample (George and Bennett 2005:19).

Secondly, the structure of interdependence between observations as specified by the connectivity matrix is not estimated in the regression model but instead assumed to be known a priori to the researcher (Beck et al 2006:28). Different yet equally justifiable specifications of the connectivity matrix can threaten the validity and reliability of inference by leading to differing results (Plümper and Neumayer 2010:419). Defining and operationalizing each channel of policy diffusion from a theoretical concept to a connectivity matrix in the context of Basel II implementation is therefore a critical empirical task. For example, did policies actually diffuse across the network of supervisors and was this due to competitive pressures or learning from other supervisors? The challenge in convincingly arguing that a particular diffusion mechanism was driving policy diffusion is exacerbated by the fact that in practice, diffusion mechanisms “are sometimes commingled, and sometimes the lines between them are blurred” (Dobbin et al 2007:450). Corroborating the validity and reliability of the connectivity matrices with empirical

evidence from case studies would strengthen any causal claims attributable to policy diffusion in the quantitative study.

Thirdly, the spatial model provides an efficient way to formally test the effects of policy diffusion by compressing an abundant amount of information about how each and every one of the 150 countries are interconnected with the rest of the 149 countries in the dataset. However, this specification entails a trade-off since it is an attempt to measure the process of policy diffusion as reflected by the structure of interdependencies across observations. This is typical of large-N statistical methods, which generally tend to bias theory away from processes and toward structures (Odell 2001:170). The structural representation of a process significantly simplifies and standardizes a complex process of policy diffusion into a single quantifiable variable. Moreover, that countries are closely interconnected per se is not a sufficient condition for policies to diffuse in practice. Although the transformation involving the structural representation of a process is necessary to conduct regression analysis, if the research goal is to gain a detailed and contextual understanding of the causal process that drives Basel II implementation in a particular country, the structural representation of a process significantly falls short of examining the process of diffusion directly in case studies since Basel II implementation and policy diffusion both pertain to complex processes. Case studies are generally better than other methods for documenting processes, and the technique of process tracing in particular possesses a comparative advantage in unveiling complex causal processes that operate in individual cases.

Finally, to model how policies diffuse, all four connectivity matrices were row normalized in order to capture the relative importance of other observations in influencing policy decisions rather than the absolute magnitude of interdependencies between observations. Thus, the spatial lag model does not test the effects that absolute levels of economic, political or social interdependencies may have on policy diffusion. For example, if bilateral trade flows are used to measure the degree



of influence trade partners Country C and D have on the policy choices of Country A and B, even if the absolute value of trade with Country C and D is \$1 and \$4, and \$2billion and \$8billion in country A and B respectively, policy decisions in country D is assumed to be four times more important than Country C to both Country A and B. The assumption that the effects of policy diffusion in small countries and large countries are uniform may be challenged on empirical grounds. Irrespective of the magnitude of interactions, as long as countries are interconnected to one another, policies are assumed to diffuse in the statistical model no matter how weak the interdependent relationship in absolute terms. This assumption may overestimate the effects of policy diffusion and does not take into account that different countries can have varying sensitivities to the effects of policy diffusion. The case study method offers potential solutions to overcome some of these methodological limitations. The next chapter outlines the design of the case studies and the case selection procedure in order to build on and complement the methods and results of the statistical analysis rather than to replicate them with a smaller number of cases.

### **3.6 Conclusion**

The aim of this chapter was twofold. The first was to measure and assess the state of Basel II implementation across the world, and the second was to investigate the factors that explained how and when countries implemented Basel II, in particular, by testing the effects of policy diffusion. The degree of regulatory convergence with Basel II at the global level was limited by considerable cross-national variations in implementation, from early-comprehensive adopters to late-partial adopters and non-implementers. These variations produced a highly uneven and clustered global regulatory landscape for bank capital regulation, where convergence and divergence coexisted. There was a high degree of regulatory convergence amongst groups of countries that adopted similar implementation policies, although different groups of countries exhibited different levels of convergence with Basel II. Furthermore, the

uneven and clustered global regulatory landscape appeared to be more permanent than transitional for a large proportion of developing countries.

To investigate what may have caused the uneven and clustered global regulatory landscape, quantitative methods were utilized. A test of the effects of policy diffusion on how and when countries implemented Basel II provided strong and consistent results to support the policy diffusion theory. There was a positive and statistically significant correlation between the Basel II implementation scores of countries, and the average Basel II implementation score of other countries with which those countries were closely interconnected to across channels of diffusion formed by supervisory networks, global banks, competition between financial sectors and the structure of international trade. Furthermore, countries that were not developing countries, had a sizeable and developed banking sector, maintained lower levels of regulatory capital in the banking system, experienced a systemic banking crisis and adopted international accounting standards prior to implementation were on average associated with higher levels of Basel II implementation than those that were not. Notwithstanding the many strengths of the quantitative study in testing the effects of policy diffusion, there were several methodological weaknesses that limited its explanatory power. These are addressed in the following four chapters, which are specifically devoted to unpacking the causal process through which policy diffusion reinforces convergence with Basel II in some countries whilst reinforcing partial, gradual or delayed implementation in others.

## **Chapter Four**

### **Case study design and case selection**

#### **4.1 Introduction**

This chapter outlines the design of the case studies conducted in the subsequent three chapters of this thesis. The aim of the case studies is to build on the results of the quantitative study conducted in the previous chapter by unpacking the causal process through which policy diffusion reinforces convergence with Basel II in some countries whilst reinforcing partial, gradual or delayed implementation in others. In contrast to the effects-of-causes approach adopted in the quantitative analysis that aimed to test the average effects of policy diffusion on Basel II implementation across the world, the case studies are firmly grounded on the causes-of-effects approach aimed at explaining specific implementation outcomes at the country level (Mahoney and Goertz 2006:230). The mixed-method approach was adopted based on the recognition that certain aspects of the research question were more adequately addressed by statistical methods and other aspects by the case study method since case studies are generally strong precisely where statistical methods are weak and vice versa (George and Bennett 2005:19). In particular, “case studies remain much stronger at assessing *whether* and *how* a variable mattered to the outcome than at assessing *how much* it mattered” (ibid. p25). As a result, they offer potential solutions to overcome some of the methodological limitations discussed at the end of the previous chapter. The benefits of methodological triangulation may be particularly high precisely because statistical analysis and case studies embody distinct and often contrasting methodological orientations that can produce unique synergies when combined effectively into the research design.

The case studies conducted in this thesis combine within-case analysis and cross-case comparisons within a single study to exploit the strongest means of

drawing causal inferences from case studies (George and Bennett 2005:18). Three pairs of case studies from Chile, Korea, Malaysia and Hong Kong are selected to investigate the process of policy diffusion and Basel II implementation across three different channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks, and competition between financial sectors to attract capital. The fourth channel of policy diffusion modelled by the structure of international economic exchange in the quantitative study is not investigated in the case studies due to the lack of variation in its effect on Basel II implementation, a point which is discussed in detail in the case selection section in 4.3.2. To ensure that the most theoretically, empirically and methodologically relevant cases are selected, the three pairs of case studies are selected from the population of candidate cases using three case selection steps. These steps reflect binding theoretical scope conditions that may apply to the theory of policy diffusion, empirical considerations that take into account cases of explicit policy coordination and methodological considerations that aim to maximize variance in the policy diffusion variable under investigation, whilst controlling for the effects of other channels of policy diffusion and explanatory variables shown to be statistically significant in the quantitative study.

This chapter proceeds in the following order. In section 4.2, the case study methods utilized in the within-case and cross-case analyses and the case selection procedures are discussed. This is followed by the application of the case selection procedure on the population of candidate cases and an overview of the three pairs of cases that are selected for the case studies in section 4.3.

## **4.2 Case study design and methods**

The case studies are conducted by employing the within-case method of process tracing and the cross-case method of controlled comparison. Detailed within-case analysis employing the analytical explanation variant of the process tracing method

is conducted to unpack the casual process through which policy diffusion drives regulatory convergence in six case studies. These consist of three pairs of cases that investigate the diffusion of Basel II policies across three channels of policy diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks and competition for capital. Based on the within-case analyses, the cross-case comparative method of controlled comparison is undertaken for each pair of countries to investigate how the three channels of diffusion reinforced the degree of regulatory convergence with Basel II in one country whilst reinforcing partial, gradual or delayed implementation in the other. To conduct controlled comparisons, two cases that are comparable across several statistically significant explanatory variables, except for the key causal explanatory variable, whose variance may account for the different outcomes on the dependent variable, are selected for each of the three channels of policy diffusion. To reduce selection bias and maximize the validity of causal inferences, the case studies have been carefully selected from the population of cases for each of the three channels of diffusion according to a rigorous case selection procedure. The main design features of the case studies, that is, the within-case method of process tracing, cross-case method of controlled comparison and the case selection procedures, are discussed next.

#### **4.2.1 The within-case method of process tracing**

The process tracing method is used to unpack the casual process through which Basel II policies diffused and shaped the national implementation of Basel II in six cases. Process tracing involves uncovering the intervening causal process between independent variables and the outcome of the dependent variable (George and Bennett 2005:153,206). Its aim “is to establish which of several possible explanations is consistent with an uninterrupted chain of evidence from hypothesized cause to observed effect. The power of process-tracing arises from the fact that it requires continuity and completeness in explaining a case (although there

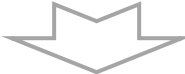
are pragmatic limits on the ability or need to examine the infinite “steps between steps” in a temporal process).” (Bennett 2004:22-23) Of the several types of process tracing methods, the analytical explanation method is employed in this study. In this method of process tracing, historical narratives are converted into analytical causal explanations couched on explicit theoretical forms, resulting in an explanation that is “deliberately selective, focusing on what are thought to be particularly important parts of an adequate or parsimonious explanation” (George and Bennett 2005:211). Adopting such method helps to focus the scope of process tracing on the particular channels of diffusion under investigation in each case study.

Process-tracing is “fundamentally different from statistical analysis because it focuses on sequential processes within a particular historical case, not on correlations of data across cases” as a source of causal inference (ibid. p13). Consequently, process tracing can “contribute in ways that statistical methods can only do with great difficulty (and it is often worthwhile even when sufficient cases exist for the concurrent use of statistical methods)” (ibid. p224). In fact, the distinct and often contrasting methodological orientations embodied in statistical analysis and the case study method can produce unique synergies when combined effectively into the research design. To this end, “one way to think about process tracing is a cross-check, a triangulation, that can be – and ought to be – applied to all results gained through formal methods... [P]rocess tracing, when employed in an adjunct fashion, is not intended to bear the entire burden of an empirical study. It offers supporting evidence.” (Gerring 2007:185)

To ensure the acquisition of comparable data to conduct structured, focused comparisons across cases, a general framework consisting of the following three components is adopted in the within-case analysis. The framework helps to address the questions of what, how and why policies diffuse between the cases in a more systematic way in the comparative analysis. The first component involves specifying the paths through which policies diffuse by identifying the structure of

interdependencies between the country under investigation and the rest of the world formed by each channel of diffusion. The second component highlights the domestic policy making process, in particular, how national policy decisions are shaped by the policy decisions of other countries that are interconnected to the case under investigation via the channels of diffusion identified in the first component. The third component focuses on the areas of Basel II implementation that are shaped by the process of policy diffusion. This is summarized in Table 11.

**Table 11: General framework for within-case analysis**

<b>Process of policy diffusion</b>	
<b>(1) The structure of interdependence</b>	<b>(2) Domestic policy making process</b>
<ul style="list-style-type: none"> <li>• Specifying the paths through which policies diffuse: identifying the counterparties (“significant others”) the country under investigation is interconnected to.</li> <li>• Reasons why significant others matter across the channels of diffusion</li> <li>• Nature of relationship and type of interaction (e.g. competitive, collaborative or coercive, ideational or material).</li> </ul>	<ul style="list-style-type: none"> <li>• How and to whom the significant others matter in the domestic policy making process.</li> <li>• Areas of Basel II implementation influenced by significant others.</li> <li>• Key domestic considerations that affect implementation decisions as opposed to the effects of policy diffusion.</li> </ul>
	
<b>Effects of policy diffusion on national implementation</b>	
<b>(3) Areas of Basel II implementation shaped by the process of policy diffusion</b>	
<ul style="list-style-type: none"> <li>• Overall timetable and scope of implementation (e.g. which approaches to implement and how)</li> <li>• Content of Pillar 1</li> <li>• Content of Pillar 2</li> <li>• Content of Pillar 3</li> </ul>	

Focusing the case studies on the above components helps to address some of the weaknesses of quantitative methods discussed in Chapter Three in a more purposeful way, and thus helps strengthen any causal claims attributable to policy diffusion. Empirical evidence from the first component can help corroborate the validity and reliability of the connectivity matrices, which are not estimated in the regression model, but instead assumed to be known a priori to the researcher. The second component addresses the empirical void between the independent variable

and the policy diffusion variable that resulted from measuring the process of policy diffusion with a structure of interdependencies (i.e. the structural representation of a process). Furthermore, empirical evidence will help evaluate the validity of the assumptions regarding the uniform effects of policy diffusion across small and large countries that followed from the row normalization of the connectivity matrices. Finally, measuring the substance of implementation, that is, the content of the regulations and policy measures that implemented the three pillars of Basel II in the third component will help to attain a higher level of conceptual validity in the measurement of Basel II implementation, albeit in a smaller number of cases.

#### **4.2.2 The cross-case method of controlled comparison**

The logic of Mill's method of difference is integral to the strategy of controlled comparison and involves comparing similar cases that are comparable in all respects except for the key causal explanatory variable, whose variance may account for differences in the outcome. The logic of elimination is employed to exclude conditions present in both cases as candidate causes for the variance in the outcome. Since a condition present in both cases cannot account for the difference in the outcomes, a cause or condition that survives this method of elimination can be regarded as associated with the outcome. (George and Bennett 2005:156) In order to unravel the process through which Basel II policies diffused across the channels of diffusion formed by supervisory networks, global banks and competition between financial sectors, two cases are selected for each channel of diffusion to undertake controlled comparisons such that the variance in the policy diffusion variable is maximized. The effects of the level of economic and banking sector development, EU membership and the channels of diffusion other than the one under investigation are held as constant as possible between the two cases. Maximizing variance in the key explanatory variable whilst holding constant other competing explanations helps to maximize the validity of casual inferences.



George and Bennett contend that the method of controlled comparison based on Mill's methods is most effective when combined with within-case methods such as process tracing because together, they provide one of the strongest means of drawing causal inferences from case studies (2005:18). This is because there are several demanding assumptions that constrain and limit the usefulness of Mill's methods in identifying underlying causal relations. For example, when there is uncertainty that all possibly relevant independent variables have been identified or that the study has included a sufficient variety of cases of the phenomenon, inferences in both methods of agreement and difference could be spurious and invalid (ibid. p156). Process tracing can greatly reduce the risks of inferential errors that could arise from the isolated use of controlled comparison based on Mill's method of comparison and act as a safeguard that provides an additional check on the results of cross-case comparisons (ibid. p223). Moreover, when it is not possible to find cases similar in every respect but one, which is the basic requirement of controlled comparisons, process tracing can help to assess whether each of the potential causal variables in the imperfectly matched cases can or cannot be ruled out as having causal significance (ibid. p215). The next section outlines the case selection procedure that has been devised to apply the method of controlled comparison effectively.

#### **4.2.3 Case selection procedure**

The following three case selection steps are applied to the population of candidate cases to ensure that the most theoretically, empirically and methodologically relevant case studies are selected. First, for the purpose of devising a more stringent test of how policies diffuse, the case selection takes into consideration possible scope conditions that may limit the explanatory power of a theory. Scope conditions should be expanded or narrowed because a theory's failure to explain a particular case may be due to "contextual conditions that rendered the theory inapplicable

(which would require only a narrowing of the theory's scope conditions)... While theories need to be developed into a testable form, a theory should not be forced into predictions beyond its scope; this lead to the creation of an easily discounted "straw man" version of the theory" (George and Bennett 2005:116). Scope conditions relating to countries' basic capacity to implement Basel II as reflected by the level of development are incorporated into the case selection procedure to avoid refuting the policy diffusion theory decisively and too quickly on the basis of a handful of cases that fall outside the scope of the policy diffusion theory. Such cases are eliminated from the population of cases since no matter how strong the effects of policy diffusion in promoting the implementation of Basel II, capacity constraints as reflected in the low state of development may override the effects of policy diffusion and hinder the implementation of Basel II.

In the second step, cases where Basel II implementation was formally binding or subject to explicit expectations are eliminated from the remaining population of cases on the basis that the aim of the cases studies is to unpack the causal process through which policy diffusion, a process of uncoordinated yet interdependent policy adoption, reinforces high, medium or low levels of Basel II implementation. The third step of the case selection procedure follows the "purist advice" for case selection, which suggest that "the best "intentional" design selects observations to ensure variation in the explanatory variables (and any control variables) without regard to the values of the dependent variables" in order to reduce the potential for introducing bias in inference (King et al 1994:140). Furthermore, in order to avoid suffering the effects of omitted variable bias, the case selection should control for variables that are not of primary interest, but nonetheless have a substantial effect on the dependent variable (ibid.). The rich data and results of the regression analysis from the previous chapter are utilized to assist the case selection process in this regard such that the maximum explanatory leverage can be gained. Two cases that are comparable in all respects except for the key causal explanatory

variable are selected for each of the three channels of diffusion investigated in the case studies. The statistically significant variables from the regression analysis are used to determine the control variables that constitute the most similar aspects of cases in the controlled comparison.

Since the case studies are selected from the population of cases, the four channels of diffusion across 150 countries correspond to 600 data points, whilst there are over a thousand observational values of statistically significant control variables. To aid the case selection procedure, a truth table is constructed to methodologically organize the vast amount of information and select cases in a systematic way. The truth table sorts the data into different combinations of the independent variable and their associated outcomes (Ragin 1987:87). Each logical combination of values on the independent variables is represented as one row of the truth table and an output value is assigned to each row. This produces a cross-tabulation of causes and effects in addition to the distribution of the 150 country observations for each configuration of cause and effect, thus assisting the selection of cases based on the explanatory variables. Moreover, cross-tabulating the cause and effect focuses investigators to “get very close to their data and become familiar with their cases as they try to pinpoint key differences between cases. The search for invariance encourages greater specificity in casual arguments and often leads to the development of important distinctions between subtypes of social phenomena.” (Ragin 1987:51-52) In the following section, the method for constructing the truth table is explained before the three case selection steps are applied.

### **4.3 Case selection**

#### **4.3.1 Construction of the truth table**

In the truth table shown in Table 12, countries are sorted into fifty-four causal paths that represent different combinations of three explanatory variables corresponding to policy diffusion, the state of development and EU membership, and the outcome

variable. The logical combinations of these variables are created by first converting the policy diffusion variable, development variable and output values used in the quantitative study from nominal-scale measures to categorical variables consisting of three equally sized categories, except for EU membership which is binomial, according to the following four steps. First, to construct the policy diffusion column, the four policy diffusion variables used in the quantitative study are each divided into equal sized high (“H”), medium (“M”) and low (“L”) categories depending on the value of the spatial lag variable. In the H category, where the value of the spatial lag variable is between forty and twenty-eight, policy diffusion is expected to promote a high level of Basel II implementation since countries in this category are interconnected to other countries that have on average attained a high level of Basel II implementation. In the M category, where the spatial lag variable is between twenty seven and thirteen, countries are interconnected to other countries that have on average implemented Basel II gradually or partially. In the L category, where the spatial lag variable is between zero and twelve, countries are interconnected to others that have on average attained a low level of Basel II implementation.

Secondly, the level of development is measured across the dimensions of economic and banking sector development. For the level of economic development, the World Bank 2006 income classification of high, middle and low income countries are used to group countries into high, medium and low development categories. The level of financial sector and banking sector development is measured by the relative development of capital markets to the banking sector, and the size of the banking sector relative to the economy. These measures are divided into three equal sized groups representing high, medium and low development categories to obtain a measure of the average level of development. A score of two is assigned to countries with a high state of development, one to a medium state of development and zero to a low state of development for each of the three dimensions of development and then averaged to produce a measure that summarizes the overall

level of development of a country into high, medium and low categories. Thirdly, EU and non-EU countries are distinguished in the EU column. Finally, three equally sized categories have been constructed to represent high, medium and low levels of Basel II implementation in the same way as countries were categorized for the policy diffusion variables to complete the cross-tabulation of the independent and dependent variables.

Fifty-four causal paths based on different combinations of the explanatory variables and outcomes are presented in Table 12. Different combinations of policy diffusion, development and EU categories that each represents a possible causal path are assigned an output value indicating the level of Basel II implementation. The EU rows at low and medium levels of Basel II implementation are collapsed as they are empty sets. The four letters for each category in the first column summarize a particular casual path and outcome. For example the HHYH category in the first row of Table 12 are cases where countries are subject to the effects of policy diffusion that promote high levels of Basel II implementation (H---), are highly developed (-H--), members of the EU (--Y-) and have attained a high level of Basel II implementation (---H). The distributions of the 150 countries for each of the four channels of diffusion are indicated in the count of countries columns. There are twenty-one, one, fourteen and twenty cases in this category for each of the four channels of diffusion. Likewise, there are thirty-five, twenty-seven, thirty-six and one cases in the LLNL category in the last row, which refers to the distribution of cases that are not a member of the EU (--N-), interconnected to countries that attained a low level of Basel II implementation (L---), have a low level of development (-L--) and have attained a low level of Basel II implementation (---L) for each of the four channels of diffusion.

The overall distribution of cases for each channel of diffusion shown in the last four columns provide evidence that is largely consistent with the policy diffusion theory in explaining Basel II implementation. The high number of cases in

the LLNL and LMNL categories suggests that countries that are interconnected to other countries that have attained low levels of implementation have also attained low levels of implementation. Likewise, Basel II implementation tends to be gradual or partial when policy diffusion also promotes gradual or partial implementation.

**Table 12: Distribution of countries based causal paths**

Cat.	Key causal explanatory variables			Level of Basel II implementation	Count of countries by policy diffusion channels			
	Policy diffusion	State of development	EU membership		Supervisory networks	International bank structure	Competition for capital	International economic exchange
HHYH	High	High	Yes	High	21	1	14	20
HHNH	High	High	No	High	0	1	9	6
MHYH	Medium	High	Yes	High	0	7	7	1
MHNH	Medium	High	No	High	6	2	2	5
LHYH	Low	High	Yes	High	0	13	0	0
LHNH	Low	High	No	High	5	8	0	0
HHNM	High	High	No	Medium	0	0	1	6
MHNM	Medium	High	No	Medium	2	0	7	3
LHNM	Low	High	No	Medium	7	9	1	0
HHNL	High	High	No	Low	0	0	0	0
MHNL	Medium	High	No	Low	0	1	2	4
LHNL	Low	High	No	Low	5	4	3	1
HMYH	High	Medium	Yes	High	6	0	1	6
HMNH	High	Medium	No	High	0	0	0	1
MMYH	Medium	Medium	Yes	High	0	4	5	0
MMNH	Medium	Medium	No	High	1	0	0	0
LMYH	Low	Medium	Yes	High	0	2	0	0
LMNH	Low	Medium	No	High	0	1	1	0
HMNM	High	Medium	No	Medium	0	0	0	5
MMNM	Medium	Medium	No	Medium	7	4	4	8
LMNM	Low	Medium	No	Medium	6	9	9	0
HMNL	High	Medium	No	Low	0	0	0	25
MMNL	Medium	Medium	No	Low	12	10	7	28
LMNL	Low	Medium	No	Low	41	43	46	0
HLYH	High	Low	Yes	High	0	0	0	0
HLNH	High	Low	No	High	0	0	0	0
MLYH	Medium	Low	Yes	High	0	0	0	0
MLNH	Medium	Low	No	High	0	0	0	0
LLYH	Low	Low	Yes	High	0	0	0	0
LLNH	Low	Low	No	High	0	0	0	0
HLNM	High	Low	No	Medium	0	0	0	0
MLNM	Medium	Low	No	Medium	0	0	0	0
LLNM	Low	Low	No	Medium	0	0	0	0
HLNL	High	Low	No	Low	0	1	0	11
MLNL	Medium	Low	No	Low	1	8	0	24
LLNL	Low	Low	No	Low	35	27	36	1

The causal paths that are theoretically possible, but not observable in practice, that is, the categories with zero observation counts, are particularly revealing and will help define the scope conditions of the policy diffusion theory, whereby the effects of policy diffusion on Basel II implementation may cease to be effective.

### **4.3.2 Application of the case selection steps**

Cases are selected from categories in the truth table that survive the following three case selection screening steps.

#### **Screening Step One**

The effects of policy diffusion on Basel II implementation may not extend across the entire development spectrum. At very low or high levels of development, applying the policy diffusion theory to explain regulatory decisions may be akin to creating an easily discountable straw man version of the theory. Refuting the policy diffusion theory with cases that fall outside the scope of a theory may be too easy or too hard and thus bias causal inferences. To devise a meaningful test that investigates the inner workings of the process of policy diffusion, it is necessary to take into account boundary conditions of the policy diffusion theory. A boundary condition may be binding when no matter how strong the effects of policy diffusion in encouraging high levels of Basel II implementation, policy diffusion mechanisms are unable to overcome the low capacity constraints owing to the low state of development (e.g. HLNL and HMNL). The positive count of countries in the HLNL category is consistent with evidence that less developed countries face significant capacity constraints in implementing Basel II. Furthermore, there are no cases in the HLNH category across all four channels of diffusion, suggesting that although this causal path is theoretically possible, observable evidence does not exist to support the argument that the effects of policy diffusion are strong enough to overcome the lack of development and encourage global regulatory convergence with Basel II.<sup>1</sup>

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<sup>1</sup> There are also no cases in the less stringent categories of HL-M and ML--. The lack of cases in these categories can also be interpreted as suggesting that in practice, cases of mock compliance may not be observed in the most obvious and predictable places. This may be because sustainable mock compliance strategies can only be pursued when market or public actors find it difficult to detect and punish mock compliance (Walter 2008:5).

The truth table reveals an intriguing point about implementing Basel II in developing countries. Not only are developing countries constrained by their state of development to implement Basel II, less developed countries are rarely exposed to strong policy diffusion effects that encourage convergence with international regulatory standards across all four channels of diffusion in the first place.<sup>2</sup> Some developing countries are interconnected to countries that have attained a high degree of convergence with Basel II, but only via the structure of international economic exchange, which tends to have a positive effect across all countries due to the overall directional flow of world trade where most countries trade relatively more with a few large advanced economies. Therefore, when the level of development is low, the prospects of converging with international standards are even poorer as policy diffusion tends to reinforce low levels of Basel II implementation.<sup>3</sup> This is evidenced by the high frequency of countries in the LLNL category across the various channels of diffusion.

Hence, cases from the lowest development category are not selected since a higher level of development may be required for policy diffusion to explain variations in Basel II implementation. When this prerequisite is not satisfied, policy diffusion may not provide a compelling explanation since it does not matter what the effects of policy diffusion are. Therefore, to devise a more stringent test of the casual process through which policy diffusion reinforces high, partial, gradual or low degrees of regulatory convergence with Basel II, cases from the lowest development category are excluded. The elimination of thirty six countries from the

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<sup>2</sup> In other diffusion channels, only Lesotho is exposed to the effects of policy diffusion that promotes high levels of Basel II implementation due to its proximity with South Africa.

<sup>3</sup> In developing countries, international banks potentially provide the most powerful channel for policy diffusion other than international economic exchange. Several African countries such as Ghana, Cameroon and Mozambique constitute the positive count in the MLNL category, although their level of Basel II implementation is very low.



low development category reduces the number of potential country case studies from 150 to 114.<sup>4</sup>

### **Screening Step Two**

The twenty-seven EU member states, which include twenty-one countries in the high development category and six in the medium category, are excluded to control for cases of explicit policy coordination. Of the countries that remain, twenty-five are in the high development category with an average Basel II implementation score of twenty-three.<sup>5</sup> In the mid-development category, several countries in South Asia, East Asia, and Latin America have implemented Basel II to a level comparable to some developed countries, although the majority have attained a low level of implementation. The remaining non-European members of the Basel Committee, namely, Canada, Japan, Switzerland and the United States, are also excluded to control for explicit expectations on the part of supervisors to implement Basel II. In total, thirty-three countries have been eliminated from the second case selection step.

### **Screening Step Three**

In order to select cases on the explanatory variables, the degree of variation in the key explanatory variable for countries in the medium and high development categories are examined. The lack of variation in the key explanatory variable poses a challenge in investigating the causal process through which policy diffusion reinforces the uneven state of regulatory convergence using the method of difference. To this end, the diffusion of Basel II across the structure of international economic exchange is not investigated in the case studies because of the lack of variation in its effect on Basel II implementation. This policy diffusion channel tends to promote

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<sup>4</sup> From the perspective of theory development, it is necessary to incorporate such boundary conditions to the policy diffusion theory and its predictions. Although binding boundary conditions may reduce the scope of generalizations that can be made, they allow narrower and well specified contingent generalizations to be made. The generalizability of policy diffusion as a causal factor may not extend across the entire development spectrum, but instead be limited to medium to high levels of development where countries have implementation capacities.

<sup>5</sup> Norway and Iceland, which implemented EU's CRD as members of the EEA, are also excluded.

only high levels of Basel II implementation around the world, and this is partly due to the directional characteristics of international trade where most countries primarily trade with a few large developed countries. Furthermore, the lack of variation in the key explanatory variable amongst countries in the mid-development category precludes the investigation of the process through which policy diffusion may promote high levels of Basel II implementation. This is evidenced in the nil sub-totals of the HMNH, HMNM and HMNL categories across the policy diffusion channels in Table 12, except again, for the diffusion channel produced by international economic exchange. Thus, in order to uncover the process through which policy diffusion drives regulatory convergence using the method of controlled comparison, cases are selected from the high development category where the variation in the key explanatory variable is the greatest. The following cases have been selected from the remaining nineteen countries.

#### **4.3.3 Case selection for the controlled comparisons**

Three pairs of countries have been selected to investigate the process of policy diffusion across three channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks and competition for capital. For each policy diffusion channel, two cases are selected such that one country is interconnected to countries that have attained a relatively high level of Basel II implementation and the other is interconnected to countries that have attained a lower level of implementation while controlling for the effects of the other channels of diffusion, EU membership and the level of development. The policy diffusion channel under investigation is expected to reinforce the degree of regulatory convergence with Basel II in one country, whilst reinforcing partial, gradual or delayed implementation in the other. The cases that are compared are circled in Table 13, where the scores that summarize the strength of the effects of policy diffusion range from zero to forty.

**Table 13: Case selection of comparative case studies across three policy diffusion channels**

Country	Channels of policy diffusion				Level of development	Basel II implementation score
	Supervisory networks	Structure of international banks	Competition for capital	Economic exchange		
Chile	7	9	25	28	H	4
Malaysia	24	5	24	28	H	20
South Korea	24	16	24	24	H	31
Hong Kong	23	23	39	27	H	35

### **The Malaysia-Chile Comparison**

A comparative analysis of Chile and Malaysia is conducted to uncover the causal process through which Basel II policies diffuse across inter-supervisory authority networks. As shown in Table 13, the similarities across the level of development and other channels of diffusion make Chile and Malaysia comparable cases to apply the method of controlled comparison. The effects of policy diffusion through the cross-border structure of international banks, competition for capital and structure of international economic exchange are comparable. With respect to the level of development, Chile and Malaysia are both in the lower end of the high development category. However, Chilean supervisors are interconnected to bank supervisors in other countries that attained a relatively low level of Basel II implementation, whereas Malaysian supervisors are interconnected to supervisors in other countries that implemented Basel II relatively early and fully. By comparing these cases, the aim of the case study is to investigate whether the diffusion of policies across different supervisory networks can explain why the implementation of Basel II in countries clustered around different levels and forms of implementation, for example in clusters of early-comprehensive or late-partial adopters.

### **The Korea-Malaysia comparison**

The aim of the comparative analysis of Korea and Malaysia is to uncover the process through which Basel II policies diffuse due to the presence of foreign banks

and the cross-border structure of international banks that they are part of, which define the way Korea and Malaysia are interconnected to the rest of the world. Since both countries are in the same supervisory network, it is possible to control for the effect this may have when investigating whether and how policy diffusion across the cross-border structure of international banks led to differences in the implementation of Basel II in Korea and Malaysia. Moreover, there is also a high degree of comparability between Korea and Malaysia in terms of the effects of policy diffusion from competition for capital and international economic exchange and across measures of development. The way one country is interconnected to another via the cross-border structure of international banks is expected to have significant implications on the degree of regulatory convergence with Basel II attained in the host country. In the case of Korea, being interconnected to countries that have attained a high level of Basel II implementation is expected to promote higher levels of implementation, whereas the converse is expected in Malaysia.

### **The Hong Kong-Korea Comparison**

The aim of the controlled comparison of Hong Kong and Korea is to investigate how competition between financial sectors to attract capital and international financial business may lead to the diffusion of Basel II. When a country's foreign competitors implement Basel II, countries may come under competitive pressures to match their rival's policies, leading to the diffusion of Basel II. Since Hong Kong and Korea compete with different financial sectors, different Basel II policies are expected to diffuse in these countries. In contrast to the other case studies that examine how policy diffusion led to early-comprehensive or late-partial adopters across different inter-supervisory authority networks and the cross-border structure of international banks, two relatively developed countries that are in the same supervisory network and where the level of foreign bank presence is generally high in both cases are examined, thus allowing these effects to be controlled.

#### **4.4 Conclusion**

The aim of this chapter was to outline a case study strategy that complemented the results of the quantitative study by unpacking the causal process through which policy diffusion reinforced convergence with Basel II in some countries whilst reinforcing partial, gradual or delayed implementation in others. The case studies are conducted by employing the within-case method of process tracing and the cross-case method of controlled comparison. Three pairs of case studies from Chile, Korea, Malaysia and Hong Kong were selected to investigate the process of policy diffusion amongst countries that were interconnected via three distinct channels of diffusion, namely, inter-supervisory authority networks, the cross-border structure of international banks and competition for capital. These case studies were selected from the population of candidate cases after considering binding theoretical scope conditions, empirical considerations that took into account cases of explicit policy coordination and methodological considerations that aimed to maximize variance in the policy diffusion variable under investigation, whilst controlling for the effects of policy diffusion across other channels of diffusion, the level of development and EU membership. These steps ensured that the most theoretically, empirically, and methodologically relevant cases were selected for the case studies.

The next three chapters implement the case study design outlined in this chapter. Chapter Five examines how the implementation of Basel II in Malaysia and Chile was shaped by the diffusion of Basel II policies across different inter-supervisory authority networks in East Asia and the Americas. Chapter Six investigates how the diffusion of Basel II across the cross-border structure of international banks shaped the implementation of Basel II in Korea and Malaysia. In Chapter Seven, the diffusion of Basel II policies across financial sectors that competed for capital is investigated in the cases of Hong Kong and Korea. For each pair of case studies, comparative analyses with respect to what, how and why policies diffused is undertaken.

## Chapter Five

### **The diffusion of Basel II across inter-supervisory authority networks: A comparative analysis of Malaysia and Chile**

#### **5.1 Introduction**

Can the diffusion of policies across different inter-supervisory authority networks explain why the implementation of Basel II in countries clustered around different levels and forms of implementation, for example in clusters of early-comprehensive adopters or late-partial adopters? The findings of the quantitative analysis in Chapter Three suggested that there was a positive and statistically significant correlation between the Basel II implementation score of one country and the average Basel II implementation score of those countries that that country was closely interconnected to via common membership in supervisory networks. Based on this result, it was argued that inter-supervisory authority networks provided a channel through which supervisory authorities could communicate and share experiences on Basel II implementation and monitor each other's implementation, which in turn led to the diffusion of Basel II policies amongst countries that were closely interconnected, but not amongst countries that were not. Indeed, the findings seem plausible since supervisors do not operate in isolation to their foreign counterparts, but in a dense web of established supervisory networks, some which have existed for over fifty years. According to the Basel Committee, there are at least twelve established supervisory groups and the vast majority of countries across the world are member to at least one (BCBS 2006a).<sup>1</sup>

The findings of the quantitative analysis, although plausible in the context of examining the average effects of policy diffusion across the world, are put to a stronger test in this chapter by examining the process of how and why policies

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<sup>1</sup> See section 3.3.3 for details of supervisory networks.

diffused across inter-supervisory authority networks in two specific country cases. The case studies focus on the following two lines of inquiry to achieve their overall aim of uncovering the process through which policy diffusion may reinforce convergent Basel II policies amongst supervisory authorities in the same supervisory network, but at different levels of convergence with Basel II across different supervisory networks. First, what do inter-supervisory authority networks do to facilitate the diffusion of Basel II? How do they act as channels through which policies diffuse and reinforce convergence in policies? Second, how did the diffusion of Basel II shape the implementation of Basel II in Malaysia and Chile? The supervisory authorities responsible for implementing Basel II in these two countries, Bank Negara Malaysia (BNM) in Malaysia and the Superintendency of Banks and Financial Institutions (SBIF) in Chile, belong to different supervisory networks formed amongst supervisors in East Asia and the Americas respectively. That countries in the East Asian supervisory network have on average attained a higher degree of convergence with Basel II than those in the Americas begs the question of *which* policies had diffused, as much as the question of how and why policies diffused across countries.

This chapter is organized as follows. Sections 5.2 and 5.3 are case studies of how the implementation of Basel II in Malaysia and Chile were shaped by the diffusion of Basel II policies across different inter-supervisory authority networks. In order to uncover the process of policy diffusion, the case studies first examine the initial formative years of BNM and SBIF's implementation policy and how initial responses to implementation were formulated in supervisory networks. This is followed by an examination of the main activities of supervisory networks that can facilitate or deter the diffusion of Basel II policies, including how supervisors shared experiences and learnt about Basel II and each other's implementation policies. Diffusion at both the strategic and tactical level is examined in the case of Malaysia, whilst diffusion at the strategic level is examined in the case of Chile where

implementation did not progress further.<sup>2</sup> A comparative analysis of Malaysia and Chile is undertaken in section 5.4 around the three questions of which, how and why Basel II policies diffused across the two supervisory networks before concluding.

## **5.2 Policy diffusion and Basel II implementation in Malaysia**

### **5.2.1 East Asian inter-supervisory authority networks and their response to Basel II**

According to BNM, “[w]ith rapid changes in the financial environment, particularly with the New Basel Capital Accord... continuous training and exposure to keep pace with the developments taking place globally to ensure that Malaysia is at par with international best practices” was seen as a “pre-requisite for effective supervision” (BNM 2003:121). BNM’s preparation to implement Basel II was not solely a domestic affair that occurred in isolation from their foreign counterparts. Instead, BNM claimed that “[i]n meeting the challenges of the New Accord, bank supervisors [were] being equipped with the necessary knowledge and skills... [through] participation in regional and international training programmes, dialogues with other supervisory agencies and international bodies on implementation issues and discussions with the banking industry” (ibid.). In particular, two inter-supervisory authority networks were pivotal in facilitating the exchange of information and sharing of experiences and policy ideas on various aspects of Basel II amongst supervisory authorities in East Asia on a regular basis throughout the process of implementation in Malaysia.<sup>3</sup> BNM was “particularly involved in the

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<sup>2</sup> Levy distinguishes learning that takes place at the tactical level about how to better achieve a particular goal and the strategic level involving modification of goals and means, which he refers to “simple” and “complex” learning, respectively (1994:286).

<sup>3</sup> Established in 1991, EMEAP is a network of central banks from eleven countries, namely, Australia, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore and Thailand. The Asian Bond Fund Initiative is regarded as one of EMEAP’s major achievements. EMEAP is a three-tiered forum, structured at the levels of governors, deputy governors and working groups. There are three working groups on banking supervision, payment and settlement systems and



work of the Executive Meeting of East Asia Pacific (EMEAP) Working Group on Banking Supervision, focusing on Basel II related issues that are common among member countries” (BNM 2005:125). Moreover, BNM regarded the SEACEN Centre as the “premier training institution in the region” (2002:215) that played an “important role in providing training to facilitate the implementation of Basel II” (2005:230). Despite their low public profiles outside the banking supervisory community, both the EMEAP Working Group on Banking Supervision (“EMEAP WBS” or “WBS”) and SEACEN Centre were the primary vehicles through which supervisors engaged with their foreign counterparts. They defined the set of countries Malaysia was most closely interconnected to, and thus, are important for understanding the paths through which Basel II policies may have diffused.

Analysing the phase of policy diffusion preceding the formal announcement of BNM’s implementation plan in 2004 is important both for analytical and empirical reasons. As for the sequence of events, the EMEAP WBS and SEACEN focused their activities on Basel II since 2001, several years before BNM and other supervisory authorities publically announced their approach to implementation, and more critically, before any kind of formal implementation, such as the drafting and publication of national regulations that implemented Basel II commenced. From an analytical point of view, that interactions between supervisory authorities took place in supervisory networks before Basel II was formally implemented precludes the

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financial markets and an IT directors' meeting. Supervisory agencies are represented in the WBS. The SEACEN Centre is a training and research centre for central bankers and supervisors in the region. It started to operate on an informal basis in 1972 by relying on the resources of member central banks, notably those of BNM’s Staff Training Centre (SEACEN 2011:51). In 1982, the SEACEN Centre was established as a legal entity in Malaysia with eight members, which had grown to seventeen. BNM, Bank Indonesia and the Bank of Thailand were among the most active users of SEACEN’s training by the number of participants (ibid. p34). South East Asia, New Zealand and Australia (SEANZA) Forum is another regional network set up in the 1950s to provide training and advisory services to central bankers in Southeast Asian countries, but is “in many ways a moribund remnant of an earlier era of cooperation, based around a subset of the old British Commonwealth” (Grenville 2004:32). Its “role was largely taken over by SEACEN” (Hamilton-Hart 2007:176), which offered training to SEANZA members since 2005 (SEACEN 2011:10).

possibility of reverse causality, where countries discuss implementation and learn about each other's implementation after they had taken steps to formally implement Basel II. Moreover, BNM was a founding member of both the EMEAP WGBS and SEACEN, whose membership had remained relatively stable throughout the process of Basel II implementation. This precludes another possibility of reverse causality occurring due to self-selection. Countries which had already decided on an approach towards Basel II implementation did not self-select into pre-existing supervisory networks according to the Basel II implementation approach countries in that particular supervisory network had adopted.<sup>4</sup>

From an empirical point of view, the early phase of policy diffusion laid the groundwork that subsequently shaped how Basel II was implemented in Malaysia in two important ways. Firstly, a stable channel through which policies could diffuse was established when the issue of Basel II and its implementation was placed at the core of the agenda in supervisory networks. This created an on-going forum for supervisors to engage with their foreign counterparts on a regular basis as Basel II implementation progressed over time. Secondly, the process of discussion, information exchange and policy learning within supervisory networks resulted in converging national responses on several fundamental issues relating to the Basel II framework itself, its implications and how countries ought to approach its implementation.

According to BNM, the EMEAP “Working Group on Banking Supervision focused mainly on the proposed new Basle Accord” since 2001 (BNM 2001b:199), as it emerged as an effective ‘self-help’ or ‘problem-sharing’ network that helped officials understand and grapple with policy challenges that Basel II posed.<sup>5</sup> The

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<sup>4</sup> EMEAP WGBS's membership had not expanded since it was established in 1991. Since 2000, the following countries joined SEACEN (year of accession): Brunei (2003), Fiji (2004), Papua New Guinea (2005), Cambodia (2006), Vietnam (2006) and China (2011).

<sup>5</sup> Woods and Martinez-Diaz draw a distinction between self-help networks and advocacy networks. They argue that advocacy networks “aim to mobilize support for a certain cause, standard or

WGBS gathered in Seoul in April 2001 to receive an update on how the development of Basel II was progressing from the Basel Committee Secretariat and discuss the Basel Committee's second consultative document (CP2) issued earlier that year. The discussions culminated in a regional response to Basel II, initially in the form of a letter to the Basel Committee representing the "concerns of banking supervisors in this Region" (EMEAP 2001). The comments from the EMAP WGBS was the "only one to represent the collective views of regional central banks" from the 250 comments submitted to the Basel Committee (Yoshikuni 2004:294). According to one central bank practitioner closely involved with EMEAP and the Basel Committee, this represented an "evolution of the Basel Process" that attempted to reconcile global standards with regional interests by incorporating a regional perspective into Basel II (ibid.).

On the one hand, the response to CP2 from supervisors in the WGBS exhibited considerable levels of convergence overall at this pre-implementation stage. Although some comments pertained to the concerns of "some members", especially those with relatively less developed banking systems, most were put forward as region-wide issues, for example, on credit risk mitigation techniques of "banks in the region", the conventional nature of business in "most banks in the [r]egion" and that many "banks in the region" were likely to adopt the SA for which they should not be penalized by market participants (EMEAP 2001). Moreover, the views contained in the WGBS's letter were explicitly endorsed by BNM in its separate comments to the Basel Committee, which said that it had discussed issues in the WGBS, in addition to which BNM was providing further comments on the Basel II proposals following feedback from banks in Malaysia (BNM 2001a). Not to mention the overlaps in the two letters, both letters highly complemented each other, showing that a close alignment of views between BNM and other members of the

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behaviour... [and] are primarily involved in agenda-setting, norm-setting and diffusion and consensus-building" whereas self-help or problem-sharing networks "focus on improving the capacity of the network's member governments to make policy and address problems" (2009:10).

WGBS on the content of Basel II had emerged from very early in the implementation process.

On the other hand, not all members of the WGBS agreed on what they disagreed with, particularly on the more detailed aspects of CP2. Some supervisory authorities expressed their reservations concerning the national implementation of Basel II, perhaps the most critical coming from Australia's APRA. The APRA was highly critical about implementing Basel II suggesting that although their "preference is to continue operating as much as possible within an internationally agreed framework, we [APRA] would find it difficult to implement both the standardised and IRB approaches as they currently stand" (APRA 2001:1).<sup>6</sup> Likewise, the Bank of Thailand stressed that because Thailand was "just beginning to recover from an economic crisis... certain principles contained in the New Capital Accord – however appropriate they may be – may be difficult or impossible to implement at this time" (BOT 2001:1). Although the Korean FSS's post-crisis policy rhetoric to comply with international standards made it difficult to avoid committing to the implementation of Basel II altogether, the FSS was nonetheless concerned that implementing Basel II "could impose [a] strain on the economy, still recovering from the financial crisis" (FSS 2001a). Members with less developed banking systems such as the Philippines and Indonesia also expressed their reservations by highlighting the lack of preparedness of their banking systems.

At the same time however, despite being critical about Basel II, BOT was equally worried that "banks may not be able to comply with the Accord when it is implemented in 2004" (BOT 2001). Likewise, the FSS was concerned of being penalized for not implementing Basel II per the G10 timetable, and thus requested a "grace period" for implementation in emerging economies (FSS 2001a). Similarly, Bank Indonesia argued that the Basel Committee should not "apply [a] tight time

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<sup>6</sup> That said, the APRA was one of the first amongst the EMEAP WGBS to formally commit to implementation in 2004.

limit for implementation” like the G10 (BI 2001). Hence, there was little doubt amongst supervisory authorities in the WGBS that Basel II would become the next global standard for capital adequacy regulation when adopted by the G10, by which time Basel I would become outdated and so too the supervisory frameworks of those countries that remained on it. The following excerpt by the Governor of Bank Indonesia, in the context of explaining the reasons for deciding to implement Basel II, is illustrative of how supervisors, amidst doubts, felt compelled to maintain consistency with global standards at least at a level consistent with their regional counterparts.

“I wondered whether a regulatory framework based on Basel II for a banking system still in the development stage, such as in Indonesia, would be the proper step to take. Would this not be a hurried move? In the end my doubts were put to rest. Basel II is a set of best practices that we cannot ignore if we as a nation are to deal with global trends. These trends mean that we bring ourselves to the level of our partners if we are to be accepted and respected in our dealings with others. Needless to say, we have no desire to be regarded as an ‘Achilles heel’ in the global financial order, particularly in the complex network of relationships in the banking industry. It is Bank Indonesia’s desire for the national banking industry to speak the same language as bankers in other countries, at least with our regional neighbours.”  
(Abdullah 2006)

Maintaining consistency with global standards at least at a level on par with their regional counterparts meant that supervisory authorities had limited but some leeway. This was partly a function of the preparedness of their banking systems as emerging economies, but also a function of how their regional counterparts were intending to implement Basel II.

In 2002, BNM envisaged a gradual approach to implementation, stating that “[t]aking into consideration that emerging countries like Malaysia would require more time to develop the capabilities of their domestic banking sector to comply with the requirements under Basel II... efforts would continue to be taken by Bank Negara Malaysia to upgrade the capabilities of the industry players so that they

would be in a position to comply with these new requirements within a *reasonable* period of time.” (BNM 2002:132, italics added). Monitoring and learning about how its supervisory peers were implementing Basel II was critical in guiding the specific pace and scope of implementation in Malaysia, such as what a “reasonable period of time” meant in practice and when to implement the advanced approaches of Basel II, more so because there was no hard and fast rule about when and how BNM ought to implement Basel II. This in part underscored BNM’s concern about the potential for competitive implementation strategies amongst Malaysia’s peers. Although the question of whether BNM would implement the basic or advanced approaches of Basel II was formally left open during this initial phase, preparations to implement the latter ensued in BNM. Until the formal announcement to implement Basel II came in 2004, BNM extensively shared experiences and policy ideas on various aspects of Basel II with its supervisory peers across the WGBS when formulating the specifics of its own national implementation policies. This occurred at both the most senior levels of staff in supervisory authorities in the EMEAP WGBS, as well as the level of mid- to senior-level staff in the SEACEN Centre as examined next.

### **5.2.2 Policy diffusion at the strategic level and BNM’s implementation policy**

Policy learning amongst supervisors became more focused and systematic in the years following 2002, especially when BNM “was appointed as chairman of the EMEAP Working Group of Banking Supervision in May 2002 for a two-year period. As the chairman, Bank Negara Malaysia organised and chaired the 13th Meeting of the EMEAP Working Group in Kuala Lumpur which focused on issues relating to Basel II” (BNM 2002:132). In these meetings, “it was agreed that Bank Negara Malaysia would conduct a survey on EMEAP member countries’ required timeframe for the implementation of the new Basel II capital requirements” (ibid. p220). This produced timely and reliable information on how countries were intending to implement Basel II across the supervisory network, which was used by

BNM as critical policy inputs in formulating Malaysia's Basel II policy. Moreover, when the Monetary Authority of Singapore (MAS) assumed the chairmanship in 2004, a series of consultations with members were conducted to reaffirm the core objectives of the EMEAP WGBS. Members agreed to focus on two key issues, namely, Basel II implementation and macro-surveillance, and functionally, to focus on leveraging on mutual experiences, facilitating the adoption of international standards in the region and contributing to the development of international banking supervision standards (BCBS 2006a:52). To take the discussions further in a more systematic way, five interest groups on Basel II home-host issues, External Credit Assessment Institutions ("ECAIs"), operational risk, stress testing and macro-surveillance were established. According to the Basel Committee's 2006 biennial report on international developments in banking supervision, "[a]s the momentum of Basel II implementation intensified, there was a desire among members for more sharing of experiences and policy thinking on various aspects of Basel II. In this regard, the Basel II Home-Host Interest Group conducted surveys among EMEAP countries on the exercise of Basel II national discretions, implementation timelines and transitional approaches." (ibid. p52-3) This interest group also developed a "toolkit" paper on Basel II supervisory colleges to share amongst its members general considerations, useful lessons learnt from actual home-host working arrangements and ideas on the practical application of some of the Accord Implementation Group principles. Furthermore, to help develop domestic policies for the implementation of the SA, the ECAI Interest Group prepared a paper on the supervisory process for recognizing ECAIs. Supervisors also shared their respective approaches to Pillar 2 implementation in a survey and subsequent discussions and "[i]n response to keen interest among members, the WGBS also established a Basel II contact list to promote communication and sharing among relevant experts from member countries." (ibid.)

The activities of the SEACEN Centre was highly complementary to that of the EMEAP WGBS as it provided an on-going forum for upper-middle and senior supervisors responsible for implementing Basel II to learn about Basel II and how others were implementing it through seminars, training and research. These activities provided critical inputs that informed supervisors' spatial awareness in terms of their national implementation policies vis-à-vis others in the region. According to BNM, "[c]o-operation in capacity-building and training continued to feature prominently in the regional fora in 2002. The SEACEN Research and Training Centre, a premier training institution in the region, continued to provide specialised training on policy and operational aspects of central banking, in particular on banking supervision. During the year, SEACEN also targeted its training in areas relevant to the current challenges facing central banks, such as credit risk management and Basel II capital requirements." (BNM 2002:219).

In particular, there were two series of seminars that provided regular and dedicated time for supervisors to learn not only about the technical aspects of Basel II, but also about how countries were implementing Basel II. This promoted convergence at both the technical and strategic level. The "SEACEN-FSI Regional Seminars for Bank Supervisors and Regulators" were targeted at upper-middle to senior level bank supervisors and regulators. As the list of SEACEN-FSI Seminar topics in Appendix 1 illustrates, the central theme of the first sixteen gatherings during 2000 and 2008 focused on Basel II (after which the attention shifted to issues pertinent to the global financial crisis and Basel III). As these seminars were provided in collaboration with the FSI, experts were drawn from the FSI, BIS, G10 supervisory authorities, global banks, accounting firms and rating agencies depending on the topic of discussion. For example, to "assist supervisors in the implementation of Pillar 2, particularly the supervisory policies and practice", the eleventh SEACEN-FSI seminar in 2006 aimed at "providing a platform for speakers and participants to discuss implementation and practical application issues related to

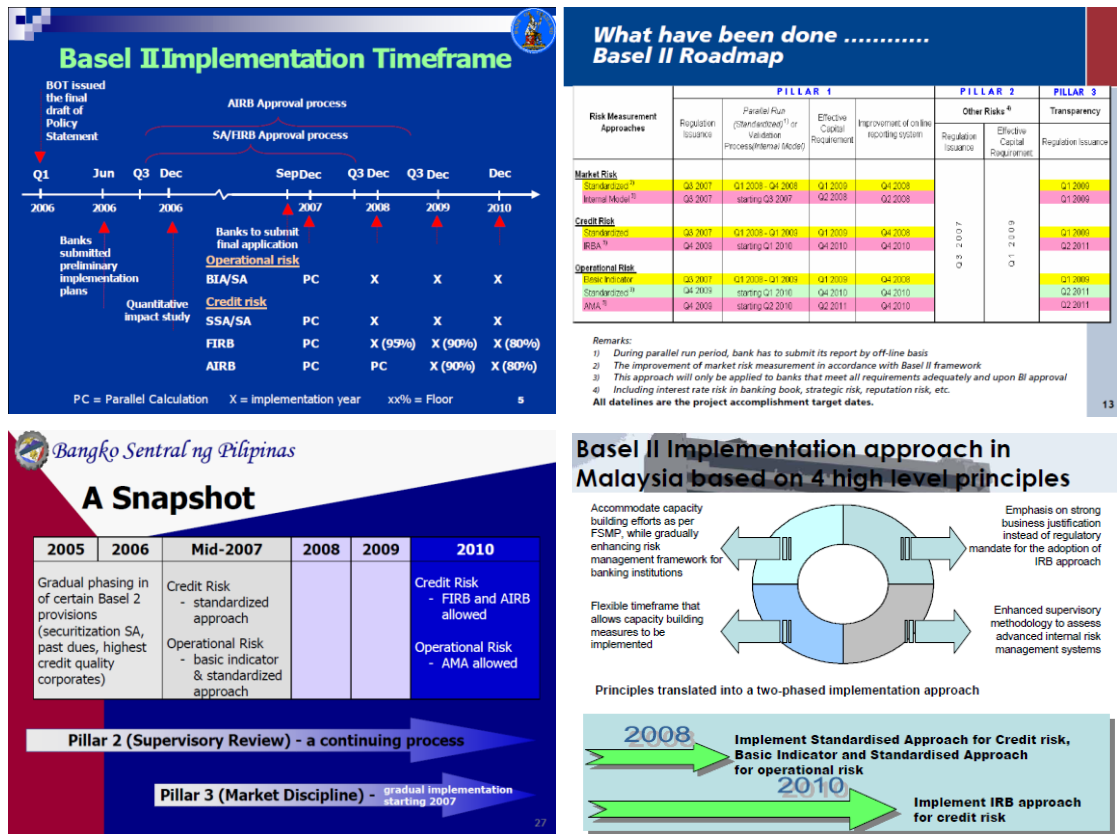


the supervisory review process under Basel II and its implementation.” (SEACEN 2006:18) This particular seminar involved working through case studies, discussions, and group work, and drew speakers from the FSI, BIS Asian Representative Office, the Belgian supervisory authority and a European global bank, while participants came from fourteen countries including Malaysia, Korea, Singapore, Indonesia and Thailand (ibid.).

Complementing the SEACEN-FSI Regional Seminars were the ‘SEACEN Seminar on Basel II: Preparation for Implementation in the Asia-Pacific Region’ series. These gathering were organized back-to-back with the SEACEN-FSI seminars and were effective in internalizing the training and discussions from the SEACEN-FSI seminars in a regional context. The structure of the meeting was more horizontal and member-oriented as they “aimed to provide a forum for central bankers and commercial bankers to share their experiences on the preparation of implementation of Basel II in their countries as well as in the region. The programme was interactive, comprising individual country experiences on the status of implementation of Basel II and panel discussions on the challenges of its implementation” (SEACEN 2006:17). Due to the focus on sharing members’ experiences, speakers were drawn from member supervisory authorities and the participants included supervisors and commercial bank officers responsible for implementing Basel II (ibid.). During these meetings, supervisors extensively compared notes about each other’s implementation plans, including why they were implementing Basel II, their overall approach and timeframe for implementation, results of national implementation surveys, key policy steps taken and to be taken in the implementation process and the various implementation challenges countries experienced. For example, in the third SEACEN Basel II seminar, there was a panel discussion on “Challenges of Implementation of Basel II in Thailand, Indonesia, Malaysia and Philippines” which focused on sharing country experiences in implementing Basel II (SEACEN 2006a:16). The actual notes that supervisory

authorities shared with each other in discussing the timeframe for implementing the various approaches of Basel II in Indonesia, Thailand, Philippines and Malaysia at this meeting are illustrated in Figure 4.

**Figure 4: Sharing notes on implementation amongst supervisors**



Notes: Name of presentation and presenter, from the first quadrant going clockwise: 'Preparation for Basel II: Implementation in Indonesia' Director, Directorate of Banking Research and Regulation, Bank Indonesia, 'Preparation for Implementation of Basel II: Malaysia's Perspective' Director, Bank Supervision 2, Bank Negara Malaysia, 'Roadmap to Basel II: Philippine Experience' Managing Director, Bangko Sentral ng Pilipinas, 'Preparation of the implementation of Basel II in Thailand' Prudential Policy Department, Bank of Thailand.

An examination of these gatherings suggests that policy related information had been exchanged amongst supervisory authorities in considerable depth and breadth. Moreover as the implementation of Basel II progressed, the activities of the EMEAP WGBS and SEACEN incorporated more detailed aspects of implementation. Not only did learning at the strategic level continue as supervisors continuously evaluated their implementation plans and progress against that of other supervisory authorities in order to maintain consistency with each other, but learning about how

to implement the more detailed aspects of Basel II, namely tactical learning, became a predominant element. Areas of tactical learning and the diffusion of more specific elements of Basel II are discussed next.

### **5.2.3 Policy diffusion at the tactical level as implementation progressed**

Two specific areas of national implementation where BNM incorporated the lessons and decisions of their supervisory peers were in dealing with the potential procyclical impact of Basel II and defining the scope of applying the IRB approaches. BNM believed that the main improvement of Basel II from Basel I was the greater risk-responsiveness of capital requirements achieved through more refined measurements of risk (Aziz 2004:2; Khalid et al 2008:71). Yet, this was also potentially a significant weakness since the pro-cyclical tendencies of risk sensitive capital requirements could amplify business cycle fluctuations, and thus contribute to, rather than negate the likelihood of systemic crises (ibid.). Having experienced a dramatic rise in the scale and scope of corporate credit rating downgrades during the Malaysian financial crisis, BNM was particularly concerned that reliance on external ratings to determine regulatory capital requirements could disrupt the process of credit intermediation during economic slowdowns or financial crises when downgrades become more prevalent and sustaining credit intermediation becomes more important for the economy (BNM 2001a:3). BNM stressed that it was critical that “the potential impact of the framework during periods of economic crisis or downturn would need to be adequately assessed to ensure the framework does not precipitate greater instability to the financial system” (ibid. p1). The extent to which Basel II exacerbated procyclicality would depend on the mitigating measures supervisors were willing to introduce under Pillar II. Moreover, although the risks associated with Basel II’s procyclical impact were highly plausible theoretically, the actual impact of Basel II was hard to predict not least because Basel II was new, but also because empirical evidence in Malaysia or elsewhere in the world did not exist.

The SEACEN Centre took on the critical role of information production on this issue by undertaking practical policy-oriented research in the form of a collaborative research project in 2007 that pooled expertise and data from nine central banks. As “most SEACEN member countries [were] moving towards Basel II in the near-to-medium term, many national regulators face[d] potential problems in implementing the new Accord. One important concern [was] the possibility of the pro-cyclicality impact that may have adverse effects on the economy following the implementation of the new capital accord” (SEACEN 2008:iii). These supervisory authorities aimed “to analyze the pro-cyclicality impact of Basel II in the SEACEN Countries” and develop a “discourse on the intrinsically difficult issues of how risks move over the course of a business cycle” (ibid). To ensure consistency in methodology and comparability of empirical findings across countries, common specifications of data was used and the “methodology chosen and processes involved in this study were largely derived from the discussions within the group of members involved in this research project” (Khalid et al 2008:72).

Countries initially believed that the procyclical impact of Basel II was severe but varied from country to country and that countries with less developed banking systems and less sophisticated countercyclical monetary policy frameworks would be worse off (SEACEN 2007a). However, the conclusions reached suggested otherwise. The unanimous conclusion from all nine country cases was that the procyclical impact of Basel II was not significant. The researchers from BNM’s Prudential Financial Policy and Supervision Department found that there were “insignificant effects in terms of procyclicality of the Basel II implementation to the Malaysian economy” (Khalid et al 2007:85). The findings on Malaysia were reinforced by empirical findings from other countries that were comparable to Malaysia, such as Taiwan and Indonesia, who also confirmed that the procyclical impact of Basel II was insignificant, as did the findings from those countries that were less developed, such as the Philippines. The overarching conclusion across

nine countries converged on the assessment that there was “no strong evidence that there is pro-cyclicality impact of Basel II implementation” (SEACEN 2008:x). The potential risk became less of a concern and did not become a significant obstacle that deterred the progress of implementation in Malaysia and other countries despite the initial grave concerns. The existing macroprudential framework was maintained to counter any possible adverse procyclical effects from the implementation of Basel II.<sup>7</sup> BNM instead concentrated on ensuring the use of through-the-cycle risk parameters for the IRB approaches, which they believed was more suited than the SA for achieving less procyclical capital ratios. Supervisory networks, by producing and sharing information on Basel II’s potential procyclical effects and reinforcing a converging assessment of this issue facilitated the diffusion of a convergent response in dealing with the issue of procyclicality in implementing Basel II.

The second issue relates to the East Asian version of “IRB permanent partial use”. This represents a deviation from Basel II but became widely accepted as standard practice based on the rationale that implementation should be adapted to local conditions. There are two components to BNM’s deviation. The first involved expanding the scope of permanent IRB exemptions, and the second, applying a blanket zero risk weight to sovereign exposures in domestic currency. To prevent cherry-picking the approaches for credit and operational risk that offered a lower regulatory capital requirement for any given exposure, Basel II requires that “[o]nce a bank adopts an IRB approach for part of its holdings, it is expected to extend it across the entire banking group” (BCBS 2004:57), subject to two exceptions. The provision for IRB permanent exemptions state that “[s]ome exposures in non-significant business units as well as asset classes... that are immaterial in terms of size and perceived risk profile may be exempt from the requirements” and transitional arrangements allowed a phased rollout of the IRB approach across assets

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<sup>7</sup> Some progress was already made in introducing prudential measures such as loan-to-value ratios on real estate loans and macro-surveillance of the financial system to monitor aggregate risks following the Asian financial crisis.

(ibid.). Similarly, BNM's regulations also stated that "[o]nce a banking institution within a banking group adopts the IRB approach, the entire banking group would be expected to adopt a similar approach, except for those permanently exempted asset classes in paragraph 3.4. This is to avoid cherry-picking of assets to be put under the IRB approach." (BNM 2011:para.B.3.1) However, a wider scope of asset classes in paragraph 3.4 was adopted by BNM, to which a generalized zero risk weight was applied to some of those assets.

Rather than permitting permanent IRB exemptions based on immateriality, exposures to "sovereigns, central banks, banking institutions and public sector entities" and equities held for "socio-economic" purposes were permanently exempt from the IRB approaches (Para. B.3.4) and determined according to the SA (Para. B.3.5). The rationale was that "it would be unduly burdensome for the banking institution to implement a rating system for these counterparties" (ibid.). Such deviation had gained currency across the supervisory network based on the view that implementation should be adapted to accommodate local conditions. As a result, of the banks that adopted the IRB approaches, exposures for the above have all remained on the SA, whereas the IRB approach was used for retail exposures and residential mortgages only. These were asset types where Basel II requirements were lowered compared to Basel I and hence where the scope to benefit from lower capital requirements was the greatest. This was the case across countries in the supervisory network where banks had moved onto the IRB approaches, such as in Malaysia, Korea, Hong Kong and Singapore, with the exception of Australia. Hence, banks concurrently used the SA and IRB approaches, moving onto the IRB approach where it was least costly in terms of implementation costs and most favourable in terms of reduced capital requirements, but as a result, reducing the degree of convergence with Basel II in these countries.

The second aspect of BNM's deviation from Basel II is related to the use of national discretion accorded to supervisors to provide a lower risk weight for

exposures to their sovereign or central bank (BCBS 2004:15). The application of this national discretion was extended in Malaysia by allowing sovereign exposures to remain on the SA as explained above, and then, stipulating a flat zero risk weight to exposures to the Federal Government of Malaysia and BNM denominated and funded in Malaysian ringgit (BNM para.2.16-18). This contradicts the Basel II standards in two significant ways. Firstly, the blanket zero risk weight does not allow for a meaningful differentiation of sovereign risk and is in effect, a reversion to the risk-insensitivity of Basel I's treatment of sovereign risk. Secondly, in contrast to the SA, which allows a zero risk weight to be applied to AAA and AA- rated sovereigns (equivalent to AAA to AA- in Standard and Poor's credit rating scale) and higher risk weights for lower credit ratings, a blanket risk weight underestimates Malaysia's sovereign risk. Malaysia's local currency rating was A+ when Basel II was implemented in 2005, which corresponds to a risk weight of 20%, not 0%. Malaysia's local currency rating was downgraded to A in 2011 and any further deterioration in its sovereign rating below A- would require a risk weight of 50%. However, this would not be reflected in the amount of capital banks would have to hold against their claim as Malaysia's regulations were insensitive to the increase in sovereign credit risk.<sup>8</sup> This practice was initially devised to accommodate the Single Market context in the EU.<sup>9</sup> Implementing such divergences outside the Single Market unilaterally in order to enable the Malaysian government and banks to

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<sup>8</sup> The extent to which Malaysia's Basel II implementation substantively diverges from Basel II in this respect depends on the extent of divergence between Malaysia's credit rating and that of a risk-free or AAA-rated asset. Also, following the sovereign debt crisis in Europe, "[m]arkets are questioning the risk-free status of debt issued by a number of governments worldwide" (Caruana 2011), as even the highly rated sovereign debt of G10 countries are no longer seen as risk-free assets.

<sup>9</sup> To accommodate the Single Market, the CRD assigned a risk weight of 0% for "exposures to Member States' central government... denominated and funded in the domestic currency of that central government" (CRD 2006:Article 89(1)(d); Annex VI Part 1). Instead of confining the zero risk weight to the SA, they applied a one-size-fits all zero risk weight to the sovereign debt of all EU member states, which, according to the Deputy General Manager of BIS, was "equivalent to a mutual and unqualified exemption of certain sovereign risks from capital charges, an exemption inconsistent with Basel II's risk-sensitive framework" (Hannoun 2011:13-14).

benefit from favourable risk weightings would have been difficult for the BNM to justify unless Malaysia's peers were deviating collectively, making deviations from Basel II standard practice amongst supervisory peers in East Asia.

The case of Malaysia demonstrated that the implementation of Basel II by BNM was shaped by considerations of how its supervisory peers were implementing Basel II both at the strategic level of deciding when and which approaches of Basel II to implement, but also at the tactical level of how to deal with the potential procyclicality of Basel II and in deciding the scope of applying the IRB approaches. As a result, supervisors across the supervisory network adopted very similar approaches towards the implementation of Basel II. This contrasts sharply to the implementation of Basel II in Chile, which is examined next.

### **5.3 Policy diffusion and Basel II implementation in Chile**

#### **5.3.1 American inter-supervisory authority networks and their response to Basel II**

The supervisory authority network in the Americas is not well known and somewhat overshadowed by the network of monetary authorities, the Centre for Latin American Monetary Studies (CEMLA), which has attracted a greater deal of public attention following the Latin American debt crisis (Coates 2009). Nonetheless, inter-supervisory authority networks in the Americas have a long history that can be traced to the Commission of Banking Supervision and Regulation Agencies of Latin America and the Caribbean established in 1982, which consisted of twenty-one supervisory authorities. In 1991, it was renamed the Commission to the Association of Banking Supervision Agencies of Latin America and the Caribbean (ASBALC) and membership was expanded to thirty-five countries. ASBALC subsequently become the Association of Supervisors of Banks of the Americas (ASBA) in 1999.<sup>10</sup>

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<sup>10</sup> ASBA is organized into five regional groups that include the following countries (in parentheses): the Southern Cone Group (Argentina, Brazil, Chile, Paraguay and Uruguay), the Andean Region



As the principal supervisory network in the Americas, ASBA's aim was to develop, disseminate and promote banking supervisory practices in line with international standards and to support the development of banking supervisory capabilities and resources through the provision of training and technical services (ASBA 2004:6).

The Chilean supervisory authority, SBIF, considered participation in ASBA an integral part of its policy to internationally integrate its supervisory activities with those of its foreign counterparts (SBIF 2002a:13).<sup>11</sup> According to SBIF, the international integration of supervisory activities was necessary to address the challenges posed by the globalization of finance and the consequent blurring of geographic borders in banking (SBIF 2002b). Like their East Asian counterparts, the Basel II proposal was at the centre of debate amongst ASBA members, who said they had "very closely followed the evolutionary process of the proposal leading to a new international agreement in the regulation of capital adequacy" (ASBA 2003:1). ASBA presented their views on "issues that the supervisory community in the Americas considers most relevant" to the Basel Committee in response to CP3 in early 2003 (ibid.). However, in contrast to their East Asian counterparts, supervisory authorities in the Americas were more subdued and sceptical about Basel II from the start. ASBA stated that they were not ready to implement Basel II since there was "widespread sentiment in the region in the sense that the proposal raises numerous challenges... [and] require countries to have in place a series of regulatory and supervisory practices without which, it is not feasible to envisage a sound implementation of the new capital framework". To this end, enhancing compliance with BCPs was considered a priority over Basel II implementation, which was to progress very gradually by adopting a "step-by step action plan that would pave the

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Group (Bolivia, Colombia, Ecuador, Peru and Venezuela), the North America Group (Canada, United States of America and Mexico), the Central America Group (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic) and the The Caribbean Group (includes sixteen countries). (ASBA 2005a)

<sup>11</sup> For example, the agreement to establish the permanent headquarters of ASBA in Chile in 2002 was highlighted as a key achievement and manifestation on SBIF's commitment and support for ASBA.

way for the implementation of the proposed new accord at some point in the future”. ASBA envisaged some members would “stick to the broad G10 guideline”, others to implement Basel II “at a later date”, whilst “[s]ome jurisdictions openly envisage[d] full implementation on or after 2010.” (ibid. p1-3)

Within weeks of the publication of Basel II in 2004, ASBA organized a seminar to discuss the implications of Basel II for the region.<sup>12</sup> The gathering, which lasted two days, brought together representatives from supervisory authorities and the banking industry, as well as the Chairman of the Basel Committee, who participated as Governor of the Bank of Spain. The extensive discussions amongst supervisory authorities only reaffirmed their scepticism towards Basel II and the notion that Basel II should be implemented gradually. This gradual approach, however, was not a clear sequential approach where countries first aimed to comply with the BCPs followed by the implementation of the basic approaches of Basel II and subsequently the advanced approaches. It instead envisaged gradually implementing various policies consistent with Basel II on a capital adequacy regime based on Basel I. The Chairman of ASBA argued that “[r]emaining on Basel I may be the best choice for some countries and, in fact, it may be appropriate for the majority of banking organisations worldwide” (GRR 2004). To some extent, ASBA’s Chairman, who double-hatted as director of banking supervision in the US Federal Reserve Board, was reiterating a key message from top regulators and officials in the Basel Committee, IMF and World Bank, that no country should think of implementing Basel II unless it was already compliant with the BCPs (IMF 2005, World Bank 2005). Speaking in a similar vein regarding Brazil’s position on Basel II, Latin America’s largest economy and banking sector, the Deputy Governor for Supervision at the Central Bank of Brazil stressed that “Brazil is as yet undecided with respect to the date of implementation or the timetable to be followed” and that

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<sup>12</sup> “The New Basel Capital Accord: Challenges and Opportunities for the Americas” was co-organized with FELEBAN and CEMLA (July 2004, Mexico City).

that there were “more pressing priorities for Brazilian supervision at present” such as the recently implemented risk-based and consolidated supervision. He added that the “New Accord will be most likely implemented in Brazil in a gradual manner, the new rules co-existing for a while with the old ones”. (Cavalheiro 2004:1-2)<sup>13</sup>

Similarly, the banking industry, represented by the Latin American Federation of Banks (FELABAN), was no more eager to transition onto Basel II. FELABAN’s president stressed that the challenges and risks faced in implementing Basel II in Latin America were not only greater, but distinct from those of developed countries (Risk Net 2004). Furthermore, FELABAN was not only highly critical about the potential macroeconomic impact of Basel II on the volatility and volume of capital inflows to Latin American countries (FELABAN 2004), but also the impact on local banks in the region since Basel II could increase capital requirements and regulatory costs for banks, and raise the cost of credit to corporates, SMEs and sovereigns (González 2007:173-177). FELABAN emphasized that implementation was not a regulatory race, and looked disapprovingly on some supervisors who proudly claimed they were closer than others in the region in meeting the Basel II standards, citing that Basel II was met with criticisms in the US and other emerging countries like China and India (ibid. p170). Against the lukewarm reception towards Basel II from supervisory authorities and industry representatives, it was the chairman of the Basel Committee who tried to convince to no avail that “[f]inancial institutions in Latin America are not paying attention to the most important issues of Basel II—namely the incentive to improve risk management” adding that “[w]e want banks to manage risk correctly, not to manage Basel II correctly, and hope the Accord will catalyse dialogue about risk management in

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<sup>13</sup> According to Cavalheiro, small banks would be allowed to stay on Basel I or a simplified SA for credit risk and “at best” be required to use the BIA or otherwise not be explicitly required to hold capital for operational risk. For large banks, only the FIRB approach would be allowed at first since “more time will be necessary” for the AIRB approach and only the alternative TSA was to be available for operational risk and the AMA would “have to wait a while longer”. (2004)

Latin America” (Risk Net 2004). The regional response to prioritize BCP compliance over the implementation of Basel II shaped the pace and scope of Basel II policies that diffused across the supervisory network in the Americas.

### **5.3.2 Policy diffusion at the strategic level and SBIF’s implementation policy**

ASBA stated that the “most important activity” it undertook during 2004-6 was divided between two areas, compliance with BCPs and preparations to implement Basel II (BCBS 2006a:30). However, ASBA’s preoccupation with BCPs as a way of preparing for Basel II implementation, rather than directly implementing Basel II, dominated ASBA’s main activities in the following ways. First, ASBA’s Continental Training Program (CTP), which aimed to promote knowledge on banking supervision and regulation, attracted participation from over five hundred supervisors from the Southern Cone and Central America each, and three hundred supervisors from the Andean region during 2003-05 (ASBA 2005:6). The CTP benefited from the expertise of the US and Canadian banking authorities who provided much of the training. However, the abundance of technical support in some ways was a curse in disguise for some countries that were receiving the training and had limited control over its content as the content of the training primarily focused on issues related to BCPs, hampering momentum among supervisors to implement Basel II. The recipients of the training were dissatisfied to the point that formal requests were made to ASBA to revise the training program to include more advanced courses on risk management relevant to Basel II. (BCBS 2006a:31) Moreover, ASBA promoted horizontal “cooperation activities between its members by facilitating support from agencies with recognised expertise on special issues to peers” suggesting that “[t]his form of cooperation can accelerate the implementation of sound practices in the region” (ibid. p31). SBIF received visits from supervisors in Peru, Bolivia and El Salvador (SBIF 2004:32), but this did not spur the diffusion of Basel II as none of these countries were preparing to implement Basel II.

Secondly, ASBA established the Research and Implementation Unit (RIU) in 2004 to collect and report relevant information to support ASBA's activities. It was initially tasked to assess the degree of BCP compliance to help assess the state of readiness to implement Basel II. The RIU concluded that "the region needs to make greater efforts to increase its level of compliance with the BCP, especially in the areas of risk assessment, consolidated supervision, and independence of bank supervisory authorities" (BCBS 2006a:32). In short, the region was deemed not ready for Basel II. This diagnosis shaped the types of projects ASBA subsequently undertook. In 2006, ASBA and the Inter-American Development Bank (IDB) initiated a five-year joint project to enhance compliance with BCPs stating that "bank supervisors in LAC [Latin American Countries] have a pending implementation agenda of the sound bank supervision practices reflected in the Core Principles" (IDB 2006:2). Moreover, they believed that Basel II "clearly presents a critical challenge to the LAC banking industry and its regulators... [T]o secure proper implementation of the new capital requirements, the setting of a solid bank supervision framework is necessary, and this is reached through the adequate implementation of the BCP. In this respect, the region still shows weaknesses." (ibid.)

Furthermore, ASBA established technical working groups in 2005 on credit risk and operational risk "to identify and assess the adoption of sound credit and operational risk practices in the region and to make recommendations on the best practices identified in the region." (ASBA 2005:5).<sup>14</sup> The report on credit risk aimed to document "best supervision practices in credit risk management" and provided an extensive review of credit risk management policies across supervisory authorities in Latin America. However, no more than a few brief mentions on how countries such

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<sup>14</sup> This was part of ASBA's wider and longer term strategy to form several technical working groups comprised of specialists from member countries to promote the implementation of regulatory frameworks in line with international standards. Other technical working groups were set up for issues such as consolidated supervision, bank insolvency and corporate governance (ASBA 2004:10).

as Brazil, Columbia, Peru and Chile had introduced policies in line with Basel II were made. (ASBA 2008) Likewise, the document on operational risk highlighted the dissimilar progress countries made in incorporating operational risk into their supervisory frameworks, but not as part of Basel II implementation (ASBA 2009). Divergent supervisory policies and practices amongst countries in the America's were extensively documented. Supervisors planned to implement Basel II gradually, only after establishing national supervisory frameworks for managing credit and operational risks according to regional best practices.

The dissimilar and generally sluggish progress on the part of supervisors is also reflected in a survey of 132 banks across Latin America and the Caribbean conducted by IDB/MIF and FELABAN in May 2006. The survey concluded that banks "still have a long way to go and many obstacles to remove" to implement Basel II as most banks had not even started implementing Basel II. (IDB/FELABAN 2006) The following statistics from the survey highlight the contrast between banks' plans to implement Basel II and their lack of actual progress. On the one hand, eighty percent of banks decided to implement Basel II and regarded it as one of their top priorities. Sixty percent of banks intended to implement Pillar 1 by 2008, after which Pillar 2 and Pillar 3 implementation was to follow. However, actual progress was minimal as sixty-two percent of banks were still in the pre-study or initial phase of Pillar 1 implementation. Moreover, ninety-two percent of banks had not calculated the amount of investments to be made in relation to banks' annual expenditure to implement Basel II. These supposedly contradictory results indicate that the vast majority of banks had taken a very gradual approach to implementation and envisaged implementing only the most basic approaches of Basel II that did not require investments to upgrade existing risk systems and processes.

The approach to implementation that diffused across ASBA was that of gradualism as countries did not envisage implementing Basel II in the short run. Hence, pressures on SBIF to match the Basel II policies of its peers were absent as

was the case for BNM. Although there were no push factors, SBIF's implementation decisions provide an interesting case to examine how policy diffusion reinforces low levels of convergence with Basel II. According to the Superintendent of SBIF, "[i]t has become a cliché that Chile holds a leading position among emerging economies, particularly regarding banking and financial development. However, in terms of the country's readiness for Basel II, this cliché contains a great deal of truth." (Marshall 2004:8) Chile's preparedness to implement Basel II was evident across several dimensions.

First, in terms of meeting the prerequisites for implementing Basel II as embodied in the BCPs, Chile's FSSA revealed that its compliance level reached 83%, which was comparable to that in developed countries where the degree of compliance was on average 90%, as opposed to 60% in emerging and developing countries (Marshall 2007:7, IMF 2004). Hence, in terms of satisfying the prerequisites of implementation as reflected in the BCPs, SBIF viewed Chile's level of compliance as constituting a solid foundation for the banking sector to transition onto Basel II (SBIF 2005:3).<sup>15</sup> Secondly, as part of a long term agenda to enhance regulation and supervision in line with modern concepts of prudential regulation and effective supervision following the Chilean financial crisis in the eighties, Chile was "already treading a road that points in the direction of Basel II" on its own initiative (Marshall 2004:9; Marshall 2006; Betancour et al 2006). For example, SBIF introduced a risk-based supervisory framework and made enhancements to market disclosure requirements in line with Pillars 2 and 3, and initiatives were underway to gradually align accounting practices with internationally accepted standards. Thirdly, quantitative impact studies of Basel II on capital levels in the Chilean banking system suggested a slight reduction in capital requirements instead of an increase

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<sup>15</sup> Of the twenty-five BCPs, Chile was deemed "materially non-compliant" for Principle 6 on capital adequacy, largely due to the omission of market risk in regulatory capital requirements, and Principles 1.2, 15 and 20 on supervisory independence, money laundry and consolidated supervision. Chile was non-compliant regarding legal protection of supervisors. (IMF 2004)

that would have made implementation costly for the banking sector. Fourthly, the Chilean banking system was well capitalized with an average CAR of 13.4% during 1999 and 2005. This was well above Basel I's 8% minimum requirement and the market standard of 10% that was required by institutional investors to hold bank securities. (Marshall 2007:7) According to the Superintendent of SBIF, "Chile's single most important advantage in the transition to Basel II... [was] the prudential approach it ha[d] taken to the capital adequacy requirements established by the original Basel Accord" (Marshall 2004).

In light of Chile's preparedness to implement Basel II in 2004, the Superintendent said that "Chile's head start on Basel II has triggered expectations that it will move ahead rapidly, and adopting the more advanced approaches from the start and setting an example to other emerging markets" but also added that "[t]hat is not necessarily our intention... [because] for Chile, the benefits are clear and speed will be of the essence – not in the sense of simply putting our foot on the gas pedal, but of finding the right cruising speed that maximizes those gains, while minimizing the costs. That is our key challenge." (ibid.) Despite Chile's readiness to implement Basel II, in deciding whether and at what pace to proceed with implementation, SBIF faced a dilemma in having to simultaneously reconcile the constraints imposed by industry that demanded a reduction in capital requirements to move onto Basel II with the preservation of external market confidence which required maintaining higher capital levels at par with SBIF's regional peers that were intending to remain on Basel I. On the one hand, it was essential SBIF obtained support from the domestic banking industry to implement Basel II because "[a]lthough supervisors continue to have a vital role, the implementation of Basel II is mainly the responsibility of banks and bankers, and they must play an active role in the transition. As long as supervisors are the only party committed to this project, progress will be limited and they should, therefore, motivate banks to assume their respective tasks." (Marshall 2007:13) However, the Superintendent believed that



“moving to Basel II will be difficult and will not receive the necessary industry support if it is associated with a significant increase in capital requirements” (ibid. p10). Therefore, to obtain the necessary industry support to progress with the implementation of Basel II, SBIF would have to consider allowing banks to benefit from lower capital requirements that would result from implementing Basel II.

On the other hand, satisfying the interest of the domestic banking industry conflicted with SBIF’s objective to maintain the stability of the financial system. SBIF was concerned that reductions in capital levels following the implementation of Basel II relative to its peers that remained on Basel I could adversely affect Chile’s country risk indicators and threaten the stability of Chile’s financial system. This owed to the fact that “despite Chile’s macroeconomic stability, country risk remains a concern and in this regard the solvency of the banking industry and its capital indicators are key issues. A significant reduction in capital allocation, even if it is justified on Basel II grounds, could have a negative impact on market perception and Chile’s country risk indicators.” (Marshall 2004:9) Two interrelated factors accentuated this concern. First, although Chile maintained capital levels in excess of the 8% minimum prescribed by Basel I and the 10% market standard, the relatively low capitalization vis-à-vis its regional peers who maintained even higher capital levels gave the Chilean authorities less slack to risk the deterioration in country risk that may be induced by a relative fall in capital levels in Chile. Hence, there was very limited scope to accommodate industry’s demand for lower capital requirements. Second, SBIF’s Superintendent expressed a fundamental doubt about the efficacy of capital ratios based on Basel II, compared to Basel I, which was a “simple and easy-to-measure index... extensively used at the board and management level and for external assessment by market analysts and ratings agencies as well as by regulators and supervisors... These indexes lose importance under the new capital framework as they become much more difficult to calculate and interpret. Moreover, their use by regulators and supervisors may turn to be meaningless and, therefore,

ineffective.” (ibid. p13) Hence, a fall in the level of capitalization towards the Basel minimum risked being interpreted as a sign of weakness in the regional context where others retained the use of Basel I indicators and capital levels, rather than a reflection of higher risk management standards in line with Basel II.<sup>16</sup>

Faced with the dilemma of having to simultaneously reconcile conflicting domestic interests on the one hand and sustaining external market confidence on the other, the Superintendent of Chile initially envisaged a solution where countries moved together to implement Basel II and adjusted the level of capitalization in the region based on “coordination and cooperation among supervisors” and claimed that “[i]n our continent, the Association of Bank Supervisors of the Americas (ASBA)... constitutes a prime vehicle for this type of collaboration” (Marshall 2004:9). Yet, insofar as Chile’s supervisory peers were either not able or not willing to proceed with the implementation of Basel II, and with the even less likely possibility of a region-wide reduction in the level of capitalization across banking systems to compensate for the introduction of higher risk management standards per Basel II, Chile was left to take the prudent approach in finding “the right cruising speed” in line with its regional peers that were moving very slowly towards Basel II. Having to do so created a pullback factor that constrained SBIF in proceeding with the implementation of Basel II, despite the initial readiness of the Chilean banking sector to implement Basel II.

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<sup>16</sup> This is a reverse formulation of Singer’s argument (2007). Singer argues that regulators are incentivized to create international regulatory standards to solve the dilemma caused when the domestic financial sector loses international competitiveness vis-à-vis their foreign rivals and domestic public confidence in financial stability declines. Singer’s argument only applies to countries where setting international standards is a policy option. The dilemma presented here highlights the policy constraints from the perspective of standard takers, who have the policy option to adopt an international standard conditional on whether others also adopt, and where policymakers need to respond to maintaining market confidence to external investors, whilst addressing competitive issues domestically.

### **5.3.3 Chile's gradualism that stalled**

In January 2005, the Chilean authorities released a two-stage implementation plan outlining a gradual and stepwise transition towards Basel II. The first stage comprised of implementing the SA for credit risk and the alternative TSA for operational risk from 2007 in the form of management standards. Capital charges for market risk using the SA were to be implemented in the form of supervisory norms using the concept of capital limits in compliance with the 1996 Amendment. The second stage comprised of implementing the advanced approaches of Basel II. (SBIF 2005) However, in contrary to what this two-stage implementation plan may seem to suggest, Chile's progress in terms of the pace, scope and content of Basel II implementation does not diverge significantly relative to its inactive supervisory peers. Chile's implementation resulted in a low degree of convergence with Basel II for four reasons.

Firstly, the implementation of the SA for credit risk and the alternative TSA for operational risk took the form of management standards, which are not legally binding, but instead use the SBIF's existing supervisory processes to guide banks. Similarly, supervisory norms were used to apply market risk capital requirements. Since management standards and supervisory norms do not have any legal basis, they do not require explicit capital charges for banks until corresponding amendments are made to the definition of minimum capital requirements in the General Banking Law (Ley General de Bancos, "LGB"). Only when these legal amendments are in force can capital requirements be deemed to be fully determined on the basis of Basel II. Moreover, because amending the LGB required congressional approval, no timeline was put forward in relation when such amendments would be made. Until such time, Chile's capital requirements are based on Basel I and depend solely on credit risk, without incorporating market risk or operational risk. Hence, SBIF's implementation plan can be considered as a plan to

prepare banks and SBIF operationally, rather than to formally implement the basic approaches of Basel II into its national regulatory framework.

Secondly, regarding the substance of implementation for corporate and retail loans, SBIF proposed risk weights for the SA of Basel II that was effectively a continuation of Basel I. For corporate loans, although the Superintendent claimed that “[i]n principle, Chile’s external ratings industry appears prepared to support implementation of the standardized approach to credit risk” (Marshall 2007:6), the scope of coverage in ratings was limited. Of approximately 120,000 companies that obtain bank loans in Chile, only 0.1% had an external rating, equivalent to under 9% of the corporate portfolio of Chilean banks (Portilla 2005).<sup>17</sup> This meant that over 90% of loans (or 99% of companies including SMEs) were unrated, and thus would continue to receive the same treatment as under Basel I. Hence, for the corporate loan portfolio, the change from the transition to SA is limited, and thus the extent to which a more risk sensitive capital adequacy framework is introduced in Chile. In addition, Chile’s proposed SA rules for retail and residential mortgage portfolios are consistent with Basel I, not Basel II. Basel I prescribed a 50% risk weight for residential mortgage loans and leasing contracts, although Chile had adopted a 60% risk weight for prudential reasons. Whilst the SA of Basel II proposed a 35% risk weight, the Chilean authorities suggested a 50% risk weight, which is the risk weight under Basel I. Furthermore, the risk weight applied to the retail portfolio was reduced from 100% in Basel I to 75% in Basel II. Chile adopted a 100% risk weight and proposed risk weights ranging from 90% to 100%, which is effectively a continuation of Basel I. Considering that loans to corporate and retail customers are the core of any banking business, the transition to the SA of Basel II would not radically change the substance of Chile’s capital adequacy framework based on Basel I in any significant way.

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<sup>17</sup> Betancour et al suggest that the percentage of total loans granted to rated corporates is higher at 18% (2006:19), which means that 80% of corporate loans are unrated.

Thirdly, timelines or regulatory guidelines were not issued for the second stage of implementation that would allow banks to use the advanced approaches of Basel II. This was envisaged only after the basic approaches had been formally implemented, but since that latter was delayed and remained uncertain, the second stage of Chile's transition onto Basel II was even more elusive. To the extent that the SA did not require significant changes from the status quo and the main changes and risk management benefits originated from the implementation of the advanced approaches of Basel II, Chile's progress with respect to Basel II was minimal.

Finally, Chile's less than ambitious plan to implement Basel II in 2007 was pushed back to 2009, and subsequently stalled in 2009. Chile remained on Basel I in 2012. The delay can be attributed in part to domestic factors such as the legal system and change in government in 2009, as well as international factors such as the global financial crisis and the new Basel III agreement. Owing to Chile's legal and economic legacy, the LGB is specific and detailed in almost every dimension, to the extent that it specifies the risk weights for credit risk. Hence, the implementation of Basel II requires amendment to the LGB, which requires the approval of the Chilean Congress. Moreover, since Basel II envisaged a greater role for supervisors, Congress had been reluctant to give more discretionary decision making powers to the SBIF (Cruz and Zurita 2008:2). The requirement for congressional approval contributed to delays and uncertainties in implementation. In late 2006, the Superintendent announced that "[t]he time has come to launch the standardized model for credit risk in 2007 while at the same time moving forward with other models related to operating and market risk" (BNA 2006). A string of proposals were issued for industry consultation and three quantitative impact studies were conducted (SBIF 2007:16). During 2008, amendments to the LGB to allow for the inclusion of operational and market risk capital requirements and the revised capital requirements for credit risk were drafted (SBIF 2008:12), and was to be submitted to Congress in 2009 (Cruz and Zurita 2008:2). However, following the global financial

crisis of 2007-8 and the subsequent revision of the Basel standards, which eventually culminated in Basel III in 2010, SBIF put the submission on hold after deciding to incorporate the Basel III standards before proposing a bill to amend the LGB (SBIF 2009:5).

Although formal implementation lagged behind significantly, practices in banks could have been converging towards the Basel II standards. After all, SBIF introduced a string of reforms “inspired by the Basel II model” such as incorporating market risk, enhancing internal controls and strengthening disclosures (IMF 2004:36), resulting in a capital adequacy framework that “follow Basel I standards, complemented with elements of Basel II and III” (IMF 2011:21).<sup>18</sup> However, upon examination of Chile’s four largest banks, although the concept of market risk was introduced into banks’ operations and operational risk management models were established, the assessment of such risks were not used as a basis for holding regulatory capital. Moreover, despite having the capabilities to apply the SA, it was not being used except on an irregular basis, such as to participate in quantitative impact studies conducted by the SBIF. Disclosures to the market continued to be based on Basel I. Although some banks embarked on the development of internal systems to adopt the advanced approaches, the lack of regulatory and supervisory guidance significantly hindered progress in incorporating these into regulatory capital requirements in line with Basel II.

#### **5.4 Comparative analysis**

A comparative analysis that summarizes how policy diffusion shaped Basel II implementation in Malaysia and Chile is conducted in this section. The analysis is structured across three key questions, namely, what, how and why policies diffused across the two cases.

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<sup>18</sup> The legal framework contained elements of Basel III, such as the leverage ratio set at 3% of total assets and a systemic capital surcharge.

### **What diffused?**

Different implementation policies diffused across supervisory networks in East Asia and the Americas. In Malaysia, policies diffused not only at the strategic level in terms of deciding on the speedy pace and comprehensive scope of implementation, but also at the more detailed tactical level in dealing with the procyclicality of Basel II and implementing the IRB approaches. In contrast, Chile's peers were not progressing with the implementation of Basel II as Malaysia's counterparts were. Whether supervisors should adopt Basel II at all was an open question for policymakers in ASBA. Hence, although both supervisory authorities said they adopted a gradual approach, in practice, the degree of gradualness differed substantially as supervisors adopted a gradual approach relative to the implementation policies of their foreign peers, which differed between the two inter-supervisory authority networks. BNM considered implementing the basic approaches of Basel II in 2008 and the advanced approaches in 2010 to be gradual in the context of how its supervisory peers were implementing Basel II. In contrast, supervisors across ASBA emphasized the attainment of greater levels of compliance with BCPs before introducing various elements of Basel II over time to a capital adequacy regime based on Basel I. Hence, compared to BNM, SBIF adopted a much more gradual and layered approach, which progressively introduced elements of the basics approaches of Basel II in a Basel I regime over time before formally implementing them. Different gradual approaches meant that the scope of what diffused across the supervisory networks differed substantially.

The policy emphasis on enhancing compliance with BCPs across ASBA is particularly interesting in light of the actual level of compliance to BCPs, as reported by Demirgüç-Kunt et al (2006:38). Although the regional classifications in this study do not correspond exactly to the supervisory networks, an aggregate index of compliance by region since 1999, which is the only information that is disclosed, suggests that the mean compliance score in both Latin America and East Asia and

the Pacific region was both approximately 55% (compared to 90% in industrialized countries). Hence, judging solely from countries' preparedness to implement Basel II as reflected by the degree of compliance with BCPs, both regions seem to be on par, which begs the question of why the East Asians went ahead with Basel II, and supervisors in the Americas decided to focus on BCPs. The distribution of compliance scores sheds some light. It is less dispersed in East Asia than in Latin America. The minimum and maximum score in the former was approximately 40% and 75%, and 25% and 85% in the latter (compared to 65% and 100% in industrialized countries). This reflects ASBA's diverse membership, which included countries that lacked capacities to implement Basel II and had only made preliminary progress in implementing the BCPs. In contrast, EMEAP consisted of a smaller group of relatively similar countries, where the pursuit of a focused strategy on Basel II implementation was feasible. Hence, the characteristics of the constituents of supervisory networks may shape which policies diffuse, leading to different levels of convergence with Basel II. However, in explaining the high level of convergence with Basel II in Malaysia and low level in Chile, it was not the case that channels for diffusion did not exist in the latter. Instead, one channel reinforced high while the other low levels of convergence with Basel II.

#### **How did policies diffuse?**

Both supervisory networks aimed to promote supervisory policies in line with international standards by strengthening ties between supervisory authorities and facilitating the sharing of experiences and policy thinking on various aspects of Basel II. There were many parallels in the functions of these supervisory networks. In fact, one could argue that efforts to promote convergence with international standards were greater in ASBA than EMEAP. Supervisory authorities in ASBA engaged in a more expansive, systematic and longer-term project to promote the implementation of international standards on a wide range of issues dealt with in BCPs, such as licensing, consolidated supervision and credit and operational risk



management, as well as issues such as bank resolution, deposit insurance and corporate governance. Furthermore, efforts to attain convergence went one step further as they also attempted to develop regional best practice standards by adapting international standards to national and regional conditions. As a result, however, progress was very sluggish as convergence required a high degree of coordination amongst disparate supervisory authorities.

On the other hand, the EMEAP WGBS did not aim to achieve the same depth and breadth of convergence in regulatory standards as their ASBA counterparts. Rather than formulating and assessing countries' compliance against regional best practice standards on a wide range of supervisory issues, efforts focused on a narrow set of topics, namely, Basel II implementation and macro-surveillance. Furthermore, countries focused on learning about what others were doing to maintain consistency with each other, rather than at achieving formal convergence with a set of regional standards. The lack of a systematic approach provided the Asian supervisory networks with greater flexibility and agility for Basel II policies to diffuse quickly. In addition, relationships between supervisory authorities were more informal and horizontal in the EMEAP WGBS. Based on interviews with officials, Nesaduai describes the working procedures of EMEAP and the working groups as being "very frank and open" and operating on the basis of deliberation and dialogue and the search for consensus (2008:90). Moreover, "[t]he role of deliberate knowledge sharing has also been instrumental as countries with diverse economies have been able to learn from the experiences of other countries... [Officials] emphasized that sharing experiences with other countries in governing financial markets is one of the most important functions of these networks, which allows members know how others deal with similar situations." (ibid. p87-88) To this end, supervisory networks that consist of less disparate countries in their preparedness to implement Basel II, focus on a narrow range of issues, and where interactions between supervisors are based on sharing policy ideas and experiences,

may be more conducive for promoting convergence with Basel II than supervisory networks that do not.

### **Why did policies diffuse?**

Why were supervisors motivated to look to their foreign counterparts when formulating their own policies? Neither supervisory authorities in Malaysia and Chile wanted their financial sector to be seen as the Achilles heel of the region and adopted policies that signalled financial strength relative to their peers. However, supervisory authorities in East Asia believed that markets would discriminate between the different approaches of Basel II because they conveyed information about the standard of banks' risk management. In contrast, supervisors in the Americas believed that the level of capital conveyed more important information on the strengths of banks rather than the methods used to compute them. Hence, BNM matched the implementation policies of its supervisory peers by adopting the more advanced approaches to show that its banking system also adopted best practice standards in advanced risk management. The prospects for upgrading banks' management of risk was particularly compelling for supervisory authorities in Asia following the Asian financial crisis, who attributed its cause in no small measure to the failure of domestic banks' inadequate risk management. In contrast, Chile faced a different kind of pressures. In the absence of an Asian-style financial crisis, the same impetus to adopt drastic reforms aimed at enhancing risk management standards in banks was not present across the Americas. Despite the readiness to implement Basel II in Chile, the authorities believed that higher levels of capitalization based on Basel I was a stronger signal of the strength of its banking system than higher risk management standards and lower capital requirements based on Basel II in a regional context where its peers were intending to remain on Basel I. This created a pullback factor that constrained SBIF in proceeding with the implementation of Basel II. However, in both cases, supervisors' concerns about the potential for competitive implementation strategies amongst closely interconnected

supervisors led them to ensure that they maintained consistency with their peers. The common underlying motivation to avoid disadvantaging their domestic banking sector led Malaysia and Chile to adopt different implementation strategies. In the case of Malaysia, there were implications for remaining on Basel I when its peers moved onto Basel II, whereas in Chile, there were implications for moving ahead with the implementation of Basel II when its peers remained on Basel I.

## **5.5 Conclusion**

Although supervisors from different countries do not make binding collective decisions regarding the implementation of Basel II, they do talk and monitor each other extensively. Supervisory networks determined which countries Malaysia and Chile were closely interconnected to, which in turn shaped the type and scope of Basel II policies that diffused. Supervisory networks emerged as powerful channels of diffusion that promoted convergence in implementation policies amongst countries by shaping the formation of implementation norms amongst supervisors from very early in the implementation process, thus, changing the trajectory of how countries implemented Basel II. Although divergent implementation policies diffused across supervisory networks in East Asia and the Americas, the implementation of Basel II in Malaysia and Chile was strongly shaped by considerations of how their foreign peers were implementing Basel II as there were pros and cons for not moving ahead with the rest of one's peers in the case of Malaysia, and moving ahead without the rest of one's peers in the case of Chile.

An interesting counterfactual question might then be to ask whether Malaysia would have adopted different Basel II policies if one could hypothetically relocate Malaysia to Chile and vice versa. The analyses of the activities of supervisory networks, diffusion process and the reasoning through which BNM and SBIF formulated their policies suggest that geographic location does matter to the extent that supervisory networks are organized on a regional basis. The policy

implication of this is clear. In addition to shaping national capital adequacy regimes in Malaysia and Chile, the diffusion of Basel II policies across diffusion channels with a regional footprint has a profound effect on shaping the regional regulatory landscape. This in turn has implications on the global regulatory landscape by undermining the extent to which international regulatory standards are implemented in a globally consistent way. This is because while some supervisory networks promote convergence with international standards, others deter the pace and scope of implementation. Moreover, policies tend to diffuse only within, rather than across supervisory networks.

The underlying dynamics of policy diffusion is an ongoing and evolving process. Since 2007, although the way supervisory authorities are interconnected to one another remained stable, the content of the policies that diffused changed in two important ways. Firstly, the focus has shifted towards the implementation of Basel III, which incorporates Basel II but also introduces new standards on liquidity and macroprudential regulations. This in part reflects the responsiveness and flexibility of these networks to adapt to developments in global financial regulations. Secondly, as implementation progressed in Malaysia and banks started to adopt Basel II, supervisory interactions between home and host supervisors of international banks emerged as a prominent channel of policy diffusion. Home-host supervisory relationships tend to be more asymmetric, vertical, bound by established international supervisory principles set by the Basel Committee and associated with specific implementation steps. The examination in this chapter of how policies diffused horizontally amongst supervisory peers in the same inter-supervisory authority network is complemented by the next chapter, which explores how policies diffuse vertically from home to host supervisors of global banks by examining the diffusion of Basel II policies across the cross-border structure of international banks.

## Appendix 1

### Topics of the SEACEN-FSI Regional Seminar for Bank Supervisors and Regulators

<b>Date</b>	<b>No.</b>	<b>Topic</b>
2000, November	1st	Risk Management in Banking Supervision
2001, November	2nd	Corporate Governance, Operational Risk and Internal Controls
2002, July	3rd	Operational Risk, Corporate Governance and Problem Bank Resolution
2002, November	4th	The New Capital Accord: Asset Securitisation, Risk Management and the New Capital Accord
2003, March	5th	The New Capital Accord and its Implementation Challenges
2003, December	6th	The New Capital Accord and Credit Ratings
2004, March	7th	The New Basel Capital Accord and Financial Engineering
2005, December	8th	International Accounting and Auditing Practices for Banks
2005, February	9th	Basel II and the Internal Ratings-Based (IRB) System
2005, December	10th	Basel II and Operational Risk
2006, March	11th	Supervisory Review Process of Basel II and its Implementation
2006, July	12th	Basel II and Pillar III Market Disclosure
2007, March	13th	Supervisory Review Process of Pillar II with Special Focus on Interest Rate Risk in Banking Books
2007, June	14th	The Revised Core Principles for Effective Banking Supervision
2008, March	15th	Current Issues and Developments in Credit Risk Management
2008, June	16th	Practical Techniques for the Management and Measurement of Operational Risk
2009, March	17th	Stress Testing Techniques
2009, September	18th	Lessons From Financial Turmoil and the Repercussions in Asia Pacific Region
2010, March	19th	Liquidity Risk Management in Bank

(Source: [www.seacen.org/programme/meeting.aspx](http://www.seacen.org/programme/meeting.aspx) and [www.bis.org/fsi/activities.htm](http://www.bis.org/fsi/activities.htm))

## **Chapter Six**

### **The diffusion of Basel II across the cross-border structure of international banks:**

#### **A comparative analysis of Malaysia and South Korea**

### **6.1 Introduction**

Does it matter how global banks interconnect one country to another in explaining the different ways Basel II was implemented across countries? Put differently, do national supervisors take in to account how foreign banks in their jurisdictions implemented Basel II? How plausible is it that policies diffused across the cross-border structure of international banks? The results of the quantitative analysis in Chapter Three found that on average, foreign bank presence was positively correlated with higher levels of Basel II implementation in the host country if those foreign banks had implemented Basel II in their home countries, or otherwise hindered implementation. Having established a positive correlation between the degree of convergence with Basel II in the host country, and that of the home countries of foreign banks that had a presence in the host country, it was argued that the cross-border structure of international banks was an effective channel through which Basel II policies diffused.

Indeed, driven by technological change, competition and the ongoing liberalization of markets, FDI in the financial sectors of emerging and developing countries has played a key role in accelerating the process of international economic integration and the trend towards the consolidation and globalization of the financial services industry since the mid-1990s. The value of FDI measured by cross-border mergers and acquisitions targeting banks in emerging economies rose by around twenty fold from USD2.5 billion between 1991 and 1995, to USD51.5 billion in the subsequent five years, and reached USD67.5 billion between 2001 and 2005

(Domanski 2005:70). In 2006, 897 foreign banks controlled combined assets of over USD1.2 trillion and accounted for more than 39% of total banking assets in developing countries, compared with USD157 billion ten years earlier, when they accounted for approximately 20% of total assets (World Bank 2008:86). This has resulted in the formation of global and regional banks with dense cross-border networks of subsidiaries and branches. The empirical literature tends to afford greater attention to the effects of foreign bank entry on various aspects of hosts' financial systems, such as on the productivity and profitability of banks, credit intermediation and financial stability.<sup>1</sup> Some have anecdotally stated that growing foreign involvement was instrumental in aligning the financial systems of emerging economies more closely with international standards for capital allocation, risk management and corporate governance (Domanski 2005:69). However, the question of how and to what extent this is case has not been addressed in the literature and is a question that this chapter aims to shed light on.

This chapter develops a stronger test that complements the methods and findings of the quantitative analysis by focusing on the process of policy diffusion in two specific country cases that were carefully selected in the case study design chapter. The case studies focus on the following two lines of inquiry. First, they investigate the channels of diffusion formed by networks of international banks that link Basel II policies in Korea and Malaysia to those of other countries. Secondly, the way international banks shaped various steps in the implementation process are examined, from the initial policy consideration of whether to implement Basel II to the supervisory approval process of allowing banks use the approaches of Basel II implemented by national regulations. By addressing these questions, the aim of this chapter is to uncover the process through which the presence of foreign banks define

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<sup>1</sup> Empirical studies find that foreign bank entry tends to increase the efficiency and productivity of domestic banks (Claessens et al 2001), facilitate credit intermediation (Clarke et al 2001), contribute to the stability of host financial systems (Domanski 2005) and alleviate economic and fiscal costs of financial crises (Detragiache and Gupta 2006).

the way Korea and Malaysia are interconnected to the rest of the world and shape the way Basel II was implemented. In contrast to the previous chapter that examined how policy diffusion led to early-comprehensive and late-partial adopters across different inter-supervisory authority networks, this chapter examines two countries that are in the same supervisory network, leading to three benefits from an analytical point of view. First, it is possible to control for the effects of supervisory networks when investigating the diffusion of Basel II policies across the cross-border structure of international banks. Secondly, the analysis that follows provides continuity from the previous chapter by examining supervisory relationships not just amongst supervisory peers in the same supervisory network, but also between home and host supervisors of international banks. Thirdly, this chapter complements the previous by investigating how policies diffuse not only at the level of supervisors, but also at the level of banks, both of which are key actors in the process of implementation.

The structure of this chapter is similar to that in the previous chapter. Sections 6.2 and 6.3 are case studies of how policies diffused across international banks in Korea and Malaysia respectively. To uncover the different paths through which Basel II policies diffused, the case studies first map out the channels of diffusion formed by the cross-border structure of international banks, and then examines how policy diffusion shaped supervisors' implementation policies. A comparative analysis of Korea and Malaysia is undertaken in section 6.4 regarding the three questions of what, how and why Basel II policies diffused. The chapter concludes by highlighting the two contrasting effects of the cross-border structure of international banks in promoting and hindering convergence with Basel II.

## **6.2 Policy diffusion and Basel II implementation in Korea**

### **6.2.1 The cross-border structure of international banks in Korea**

The presence of foreign investors in the Korean banking sector remained very limited until the 1997-8 Korean financial crisis. During the 70s and 80s, direct



foreign ownership in domestic banks was restricted and foreign banks provided foreign currency loans to domestic banks and firms with minimal local presence. Market deregulation and liberalization in the early 90s ushered in a rapid increase in foreign entry, whereby inward FDI through the opening of branches increased from USD27.1 million in 1994 to USD536.1million in 1995, and USD447.2 million in 1996 (Yi et al 2009:131). Yet, foreign banks were relatively small and dispersed players that served a niche market.<sup>2</sup> The tipping point that drastically changed the mode and scope of foreign banks' operations in the Korean banking sector came when the Korean government eased long standing legal restrictions that limited the foreign ownership of domestic nationwide banks in regulatory reforms following the Korean financial crisis. The mode and scale of foreign bank entry changed from opening branches to investing directly into domestic nationwide banks, paving the way for much greater levels of foreign bank presence in the Korean banking sector across two phases.

In the first phase, from the aftermath of the Korean financial crisis to 2004, foreign investor participation surged to unprecedented levels as they invested directly into major nationwide banks. According to the Bank of Korea, in terms of shareholdings, "the combined foreign ownership share of Korean commercial banks increased from 8.5% in 1997 to 27% in 2002 and to 59% in September 2004" (OECD 2005:164).<sup>3</sup> Of the seven nationwide banks, six were in aggregate foreign-owned. Foreign shareholders acquired controlling stakes in three nationwide banks, namely, Korea First Bank (KFB), KorAm Bank and Korea Exchange Bank (KEB).

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<sup>2</sup> In 2004, foreign bank branches accounted for less than 10% of domestic nationwide banks' assets. Their presence was minimal as most of the thirty-seven foreign banks operated via a single branch. There were only forty-nine foreign bank branches compared to over 4,000 branches of domestic nationwide banks. (FSS 2004b:82)

<sup>3</sup> In contrast, Korean banks did not hold significant volumes (more than 3% of their total assets) of assets outside Korea. Korean banks' exposures to Asia as at September 2009 as a proportion to total assets was 2.5% for Hana, 1.1% for Woori, and 2.2% for Korea Exchange Bank (SEACEN 2010:24). Hence, the risk of reverse causation in the analysis is low.

These were mainly private equity investors willing to take on the high risk of recapitalizing crisis ridden Korean banks in the hope to turn around the ailing businesses and realize substantial capital gains and a premium for corporate control through the onward sale of their investments to buyers wanting to enter the Korean banking sector. Korean chaebols were restricted in their ability to purchase stakes in banks as the government sought to limit collusion between financial and industrial capital. This was partly to curtail excessive lending for the expansion of chaebols (Haggard 2000) and to respond to populist pressures to discipline chaebols, whose generally positive public image as national champions were discredited by the events of the crisis (Lee 2008:442).<sup>4</sup> US private equity firm Newbridge Capital acquired 48.5% of shares in KFB in 2001, and with it, a drag-along clause that allowed it to sell 100% of KFB shares to a third party it designated. Carlyle Consortium and J.P. Morgan became the largest shareholders of KorAm Bank in 2000 and investment fund, Lone Star, acquired a controlling stake in KEB in 2003. Although the crisis precipitated the entry of foreign banks in Korea, the rise in foreign bank presence also reflected a broader global trend. Until the global financial crisis in 2007-8, “the past two decades have seen an unprecedented degree of globalization, especially in financial services... Although there are exceptions and regional differences, few countries have been left out from this trend of increasing financial integration. As a result, foreign banks have become important in domestic financial intermediation.” (Claessens and van Horen 2012)

In the second phase from 2005 onwards, the overall level of foreign investors in Korea remained stable at a high level, but the onward sale of Korean banks by foreign private equity investors to international banks resulted in a dramatic rise in the presence of foreign banks as can be seen in Table 14. KFB was acquired by UK-based Standard Chartered (“SCB”) in April 2005 and rebranded as SC First Bank

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<sup>4</sup> When the Banking Law was revised in April 2002 to raise the limit on individual’s ownership of bank shares to 10%, restrictions on chaebols remained as their voting rights were limited to 4% (Lee 2008a:442).

(SCFB), whilst KorAm Bank was acquired by US-based Citigroup in November 2004 and rebranded as Citi Korea.

**Table 14: Foreign and government ownership of banks (end of 2005)**

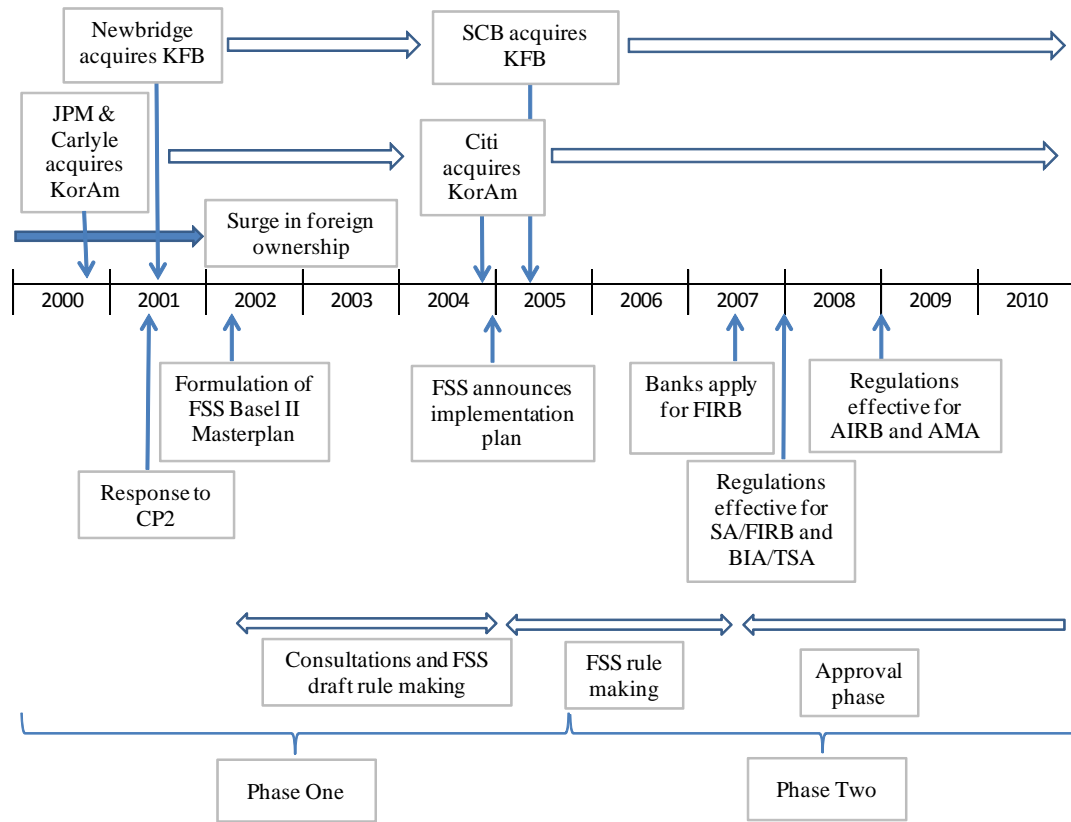
Name of bank	Foreign Ownership (%)	Major foreign shareholder (%)	Government ownership (%)	Assets (KRW, tn)
Korea First Bank	100.0	Standard Chartered (100%)	-	42,321
KorAm Bank	99.8	Citigroup (99.7%)	-	44,737
Kookmin Bank	76.3	ING Bank NV (4.0%)	-	183,634
Korea Exchange Bank	71.7	Lone Star (50.5%), Comerz Bank (14.6%)	Ex-Im Bank (13.9%), Bank of Korea (6.1%)	62,858
Hana Bank	68.3	Temasek (9.9%)	-	80,906
Shinhan Bank	63.3	-	-	135,407
Woori Bank	11.6	-	KDIC (86.8%)	104,128

Source: FSS Banking Statistics

As subsidiaries of Standard Chartered and Citigroup, KFB and KorAm Bank were integrated into the banking networks of these global banks. HSBC agreed to purchase KEB in 2007, but the acquisition was derailed by regulatory hurdles. With the exception of Woori Bank, Kookmin Bank (“KB”), Shinhan Bank and Hana Bank remained foreign-owned by aggregate share ownership.

In assessing the effects of policy diffusion in Korea, the distinction between the first phase that saw the unprecedented rise in aggregate foreign ownership of domestic banks, especially by private equity funds (2000-2004), and the subsequent phase when domestic banks were acquired and integrated into global banks (2005-2010) is important both for analytical and empirical reasons. The implementation of Basel II was a lengthy process encompassing both phases. The shift from the first to second phase, however, alters the configuration in the way policymakers in Korea are interconnected to their foreign counterparts, and hence, the paths through which policies diffuse at different steps of the Basel II implementation process. Preparations to implement Basel II commenced in 2001. While the Korean banking sector was experiencing a dramatic rise in foreign ownership in phase one, supervisors decided whether to implement Basel II, and if so, when and how. These decisions had direct effects on the preparatory stages of implementation running up to the announcement of the official implementation policy by the FSS in December 2004. This is schematically summarized in the left half of Figure 5.

**Figure 5: Timeline of Basel II implementation and the cross-border structure of international banks in Korea**



The next critical implementation step, by which time international banks had acquired domestic nationwide banks (i.e. phase two), involved the continuation of preparations by banks and concurrent process of national rule making by the FSS. This was followed by the supervisory approval process starting in 2007 for the FIRB approach and 2008 for the AIRB approach and AMA, whereby the FSS granted approvals to banks that met their regulatory requirements to actually apply the advanced approaches of Basel II for regulatory purposes. The following two sections examine how Basel II policies diffused across these two phases.

### 6.2.2 Post-crisis Korea and the diffusion of Basel II

Prior to the 1997-8 crisis, risk management in banks was merely a formality and remained very primitive. It was generally believed that even such primitive risk management standards were not implemented properly, often due to frequent

government intervention and partly due to the lack of efficient capital markets (Lee 2008:7). However, the Korean financial crisis created turmoil in the banking sector as five banks were shutdown and nine merged, reducing the number of commercial banks from twenty-six to nineteen (Kim et al 2006:260). The highly disruptive and costly market restructuring that ensued was described by one FSS official as an agonizing experience that triggered a strong sense of awareness amongst supervisors and banks that acquiring capabilities to manage credit risk was critical for the long-term survival of banks (FSS 2005a). The FSS singled out the incompetence of domestic banks' risk management functions as a major cause of the financial crisis, and subsequently exerted systematic and persistent supervisory pressure to prompt banks to make improvements in risk management a management priority and undertake significant investments to build advanced state-of-the-art risk management systems (Lee 2008:8; FSS 2005a; Jun 2008; Moon 2007).

As part of these efforts, the FSS announced a stepwise plan to introduce risk-based supervision in Korea in October 2001. The FSS stated that this was because according to ““The New Capital Accord,” released in January 2001, the Basel Committee on Banking Supervision recommended that the supervisory authority evaluate the adequacy of financial companies' capital equity in connection with the risk level and take appropriate actions.” (FSS 2001:24) The first step of introducing risk-based supervision pertained to enhancing banks' risk management capabilities through the “adoption of best practices for integrated risk management of financial institutions that incorporate the New Basel Accord” in 2002 (FSS 2002:6).<sup>5</sup> The FSS strongly encouraged the adoption of the advanced approaches of Basel II by prompting domestic banks to develop Basel II-compatible internal models for the measurement of credit, operational and market risks by 2004 and publishing plans for making the early adoption of Basel II a supervisory criteria (Lee 2008:11).

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<sup>5</sup> The second step involved implementing a risk information management system and developing a risk-based supervisory framework in 2003 (FSS 2001:25).

Although CP1 and CP2 published in 1999 and 2001 were two fundamentally incomplete proposals that were subject to extensive revisions (Tarullo 2008:104-5), Korean banks nonetheless used these to start building their internal risk systems several years before the Basel Committee finalized Basel II and before the FSS released any formal regulations. Korea's post-crisis policy rhetoric to comply with international standards not only made it difficult for policymakers to avoid committing to Basel II implementation, but also provided a kick-start to Korea's implementation by providing a strong justification for the public sector to intervene in mobilizing resources in the private sector.

The FSS's somewhat hasty and ambitious policy response to Basel II was shaped by considerations of how global banks in the G10 were intending to adopt Basel II in the context of the following interrelated factors. On the one hand, following discussions with domestic banks on CP2 in early 2001, the FSS stressed that Korean banks would be severely disadvantaged in the following two ways if they were unable to match the level of implementation of global banks from the G10 but nonetheless had to compete head-on with those banks in the domestic market. First, the capital incentives built into Basel II to encourage G10 banks to adopt the advanced approaches would play against Korean banks if they were unable to also implement the advanced approaches of Basel II. The FSS stated that "[w]hile the Basel Committee's explicit intention is to level the playing field cross the countries, the Accord is unlikely to achieve the level for Korean banks in general due to the new capital charge for operational risk. It will offset any reduction in capital under the standardized approach. Any resulting effects from increasing capital requirements would potentially disadvantage Korean banks" (FSS 2001a:1). Secondly, the FSS was concerned about the adverse impact Basel II could have on market perceptions of banks since it would be "very difficult for market participants to compare the relative strength of banks using different approaches; standardized approach vs. the foundation IRB approach vs. the advanced IRB approach" (FSS

2001a:1). The FSS expected that the relative strength of banks as seen by market participants would depend not only on their capital adequacy ratios, but more critically, on the Basel II approaches banks adopted.

On the other hand, competitive pressures from global banks based in the G10 became an increasingly compelling factor in shaping the FSS's Basel II policies as the domestic market moved away from being protected as was the case prior to the Korean financial crisis. The rate at which foreign investors flooded into the Korean banking sector immediately after the relaxation of regulations restricting their participation was astounding. The share of foreign share ownership of Korean commercial banks was rising at unprecedented rates. Compared to the pre-crisis level, it jumped more than threefold to 27% in 2002 and reached 60% in 2004 (OECD 2005). The market entry of global banks was imminent as intense competition to enter the Korean market formed amongst international banks that were desperate to snap up a Korean bank and gain a foothold into the Korean banking sector through acquisitions.<sup>6</sup>

The sudden exposure to intense competitive pressures from G10 banks, combined with concerns about the potential competitive disadvantages Korean banks could face if they could not implement the advanced approaches of Basel II produced a knee-jerk response that culminated in an ambitious implementation strategy that was in many ways more Catholic than the Pope. From as early as 2002, two years before the Basel II rules were agreed amongst the G10, preparations to implement the AIRB approach for credit risk and the AMA for operational risk

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<sup>6</sup> According to news reports "HSBC has been desperate to increase its presence in South Korea and broaden its exposure across Asia, but failed in two previous attempts to snap up a Korean bank. The group has been trailing behind Standard Chartered, which two years ago outbid HSBC in the USD3.3bn race to acquire Korea First Bank, and Citigroup, which bought KorAm Bank. HSBC agreed yesterday to buy a 51% stake in KEB from the US private equity firm Lone Star. Analysts said the price - a premium of 22% to Friday's closing share price - was high, but HSBC insisted it was fair and in line with other recent deals." (The Guardian 2007; see also The Independent 2007) The deal, which was HSBC's third attempt, was subsequently derailed by regulatory hurdles.

commenced in banks to minimize capital requirements as far as possible for credit risk and reduce the extent to which capital charges for operational risk offset the reduction in capital requirements from adopting the AIRB approach. Moreover, an implementation timetable that matched the earliest of G10 regulators and their global banks was pursued to minimize any adverse competitive implications due to timing that may unlevel the playing field between domestic and international banks. Although KB's head of Basel II implementation argued that the adoption of the advanced approaches was not solely aimed at reducing capital requirements but to improve risk management standards (IT Daily 2006), capital incentives for implementing the IRB approaches were also very strong as KB suggested to its investors.<sup>7</sup> Similarly, KPMG reported that capital cost considerations were indeed the main concern in Korea and that "the primary purpose for banks to use the advanced approaches was to reduce minimum capital requirements", although as implementation progressed, banks were "beginning to understand that risk management can add value to their institutions by mitigating risks and improving operating efficiency" (KPMG 2008:10).

The FSS was ultimately dependent on domestic banks to develop reliable state-of-the-art risk management systems. Merely introducing regulations and requiring banks' compliance with the advanced approaches of Basel II would have no effect on alleviating the competitive disadvantages if banks could not implement the regulations. This could even be counterproductive and exacerbate the competitive disadvantages faced by Korean banks if foreign banks in the domestic market were able to implement the advanced approaches by drawing on the Basel II implementation capabilities and experiences of their parent banks, whilst domestic banks failed to develop such capabilities by the time the regulations came into force.

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<sup>7</sup> In a statutory filing in 2003, KB reported that "[i]f such [IRB] approval is not obtained, we may have to increase our capital to support our small- and medium-sized enterprise lending" and that "initial quantitative impact studies show that implementation of an internal ratings-based approach will give rise to a modest increase in our capital adequacy" (KB 2003:22; 2005:133).



These concerns led to a process of implementation in Korea that was tightly supervised and where the pace of formal implementation was subject to the progress made by banks. The FSS aggressively promoted the advanced approaches of Basel II because it “believed that voluntary efforts by financial institutions were not sufficient to improve efficiency of risk management functions to international levels. Such approach helped to persuade CEOs of financial institutions to approve huge investments in risk management functions.” (Lee 2008:12) This was because implementing the advanced approaches entailed significant implementation burdens on Korean banks that lacked capabilities. Preparations by the FSS also commenced several years before any formal policy was announced to the public. In March 2002, the FSS formulated the ‘New Basel Accord Implementation Preparation Plan’ and formed a joint taskforce with banks to examine the Basel II proposals and conduct quantitative impact studies of the proposed rules on the Korean banking sector during late-2002 and early-2003. The FSS also formed “four joint task forces with experts from the banking industry on the major areas of the NBA [New Basel Accord] to prepare for its expected adoption in 2004.” (FSS 2003:22) The first draft rules were issued in October 2003 and the FSS told banks to complete building their Basel II systems based on these draft rules by the end of 2004. Meanwhile, the FSS surveyed individual bank’s Basel II adoption plans in July 2004 and field audited their progress (KPMG 2004:30). It was only after the accumulation of confidence about the capacity of banks to implement the advanced approaches of Basel II that the FSS formally announced its implementation policy in December 2004.

The FSS announced year-end 2007 as the target date for the implementation of both the basic and advanced approaches of Basel II. This decision was based on three considerations, two of which pertained primarily to domestic concerns, namely, the impact of Basel II on banks’ capital adequacy ratios and lending, and “the progress of domestic banks with preparations for the new accord. Because the use of internal ratings broadly in line with the minimum requirements must be satisfied for

at least two years – three years for advanced IRB approaches – before the new accord takes effect, and domestic banks are expected to complete their credit risk rating systems for the new accord by the end of 2004 or early 2005, it was decided that year-end 2007 implementation timetable was appropriate.” (FSC/FSS 2004)<sup>8</sup>

The Basel II implementation policies of other key countries constituted the third factor underlying Korea’s implementation policy. According to the FSS, implementation in the EU, Canada and Japan was due at year-end 2006, and year-end 2007 for the advanced approaches of Basel II, whilst the US was to adopt a bifurcated approach to implementation, which mandated the implementation of only the advanced approaches of Basel II by year-end 2007 to banks with more than USD250 billion in total assets or with foreign exposures greater than USD10 billion. The FSS also evaluated how Korea’s proposed implementation compared with that of a second group of non-Basel Committee member countries, such as Hong Kong, Singapore, Australia, Malaysia and China (ibid.).<sup>9</sup>

The selection of Pillar 1 approaches was formally left to each individual bank, although in practice, the FSS had encouraged nationwide banks to adopt the advanced approaches. Following the announcement of the FSS’s Basel II policy, banks were required to submit their implementation target approaches and corresponding step-by-step implementation plans to the FSS so that it could focus its supervisory activities to ensure banks progressed in line with those plans (FSS 2005b). Unsurprisingly, all seven nationwide banks said they had decided to implement the IRB approaches for credit risk and the AMA for operational risk, except for KFB (FSS 2005). To exert continued pressure on banks, the FSS intensified its semi-annual examinations in 2005 to quarterly assessments from 2006 to monitor and intervene where banks’ implementation fell short against a detailed checklist devised by the FSS (FSS 2005b:1-2).

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<sup>8</sup> Implementation of the AIRB and AMA was subsequently delayed to 2009 (see Chapter Seven).

<sup>9</sup> See section 7.3.2 for discussions on how implementation plans in these countries were used as key policy inputs in formulating the FSS’s Basel II policy.

### **6.2.3 International banks and the diffusion of Basel II in Korea**

By the end of 2006, the content of most rules implementing Basel II were finalized.<sup>10</sup> The regulations for the SA and FIRB approach for credit risk and BIA and TSA for operational risk subsequently came into effect in January 2008, whilst the AIRB approach and AMA came into effective in 2009. The implementation of Basel II in Korea then progressed to the approval phase, where the supervisory authority's decision on whether to allow banks to actually implement the advanced approaches became the main focus of implementation. Banks that wanted to implement the advanced approaches were required to obtain formal approval from the FSS six months before the date banks wanted to start implementing those approaches. As the national rules implementing Basel II were being written, Citigroup acquired KorAm Bank in December 2004 and “[a]fter one of the world's largest lenders, Standard Chartered, bought Korea First Bank... the media was quick to foretell of the coming “bank wars”. The competition between foreign and domestic banks has been dreaded ever since South Korean banks sold their shares to outsiders to bail out of the 1997-98 financial crisis” (Asia Times 2005). The integration of two Korean nationwide banks into the banking networks of Standard Chartered and Citigroup re-configured the way policymakers in Korea were interconnected to their foreign counterparts, thus, reshaping the path through which policies diffused.

Furthermore, the two concerns that initially motivated Korean regulators to adopt a very aggressive implementation strategy discussed above did not fully

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<sup>10</sup> In January 2005, the FSS issued guidelines for the regulatory approval processes and operational requirements for the use of the IRB approaches and AMA. Guidelines on risk measurement methods for credit and operational risk were published in May and August of 2005 respectively. In July, guidelines on capital soundness were issued and proposals on the eligibility requirements for external credit assessment institutions for the SA were published in December 2005. During 2006, the FSS issued supervisory guidelines on use-requirements for the AMA, risk measurement methods for credit and operational risks and internal capital adequacy assessments. (FSS 2006)

materialize with time, and with it, the race to implement Basel II stalled. Firstly, in contrast to concerns that the advanced approaches of Basel II would lead to significant capital savings, actual capital requirements and levels in banks that implemented Basel II in the G10 suggested otherwise. Moreover, G10 supervisors increased regulatory capital buffers in response to the global financial crisis of 2007-8, eliminating any possibility of international banks reaping the capital savings built into Basel II. In fact, as capital levels in Korean banks dipped following the global financial crisis, the FSS conducted routine comparisons of capital levels in major economies to ensure Korea maintained comparable levels of capital, not less (FSS 2009a). Secondly, the concern that markets would penalize banks that did not sufficiently progress with the implementation of Basel II became less compelling. In fact, the US, where several global banks were based, had delayed implementation in 2005, and then again in 2007. Moreover, in 2006, four core US banks that were mandated to implement the advanced approaches of Basel II, namely, Citigroup, JPMorgan Chase, Wachovia and WAMU, requested that they be given the option to implement the SA rather than the AIRB approach (Sloan 2006; Herring 2007:424). Rather than being penalized for trying to adopt the basic approaches of Basel II, this position was endorsed by key market actors in the US, such as the American Bankers Association, the Independent Community Bankers of America, America's Community Bankers, and the Financial Services Roundtable (Sivon 2006). Even the US banking authorities were divided on this issue. (Herring 2007:425-426).<sup>11</sup>

The FSS's supervisory decisions to allow banks to implement the advanced approaches of Basel II ultimately determined the Korean banking sector's degree of convergence with Basel II. With the entrance of Standard Chartered and Citi, these decisions became closely interlinked to the Basel II policy decisions of their foreign counterparts in the UK and US. The prior adoption of Basel II in the home country

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<sup>11</sup> The Chairman of the Federal Deposit Insurance Corporation and the Director of the Office of Thrift Supervision supported these banks, whilst the Comptroller of the Currency supported the Federal Reserve, which had put forward the bifurcated approach.

of these international banks significantly altered foreign banks' implementation decisions in the host country as well as increasing the need for host supervisor to respond to them. The following subsections examine how inter-linkages between the home and host countries shaped the progress of implementation in SCFB and Citi Korea, before looking at how domestic banks struggled with implementation, highlighting the case of Korea's largest lender, KB. Domestic banks were unable to attain the level of implementation initially envisaged by themselves and the FSS, but nonetheless uniformly adopted the same approaches. In contrast, the two foreign nationwide banks implemented Basel II in divergent ways. SCFB adopted the most sophisticated AIRB approach and Citi the least sophisticated SA, whereas all the domestic banks opted for the FIRB approach for credit risk. Both foreign banks adopted the TSA for operational risk, whereas all domestic banks implemented the AMA. SCFB's adoption of the most advanced approach and Citi Korea's adoption of the least advanced approach for credit risk was not because the former was more advanced and the latter less so than domestic banks. Likewise, the adoption of the SA by SCFB and Citi Korea was not solely due to their lack of capabilities to adopt the AMA.

### **SCFB and Standard Chartered**

The FSA implemented Basel II in the UK through the EU's CRD, which implemented Basel II across the EU according to the implementation timetable and scope agreed amongst Basel Committee members. As SCB's lead supervisor, the FSA formally approved SCB to use the AIRB approach from 2008 to calculate regulatory capital covering 80% of SCB's global RWA and the TSA to calculate capital for operational risk, including its Korean operations (SCB 2009:4). The implementation strategies pursued by SCFB and SCB, which are examined next, amplified the way and extent to which the host regulator, the FSS, was exposed to and had to take into account the Basel II implementation decisions and approvals of the home regulator, the FSA. Linkages created by the cross-border structure of

global banks had the effect of accentuating the effects of policy diffusion in the following ways.

Firstly, SCFB inherited significant implementation capabilities from its parent bank, which implemented Basel II in line with the FSA's regulations. As a subsidiary of SCB, SCFB's management complied with SCB's internal policies and procedures in implementing Basel II (SCFB 2006:3). This gave SCFB a head start since important implementation capabilities were acquired through SCFB's "Basel Compliant Risk Model Implementation Project" in 2006 that aimed to localize SCB's Basel II-compliant global risk models, processes and standards, rather than developing them independently from scratch as other domestic banks had to (SCFB 2005:47). As a result, SCFB became the first bank in Korea to apply for supervisory approval to implement the AIRB approach, which was based on SCB Group's credit risk assessment models at the earliest permitted date of January 2009 (FSS 2009).

Secondly, SCB had considerable influence over which approaches SCFB adopted. As an international bank operating in over seventy jurisdictions, a globally consistent approach in implementing the various approaches for credit and operational risk was seen to have "natural appeal" for SCB since inconsistencies could lead to additional capital charges and increased compliance costs due to inefficient capital allocation, parallel processing burdens and multiple reporting requirements across countries. SCB formulated a global implementation strategy that applied across its global network to optimize the benefit for SCB as a group by specifying clear Basel II target approaches for its subsidiaries, including SCFB. The global implementation strategy stated that "[i]n countries where the AIRB approach for calculating the credit risk capital charge is allowed by host regulators, the Group AIRB approach is the default. For market and operational risks the default is the Standardised Approach."<sup>12</sup> For Pillar 2, SCB's ICAAP framework was to be used to the maximum extent possible, as with SCB's disclosure format for Pillar 3. In effect,

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<sup>12</sup> Interview conducted by author (2008).

SCB's implementation of Basel II, which was implemented in line with the FSA's regulatory policies and expectations, formed the basis of what SCB sought to achieve across its global banking network through its global implementation strategy.

Thirdly, SCB adopted a regulatory engagement strategy that actively sought to attain its preferred target approaches across its global network. The crux of its home-host implementation strategy was to maximise host regulators' reliance on the FSA's review work and supervisory decisions. If host regulators did not allow the target approaches that SCB preferred, local management were expected to lobby the host regulators for exception or change in their plans. Otherwise, the focus was to roll-out SCB's Basel II infrastructure and "advocate an FSA-led cross-border implementation of the new regime, including maximum reliance on the FSA's review work by our [SCB's] host supervisors" for AIRB approvals, Pillar 2 ICAAP submissions and Pillar 3 disclosures.<sup>13</sup> Engagement with host supervisors was undertaken both bilaterally and on a "multilateral" basis in supervisory college meetings.<sup>14</sup> SCB's colleges were organized annually by the FSA and SCB since 2005 and offered a unique forum to physically bring together different host supervisors into one room to address cross-border implementation issues. The intention was for home and host supervisors to agree on the use of SCB's global risk models in different countries and the extent of host supervisors' reliance on the FSA's approval of SCB's AIRB application. SCB expected that the FSA's approval in 2007 would set a strong precedent for obtaining approvals from supervisors elsewhere, including the FSS. Moreover, SCB believed its bargaining position vis-à-vis the FSS would increase progressively due to the accumulation of approvals from other host supervisors across the world, such as the HKMA, Central Bank of UAE

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<sup>13</sup> Interview conducted by author (2008).

<sup>14</sup> Colleges are working groups for supervisors of an international banking group. They are physical bank-specific meetings, arranged by bank's home supervisor. Colleges usually involve representation by the bank for part of the meeting to present the bank's strategy and progress in implementing Basel II and to answer any specific questions that supervisors raised.

and the South Africa Reserve Bank, as this demonstrated that SCB's Basel II framework met the standards of multiple supervisors around the world, hence making it harder for the FSS to reject it. Indeed, since SCB's first college meeting in 2005, "most supervisors who have been sufficiently advanced with their implementation plans to commit to an arrangement agreed to rely on the FSA's work. One key exception has been the FSS in Korea, who has so far not agreed to rely on the FSA's work".<sup>15</sup>

Although the FSA's approval and SCB's implementation capabilities covered SCB's global operations, as a locally incorporated entity, SCFB was nonetheless required to obtain supervisory approval from the FSS to adopt the AIRB approach for local regulatory purposes. However, when SCFB applied for supervisory approval, the FSS found home-host issues difficult to deal with. The FSS had previously "shown no indication to rely on the FSA's or SCB Group level work... in a practical sense, but partly politically, because the Koreans just could not and would not. They did not buy the idea of talking to the FSA. Their approach was more 'in Korea, this is the way we do things'... because of weariness of being drawn into something that they would not be in control of."<sup>16</sup> Although the FSS had encouraged banks to implement the advanced approaches and implemented regulations to allow them to, the FSS was reluctant to grant approval to a foreign bank and rely on their internal parameters and centralized credit risk systems for domestic regulatory purposes. Moreover, the FSS was concerned about the potential lack of a level playing field caused by only one bank, especially a foreign bank, adopting the advanced approach whilst the others could not. As a result, the FSS disagreed with the FSA about when SCFB should be allowed to adopt the AIRB approach.

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<sup>15</sup> Interview conducted by author (2008).

<sup>16</sup> Interview conducted by author (2008).



The FSS acknowledged that it faced a challenging cross-border implementation issue when SCFB applied for approval to use SCB's group models, and undertook extensive assessments of the applicability of such global models in the context of the Korean banking system and held discussions with the FSA in October 2008 (FSS 2009). An onerous self-assessment of SCFB's Basel II framework prescribed by the FSS ensued and the approval process dragged on beyond the six months timeframe promised by the FSS. At one point, the relationship between the FSA and FSS was strained when the FSA indicated it would not recognize credit ratings issued by Korean rating agencies for Basel II purposes, which for the FSS was a humiliating affair. The FSS, however, came under increasing pressure to grant supervisory approval to SCFB as it could not indefinitely reject SCFB's AIRB application, which was based on methods approved by several other credible supervisors, such as those in the UK and Hong Kong, other than on prudential grounds. Moreover, as the FSS continued discussions with the FSA, by persistently withholding its decision, the FSS risked tarnishing its own international creditability and reputation by operating outside the perimeters of the international supervisory architecture that was based on established international standards set by the Basel Committee. Six supervisory principles were specifically published by the Basel Committee in tandem with Basel II to address how supervisory responsibilities should apply between home and host supervisors of international banks in implementing Basel II (BCBS 2003; FSS 2009). These principles, which are described in further detail in footnote 17, encouraged host supervisors of international banks to accept the methods and approval processes used by the parent bank, and in some circumstances, rely *entirely* on the approval work conducted by the home country supervisor to reduce the implementation burden on banks and conserve supervisory resources.<sup>17</sup>

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<sup>17</sup> The Basel Committee formulated six principles to define the division of supervisory responsibilities between home and host supervisors of international banks, especially regarding when

It was in June 2009, that the FSS eventually granted its first and only approval to allow a nationwide bank to implement the AIRB approach in Korea. However, two major items were also agreed with the FSA. Firstly, both supervisors agreed that more conservative margins should be applied for credit exposure to corporates to reflect their credit performance history during the Korean financial crisis, although this would be more costly for SCFB and ultimately SCB as their capital cost of lending would increase. Secondly, the FSA accepted the FSS's policy to apply the SA for government and banks exposures, extending the use of IRB permanent exemptions beyond that stated in Basel II on grounds that it would be too burdensome and difficult to obtain reliable measures (as also argued by BNM in Chapter Five). Hence, the FSS used engagements with the FSA to obtain recognition of Korea-specific deviations from Basel II. Although this fell short of receiving an official rubber stamp, Korea-specific deviations nonetheless gained some de facto legitimacy because an internationally credible and sophisticated regulator as the FSA had recognized and accepted such practices. This set a powerful precedent. The FSS could now push other supervisors to rely on the precedent set between the FSA and FSS in the same way that SCB and the FSA pushed for maximum reliance on the FSA's approval for SCB.

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and how host supervisors should allow international banks to implement the advanced approaches of Basel II. The overarching principle is that the "implementation of the New Accord should build on the existing framework of the Basel Concordat to achieve effective implementation across jurisdictions without imposing an undue burden on banking groups". Of the principles concerning host supervisors' behavior, Principle Six states that "[h]ost country supervisors have an interest in accepting the methods and approval processes that the bank uses at the consolidated level, in order to reduce the compliance burden and avoid regulatory arbitrage", unless they had "other legitimate interests". Moreover, Principle Five states that "supervisors should avoid performing redundant and uncoordinated approval and validation work in order to reduce the implementation burden on the banks, and conserve supervisory resources...Where 'mind and management' are centralised in the banking group or where techniques are consistently applied across the group, the home country supervisor will probably be better placed to lead approval work. In such circumstances, the host country supervisor may choose to rely entirely on approval work conducted by the home country supervisor". (BCBS 2003)

## **Citi Korea and Citi**

The case of Citi Korea provides a very interesting and contrasting case to that of SCFB as it demonstrates that the presence of international banks does not necessarily exert pressure on domestic supervisory authorities to implement Basel II fully and in a timely manner. Preparations in KorAm Bank to implement the advanced approaches of Basel II commenced in 2002 (KorAm 2002:23), and continued following its acquisition by Citigroup, but took a different turn. The Risk Architecture Team in Citi Korea worked closely with Citigroup to develop new risk rating models, loan loss reserve systems and advanced risk measurement frameworks that were in compliance with Basel II as part of the business integration process of KorAm into Citigroup. A Basel II implementation task force was set up in Citi Korea to work “in collaboration with the Citigroup task force and local regulators, to establish the bank’s Action Plan, develop relevant systems and technologies, and create testing models.” (Citi Korea 2004:26) According to Citi Korea’s Basel II implementation plan submitted to the FSS in April 2005, Citi Korea was preparing to implement the AIRB approaches for credit risk and AMA for operational risk (FSS 2005). However, Citi Korea’s progress was derailed when Citigroup’s implementation was delayed due to the lack of progress and uncertainty in implementation on the part of US banking authorities.

The US banking authorities issued an advance notice of proposed rulemaking in August 2003 and additional guidance in October 2004 to implement Basel II. To the surprise of the international banking community, the US adopted a bifurcated approach to implementation, which mandated the implementation of only the advanced approaches of Basel II by year-end 2007 to banks with more than USD250 billion in total assets or with foreign exposures greater than USD10 billion (Herring 2007:416). Banks in the US were not permitted to adopt any of the less advanced approaches for computing capital charges for credit and operational risk. In April 2005, the US banking authorities announced that they would be delaying the

issuance of a notice of proposed rulemaking (NPR) pending additional analysis of a quantitative impact study. Then they decided to move forward with an NPR later that year, but planned to introduce additional prudential safeguards against declines in banks' capital levels and delayed implementation by another year so that banks would start parallel runs under Basel I and II in 2008 (FRB 2005). This was to be followed by a transition period lasting at least three years, making the US the last of the G10 to implement Basel II.

The combination of prudential safeguards that introduced limits on the amount banks' risk-based capital requirements could decline and the requirement to implement only the operationally onerous advanced approaches was an unpalatable mix for core banks in the US. In 2006, Citigroup, JPMorgan Chase, Wachovia and WAMU urged that all banks be given the option to implement the SA because they believed that the requirement to implement the advanced approaches, the leverage ratio and transitional floors would disadvantage US banks relative to their counterparts abroad and US investment banks (Sloan 2006:4 Herring 2007:423). "Without the prospect of lower capital requirements and with the threatened imposition of additional prudential safeguards, the core banks began to see the A-IRB as simply the imposition of deadweight costs... they were reluctant to incur the additional costs of implementing the A-IRB if there were to be no regulatory benefits." (Herring 2007:425) However, the Federal Reserve, which insisted on a bifurcated approach from the beginning, was unwilling to reconsider its policy. This led to disagreements amongst the US banking authorities. The Chairman of the Federal Deposit Insurance Corporation and the Director of the Office of Thrift Supervision supported the banks, whilst the Comptroller of the Currency supported the Federal Reserve (ibid.).

In December 2007, the US banking authorities issued rules for only the advanced approaches of Basel II and implementation was further delayed. A twelve-month parallel implementation period was to start between April 2008 and 2010,

followed by a three-year transition period, during which US regulators reserved the right to change how Basel II would apply following a review at the end of the second year (Federal Registrar 2007). These arrangements added to the uncertainty as to whether Citi, which began parallel reporting in the last day banks had to start their parallel runs in 2010, would be allowed to fully move onto Basel II. According to the IMF, the overall implementation of Basel II in the US remained “somewhat in flux” in 2010 due to the “uncertainty in banks about the status of Basel II in the United States going forward. For banks, some of this relates to how the implementation will work in practice, whether banks will ever be permitted to exit parallel runs or the floors... Despite the leading role played by the United States in developing Basel II, considerable and protracted inter-agency disagreement delayed U.S. implementation, and these interagency disagreements still do not appear to be fully resolved.” (IMF 2010:5-7)

The delay and uncertainty in the US, which directly affected Citigroup’s implementation of Basel II, produced knock-on effects on Citi Korea’s implementation. Rather than requesting regulatory approval from the FSS to implement the advanced approaches that Citi Korea had been preparing for since 2001, it decided to implement the SA and TSA in line with its parent bank’s implementation strategy, which applied across its global operations. Citi Korea claimed that it started using the AIRB approach for internal capital and risk management purposes since 2009 (Citi Korea 2009:45), although it did not envisage applying for their regulatory use until 2012 at the earliest (Citi Korea 2010:44). As a result, Citi Korea was the only nationwide bank in Korea that adopted the most basic approaches of Basel II, which were adopted to meet the minimum requirements set by the FSS. Hence, despite initially aiding the development of Citi Korea’s implementation capabilities, it was the lack of progress in implementing Basel II by the home jurisdiction’s banking authorities that led Citigroup and Citi Korea to put their implementation on hold.

## **Domestic banks**

By 2005, domestic banks reported that they completed or were near completing the development of their Basel II-compliant systems and thus were on track to implement the advanced approaches of Basel II. KB, Korea's largest lender, also completed the development of its systems in 2005 and was able to compute capital requirements in accordance with the AIRB and AMA. The development of the Pillar 3 disclosure system was also complete by November 2005 and work had commenced to implement Pillar 2. (KB 2005:130-4) KB announced in their statutory reports in 2006 that "[f]or regulatory reporting purposes... [KB was] planning to implement a "Foundation Internal Ratings-based Approach" for credit risk and a standardized approach for operational risk from January 1, 2008, with the "Advanced Internal Ratings-based Approach" and "Advanced Measurement Approach" being implemented for credit risk and operational risk, respectively, from January 2009." (KB 2006:126-7). However, when the process of obtaining supervisory approval from the FSS to move onto the advanced approaches commenced in 2007, the implementation trajectory envisaged during the preparatory phase of implementation went off course. Obtaining supervisory approval proved to be a challenge for the five domestic banks, including KB. A key rationale behind the IRB approaches was the presumption that large international banks in the G10 that used sophisticated credit risk models were better placed than their supervisors to assess their credit risks. However, this was not the case in Korea as banks did not have such capabilities. The initial knee-jerk reaction to become more Catholic than the Pope meant that supervisors had to strongly push banks to develop such implementation capabilities. In response, banks, in an attempt to find a quick fix solution to acquire such capabilities relied heavily on internationally renowned consulting and IT companies for developing their advanced credit risk management systems. Although costly, the heavy reliance on acquiring implementation capabilities externally was inevitable for most banks that lacked both expertise and

experience to simultaneously develop advanced credit risk management systems and credit databases in the short period of time they were given by the FSS. Hence, it was “not very surprising that some of the banks later suffered from mistakes: Some banks realized belatedly that their new credit risk management systems were nothing but computerized version of the old and ineffective ad hoc screening practices, and hence incompatible with the new Basel requirements. They were forced to rebuild credit risk management systems from scratch.” (Lee 2008:17) As a result, the FSS also found it difficult to actually rely on banks’ internal models and the risk parameters they produced for regulatory purposes. Hence, although competition-based diffusion was effective in promoting preparations for the early and full implementation of Basel II, limitations in its effect became apparent when constraints in implementing Basel II became binding as banks attempted to move onto Basel II but could not. Progress in implementation was fraught with delays and plans to implement the AIRB approach stalled in all the domestic banks. This underscored the importance of capacity constraints in both public and private sectors in implementing Basel II, even in relatively advanced economies.

KB was the first bank in Korea to obtain approval to implement the FIRB approach in December 2007. KB hailed the approval as formal recognition from the authorities that KB’s risk management standards satisfied international best practices and argued this would increase KB’s credibility towards its shareholders, investors and rating agencies and enable it to reduce funding costs in domestic and international capital markets and execute diverse marketing strategies based on their superior competitiveness in risk and capital management (KB 2007).<sup>18</sup> In practice however, the scope of KB’s initial supervisory approval was partial. It included permission to use the IRB approach only for its retail and SME loans and asset-backed securities. It failed to obtain approval for other large segments of its credit

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<sup>18</sup> Kookmin Bank, Shinhan Financial Group and Woori Financial Group are listed on the New York Stock Exchange.

portfolio such as corporate loans (KB 2007), due to difficulties in developing reliable models to compute PDs. KB agreed with the FSS in 2007 “to further implement [its] internal ratings-based approach to other classes of credit risk exposure on a phased rollout basis between 2008 and 2010”, but KB’s plan to apply the AIRB approach in 2009 stalled altogether and was put on hold indefinitely to the “near future” (KB 2007; 2010). The phased rollout approach extended the FIRB approach to corporate loans and other retail loans in 2008, but stalled again despite announcing plans to the market in 2008 that it would fully migrate onto the FIRB approach in 2009 and 2010. It later announced in 2011 that it planned to complete the transition onto the FIRB approach by 2012 (KB 2010).

In sum, motivated by competitive pressures from global banks in the G10, the FSS initially adopted a very ambitious strategy that aggressively promoted the implementation of the advanced approaches of Basel II. However, the actual level of implementation in banks fell short of what the supervisors envisaged as they struggled to acquire the necessary capabilities to implement Basel II. When foreign banks expanded their global banking networks into Korea, the FSS was exposed to a different kind of policy diffusion. The divergent decisions of the FSA and US banking authorities both had implications for the degree of convergence with Basel II attained in the Korean banking sector as foreign banks hindered as much as they promoted the full and timely implementation of Basel II. The case of Malaysia, which is examined next, provides a contrasting case to that of Korea due to the different ways Malaysia was interconnected to the rest of the world via the cross-border structure of international banks.

### **6.3 Policy diffusion and Basel II implementation in Malaysia**

#### **6.3.1 The cross-border structure of international banks in Malaysia**

A non-negligible, well-established group of foreign banks operated in Malaysia owing to the legacy of its colonial past. When Malaysia became independent in 1957,



foreign banks represented over 90% of the banking sector, although by 1997, they accounted for only 16.7% of banking assets. This was due to deliberate government policy aimed at developing the domestic financial sector by prohibiting the expansion of foreign banks since 1971. (Detragiache and Gupta 2006:220-1) Competition from foreign banks was tightly controlled and the domestic expansion of foreign banks was severely constrained even during the step-wise process of liberalization in the 2000s. For example, the last licence to a foreign bank was granted in 1973 (ibid.). Between 2001 and 2005, the share of foreign-owned commercial banks and foreign investments via equity participation in domestically-owned commercial banks stood at approximately 30% of total commercial bank assets (BNM 2005:232). In particular, four foreign banks accounted for the lion's share of foreign banks' assets in Malaysia during the period Basel II was implemented. These were two UK banks, Standard Chartered and HSBC, which had substantial banking networks across Asia, and two regional Singaporean banks, United Overseas Bank ("UOB") and OCBC.<sup>19</sup> HSBC's presence in Malaysia dated back to 1884, whilst Standard Chartered established a presence in 1875 and was subsequently incorporated as Standard Chartered Bank Malaysia Berhad ("SCBM") in 1984 (SCBM 2010:3).<sup>20</sup> United Overseas Bank (Malaysia) Berhad ("UOB Malaysia") was incorporated in 1993 but maintained a presence in Malaysia since 1951. Its parent bank operated across nineteen countries, mostly in the Asia Pacific

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<sup>19</sup> Thirteen branch-like locally-incorporated foreign banks also operated in Malaysia. Six were a single-branch subsidiary and three operated via a network of about five branches each, making them relatively small players in the market (ABM 2008:15). Their minimal presence can be attributed to the restriction on foreign banks' branch expansion and the regulatory framework that required them to incorporate their Malaysian operations since 1994 to create a legal separation between the assets and capital of the domestic entity and their parent banks. This was to ensure that foreign banks were supported by permanent capital in Malaysia and subject to the same prudential requirements applied to domestic banks. (BNM 2008:53; San 2011:114)

<sup>20</sup> HSBC Bank Malaysia Berhad was a subsidiary of UK-based HSBC until 2009. It became a subsidiary of the Hong Kong Shanghai Banking Corporation Limited as part of an internal re-organisation. HSBC Holdings in the UK nonetheless remains its ultimate holding company.

region besides Far Eastern Bank in Singapore (UOB 2008:2). Similarly, OCBC Bank (Malaysia) Berhad (“OCBC Malaysia”) operated in Malaysia for more than seven decades and its parent bank was also a regional bank with operations in fifteen Asian countries. Due to their long historical presence in the Malaysian banking sector, “OCBC, HSBC, Standard Chartered Bank, and UOB... has always been construed as a domestic financial institution by most consumers in Malaysia” (Lum and Koh 2006:293). The following analysis examines how policies diffused across the cross-border structure of these regionally active international banks.<sup>21</sup>

### **6.3.2 Post-crisis Malaysia and the diffusion of Basel II**

Initial policy considerations to implement Basel II coincided with Malaysia’s post-financial crisis reforms that aimed to facilitate Malaysia’s financial sector development ahead of market liberalization. BNM formulated the Financial Sector Master Plan (FSMP) in 2001 with the objective “to develop a more resilient, competitive and dynamic financial system with best practices... ready to face the challenges of liberalisation and globalisation” (BNM 2001:11). The FSMP was motivated by BNM’s diagnosis of the Malaysian banking system, namely, that “foreign banking institutions as a group has generally been ahead of domestic players in terms of financial performance... There are therefore significant gaps between foreign and domestic banking institutions, which need to be narrowed to achieve the orderly development of a viable and effective domestic banking sector.” (ibid. p32) Furthermore, the banking sector was to be progressively liberalized to

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<sup>21</sup> According to Rating Agency Malaysia, most Malaysian banks had very limited exposures abroad. Some of the bigger players have some regional presence, although acquisitions of foreign banks by domestic ones had been rare and mostly in developing countries in the region. Malayan Bank, the country’s largest bank made one foreign acquisition in the Philippines. Bumiputra-Commerce Bank acquired a commercial bank in Indonesia in 2002 and Public Bank acquired Asia Commercial Bank in 2006. (2007:10) Although the presence of Malaysian banks abroad is small and in developing countries, the network of Malaysian regional banks may be a potential channel through which policies could start to diffuse in both directions if their foreign presence increased, especially into developed countries where pressures to meet higher regulatory standards may exist.

foreign competition across three phases over the coming ten years. With greater market liberalisation, the retention of domestic banks' market share was expected to be "severely tested as domestic competition intensifies", and the survival of domestic banks was deemed to be dependent on them being "at par with the world class players... in order to compete with global players." (ibid. p33)

The Director of Banking Supervision in BNM, who was also involved in the development of the FSMP, believed that the implementation of Basel II was "[a]ligned with objectives of FSMP which aim[ed] to develop a strong, resilient, dynamic banking system able to compete regionally" (Chung 2006). Basel II was considered to be aligned with the regulatory environment envisaged under the FSMP because it advocated enhancements in risk management practices across the industry by introducing more sophisticated methods to identify and measure credit and operational risks. This was hoped to lead to more accurate pricing for the risks undertaken by banks and more efficient use of capital resources and thus help prepare Malaysian banks to compete against regionally active international banks. Its timely adoption was important as it was seen to "[f]acilitate preparation of domestic players towards Phase 3 of FSMP (2008–2010), which aims to... [a]ssimilate local banks into [the] global arena [by] introducing greater foreign competition." (ibid.) Moreover, BNM firmly believed it was necessary for Malaysian banks to prepare for the implementation of Basel II because "[w]hile the framework is directly applicable to internationally active banks... once it comes into effect, it will become the new standards on banks' capital adequacy globally." (BNM 2001a) These concerns dated back to as early as 2001, when the Basel II negotiations were still underway. To the extent outlined next, the implementation of Basel II was already incorporated into the FSMP (2001), laying the foundation and direction for Malaysia's implementation of Basel II.

Several elements of Basel II were incorporated into policy recommendations of the FSMP to introduce 'risk-adjusted prudential regulation and supervision'. In

particular, policy recommendation 3.2 stated that a “more sophisticated and differentiated treatment of different risk classes shall be developed to take into account the risk profile of loan exposures... [T]he revised risk-weighted capital adequacy framework places greater reliance on the assessment of credit risk, through internal ratings or use of external ratings to determine risk weights.” (BNM 2001:50) Several other policy recommendations in the FSMP resonated directly with the key standards proposed in CP1 and CP2 issued in 1999 and 2001.<sup>22</sup> Moreover, as a way of continuously driving forward the agenda on Basel II implementation, BNM emphasized that there were strong business cases for implementing Basel II as well as there being significant competitive implications for Malaysian banks. The Governor of BNM stressed that Basel II was “an important catalyst to accelerate the introduction of best risk management practices within the banking sector in the medium and longer term. While best practices that have been adopted by global banks have even surpassed the expectations of Basel II, this is not the case for most domestic institutions.” (Aziz 2005:2). Likewise she highlighted that “[t]he enhanced risk management practices required by the new accord not only can result in greater capital savings but becomes vital as the domestic banking system becomes increasingly competitive and integrated with the global marketplace. Having a robust risk management framework... would allow for more-informed decision-making, thus contributing towards greater competitive advantage.” (Aziz 2004:2) Such policy stance helped create a momentum amongst banks, leading some to communicate to BNM as early as 2004 that they wanted to implement the IRB approaches of Basel II (Chung 2008:21).<sup>23</sup>

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<sup>22</sup> For example, policy recommendations included benchmarking risk management processes against best practice templates (3.1), separating credit assessment from credit origination, conducting explicit customer risk-rating exercises, introducing minimum standards on credit risk management (3.3), setting up board-level risk management committees (3.7), giving greater attention to the development of ICT (3.13), which were all related to issues developed in CP2.

<sup>23</sup> These commitments were made three years before formal applications to adopt the IRB approaches would have to be made and six years before the move to the IRB approaches was planned.

BNM announced Malaysia's plans for implementing Basel II in 2004. It argued that "[t]he adoption of Basel II in Malaysia [was] in tandem with the overall policy agenda to promote higher standards of risk management amongst Malaysian banking institutions as the banking sector progresses with greater competition and liberalisation." (BNM 2004:116). According to the Deputy Governor of BNM, Malaysia's implementation of Basel II was "based on four key principles that directly support the achievement of the objectives underlined in Bank Negara Malaysia's 10-Year Financial Sector Master Plan" (Ghani 2006:2). These four principles referred to the following. First, Basel II implementation was to accommodate capacity building efforts, with strong emphasis on making gradual enhancements to risk management frameworks in all banking institutions. Second, a flexible timeframe that allowed for capacity building measures was to be adopted. Third, the adoption of more advanced approaches was to be based on business justifications instead of regulatory mandate. The fourth related to enhancing supervisory capacity to assess internal models and advanced risk management systems. (BNM 2004:116-7, Aziz 2004:4) BNM proposed a two-phase approach to implementation that was in line with the adoption of Basel II in regionally active international banks and their home supervisors' Basel II policies, whilst factoring in capacity building needs. In the first phase, banks adopting the SA for credit risk were required to comply with Basel II by January 2008 and had to implement the BIA or TSA for operational risk.<sup>24</sup> In the second phase, banks adopting the IRB approaches had to comply by January 2010 and were required to apply any of the three approaches for operational risk. These banks were given the flexibility to migrate to the advanced approaches directly from Basel I. (BNM 2004:117)<sup>25</sup>

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<sup>24</sup> BNM also implemented the Alternative Standardised Approach at national discretion per Basel II (BCBC 2006:139), but not the AMA.

<sup>25</sup> Chapter Five discussed how the gradualness of BNM's gradual approach was very much within the parameters defined by how its regional peers were implementing Basel II.

According to the Deputy Governor of BNM, although “Malaysia aspire[d] to adopt the more advanced approaches... more time would be required by our [Malaysian] banks to enhance their capacity as well as to address resource constraints” (Ghani 2006:2). The two-phase approach would “allow more time for banking institutions as well as supervisors to develop expertise and competencies in key areas related to Basel II” (ibid.). Moreover, to allow banks to focus on Pillar 1 implementation, implementation timelines were not announced for Pillar 2 and Pillar 3. A more lenient timeline compared to Pillar 1 was subsequently announced where banks were required to submit their Pillar 2 ICAAP reports to BNM by 30 June 2011 and publish their Pillar 3 disclosures together with their annual financial reports for the year ending 2010.<sup>26</sup> In 2005, banks were required to conduct detailed gap assessments so that BNM could assess banks’ readiness to adopt Basel II. The assessments indicated that most banks did not foresee major problems in adopting the SA beyond system enhancements although implementing the more advanced approaches of Basel II posed a significant challenge (BNM 2005:122).

### **6.3.3 International banks and the diffusion of Basel II in Malaysia**

Initially, it was the fear of competition from more competitive global and regional international banks with a strong presence in the region that motivated BNM’s response to Basel II. This coincided with post-crisis domestic reforms that aimed to prepare the Malaysian banking sector to compete more effectively when it liberalized to greater foreign competition. After BNM announced its implementation plan in 2004 and implementation progressed in banks, the cross-border structure of regionally active international banks not only provided a clear reference for BNM to determine who Malaysian banks’ immediate competitors were, but also provided a direct channel through which international banks could exert greater influence in driving the degree of convergence with Basel II in Malaysia. At the same time,

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<sup>26</sup> Regulation BNM/RH/GL 001-33 4.1 and BNM/RH/GL 001-32 4.1.

BNM was very pragmatic and purposeful in using its exposure to international banks and their home supervisors to facilitate the acquisition of capabilities by Malaysian banks and supervisors. BNM's four implementation principles largely shaped the way BNM interacted with and responded to the policy decisions of their foreign counterparts, especially the home supervisors and parent banks of international banks. BNM adopted a cross-border implementation policy that aimed to leverage the implementation infrastructure and experience of regionally competitive international banks that had a presence in Malaysia.

At the level of banks, BNM recognized that international banks based in Singapore and the UK preferred to use models developed centrally in Malaysia (Chung 2008:22). Such practice was formally recognised and supported by the regulations that implemented Basel II, which state the following.

“Locally-incorporated foreign banking institutions may be intending to use or are currently using systems, processes or models that have been developed and adopted by their parent institutions... Due to the centralisation of the development of the global/regional IRB models, the review process could have already been initiated by the home regulator due to an earlier implementation timeframe adopted by the home regulator... Under these circumstances, the Bank would be supportive of coordination with the home regulator in the review of global/regional IRB models in the spirit of home-host cooperation.” (BNM 2011:203)

In practice, the use of global and regional models developed by international banks was conditional on host banks being able to sufficiently demonstrate that these models were suitable for the Malaysian banking sector, that local risk managers had a firm grasp of such models and that local data was used to calibrate the models (Chung 2008). This approach was consistent with BNM's first implementation principle to accommodate capacity building efforts in implementing Basel II as well as BNM's preference for “building talent” as opposed to “buying talent” (cf. Korean banks and excessive reliance of international consultants). BNM did not see buying talent as a sustainable cost effective strategy, emphasizing that banks “need to be

wary of bidding up wages without commensurate efficiency improvements or increases in value-add” (Aziz 2007:4). The cases of implementation in the three largest foreign banks operating in Malaysia, namely UOB, OCBC and SCBM, show how BNM aimed to leverage its connections with Singapore and the UK in raising the overall capacity of the Malaysian banking sector by facilitating the transfer of implementation capabilities from international banks and home supervisors.

In line with the Monetary Authority of Singapore’s (MAS) policy to implement Basel II in Singapore by 2008, UOB, the parent bank of UOB Malaysia, undertook significant “investments in human resources, IT systems, processes, and the development of internal models to estimate risk” to attain the “best practice in risk management” that was required to implement Basel II (UOB 2006:51). UOB’s goal was “to reach Internal Rating Based (IRB) compliance at the earliest date” (UOB 2004), and by 2004, it was well advanced in developing, configuring and operationalizing many of its systems and processes to apply the IRB approach and TSA by 2008 (UOB 2005:29). Once the parent bank, UOB, had acquired the capabilities to implement Basel II in line with the MAS’s requirements, it started “working with UOB (Malaysia) and UOB (Thai) to re-design, automate and streamline systems and processes for Basel II compliance” (UOB 2006:30). As a result of pursuing a centralized and integrated approach in implementing Basel II across its network of subsidiaries, implementation capabilities were directly passed down from the parent bank to its subsidiaries, which benefited from their Basel II-knowledgeable parent bank. As a result, by 2006, the “foundation for Basel II core modules such as risk-weighted assets and credit-related systems [had] been laid for the Singapore operations and UOB (Malaysia).” (UOB 2006:30) Hence, the implementation of Basel II at the parent bank level according to the requirements of the home supervisors had a direct impact on driving implementation capabilities in Malaysia. This enabled UOB (Malaysia) to obtain approval from BNM to migrate directly to the IRB approach for credit risk from 2010, but as a result, UOB



Malaysia adopted Basel II in exactly the same way as its parent, that is, the FIRB approach for its non-retail exposures, the AIRB approach for its retail exposures and the BIA for operational risk pending approval to adopt the TSA.

Similarly, OCBC Malaysia's management and operations were highly integrated with that of its Singapore-based parent. A group-level risk committee in Singapore had oversight over OCBC Malaysia's risk governance, including the implementation of Basel II across the bank (OCBCM 2010:5), and "banking subsidiaries [were] required to implement risk management policies that conform[ed] to the Group's standards, with approving authorities and limits as determined by the Head Office" (OCBC 2008:39). The centralized approach to implementation, whereby implementation capabilities were first acquired by the parent bank and then passed down its corporate structure, meant that OCBC Malaysia also implemented Basel II in the same way as its parent bank by implementing the FIRB approach for major non-retail portfolios, the AIRB approach for major retail portfolios and the SA for other credit portfolios (OCBCM 2010:6). Regarding Pillar 2 implementation, OCBC Malaysia's statutory disclosures expressly states that the bank's "Pillar 2 implementation will leverage on OCBC Group's processes for cost-efficiency, with appropriate customisation where necessary to be in accordance with BNM's guidelines" (OCBCM 2010:6). Likewise for Pillar 3, OCBC Malaysia's chief risk officer was confident that OCBC Malaysia would be able to leverage its parents implementation experience because "[a]lthough Pillar 3 for the credit risk timeline in the country [Malaysia] has yet to be determined, OCBC, at group level, has included Pillar 3 market disclosure in its 2008 annual report" (The Star 2009).

SCBM's IRB model development and governance was also largely inherited from its parent bank to the extent that "[m]odels are developed by Standard Chartered PLC's Group Analytics teams within the Consumer Banking and Wholesale Banking risk functions and Standard Chartered PLC's Group Risk... All IRB models are validated annually by a model validation team reporting to Standard

Chartered PLC's Chief Credit Officer... [and] validation findings are presented to Standard Chartered PLC Group's MAC [Model Assessment Committee]." (SCBM 2010:7) Whilst BNM supported the use of the parent bank's processes and systems, a person close to implementation in Malaysia emphasized how BNM "had been very focused on local involvement... to ensure local in-country staff understand the models, are engaged as much as possible in the implementation process and that local data is being used, so that it's not something that's developed based on data from outside Malaysia and then just imported into the country".<sup>27</sup>

BNM's fourth implementation principle was aimed at addressing the challenges supervisors faced, as stressed by the governor of BNM.

"The rigorousness of the analytical process under Basel II will certainly be demanding for banking institutions. It is equally demanding from the supervisory perspective to develop an appropriate response and assessment framework on these processes... Supervisors also need to undergo early training to identify the relevant issues when undertaking the supervisory assessment. This underscores the importance of efforts to accelerate supervisory capacity building efforts, particularly in the development of specialised supervisory skills to conduct model validation." (Aziz 2005:2-3)

To this end, supervisors in BNM identified greater cross-border supervisory interactions by leveraging home-host relations an important way to build the capacity of supervisors (Chung 2007:29). The Deputy Governor of BNM envisaged home-host collaborative efforts to be most extensive in relation to "understanding Pillar 1 related issues that are mostly technical in nature such as model development and validation issues" (Ghani 2006:4). BNM was keen to draw on home-host connections with the MAS and FSA to learn from their Basel II implementation experience, which was more advanced in their progress with implementing the IRB approaches of Basel II. Initially, BNM "continued to participate in active dialogues with home supervisors of foreign banking institutions to gain greater clarity on the approaches undertaken by these regulators whilst forging greater cooperation with

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<sup>27</sup> Author's interview conducted in 2008.

them for the implementation of Basel II.” (BNM 2005:125) As implementation progressed, supervisors in BNM actively engaged with the home supervisors of foreign banks through involvement in joint validation exercises and sought to achieve a common understanding of their supervisory expectations and information requirements in the UK and Singapore (Chung 2008:21). A person close to implementation in SCB stressed how “BNM had been closely following SCB Group’s approval process and have been given numerous presentations on SCB’s modelling approach, ICAAP and other progress... and participated in the FSA’s model reviews for bank and sovereign exposures in 2006”.<sup>28</sup> These cases show how host supervisors are not only compelled to accept the Basel II policy decisions of the home supervisors when formulating their own policies, but that they can also choose to actively leverage their home-host relations to foster the development of implementation capabilities in their own country.

#### **6.4 Comparative Analysis**

A comparative analysis of policy diffusion and Basel II implementation in Korea and Malaysia is conducted in this section. Like the previous chapter, the analysis is structured into the three key questions of what, how and why policies diffused.

##### **What diffused?**

Amidst growing competitive pressures from global banks based in the UK and US, the FSS’s initial policy response to Basel II was an aggressive implementation strategy that targeted the most advanced approaches of Basel II across domestic nationwide banks at a timetable that matched the earliest of G10 regulators and their global banks. In contrast, Malaysia’s banking sector was more protected and BNM had more control over the pace and scope of liberalizing its banking sector to foreign competition. It thus responded with a two-phased implementation policy that closely followed the adoption of Basel II amongst regionally active international banks,

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<sup>28</sup> Interview, SCB (2008).

whilst factoring in domestic capacity building needs as part of a wider plan to develop the Malaysia banking sector. As implementation progressed, the FSS's decisions to approve banks to implement the advanced approaches of Basel II became closely interlinked to the Basel II policy decisions of their foreign counterparts in the UK and US. Whilst progress in implementation in the UK promoted greater convergence with Basel II in the Korean banking sector, the delay and uncertainty in the US produced the opposite effect. Likewise, because international banks with a presence in Malaysia pursued a centralized and integrated approach in implementing Basel II across their banking networks, implementation capabilities were directly passed down from the parent bank to their Malaysian subsidiaries, which adopted Basel II in the same way as their parent banks.

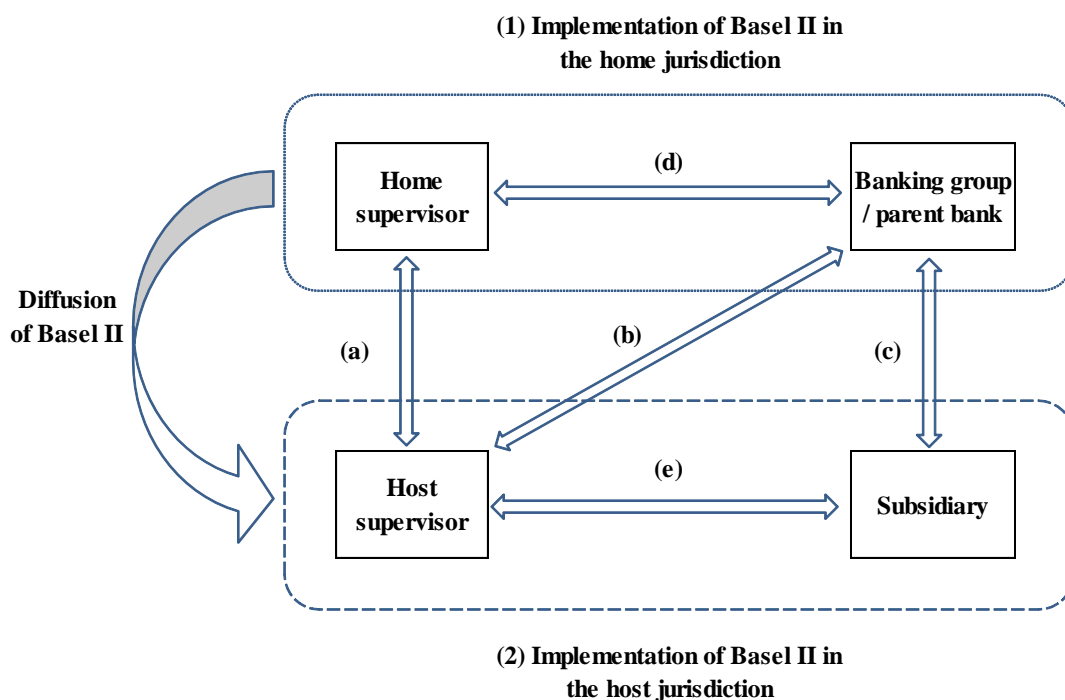
The case of Korea highlighted limits to the extent policies diffused. In contrast to the ambitious policy response that initially kick-started preparations to implement Basel II, the effects of policy diffusion did not fully translate into policy outcomes when capacity constraints became binding as banks attempted to move onto the advanced approaches of Basel II but could not. This showed that policy diffusion was conditional on actors having the capacity to implement the policies that diffused domestically or when it is feasible to develop such capabilities in time. In Malaysia, BNM actively tried to leverage their home-host relations to foster implementation capabilities in their own country in order to be able to match the policies of regionally active international banks.

### **How did policies diffuse?**

The structure of international banks produced very direct and specific linkages between the home and host countries of international banks. They not only provided information to host supervisors about who their immediate competitors were, but also facilitated the transfer of implementation capabilities across borders and defined the relationship between home and host supervisors, making the influence of foreign banks even more compelling. To gain a full picture of the channels through which

Basel II policies diffused, the two case studies demonstrated that it was necessary to examine not only how foreign banks and the host country supervisor implemented Basel II, but also how the parent bank of the foreign bank and its home supervisor implemented Basel II. Figure 6 maps out the different channels of diffusion formed by the cross-border structure of international banks that produced several paths for policies to diffuse from the home to the host country. When foreign banks in host countries are integrated into their parent's global banking network, Basel II implementation by that foreign bank (line (e)) is largely a function of how the parent bank at the banking group level implemented Basel II (line (c)), which in turn is a function of how the lead regulator in the home jurisdiction implemented Basel II (line (d)). This effectively links the policies of the home and host supervisors (line (a)).<sup>29</sup>

**Figure 6: A stylized map of the cross-border structure of international banks and channels of policy diffusion**



<sup>29</sup> Implementing Basel II in banking groups with significant cross-border operations in multiple jurisdictions can be complex for banks and supervisors. In practice, the relationship between key actors are likely to be more complex and resemble overlapping tiles of Figure 6 due to multiple subsidiaries of different international banks in a single host jurisdiction and multiple cross-border operations across jurisdictions for a single banking group as the case studies showed.

The case studies found two diffusion channels within the cross-border structure of international banks to be particularly important. One highlighted the role of international banks, and the other, that of the home and host supervisors as the key agents of policy diffusion. Firstly, at the level of banks, the way one country was interconnected to another via international banks had significant implications on the degree of regulatory convergence with Basel II attained in the host country. Policies diffused across countries because the Basel II implementation decisions by the parent bank at the banking group level, which was a function of implementation decisions by the home supervisor, had direct implications for the way Basel II was implemented in its subsidiary in the host jurisdiction. This in turn shaped how host supervisors and banks responded to Basel II (i.e. (d) to (c), then (e)). In some cases, convergence with Basel II was facilitated as foreign banks were the first to use the most advanced yet onerous approaches of Basel II in Korea and Malaysia. The foreign banks in host countries were able to benefit from their Basel II-knowledgeable parents, who actively sought to replicate their global models across their global banking networks, leading to the transfer of implementation capabilities across borders. In other cases, such as that of Korea, the presence of foreign banks hindered the full and timely implementation of Basel II.

Secondly, at the level of supervisors, a channel of diffusion was created between home and host supervisors of international banks (i.e. (a) and (b)). The Basel Committee's home-host supervisory principles and colleges tended to promote convergence in line with the home supervisors' Basel II policy, whilst adding constraints on the policies host supervisors could pursue, leaving them with less room to manoeuvre. Both the FSS and BNM made policy decisions within the parameters set by the Basel Committee's principles governing cross-border supervisory relationships. Furthermore, although colleges are not decision making bodies, they are generally seen to have played a key role in facilitating "supervisory coordination, for example with respect to specific projects such as model approval

or validation work that involve the sharing of tasks and the delegation of work between home and host supervisors of international banking groups” according to the Basel Committee (BCBS 2010:9).<sup>30</sup> However, supervisory interactions also reinforced country-specific divergences through the mutual recognition and acceptance of such divergences, as illustrated in the case of the FSS and FSA, suggesting that the diffusion channel formed by the home and host supervisors of international banks could promote as well as deter convergence with Basel II.

### **Why did policies diffuse?**

The specific policies about when and how to implement Basel II in both countries were motivated by concerns that domestic banks would be disadvantaged if they were unable to compete on an equal footing with international banks by matching their implementation of Basel II. In Korea, competitive pressures and initial policy responses emanated from the expected market entrance of global banks based in the G10. Similarly, BNM adopted a policy that was in line with the adoption of Basel II amongst regionally active international banks to help Malaysian banks compete against them. In both cases, the acquisition of capabilities by domestic banks and supervisors was an important motivation in their response to the presence of international banks. The post-financial crisis context and subsequent process of market liberalization also shaped how the FSS and BNM responded to policy decisions in other countries. Although both authorities were motivated to strengthen the resilience of domestic banks by adopting international best practice standards in risk management that Basel II embodied, Korea’s implementation policy was much more ambitious and the rhetorical commitment greater compared to Malaysia. As Korean policymakers attributed Korea’s financial crisis in no small measure to the failure of domestic banks and their inadequate risk management, the post-crisis policy rhetoric to attain international standards provided a strong justification for the

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<sup>30</sup> Supervisory colleges are seen to have been less effective in dealing with other issues such as crisis prevention, management and resolution following the global financial crisis of 2007-8.

public sector to pressure banks to undertake costly investments in their core credit infrastructure to implement Basel II, albeit somewhat hastily and inefficiently.

During the process of implementation, whereas BNM was keen to leverage the Basel II implementation experience of the FSA and MAS who was more advanced in their progress with implementing the IRB approaches, the FSS was less willing to rely on the home supervisor's implementation at face value as they were wary of being drawn into something they did not have control of. The FSS wanted to retain greater control over the progress on banks' implementation to avoid distorting the playing field. It was particularly concerned about the lack of a level playing field caused by only one bank, especially a foreign bank which it did not have as much influence over, adopting the advanced approaches whilst the others could not. The process of diffusion became more coercive as the FSS had limited leeway to reject, if not indefinitely delay foreign bank's progression onto the AIRB approach if the FSS was to avoid tarnishing its international credibility and reputation by acting against established international supervisory principles.

In understanding why policies diffused, greater market liberalization can be seen as a necessary but insufficient condition for policies to diffuse as it increased the level of exposure to competitive pressures that arose from the policy decisions of other countries that had implemented Basel II. However, the overall level of market liberalization per se was not sufficient to explain exactly how policies diffused as the specific interdependencies created by such market opening between the home and host countries of international banks shaped which policies diffused from whom. Supervisors were more sophisticated than merely responding to greater levels of competition because they also responded to where the competitive pressures emanated from and who their key competitors were. Interestingly, expectations that G10 supervisors and global banks would implement the most advanced approaches, perhaps because they were Basel Committee members or because they were seen to have the capabilities to do so, was sufficient for triggering policy change in both



cases. That policymakers do not wait passively until they are competitively disadvantaged resonates with the motivations of policymakers in other studies in the literature. For example, Simmons and Elkins argue that when countries compete for international economic activities, policies diffuse because “the government faces incentives to anticipate and match decisions made outside its jurisdiction, rather than waiting passively for these decisions to work their way through the international economy, the domestic economy, and the domestic electoral system.” (2004:173)<sup>31</sup> Especially in Korea, when the entry of global banks was imminent, the underlying presumption was that global banks from the G10 would implement the most advanced approaches of Basel II, for which Korean banks should prepare against. However, it turned out that this was not the case due to the unpopularity of the AMA in global banks and delays in implementation in the US.

## **6.5 Conclusion**

Like two sides of the same coin, the diffusion of Basel II policies across the cross-border structure of international banks produced two contrasting effects on policy outcomes. At the level of banks, the way one country was interconnected to another via international banks had significant implications for the degree regulatory convergence with Basel II attained in the host country. Foreign banks that were able to benefit from their Basel II-knowledgeable parents were the first to use the most advanced yet onerous approaches of Basel II in Korea and Malaysia. However, the presence of foreign banks also hindered as much as it promoted the full and timely implementation of Basel II as delays and uncertainties in the home country’s

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<sup>31</sup> There are two versions of this theory. The case of Korea, where the FSS aggressively promoted the advanced approaches, and Malaysia, where Basel II was part of its financial sector development plan lends support to the statist versions of this theory where decision makers take such actions regardless of the immediate preferences of domestic political groups and gamble on an aggregate growth payoff, presumably, in expectation of continued political support (Krasner 1985). In contrast, pluralist renditions emphasize the preferences of electorally significant groups in clarifying to leaders their interests (Goodman and Pauly 1993).

implementation had repercussions in the host countries. At the level of supervisors, home-host supervisory principles and colleges tended to promote convergence in line with the home supervisors' policies as they fostered maximum reliance on the supervisory work conducted by the home supervisor and implementation by the parent bank. However, supervisory interactions also reinforced country-specific divergences through their mutual recognition and acceptance. This can be a slippery slope as country-specific divergences from Basel II become permanent features of the global regulatory framework, hampering convergence with Basel II in the long run. Hence, the effect of policy diffusion is not one-directional and can hinder as well as promote the diffusion of policies.

**Chapter Seven**  
**The diffusion of Basel II across financial sectors that compete  
for capital:**  
**A comparative analysis of Hong Kong and Korea**

**7.1 Introduction**

The findings of the quantitative analysis in Chapter Three provided evidence to support the argument that competition between financial sectors to attract international capital and financial business on average promoted the degree of regulatory convergence with Basel II at the global level. The positive and statistically significant policy diffusion variable indicated that similar implementation policies were adopted by countries that competed for the same pool of international capital because they were substitutable investment destinations as measured by their similar sovereign credit ratings. It was thus argued that the implementation of Basel II provided a positive competitive edge for the implementing country relative to their rivals. Hence, when a country's foreign competitors implement Basel II, investors would be drawn to those locations. Anticipating this outcome, countries may come under competitive pressures to match their rival's policies, leading to the cross-border diffusion of Basel II. Indeed, competition to develop international financial centres by attracting international capital and financial business has intensified across the world, not only between established international financial centres such as New York, London, Hong Kong and Singapore, but also between countries that aspired to become one, such as Seoul, Shanghai and Mumbai. The impetus for international regulatory standards such as Basel II to diffuse may be immense due to such competition and even more so because business executives and investors regard the regulatory environment as one of the most important factors that determine the international competitiveness of

financial sectors, and for policymakers, an area that they can influence.<sup>1</sup> McKinsey & Company (“McKinsey”) conducted over 350 interviews and surveys of senior executives in the financial services sector, based on which it argued that “[i]f there are any doubts as to the importance of regulation to the business community, one need only look at the survey responses to dispel them.” (McKinsey 2007:79).<sup>2</sup> Of the eighteen “high importance factors” that determined the international competitiveness of financial sectors, “an attractive regulatory environment” and “government and regulators who are responsive to business needs” were the third and fourth most important factors of competitiveness according to their senior executive survey, whilst “[r]espondents to the CEO survey were even more emphatic, ranking the attractiveness of the regulatory environment as the single most important issue determining the international competitiveness of a financial market.” (ibid.)<sup>3</sup> To this end, McKinsey concluded that policymakers in the US should “[p]rotect US global competitiveness in implementing the Basel II Capital Accord” by taking a “speedy and pragmatic approach”, since “the proposed US implementation of Basel II... put the United States at a competitive disadvantage” especially vis-à-vis their European counterparts (ibid. p11-17).<sup>4</sup>

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<sup>1</sup> According to the City of London, competition to develop financial centres had intensified. The financial sector has become “an attractive business sector for cities seeking to develop because it has been a successful, high growth, sector for the past quarter of a century, and because it is a highly mobile sector, which can be directly influenced by policy and planning.” (2007:10)

<sup>2</sup> McKinsey conducted over 50 in-depth interviews with industry CEOs, senior executives, regulators, lawyers, politicians, and other interest groups, sent over 30 paper-based surveys to CEOs of leading financial services institutions around the world, and conducted an online survey of senior executives in financial services firms eliciting 275 responses globally (McKinsey 2007:62).

<sup>3</sup> The first and second most important determinants were the availability of professional workers and a fair and predictable legal environment. Even the so-called dominant financial centres of the world do not seem to be able to escape competitive pressures to match the policies of their rivals, which is often not perceived to be the case in the literature (for example see Simmons (2001)).

<sup>4</sup> The policy recommendations were put forward to policymakers in the US since this study was conducted at the request of the Mayor of New York City and Senator of New York. The implementation of the 2002 Sarbanes-Oxley Act and continued requirement for foreign companies to conform to US accounting standards were also deemed to put to the US at a competitive disadvantage.

Similarly, the Global Financial Centres Index (GFCI) published semi-annually by the City of London ranks financial centres according to five areas of competitiveness. Each area consists of several sub-indices suggesting that there are multiple ingredients that make a financial sector internationally competitive. Yet, the GFCI “survey poses a question about *the most* important competitive factors for financial centres and regulation was mentioned by more of our [GFCI] survey respondents than any other factor” (2007:11, emphasis added). In short, it is difficult to overstate the importance of the regulatory environment in shaping the international competitiveness of financial sectors, and since regulatory policies such as Basel II implementation are “[d]omestic drivers of competitiveness that policymakers can influence” (McKinsey 2007:61), policymakers around the world may come under immense competitive pressures to implement regulatory policies in ways that attract international capital and business from their competitors. This may provide a strong impetus that spurs the diffusion of Basel II across competing countries.

In this chapter, the findings and methods of the quantitative analysis are put to a stronger test by examining the process of how and why policies actually diffuse as financial sectors compete for capital in the two specific country cases of Hong Kong and Korea. The case studies focus on two lines of inquiry to uncover this process. First, the paths through which policies diffuse across financial sectors that compete for capital are traced. Since the inter-linkages between countries are not based on pre-specified structures of interdependencies as was the case in the previous two chapters, the concept of competition between financial sectors to attract capital is operationalized in three different ways. This establishes the way Hong Kong and Korea are interconnected to the rest of the world. Secondly, the way Basel II policy choices in Hong Kong and Korea were shaped by the policy choices of financial sectors in other countries with which Hong Kong and Korea competed for capital is investigated.

In contrast to the examination of how policies diffused across different inter-supervisory authority networks and the cross-border structure of international banks in chapters Five and Six, this chapter examines two countries that are in the same supervisory network and where the level of foreign bank presence is relatively high in both cases. This creates two benefits from an analytical point of view. First, the effects of supervisory networks and international banks can be controlled when investigating whether and how competition between financial centres to attract capital leads to the diffusion of Basel II policies and thus differences in the way Basel II was implemented in Hong Kong and Korea. Second, this chapter complements the previous two chapters by investigating how policies diffuse not only due to interdependencies formed between countries at the level of supervisors and banks, both of which are key actors in the process of implementation, but also across interdependencies at the level of financial sectors, adding another dimension of analysis to the thesis.

Unlike the channels of policy diffusion studied in the previous two chapters, several studies in the literature have examined how policies diffused due to competition for capital. Yet, behind the intuitive line of argument that competing for capital can lead to the diffusion of policies lies a more elusive conceptual and methodological foundation. Defining and measuring competitiveness is not straight forward, let alone identifying who one's competitors are. Neither are the factors that make a country more or less competitive easily identifiable, especially regarding the relationship between regulation and the competitiveness of a financial sector. Furthermore, according to the McKinsey survey, business executives suggested that "striking the right regulatory balance" was crucial for any financial centre (2007:78). This discredits the simplistic one-dimensional regulatory race to the bottom or top arguments in the literature. It may not only be whether countries have adopted Basel II or not that matters, but *how* they have implemented it that matters in competing for capital. Hence, studies that adopt a binary measure of implementation, or assess

the stringency of regulations in a linear way, may not suffice to capture how Basel II is implemented as a result of motives to compete for capital. This chapter aims to overcome such limitations and contribute to the literature by enhancing the measurement of Basel II implementation by extending the scope of measurement not only to which elements of Basel II were implemented, but also the rationale behind the policies implemented. Examining the policy making process also helps gauge the relationship between how Basel II was implemented in countries and how policymakers perceived such implementation to contribute to the relative competitiveness of their jurisdictions to attract capital. This approach enables the case studies to highlight how policy diffusion can promote convergence with Basel II in some areas of policy, whilst hindering convergence in others as countries compete for capital. The operationalization of the channels of policy diffusion due to competition for capital also constitutes a contribution to the literature.

This chapter is organized as follows. The case studies of how Basel II policies diffused due to competition for capital in Hong Kong and Korea are presented in sections 7.2 and 7.3 respectively. Each case study first establishes how financial sectors in Hong Kong and Korea are interconnected to the rest of the world so that the paths through which policies diffused can be traced. Then, analyses of how and why competing for capital promoted greater levels of convergence with Basel II in Hong Kong and Korea is followed by an examination of whether the same underlying diffusion mechanisms also led to country-specific divergences from Basel II. In section 7.4, a comparative analysis of what, how and why Basel II policies diffused in Hong Kong and Korea is undertaken before concluding.

## **7.2 Competing for capital and the implementation of Basel II in Hong Kong**

### **7.2.1 Tracing the paths of policy diffusion to Hong Kong**

To trace the path through which policies diffuse across countries, this section operationalizes the concept of competition for capital in three ways. The same

analysis is conducted for Korea in section 7.3.1, but in less detail than what follows in explaining the methods involved. To identify where policies diffuse from, the first measure specifies the way and extent to which Hong Kong is interconnected to the rest of world as reflected by the exposure of banks from around the world to Hong Kong. The BIS consolidated banking statistics are used to trace the nationality of banks with claims in Hong Kong. Cross-border claims can be measured on an immediate borrower basis and ultimate risk basis. The former measures financial assets on the balance sheet, including, deposits and balances with other banks, loans and advances to banks and non-banks and holdings of debt securities, but excludes derivatives and off-balance sheet transactions. Claims on an ultimate risk basis measures where the final risk lies since claims to Hong Kong are measured inclusive of risk transfers in the form of derivatives and off-balance sheet positions such as credit commitments and guarantees. Hence, this measure provides an assessment of country credit risk exposures consonant with banks' own risk management systems. (BIS 2012:50) As a counterparty to financial transactions and recipient of cross-border claims, policymakers in Hong Kong may be more sensitive to, and take into account to a greater extent, the policies of the countries that have greater levels of financial claims in Hong Kong in order to sustain Hong Kong's ability to attract financial assets from these countries since they are relatively more important than other countries in sustaining Hong Kong's ability to draw on the pool of international capital. In other words, if the UK has cross-border claims in Hong Kong that represents 50% of all countries' aggregate claims to Hong Kong, policymakers in Hong Kong may be more compelled to take into account the Basel II policies of the UK to a greater extent in formulating its own policies compared to the Basel II policies of Taiwan, which only accounts for approximately 3% of aggregate cross-border claims to Hong Kong from the rest of the world.

The analysis of the data that maps out the potential pathways policies diffused is presented in Table 15. The top ten countries with cross-border claims in



Hong Kong are presented in descending order by value of claims to Hong Kong in millions of US dollars.

**Table 15: Consolidated foreign claims to Hong Kong**

(In millions of US dollars)

A				B				C			
Immediate borrower basis				Immediate borrower basis				Immediate borrower basis			
2001-4 average quarterly exposure				2005-8 average quarterly exposure				2001-8 average quarterly exposure			
Country	Claim	%	Cum %	Country	Claim	%	Cum %	Country	Claim	%	Cum %
<b>GB</b>	<b>133,930</b>	<b>54%</b>	<b>54%</b>	<b>GB</b>	<b>165,115</b>	<b>52%</b>	<b>52%</b>	<b>GB</b>	<b>149,522</b>	<b>53%</b>	<b>53%</b>
JP	31,595	13%	67%	JP	35,531	11%	63%	JP	33,563	12%	65%
US	20,716	8%	76%	FR	24,679	8%	71%	US	22,328	8%	73%
FR	12,476	5%	81%	US	23,941	8%	79%	FR	18,577	7%	80%
DE	11,701	5%	86%	DE	13,446	4%	83%	DE	12,573	4%	84%
CH	7,308	3%	89%	CH	12,993	4%	87%	CH	10,151	4%	88%
TW	6,366	3%	91%	NL	11,179	4%	90%	TW	8,141	3%	91%
BE	6,171	3%	94%	TW	9,915	3%	94%	NL	7,886	3%	93%
AU	5,630	2%	96%	BE	6,130	2%	96%	BE	6,150	2%	96%
NL	4,594	2%	98%	AU	5,026	2%	97%	AU	5,170	2%	97%
Other	5,323	2%	100%	Other	9,126	3%	100%	Other	7,301	3%	100%
Total	245,809	100%		Total	317,080	100%		Total	281,363	100%	
Europe	179,411	73%		Europe	239,745	76%		Europe	209,578	74%	

F				G				D			
Immediate borrower basis				Ultimate risk basis				Ultimate risk basis			
2005 average quarterly exposure				2005 average quarterly exposure				2005-8 average quarterly exposure			
Country	Claim	%	Cum %	Country	Claim	%	Cum %	Country	Claim	%	Cum %
<b>GB</b>	<b>150,000</b>	<b>54%</b>	<b>54%</b>	<b>GB</b>	<b>133,852</b>	<b>55%</b>	<b>55%</b>	<b>GB</b>	<b>146,785</b>	<b>53%</b>	<b>53%</b>
JP	25,522	9%	64%	US	22,035	9%	64%	JP	24,191	9%	62%
US	23,251	8%	72%	DE	18,683	8%	72%	US	23,031	8%	70%
FR	20,621	7%	79%	JP	18,086	7%	80%	FR	21,129	8%	78%
CH	12,402	4%	84%	FR	15,760	7%	86%	DE	16,869	6%	84%
DE	12,293	4%	88%	CH	10,650	4%	90%	CH	12,722	5%	89%
NL	9,542	3%	92%	NL	8,479	4%	94%	NL	10,315	4%	93%
TW	7,748	3%	95%	BE	4,537	2%	96%	BE	6,048	2%	95%
BE	4,818	2%	96%	AU	3,550	1%	97%	AU	4,561	2%	97%
AU	3,903	1%	98%	CA	1,872	1%	98%	CA	3,198	1%	98%
Other	5,890	2%	100%	Other	4,711	2%	100%	Other	6,407	2%	100%
Total	275,988	100%		Total	242,214	100%		Total	275,255	100%	
Europe	213,835	77%		Europe	192,825	80%		Europe	218,379	79%	

Source: BIS consolidated banking statistics (<http://www.bis.org/statistics/consstats.htm>)

Notes: AT:Austria, AU:Australia, BE:Belgium, BR:Brazil, CA:Canada, CH:Switzerland, CL:Chile, DE:Germany, DK:Denmark, ES:Spain, FI:Finland, FR:France, GB:United Kingdom, GR:Greece, IE:Ireland, IT:Italy, JP:Japan, MX:Mexico, NL:Netherlands, PA:Panama, PT:Portugal, SE:Sweden, TR:Turkey, TW:Chinese Taipei, US:United States

There are six panels, each corresponding to the average quarterly claims during different time periods. For example, Panel A summarizes the average quarterly claims of the top ten claimant countries during 2001 and 2004 and Panel B during 2005 and 2008 on an immediate borrower basis.<sup>5</sup> The data was sliced into different time periods on empirical grounds since the structure of cross-border claims could

<sup>5</sup> The corresponding tables for Panel A and C on an ultimate risk basis are not presented as data is available only from 2005.

have changed during different steps of the implementation process which spanned several years. Hence, Panel A summarizes the countries that accounted for the largest proportion of claims in Hong Kong from the world during 2001-4, a period when supervisors formulated their implementation strategies and supervised banks to prepare for implementation accordingly, but before formal implementation policies were announced (Panel F and G). During 2005-8 (Panel B and D), formal implementation commenced and the final rules that implemented Basel II came into effect in 2007, and 2008 for the advanced approaches.

Table 15 reveals a consistent picture over time in terms of which countries Hong Kong was most closely interconnected to. Hong Kong is far more interconnected to the UK than any other country, as highlighted by the shaded rows that indicate that over half of aggregate cross-border financial claims in Hong Kong originated from the UK alone. This is followed by Japan and the US, which each had claims in Hong Kong of on average 12% and 8% of Hong Kong's total claims from the world on an immediate risk basis during 2001-8. Three European countries, namely France, Germany and Switzerland, accounted for between 4% and 8% of aggregate foreign claims, putting them in the top six countries. However, when exposures are measured on an ultimate risk basis, Hong Kong's exposure to France and Germany are similar to that of Japan. This highlights the greater role of German and French banks as guarantors of claims or the country in which the head office of a legally dependent branch is located. Thus, together with the UK, European banks, which were early-comprehensive adopters of Basel II, dominated the extent to which Hong Kong was interconnected to other countries. This is indicated in the bottom row of each panel which shows that European banks collectively accounted for approximately 75% of all financial claims from the world to Hong Kong on an immediate risk basis and 80% on an ultimate risk basis. Based on this analysis, Hong Kong is expected to be most responsive to policy changes in the UK and the EU, followed by Japan and the US to lesser degrees. Despite common perceptions

that the US is the dominant financial centre of the world, perhaps due to its large and deep domestic financial markets and handful of global US banks, European banks tend to be more international and thus significantly more interconnected to Hong Kong according to this measure. From the perspective of specifying the pathways policies diffused, European influences, in particular that of the UK, may considerably dominate that of the US or Japan.

In the second measure, Hong Kong's relative position as a leading international financial centre may shape which financial centres Hong Kong competes with to attract capital. Policymakers in Hong Kong may try to match or out-compete the Basel II policies adopted by other leading international financial centres, resulting in the diffusion of Basel II. According to the GFCI published semi-annually by the City of London, Hong Kong consistently ranked amongst the most successful global financial centres along with London, New York, Singapore and Zurich as shown in Table 16.

**Table 16: Global Financial Centres Index rankings and Hong Kong's rank**

Rank	Mar-07	Rank	Sep-07	Rank	Mar-08	Rank	Sep-08	Rank	Mar-09
1	London	1	London	1	London	1	London	1	London
2	New York	2	New York	2	New York	2	New York	2	New York
3	Hong Kong	3	Hong Kong	3	Hong Kong	3	Singapore	3	Singapore
4	Singapore	4	Singapore	4	Singapore	4	Hong Kong	4	Hong Kong
5	Zurich	5	Zurich	5	Zurich	5	Zurich	5	Zurich
6	Frankfurt	6	Frankfurt	6	Frankfurt	6	Geneva	6	Geneva
7	Sydney	7	Geneva	7	Geneva	7	Tokyo	7	Chicago
8	Chicago	8	Chicago	8	Chicago	8	Chicago	8	Frankfurt
9	Tokyo	9	Sydney	9	Tokyo	9	Frankfurt	9	Boston
10	Geneva	10	Tokyo	10	Sydney	10	Sydney	10	Dublin

Source: Global Financial Centres Index (GFCI), City of London

The top ten international financial centres are located in countries that are early-comprehensive adopters of Basel II, except the US, which is a late-partial adopter, suggesting that Hong Kong could be subject to mixed influences emanating from the two types of implementers.

The third measure of defining which countries Hong Kong competes with to attract capital is based on the method used in the quantitative study in Chapter Three,

which followed that of Simmons and Elkins (2004:179). Countries in the same risk category measured by their sovereign credit ratings are seen as rivals that compete for the same pool of international capital from the perspective of potential investors. Sovereign risk ratings provide a good measure because the solvency of the banking sector and capital indicators, both of which may be shaped by the implementation of Basel II, are key determinants of sovereign risk. Moreover, sovereign risk ratings are the most widely used proxy for country risk by market analysts. Hence, sovereign risk ratings provide a succinct measure of countries that are close substitutes from investors' point of view whilst also preserving the causal connection that the implementation of Basel II may have on the solvency of the banking sector, and in turn on the level of sovereign risk. Finally, in trying to measure how policymakers might try to match the policies of other financial sectors, measuring competitors at the level of financial sectors may be more suitable than assessing the credit ratings of individual banks even though the latter may provide more accurate measures of how the implementation of Basel II might affect banks individually.<sup>6</sup> According to this measure, Hong Kong competes with the countries shown in Table 17.

**Table 17: Countries with similar credit ratings as Hong Kong as of year-end 2005**

Credit rating	Country	Basel II Score
AA+/AA	Belgium	40
	New Zealand	34
	Bermuda	15
AA-	Iceland	40
	EU Member states: Italy, Portugal, Slovenia	40
	Japan	40
	Hong Kong	35
A+	Kuwait	20
	Qatar	15

Source: Standard and Poor's

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<sup>6</sup> Note how in Chapter Five section 5.3.2, the Superintendent of SBIF in Chile also argued that “country risk remains a concern and... the solvency of the banking industry and its capital indicators are key issues. A significant reduction in capital allocation, even if it is justified on Basel II grounds, could have a negative impact on market perception and Chile’s country risk indicators.” (Marshall 2004:9)

Hong Kong competes with the likes of Japan, Iceland and several EU member states such as Italy and Portugal, all of which are early-comprehensive adopters of Basel II. Policymakers in Hong Kong are expected to match the policies of these countries, since they are potentially substitutable investment destinations from investors' point of view regarding their sovereign risk. Hong Kong is expected to compete to a less degree with countries such as Belgium and New Zealand, which are also early-comprehensive adopters and several Middle Eastern countries, which are mainly early-partial adopters, and even less so with countries that have higher or lower sovereign credit risk ratings than these countries.

Three measures were devised since a single method of operationalization was unlikely to fully capture the paths through which policies diffused due to competition for capital. However, there are similarities as well as differences between these measures, four of which are worth noting. First, the most competitive global financial centres Hong Kong competes with measured by the GFCI are also the countries that account for the largest proportions of aggregate foreign claims to Hong Kong. The overlap in the countries Hong Kong is interconnected to across the measures is not surprising as the most competitive financial centres are often hosts to the most active international banks. However, this is not necessarily the case for non-leading financial centres that attract capital from leading international financial centres with whom they do not directly compete for capital. Secondly, the type of competition differs conceptually across the three measures. The structure of cross-border claims provides a measure of diffusion due to vertical competition from the claimant countries to the recipient country. The measure using the GFCI may reflect vertical competition if non-leading countries' aspirations of becoming leading financial centres are driving policy diffusion or horizontal competition if countries are matching the policies of their similarly ranked peers. Likewise, credit ratings may provide a measure of horizontal competition between similarly rated countries or a measure of vertical competition if policymakers look to the policies of highly

rated countries. Thirdly, competition is conceptualized from different points of views as the first measure examines motivations that lead to policy diffusion as consumers of international financial assets, the second, from the perspective of being international financial centres, and the third, as potentially substitutable destinations for investments. Fourthly, although different measures may point to the same source of diffusion resulting in an identical diffusion path, the underlying cause of policy diffusion could differ, if for example, cross-border claims based on actual economic relations trigger competition-based diffusion while the measure of international financial centres stimulates emulation-based diffusion.

As a caveat, none of these measures are free from limitations in the underlying data, although they utilize the best available. The BIS consolidated banking statistics provide data on bilateral exposures for thirty BIS reporting banks vis-à-vis the rest of the world. BIS reporting banks include all major financial centres, but not all countries of interest to this study, such as China. Hence, the scope of data coverage is limited. The GFCI is a composite index combining several existing surveys from other data sources, which can make the composite index arbitrary, as well as its own survey of industry participants' assessments, where measurements can suffer from subjectivity. Finally sovereign credit ratings may be affected by a myriad of factors not directly related to the implementation of Basel II and investors may evaluate factors other than ratings in making investment decisions. With the above points in mind, the next section examines how Basel II policies diffused in the case of Hong Kong.

### **7.2.2 The diffusion of policies that converged with Basel II**

The Hong Kong Monetary Authority (HKMA) is responsible for conducting monetary policy, regulating and supervising banks, helping to maintain Hong Kong's status as an international financial centre, and managing the Exchange Fund. Within its capacity as the authority responsible for banking supervision as well as

maintaining Hong Kong's status as an international financial centre, the HKMA was an avid follower of the Basel standards because it believed that "[a]dopting international standards such as Basel I has played an important role in establishing Hong Kong as an international financial centre with best practice regulation and supervision" (HKMA 2004b:4). In fact, the HKMA specifically states that "[o]ne of the aims of the HKMA is to ensure that Hong Kong's banking and monetary systems comply with international codes and standards" (HKMA 2003:8). Thus, when the Basel Committee published CP2 in 2001, the HKMA was one of the first non-Basel Committee countries to indicate that it would "aim to implement the New Accord in Hong Kong according to the timetable set by the Committee" (HKMA 2001:26). Hence, "the groundwork continued in 2003 for implementing the New Basel Capital Accord, which [was] targeted for implementation in late 2006" (HKMA 2003:8). Even before Basel II was finalized, the HKMA was of the view that Basel II had already "gained widespread support by countries with active international banks" (HKMA 2004:2). According to the HKMA's Executive Director of Banking Policy, Simon Topping, Basel II was "here to stay" and from the HKMA's point of view, it was "not a question of *whether* to implement it, but *how* [and] *when*" that mattered (Topping 2004:2). These are the two central policy variables investigated in this case study.

Following the publication of Basel II in 2004, the HKMA argued in a letter to the Legislative Council Panel on Financial Affairs that there was "a very persuasive case for implementing Basel II in Hong Kong" for the following reasons (HKMA 2004).<sup>7</sup> First, the HKMA argued that "[a]s a major IFC [international financial centre] which prides itself on adopting the latest best practices, it is natural

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<sup>7</sup> The Panel on Financial Affairs formulates views on major legislative proposals prior to their formal introduction to the Council or Finance Committee. The Finance Committee is a standing committee of the Legislative Council, which is the unicameral legislature of Hong Kong. According to the minutes of a meeting in 2005, members of the Legislative Council Panel on Financial Affairs lent their support for the implementation of Basel II. Some members even "urged HKMA to expedite its work for the early implementation of Basel II" (Hong Kong Legislative Council 2005:7).

for Hong Kong to implement Basel II at the same time as the Basel Committee members.” It further noted that “implementation will enhance the reputation and standing of Hong Kong – and of our banks – in the international arena, including in the context of external ratings, in line with market expectations.” Second, the HKMA argued that “[m]ajor international banking groups with a presence here [in Hong Kong] will implement Basel II, the more advanced approaches specifically, globally in 2006” and that “[t]hey naturally expect to adopt the same implementation approach and timetable in their operations in Hong Kong”. Hence, the full and timely implementation of Basel II in Hong Kong was thought to help create an attractive regulatory environment for international banks. Third, “the improvements in risk management required under Basel II” was deemed “a necessary business requirement for the Hong Kong banking sector” since a better understanding and management of risk was essential in maximizing risk-adjusted returns. The greater risk sensitivity of Basel II and the inclusion of a wider range of risks were expected to further enhance the safety and stability of the banking sector. (HKMA 2004:4)

These reasons underscore how Basel II implementation decisions in Hong Kong were considered in a very international context. The first and second factors relate specifically to the international repercussions of implementing Basel II due to Hong Kong’s position as an international financial centre and as home and host to international banks. The second factor is closely interrelated to the first to the extent that Hong Kong’s position as an international financial centre in part depends on its ability to maintain an attractive regulatory environment for international banks to conduct their businesses. The third factor too has international repercussions in so far as Hong Kong’s reputation as a well regulated, safe and stable banking system underpins its international competitiveness. It is against this backdrop that the next two sub-sections examine how policies diffused from countries Hong Kong competed with for capital due to the HKMA’s efforts to first, strengthen Hong Kong’s reputation and international standing vis-à-vis other leading financial centres,



and second, create an attractive regulatory environment for international banks to conduct their businesses in Hong Kong.

The HKMA aimed to implement Basel II in ways that would enhance Hong Kong's reputation and international standing in line with other leading financial centres. The Chief Executive of the HKMA, Joseph Yam, sheds light on this policy stance.

“Theoretically we could choose not to implement certain new standards, or at least spread their implementation over a longer period. However, this might be damaging to Hong Kong's position as an international financial centre. Our reputation might be tarnished if we were slow to adopt the international standards and best practices, which are being, and in some cases already have been, adopted in other major international financial centres... I am sure the banking industry would agree that it is important for Hong Kong to be in the initial wave of jurisdictions implementing Basel II, alongside other major international financial centres such as London, Paris, Frankfurt and Tokyo.”  
(Yam 2006)

Evaluating how Hong Kong's implementation of Basel II “compare[d] with other major financial centres” thus constituted an integral part of the HKMA's policy making process as they provided critical policy inputs in formulating Hong Kong's Basel II policy (HKMA 2005:12), although it is interesting to note that Yam does not mention New York as a major international financial centre. In the first instance, the HKMA benchmarked its Basel II implementation policy, especially the overall timing and scope of implementation, to that of leading global financial centres located in the UK, France, Germany and Japan. The HKMA argued that “given Hong Kong's position as an international finance centre, it should be in the first wave of jurisdictions (alongside other major international financial centres such as London, Paris, Frankfurt and Tokyo) to establish a legal and regulatory framework broadly in line with the international standards in Basel II” (HKMA 2006a:1-2; HKMA 2005:12).<sup>8</sup> This is consistent with the first, but more specifically, the second

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<sup>8</sup> New York is not mentioned here either.

measure of competition since implementation in countries that ranked amongst the top ten global financial centres such as London, Frankfurt and Tokyo, namely, those which Hong Kong's financial sector directly competed with for business, were the main targets the HKMA benchmarked its policy on. Nonetheless, also consistent with this measure were the implementation policies in Australia and Singapore, the only two non-G10 countries in the region that ranked amongst the top ten leading international financial centres. These countries provided policy benchmarks that were of a second order to the HKMA, to the extent that the HKMA ensured that "[f]rom a regional perspective, the implementation timetable in Hong Kong [was] broadly similar to that of Australia and Singapore" (HKMA 2005:12; HKMA 2004).<sup>9</sup> Insofar as the most competitive financial centres are usually hosts to the most active international banks, overlaps in the paths of policy diffusion between measures of competition for capital is expected. The most competitive financial centres were also highly interconnected to Hong Kong in terms of their claims in Hong Kong. The UK accounted for over half of total foreign claims from the world to Hong Kong, which together with Germany, France and Japan constituted over three quarters of total foreign claims.

The limited progress in implementation in the US, the only other country that measures of competition for capital would suggest policies would diffuse from, did not go unnoticed when the HKMA formulated its implementation policy. The HKMA pointed out that "[b]ecause the US banking regulators have announced their intention to offer only the most advanced approaches, Basel II will take effect in the

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<sup>9</sup> The regional diffusion of Basel II was reinforced by the HKMA's active participation in the EMEAP WGBS, especially as the chair since mid-2006 (HKMA 2006:68). HKMA played an active role in facilitating the diffusion of policies by encouraging implementation amongst the EMAEP WGBS supervisors via the supervisory network's outreach activities. In one meeting, the Deputy Chief Executive of the HKMA stated that it was "a good opportunity for representatives of jurisdictions which have yet to adopt Basel II to hear from jurisdictions already implementing the framework about the emerging issues, and to facilitate future communications on this topic among participants. As Chairman of the EMEAP Working Group on Banking Supervision, the HKMA certainly welcomes the opportunity to host this outreach event" (Choi 2007).

US only in 2008” (HKMA 20005:12). The US’s approach to implementation did shape more detailed aspects of Hong Kong’s implementation, which are discussed later. However, in formulating Hong Kong’s overall implementation strategy, the HKMA was less receptive to the Basel II policies of the US than to their European counterparts. Although the US played a pivotal role in creating Basel II, the global standards for bank capital regulation as adopted by supervisory authorities and banks was being set by the Europeans, who led the implementation of Basel II.

The HKMA sought to enhance two aspects of Hong Kong’s reputation vis-à-vis its rivals by matching the policies of other leading financial centres with which it competed. The first related to the reputation of Hong Kong as being at the forefront of adopting best practices in banking regulation. This reputation accrued from *how* the HKMA implemented Basel II. Hence, the HKMA argued that “[t]he fact that Hong Kong plans to be one of the first non-Basel jurisdiction to implement Basel II is positive for Hong Kong. It keeps us at the forefront regionally and internationally, reinforcing that we are on a par with the world’s top international financial centres.” (HKMA 2004:6) Similarly, senior officials responsible for implementing Basel II emphasized that “Hong Kong’s leadership” in implementing Basel II was “widely acknowledged” as “Hong Kong was one of the first jurisdictions globally to publish draft implementation guidelines for Basel II” and “[o]ther regulators have since followed our [HKMA’s] lead, and [were] adopting similar approaches” (Topping 2004b:30). When the final rules came into force in 2007, the HKMA emphasized again that “Hong Kong [was] among the first jurisdictions in the world to implement Basel II and this makes us very much a leader in the region” (HKMA 2006:6). The HKMA ultimately believed that “[b]eing among the first banking centres to implement Basel II will help maintain Hong Kong’s position as an international financial centre” (HKMA 2004c:7).

Secondly, the HKMA tried to reinforce Hong Kong’s reputation as a well regulated banking system by implementing Basel II. According to Topping,

Executive Director of Banking Policy, “Hong Kong’s reputation as one of the world’s leading international financial centres derives from a number of factors, one of which is the good reputation of its regulatory systems” and to maintain this reputation, he believed that “Hong Kong need[ed] to keep up with global trends in regulation – such as the policies on bank regulation formulated by the Basel Committee on Banking Supervision” (Topping 2001:1). Referring to Basel II implementation, his view was that the “adoption of international standards [and] best practices is necessary in order to maintain Hong Kong’s reputation as a *well-regulated* IFC [international financial centre]” (Topping 2005:14, emphasis added). Basel II was particularly seen to be attractive in this respect since the HKMA believed that Basel II was more risk-sensitive, inclusive of a wider range of risks, designed to strengthen market discipline and provided incentives for banks to adopt the latest advances in risk management (HKMA 2004b:3-4). “How could anyone possibly disagree with this?” were the exact words of Topping (2004:3) The HKMA reaffirmed this view stating that “[g]iven the potential benefits of Basel II to the safety and stability of the banking system and to the reputation of Hong Kong as an international financial centre, Hong Kong has been at the forefront of jurisdictions globally taking active steps to incorporate the requirements of the revised framework into their regulatory regimes” (HKMA 2005:5).

That said, the implementation of Basel II in Hong Kong was not only shaped by the HKMA’s efforts to strengthen Hong Kong’s reputation and international standing vis-à-vis other leading financial centres, but also by very practical and tangible constraints owing to its position as a financial centre where international banks had a very strong presence. Investors and fund raisers from outside Hong Kong used financial intermediation channels in Hong Kong provided by international banks, and it was this role in the process of credit intermediation, which Yam considered “the minimum requirement” for Hong Kong to qualify as an international financial centre (Yam 2006a). According to Yam, “establishing an

international market in a particular financial product in Hong Kong, which is clearly desirable for the maintenance of the status of Hong Kong as an international financial centre... is not easy because we are talking about doing so possibly at the expense of established markets elsewhere” (Yam 2006b). He argued that the regulatory framework constituted an integral part of market infrastructure, which, together with supply, demand and price discovery mechanisms, determined where a market is located in or re-located. To this end, it was important that the implementation of Basel II in Hong Kong created a regulatory environment that was attractive for international banks to conduct their businesses, which in turn affected how Basel II was implemented in Hong Kong in the following two ways.

First, the HKMA ensured that Hong Kong was in the initial wave of jurisdictions to implement Basel II along with countries with active international banks, enabling international banking groups to adopt their preferred approach to implementation in Hong Kong. In 2004, the HKMA believed that Basel II had “gained widespread support by countries with active international banks” (HKMA 2004:2). The HKMA expected “[m]ajor international banking groups with a presence here [in Hong Kong] will implement Basel II, the more advanced approaches specifically, globally in 2006” and that “[t]hey naturally expect to adopt the same implementation approach and timetable in their operations in Hong Kong” (ibid. p4). To this end, because “[d]ivergences in how different jurisdictions implement Basel II are inevitable” across countries implementing Basel II, according to the Chief Executive of the HKMA, it was “all the more important that there should be a high degree of alignment in the interpretation and application of the rules and, not least, in the timing of implementation. This [was] essential to avoid legal uncertainties for cross-border banking groups and any unnecessary implementation costs or competitive disadvantage during the transition period.” (Yam 2005) Hence, the HKMA said that they “see value in being among the first in adopting Basel II, not only because of its intrinsic merits, but also because Hong

Kong has one of the highest concentrations of banking institutions in the world, with a strong presence of international banking groups.” (HKMA 2004c:7) It was “therefore important that Hong Kong implement[ed] Basel II at the same time as the BCBS members” according to the Deputy Chief Executive of the HKMA, as this would “help maintain Hong Kong’s position as a leading international financial centre.” (Ryback 2006:3)<sup>10</sup>

Secondly, it was not only in the timing and overall scope of implementation, but also in the implementation of the three pillars of Basel II that the HKMA tried to make the regulatory environment more attractive for international banks. According to Yam, the HKMA liaised closely with major international banks in Hong Kong “in an effort to build sufficient flexibility into our [HKMA’s] rules to allow them as much as possible to follow the rules set by their home supervisors, to the extent that this can be done without compromising the level playing field within Hong Kong itself.” (Yam 2005) Thus, in implementing Pillar 1, since the majority of authorized institutions (“AIs”) planning to adopt the IRB approaches were subsidiaries of foreign banking groups (HKMA 2005:67), the HKMA said that it “relied on the home supervisors’ reviews of the group-developed internal rating systems that are used by the subsidiaries in Hong Kong mainly for nonretail exposures. This was done to avoid supervisory overlap and reduce the regulatory burden on banks.” (HKMA 2007:68)<sup>11</sup> This approach was also consistent with the HKMA’s “hopes to reduce the burden on AIs and their parent banks in satisfying the validation requirements of various supervisors” where all or part of their rating systems were centrally developed and monitored on a banking group basis (HKMA 2005a:13). For Pillar 2 implementation, foreign bank subsidiaries were permitted to adopt their

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<sup>10</sup> Ryback essentially makes the same argument that “[m]any international banking groups [were] expected to implement Basel II globally with effect from 1 January 2007. Those banks with a presence in Hong Kong will naturally expect to be able to use the Basel II approaches in their operations in Hong Kong.” (Ryback 2006:3)

<sup>11</sup> In Hong Kong, AIs are banks that are authorized under the Banking Ordinance to carry on banking business or the business of taking deposits.

parent bank's group-wide ICAAP as long as the home supervisors applied standards comparable to those adopted by the HKMA (Luk 2006). Likewise, for Pillar 3, the rules that implemented the disclosure requirements allowed subsidiaries of foreign banks to draw extensively on group disclosures for local reporting purposes. Such measures facilitated the full and timely implementation of Basel II by foreign banks, which constituted the majority of banks that implemented the advanced approaches of Basel II in Hong Kong.

In sum, efforts to strengthen Hong Kong's reputation and position as a leading international financial centre by creating a correspondingly fitting regulatory environment relative to its competitors culminated in an implementation policy that promoted a high level of convergence with Basel II. However, although the formal regulatory regime was Basel II-ready by 2006, divergences from Basel II and lax transitional arrangements were also strategically built into the HKMA's implementation policy, limiting the overall degree of convergence with Basel II.

### **7.2.3 The diffusion of policies that diverged from Basel II**

All AIs incorporated in Hong Kong were required to comply with Basel II from 2007. For Pillar 1, banks had a choice from three options for credit risk, namely the SA, FIRB approach and the "Basic Approach" from 2007, and the AIRB approach from 2008. For operational risk, the HKMA implemented the BIA and TSA from 2007 and Pillars 2 and 3 were also implemented concurrently with Pillar 1.<sup>12</sup> As can be seen from the way the HKMA implemented Basel II, two notable divergences from Basel II can be observed, namely, the implementation of an extra fourth approach for credit risk unique to Hong Kong and the non-implementation of the most advanced approach for operational risk. In addition, the HKMA allowed banks to gradually transition onto Basel II after the regulations implementing Basel II

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<sup>12</sup> The SA and TSA were designated as the default options that banks were required to apply unless approved by the HKMA to use a different approach. The HKMA also allowed the alternative TSA, which is an option under Basel II that utilizes different indicators to calculate operational risk charges.

came into force. These country-specific divergences could undermine the argument that Hong Kong's efforts to compete for capital led to the diffusion of policies that promoted convergence with Basel II, or suggest that policy diffusion was also a cause of such divergences, if not due to factors unrelated to policy diffusion. The analyses that follow suggest that Hong Kong's divergences from Basel II were consistent with the operation of policy diffusion that resulted from Hong Kong competing for capital with other financial sectors. Not only were such decisions based on careful consideration of how Hong Kong's competitive peers were implementing Basel II, but the divergent ways in which Hong Kong implemented Basel II provided an outlet to accommodate domestic opposition and constraints, which in part emanated directly from the HKMA's efforts to match the policies of its competitive peers in the first place. Key divergences from Basel II unique to Hong Kong, which are examined next, were strategically planned from the start and incorporated into the HKMA's original implementation policy.

### **Hong Kong's Basic Approach**

In addition to the three approaches set out in Basel II for calculating regulatory capital requirements for credit risk, the HKMA created and implemented a fourth "Basic Approach" in Hong Kong. Faced with domestic opposition from small banks, this fourth approach incorporated elements of how the EU implemented Basel II on the one hand and the US on the other, resulting in an approach that was neither one nor the other, but unique to Hong Kong. Opposition against Basel II emerged from a segment of Hong Kong's banking sector that consisted of many smaller banks, in particular, restricted licence banks and deposit-taking companies, which accounted for around 35% of total AIs, but originated only 5% of total loans in Hong Kong in 2004 (HKMA 2004c:156).<sup>13</sup> These banks were concerned that Basel II was operationally too burdensome and costly to implement given the straightforward

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<sup>13</sup> There are three tiers of AIs, licensed banks, restricted licence banks and deposit-taking companies. In 2004, there were forty restricted licence banks and thirty-five deposit-taking companies, compared to 133 licensed banks that provided 95% of loans in Hong Kong (HKMA 2004:148).



nature of their banking operations even if they adopted the most basic approaches of Basel II. However, the HKMA did not want to put itself in a position similar to that of the US by requiring some banks to implement Basel II whilst allowing the rest to remain on Basel I. Such approach had been heavily criticized by the Europeans who fiercely and publically rejected the US's selective approach to implementation. In response, senior US bank regulators also seemed "to be losing patience with European objections to a decision by US regulators to only apply the Basel rules to 10 leading US banks" (FT 2003a).<sup>14</sup>

Unwilling to go down the same path as the US, but wanting to enjoy the flexibility and cost savings that the US approach offered, the HKMA developed the Basic Approach, and explained its rationale as the following:

"There is some variation among countries concerning Basel II's scope of application. European Union countries will apply it to all "credit institutions", irrespective of size, whereas in Japan and the United States, the new framework will be applied primarily to the large internationally active banks, with alternative arrangements made available for smaller institutions. Hong Kong has elected to follow the first approach meaning that Basel II will be applied to all AIs incorporated in Hong Kong and they will be subject to all three Pillars of the revised framework. However, to enjoy some of the flexibility of the second approach and to reduce the implementation cost, Hong Kong also intends to make available the Basic Approach for smaller institutions as an alternative to the IRB and the Standardised Approaches for the calculation of credit risk capital requirement." (HKMA 2005:12)

Thus, the Basic Approach was introduced "to ensure that there [was] an approach to Basel II tailored to the needs of every authorized institution, large or small" (Yam 2005). The Basic Approach was essentially a modified version of Basel I with slight definitional changes and one which incorporated operational risk charges and elements of Pillars 2 and 3. It was made available to banks with small (total assets

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<sup>14</sup> John Hawke, the Treasury official who headed the supervision of US national banks, expressed his frustration stating that "[i]t is time for people to get over the fact that the US has made a decision to apply this only to the 10 largest US banks" (FT 2003a). Hawke claimed that those ten banks accounted for about 99 percent of foreign exposures in the banking system.

not more than HKD10 billion), simple, and straightforward operations, and as an interim approach for banks approved by the HKMA to adopt the IRB approaches by the end of 2009. (HKMA 2004:20) This included nearly all restricted licence banks and deposit-taking companies, thus addressing concerns from that segment of the industry over the costs and complexity of implementing Basel II (HKMA 2004a:5).<sup>15</sup> By 2005, forty AIs that were mainly restricted licence banks and deposit-taking companies obtained approval to use the Basic Approach (HKMA 2005:6). The HKMA expected around fifty banks to be permanent users of the Basic Approach, in contrast to around twenty small and medium sized AIs that were expecting to use the SA in 2007 (Luk 2006).

According to Yam, “[t]his [was] significant, because it means that in Hong Kong, as for example in the EU, all authorized institutions will migrate to Basel II, and so we [Hong Kong] will not have a situation where some institutions are operating under Basel II and some under Basel I, which could reflect unfavourably on the latter, and possibly affect their standing and competitive position.” (Yam 2005) Although these banks were relatively insignificant compared to the 142 licensed banks that originated 97% of loans to customers in Hong Kong in 2006 (HKMA 2006:241), this segment of Hong Kong’s banking sector effectively remained on Basel I. However, the HKMA nonetheless claimed that it had fully transitioned onto Basel II like the EU, which had implemented all the approaches of Basel II according to the timetable agreed in Basel II, as opposed to the US, where implementation was delayed and bifurcated as only the largest international banks were required to implement the advanced approaches of Basel II while the rest remained on Basel I. In addition, as will be examined later, a greater proportion of banking assets were on the Basic Approach until 2009, when the largest banks

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<sup>15</sup> When Basel II came into force, there were thirty-one restricted licence banks, all of which were either subsidiaries of licensed banks incorporated outside Hong Kong or subsidiaries or branches of foreign banks with no licence in Hong Kong, and thirty-three deposit-taking companies, most of which were subsidiaries of foreign banks at the end of 2006 (HKMA 2006:198)

planning to adopt the IRB approaches were allowed to use the Basic Approach as a transitional stepping stone for several years.

### **Non-implementation of AMA for operational risk**

The HKMA did not implement the AMA, which is the most sophisticated approach for calculating capital requirements for operational risk, and offered only the BIA and TSA in 2007. According to Topping, this was the “only thing in Basel II” the HKMA was not going to allow and was controversial since the HKMA did not believe that building up elaborate systems for operational risk helped banks manage risks (ORR 2004). Although Hong Kong had a relatively developed banking sector, the HKMA said that the time was “not yet ripe to introduce the AMA in Hong Kong”, especially for Hong Kong banks (HKMA 2004b:9).<sup>16</sup> Instead, the HKMA was “expecting banks to focus their dollars on the management of operational risk... rather than building up systems to calculate an AMA capital charge” by focusing on the implementation of the Basel Committee’s principles on Sound Practices for the Management and Supervision of Operational Risk (ORR 2004). Another reason why the HKMA did not implement the AMA was that it was seen to be “still evolving in terms of techniques for quantitative capital measurement, and AIs [did] not generally have the systems to accumulate operational loss data required for the Approaches” (HKMA 2004b:9). This was the case not only in Hong Kong, however, but also elsewhere, such as in the UK and Singapore, where the AMA was not the preferred approach for most international banks (as the Korean supervisors somewhat belatedly found out), despite them being the most sophisticated and advanced banks. In fact, the HKMA specifically stated that in Hong Kong “[m]ost AIs have indicated their preference to use either the BIA or SA for calculation of operational risk capital charge, even those planning to adopt IRB approaches to credit risk. Therefore, the implementation of AMA in Hong Kong is not a priority for the time being.” (HKMA 2004b:168; see also HKMA 2005:6). Since banks

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<sup>16</sup> Note how this policy stance contrasts with that of the FSS in Korea.

implementing the IRB approaches were mostly foreign banks implementing the TSA across their banking groups, the HKMA's policy did not adversely affect foreign banks' operations from a regulatory perspective. Furthermore, not implementing the AMA did not make Hong Kong's regulatory environment any less attractive for international banks that had already implemented the AMA at the banking group level. This was because the HKMA said that "[i]n the case where some international banks may want to extend the application of AMA to their subsidiary AIs in Hong Kong, the HKMA may consider the feasibility of allowing those foreign bank subsidiaries to use AMA on a case by case basis." (HKMA 2004b:168)<sup>17</sup>

### **A gradual transition to Basel II**

Although the regulatory regime was "Basel II-ready" by the end of 2006, making Hong Kong one of the first jurisdictions in the world to formally implement Basel II, this did not mean that all banks in Hong Kong were required to complete their implementation by that date. Banks' convergence with Basel II was more gradual than meets the eye as the HKMA allowed banks to gradually transition onto the three pillars of Basel II. For banks implementing the IRB approaches, the HKMA allowed a three-year implementation transition period from year-end 2006 to year-end 2009 instead of one year envisaged in Basel II.<sup>18</sup> According to Topping, a longer implementation transition period was adopted "partly to allow banks to build up their data and use of the models, but also to account for the fact that they are not going to be putting all their efforts into IRB and frontloading it the way banks may be elsewhere. They may be working on other areas in the meantime." (ORR 2004) These banks were permitted to use the Basic Approach or the SA if they could demonstrate to the HKMA that they had an adequate plan for implementing the IRB

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<sup>17</sup> Basel II also allows banks adopting the AMA to use an allocation mechanism for determining regulatory capital requirements of subsidiaries that are not significant relative to the overall banking group with approval of its host supervisors and support of its home supervisor (Para. 656).

<sup>18</sup> During this period, transitional arrangements such as concessionary IRB rollout requirements in the form of lower coverage ratios and relaxed data requirements also applied.

approaches by the end of the implementation transition period. Such arrangements effectively provided a grace period for Hong Kong banks to delay the full implementation of the IRB approaches until 2010 and use the Basic Approach instead. This relieved them from the pressure of having to comply by 2007, which may have been the preferred date for foreign banks in Hong Kong that implemented the IRB approaches across their banking groups in 2007, but not for domestic banks.

As a result, although the HKMA claimed that fourteen AIs representing 80% of total assets of all AIs “have expressed an interest in using the IRB Approaches” in 2005 (HKMA 2005:6), only one or two banks were planning to implement the FIRB approach in 2007 and seven or eight banks planned to implement the IRB approaches after 2008 (Luk 2006:8). In practice, only four AIs obtained approval in 2007 to adopt the IRB approaches from January 2008 (HKMA 2007:67). In 2008, the HKMA granted approval for three AIs to adopt the IRB approaches (HKMA 2008:68), but none in 2009.<sup>19</sup> Moreover, the majority of AIs adopting the IRB approaches were subsidiaries of foreign banking groups (HKMA 2006:67), reducing the extent to which Basel II induced significant improvements in risk management standards across the banking sector in Hong Kong. To this end, Hong Kong’s early and full convergence with Basel II was more rhetoric than reality.

The extent to which the implementation of Pillar 2 and 3 led to substantive changes was also limited. The implementation of Pillar 2 was gradual. Instead of requiring drastic changes to existing practices, implementation focused on “elaboration and refinement” as the HKMA deemed the main elements of Pillar 2 were already embedded in the HKMA’s existing supervisory approach (HKMA 2005:65). Moreover, according to the Head of Banking Policy at the HKMA, “[i]n view of AIs’ general level of readiness for CAAP, the HKMA would not expect all AIs necessarily to have a well-developed CAAP by 1 Jan 2007” (Luk 2006). Furthermore, AIs that were part of foreign banking groups, which accounted for

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<sup>19</sup> In 2009, one approval was granted for the use of internal models for market risk (HKMA 2009:60)

over 80% of licensed banks in Hong Kong, were allowed to draw extensively on their parents' ICAAP instead of developing their own.<sup>20</sup> In addition, the ICAAP requirements did not apply to banks on the Basic Approach on cost-effective grounds. Similarly, a menu-based approach was adopted for the implementation of Pillar 3, whereby requirements for the extent of disclosures were dependent on the approach for credit risk banks adopted. Since most Hong Kong banks adopted the basic approaches and the banks adopting the IRB approaches were predominantly foreign banks that were permitted to draw extensively on their parents' disclosure framework, significant increases in the level of disclosures across banks in Hong Kong was not expected with the implementation of Pillar 3.

In sum, the effects of policy diffusion had both positive and negative effects on Hong Kong's degree of convergence with Basel II. The HKMA aimed to match the policies of other leading global financial centres to ensure that Hong Kong was at par with their main competitive peers. However, being one of the first countries in the world to implement Basel II produced challenges domestically, which the HKMA addressed by adopting policies that diverged from Basel II. Korea provides a contrasting case to that of Hong Kong due to the different ways it is interconnected to the rest of the world. Whereas policies primarily diffused horizontally amongst Hong Kong's competitive peers, albeit imperfectly due to the divergences from Basel II, the next case study examines how Korea's implementation of Basel II was shaped by both the horizontal and vertical diffusion of policies.

## **7.3 Competing for capital and the implementation of Basel II in Korea**

### **7.3.1 Tracing the paths of policy diffusion to Korea**

To trace the paths through which policies diffused due to competition between financial sectors to attract capital, three measures are applied to Korea as was done

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<sup>20</sup> There were 114 licensed banks incorporated outside of Hong Kong and twenty-four incorporated in Hong Kong at the end of 2006 (HKMA 2006:198)

in the case of Hong Kong. The first measure identifies the countries that account for the largest shares of cross-border financial claims to Korea using the BIS consolidated banking statistics. Table 18 present the analysis that maps out the pathways policies may have diffused. The top ten countries that account for the largest cross-border claims in Korea are presented in descending order.

**Table 18: Consolidated foreign claims to Korea**

(In millions of US dollars)

A				B				C			
Immediate borrower basis				Immediate borrower basis				Immediate borrower basis			
2001-4 average quarterly exposure				2005-8 average quarterly exposure				2001-8 average quarterly exposure			
Country	Claim	%	Cum %	Country	Claim	%	Cum %	Country	Claim	%	Cum %
US	24,107	28%	<b>28%</b>	GB	76,139	29%	<b>29%</b>	US	44,564	25%	<b>25%</b>
JP	11,600	14%	<b>42%</b>	US	65,020	25%	<b>53%</b>	GB	43,056	24%	<b>50%</b>
GB	9,973	12%	<b>53%</b>	FR	26,508	10%	63%	FR	18,092	10%	60%
FR	9,675	11%	64%	JP	23,300	9%	72%	JP	17,450	10%	70%
CH	8,046	9%	74%	CH	20,618	8%	80%	CH	14,332	8%	78%
DE	8,030	9%	83%	DE	20,471	8%	87%	DE	14,250	8%	86%
NL	5,389	6%	89%	NL	15,436	6%	93%	NL	10,413	6%	92%
AU	2,450	3%	92%	TW	3,703	1%	95%	TW	2,790	2%	94%
CA	2,007	2%	95%	BE	3,551	1%	96%	AU	2,573	1%	95%
TW	1,878	2%	97%	CA	3,194	1%	97%	CA	2,561	1%	97%
Other	2,755	3%	100%	Other	7,353	3%	100%	Other	5,812	3%	100%
Total	85,909	100%		Total	265,293	100%		Total	175,892	100%	
Europe	44,068	51%		Europe	168,730	64%		Europe	106,399	60%	

F				G				D			
Immediate borrower basis				Ultimate risk basis				Ultimate risk basis			
2005 average quarterly exposure				2005 average quarterly exposure				2005-8 average quarterly exposure			
Country	Claim	%	Cum %	Country	Claim	%	Cum %	Country	Claim	%	Cum %
US	55,635	30%	<b>30%</b>	US	54,836	31%	<b>31%</b>	GB	73,379	30%	<b>30%</b>
GB	53,355	29%	<b>59%</b>	GB	53,305	30%	<b>61%</b>	US	64,172	26%	<b>56%</b>
JP	16,651	9%	67%	CH	15,092	8%	69%	FR	26,320	11%	<b>66%</b>
CH	15,901	9%	76%	JP	14,928	8%	78%	JP	21,072	9%	<b>75%</b>
FR	13,809	7%	83%	FR	13,283	7%	85%	CH	20,037	8%	<b>83%</b>
NL	10,343	6%	89%	NL	10,357	6%	91%	NL	14,921	6%	<b>89%</b>
DE	9,763	5%	94%	DE	7,751	4%	95%	DE	13,956	6%	<b>95%</b>
CA	2,515	1%	96%	CA	2,548	1%	97%	CA	3,412	1%	<b>96%</b>
AU	2,423	1%	97%	AU	1,955	1%	98%	BE	3,410	1%	<b>97%</b>
TW	2,236	1%	98%	BE	1,393	1%	99%	AU	2,353	1%	<b>98%</b>
Other	3,518	2%	100%	Other	2,596	1%	100%	Other	4,150	2%	<b>100%</b>
Total	186,148	100%		Total	178,042	100%		Total	247,180	100%	
Europe	107,100	58%		Europe	99,981	56%		Europe	156,427	63%	

Source: BIS consolidated banking statistics (<http://www.bis.org/statistics/constats.htm>)

Notes: AT:Austria, AU:Australia, BE:Belgium, BR:Brazil, CA:Canada, CH:Switzerland, CL:Chile, DE:Germany, DK:Denmark, ES:Spain, FI:Finland, FR:France, GB:United Kingdom, GR:Greece, IE:Ireland, IT:Italy, JP:Japan, MX:Mexico, NL:Netherlands, PA:Panama, PT:Portugal, SE:Sweden, TR:Turkey, TW:Chinese Taipei, US:United States

The six panels correspond to average quarterly claims during different time periods.

Panel A corresponds to when the FSS formulated its implementation policy and

supervised banks to prepare for the implementation of Basel II, before announcing its formal implementation policy in December 2004 (Panels F and G). Formal implementation commenced in 2005 and is represented by Panels B and D.

The US and UK are the most important counterparts to Korea as they account for more than half the total claims from the world to Korea. Policymakers in Korea are thus expected to be more sensitive to the Basel II policies of the UK and US than that of other countries. However, there are several notable changes in the way Korea was interconnected to the rest of the world according to this measure, one being the increase in the share of the UK, which surpassed the value of claims from the US during 2005-8 compared to the period during 2001-4, making the UK equally important as the US on average during 2001-8. The increase in the share of the UK's financial claims in Korea provides a dimension to policy diffusion that is distinct to the cross-border structure of international banks examined in Chapter Six. This is because intergroup positions are netted out in the BIS consolidated banking statistics, which aim to look through inter-office positions to capture exposures to unaffiliated counterparties (McGuire and Wooldridge 2005:74). In addition to the relative decline of the US, the relative decline of Japanese banks' share of foreign claims in Korea can also be observed, although the absolute value of their claims increased, but at a slower pace than the UK. Claims from the UK, US and Japan are followed by those from several European countries, namely, France, Switzerland and Germany, which account for between 5% and 10% of aggregate foreign claims in Korea. As indicated in the bottom row of each panel, European banks, which are early-comprehensive adopters of Basel II, collectively account for approximately 60% of all financial claims from the world to Korea on an immediate and ultimate risk basis, and appear to be on the rise. Combined with the US, they dominate the extent to which Korea was interconnected to the rest of the world, as they collectively accounted for over 80% of claims from the world to Korea. Hence, in specifying the paths policies diffused, influences from the US, an early-partial adopter turned late-



partial adopter of Basel II, and increasingly the UK, an early-comprehensive adopter, are expected to be most important to policymakers in Korea, although collectively, influences from the EU is expected to be dominate that from the US.

Secondly, Korea's relative position amongst other financial centres around the world may shape which financial sectors policies diffuse from. On the one hand, policymakers may aim to emulate the policies that the most successful global financial centres have implemented due to their aspiration to also develop one domestically, resulting in the vertical diffusion of Basel II. To this end, London, New York, Hong Kong and Singapore are consistently ranked as the most successful global financial centres according to the GFCI shown in Table 19. Basel II policies in these financial centres may become the targets for policy emulation by policymakers in Korea, which ranks considerably lower in the GFCI rankings.

**Table 19: Global Financial Centres Index rankings and Seoul's rank**

Rank	Mar-07	Rank	Sep-07	Rank	Mar-08	Rank	Sep-08	Rank	Mar-09
1	London	1	London	1	London	1	London	1	London
2	New York	2	New York	2	New York	2	New York	2	New York
3	Hong Kong	3	Hong Kong	3	Hong Kong	3	Singapore	3	Singapore
4	Singapore	4	Singapore	4	Singapore	4	Hong Kong	4	Hong Kong
5	Zurich	5	Zurich	5	Zurich	5	Zurich	5	Zurich
:	:	:	:	:	:	:	:	:	:
40	Warsaw	39	Beijing	48	Mumbai	45	Qatar	50	Bangkok
41	Prague	40	Rome	49	Rome	46	Madrid	51	Beijing
42	Lisbon	41	Mumbai	50	Osaka	47	Beijing	52	Osaka
43	Seoul	42	Seoul	51	Seoul	48	Seoul	53	Seoul
44	Budapest	43	Johannesburg	52	Wellington	49	Mumbai	54	Sao Paulo
45	Moscow	44	Bahrain	53	Sao Paulo	50	Osaka	55	Rome
46	Athens	45	Prague	54	Prague	51	Wellington	56	Wellington

Source: Global Financial Centres Index (GFCI), City of London

On the other hand, policies may diffuse horizontally amongst financial sectors that are rivals as policymakers try to match the Basel II policies of their competitive peers with which they directly compete for capital. In this case, policies are expected to diffuse from the likes of late-partial adopters such as Beijing, gradual-comprehensive adopters such as Mumbai, and early-comprehensive adopters such as Rome, Prague and Wellington. Whether vertical or horizontal diffusion shaped the implementation of Basel II in Korea is an empirical question that is examined in this case study.

According to the third measure, policies may diffuse horizontally as Korea competes with the likes of Malaysia, Chile, China and several other countries in the Middle East and the EU that have similar sovereign credit risk ratings as Korea as shown in Table 20. Policies may also diffuse vertically if policymakers look to the policies of highly rated countries, such as the AAA-rated EU member states or the G10.<sup>21</sup>

**Table 20: Countries with similar credit ratings as Korea as of year-end 2005**

Credit rating	Country	Basel II Score
A+	Kuwait	20
	Qatar	15
A	EU member states: Cyprus, Estonia, Greece, Lithuania, Malta	40
	Korea	31
	Saudi Arabia	23
	Chile	4
	Botswana	0
	A-	EU member states: Czech Republic, Hungary, Latvia, Slovak Republic
Bahrain		22
Malaysia		20
China		16
Israel		13
Aruba		2
Bahamas, The		0
Trinidad and Tobago		0

Source: Standard and Poor's

Bearing in mind that the same caveats and limitations discussed in the context of operationalizing these channels of diffusion in Hong Kong also apply here, the process of policy diffusion between financial sectors that compete for capital in the case of Korea is examined next.

### **7.3.2 The diffusion of policies that converged with Basel II**

As examined in Chapter Six, the FSS adopted an aggressive implementation plan, whereby domestic banks were directed to prepare for the implementation of the most advanced approaches of Basel II at a timetable that matched the earliest of G10

<sup>21</sup> Eleven EU member states and the G10 (except Belgium, Italy and Japan) were AAA-rated in 2005.

regulators and their global banks in response to growing competitive pressures from international banks based in the G10. The pressure exerted by the FSS on banks was geared up a notch when the publication of Basel II was imminent. In a public statement, the Governor of the FSS criticized Korean banks for failing to fully recognize the importance and urgency of adopting Basel II and strongly urged banks to step-up their preparations (FSS 2004a). He stated that although Korea was not formally obliged to implement Basel II, achieving consistency with Basel II in line with the G10 was not a matter of choice, but a necessity for Korea's financial sector to operate successfully in a liberalized economy and for Korea to develop into a financial hub of north-east Asia. When the FSS subsequently announced its implementation policy in December 2004, it stated that the decision of when and how to implement Basel II was based on three factors (FSS 2004). Two factors pertained primarily to domestic considerations, namely, the preparedness of domestic banks to implement Basel II and the impact of Basel II on banks' capital adequacy ratios and lending. The Basel II implementation policies of other key countries constituted the third factor underlying Korea's implementation policy. The process of evaluating how implementation in Korea compared with that of other countries was systematically embedded into the way the FSS formulated its implementation policy. In the FSS's policy document, the FSS examined the implementation policies of two groups of countries. The first were members of the Basel Committee, in particular the US and UK. The second group consisted of non-Basel Committee countries, which included countries the FSS considered Korea was in direct competition with, namely, Hong Kong and Singapore, and countries that the FSS considered relevant from a regional perspective, such as Australia, Malaysia and China (*ibid.*).

Both groups of countries provided important policy benchmarks that provided key inputs in formulating the FSS's Basel II policy, although they played different roles. Matching the early implementation of the advanced approaches of

Basel II in the UK and US provided the gold standard that the FSS aimed to meet. Before implementation was delayed in the US, the Federal Reserve adopted a bifurcated approach that mandated the implementation of the advanced approaches of Basel II to the largest of US banks and those with significant foreign exposures by year-end of 2007.<sup>22</sup> Since the FSS was concerned about the competitive implications of large global banks based in the US, the limited application of Basel II to only these banks and not the rest did not influence the formulation of the FSS's policy. The FSS was less concerned about how small banks in the US were going to implement Basel II as they were not the primary targets for benchmarking the FSS's policy, although, as discussed later, subsequent delays in implementation in the core global banks were matters of concern to the FSS. Furthermore, although the European Commission's proposed CRD set out staggered start dates in accordance with Basel II, banks in the UK were planning to implement Basel II from 2008. The FSA, HM Treasury and the UK industry strongly argued for a single start date (Sants 2004), and such option was incorporated into the CRD. Banks could elect to remain on Basel 1 until end-2007 per the option given in CRD Article 152.7, and indeed, most banks in the UK opted to stay on Basel I during 2007 (Linklaters 2008:2). The FSS also noted in its policy statement that implementation in the EU, Canada and Japan was due at year-end of 2006, and 2007 for the advanced approaches of Basel II (FSS 2004). However, it did not opt to follow the implementation policies of Canada, Japan or the rest of the EU, which adopted the staggered start dates per Basel II. Instead, Korea's implementation specifically followed that of the UK as the FSS announced that it would implement all the approaches for credit and operational risk in Pillar 1 and Pillars 2 and 3 from the end

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<sup>22</sup> The year-end 2007 deadline was the initial date announced by the Fed in 2003 and one which was least divergent from the rest of the G10. The US banking authorities subsequently announced plans to delay implementation from 2005, making the US no longer an early-partial adopter, but a late-partial adopter of Basel II.

of 2007 (FSS 2004). This implementation for the advanced approaches of Basel II in Korea was also in line with that in the US.

The FSS also evaluated how Korea's proposed implementation compared with that of a second group of non-Basel Committee countries. The FSS's policy statement specifically pointed out that implementation plans in Hong Kong and Singapore was due at the end of 2006 for the basic approaches and 2007 for the advanced approaches, that Australia was due to implement all the approaches of Basel II by the end of 2007 and that Malaysia and China planned to implement Basel II on or after 2008 (FSS 2004). According to a senior official at the FSS, because the main financial sectors that competed with Korea, that is, Singapore and Hong Kong, were implementing Basel II in line with the Basel Committee's timetable, implementing Basel II at a later date than countries that were not members of the Basel Committee could damage the reputation of the Korean banking sector and potentially weaken market confidence in Korean banks (Ahn 2004:127). Although the early implementation of the advanced approaches of Basel II in the UK and the US (before implementation was delayed) provided the gold standard for implementation that the FSS aspired to meet, these non-Basel Committee countries, in particular those that the FSS considered Korea's financial sector to be in direct competition with, provided the backstop beyond which the FSS did not want to lag behind. However, implementing Basel II along the lines of the leading financial centres in Asia that were not members of the Basel Committee did not leave much leeway for the FSS to spread Korea's implementation over a longer time period or selectively implement Basel II as these countries planned to implement Basel II in line with the early-comprehensive implementers of the Basel Committee.

The FSS argued that it was necessary to implement Basel II according to the scope and timetable in the most advanced economies in the G10 to enhance the international standing of the Korean banking sector and to be able to compete at the

international level (FSS 2004). The following three reasons underpinned why the FSS thought that it is was important to purposefully and systematically look to the Basel II implementation policies of other countries, in particular, those of the UK and US, in formulating its own implementation policy. Firstly, the FSS wanted to enhance the international standing of domestic banks by improving their competitiveness through the implementation of Basel II so that they could compete on an equal footing with global banks from the G10. When the FSS announced its implementation policy, the director of the New Basel Accord Office at the FSS stressed that the Korean banking system had “to go the extra mile to satisfy international standards... [because] entering the accord along with the advanced countries will reinforce [South Korea’s] competitiveness” (GRR 2005). Similarly, another senior supervisory official at the New Basel Accord Office stated that “[t]his is our destiny... to see South Korea’s top banks fully adopting the new Basel capital accord, and meeting the same standards as the better banks in Europe and the US” (GRR 2004a). He argued that Korean banks would be “at a competitive disadvantage if they do not adopt the new risk-based international accord” (ibid.). The governor of the FSS also made a similar point, stating that developing the banking sector and enhancing the competitiveness of domestic banks in line with those in advanced economies was what the FSS was trying to achieve through the implementation of Basel II (Kim 2007:7). To this end, it was the regulatory standards in the UK and US that were the most relevant policy benchmarks for the FSS and those that had the greatest influence on how Basel II was implemented in Korea.

The FSS argued that implementing Basel II in line with these leading global financial centres was also consistent with its objective to aid the development of the Korean banking sector into a leading financial hub in north-east Asia (FSS 2004). In 2003, the new incoming administration designated the financial services industry a high value-added growth industry and “embarked on a mission to transform Korea

as the leading financial hub of Northeast Asia” (FSS 2004b). According to the Chairman of the FSC and Governor of the FSS, a growing number of countries had joined the competition to become international financial centres and “Korean policymakers [were] aggressively engaged in this enterprise as well” (Jun 2008:5-6). The FSS set an ambitious institutional reform agenda that included regulatory reform as a key component. Hence, “from Basel II for banking and net capital ratio for securities firms to risk-based capital for insurers” the FSS was “aggressively implementing risk-based prudential controls and weaving them into a tightly-knit supervision system” (ibid.). Although Korea was not in direct competition with the leading global financial centres in the region, aspirations to develop one by adopting the same policies was a key motivation in driving the FSS’s implementation policy.

Secondly, according to the Governor of the FSS, the FSS sought to enhance the credit ratings of Korean banks to the level of banks in developed economies by implementing Basel II in full on January 2008 (Yoon 2006:7). Indeed, ratings agency Standard & Poor’s (S&P) pointed out that the inferior capital adequacy of Korean banks compared with their international peers had been one of the factors constraining their credit ratings (S&P 2005). S&P suggested that Basel II “provides an opportunity for South Korea’s banks to improve their risk-management systems and enhance their profitability. Inadequate risk management and mismatches between prices and risks were among the underlying causes of the repeated damage to the credit profile of the sector in the past several years. To take advantage of the new accord, structural changes will be required to deepen the understanding of risk management and increase its importance in the strategic planning of South Korean banks.” (ibid.)<sup>23</sup> By matching the Basel II policies of the most advanced economies, the FSS hoped to improve Korean banks’ depressed credit ratings.

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<sup>23</sup> S&P expected the transition to Basel II to lead to a drop in capital adequacy ratios of banks by over 2.5% on average in the short term. This could adversely affect credit ratings, although countervailing measures such as earnings retention, new capital issuances and restructuring of banks’ balance sheet was expected to alleviate such pressures. (S&P 2005)

Thirdly, the FSS believed that implementing Basel II would contribute to improving Korea's international status in economic affairs at a more general level. For example, the Governor of the FSC wrote to the Chairman of the Basel Committee, Nout Wellink, in 2009 citing Korea's "aggressive embrace of banking standards espoused by the Basel Committee" as one of the key reasons why "Korea, more than other emerging countries, merits a priority consideration for full membership in the Basel Committee" (FSC/FSS 2009). The letter, which followed private conversations between the two heads of supervisory authorities, highlighted how the FSS diligently and fully implemented Basel II, by suggesting that "Korea implemented Basel II, the Revised International Capital Framework, at the beginning of 2008, which require all banking institutions operating in Korea to comply with the capital adequacy requirements as set forth by the Basel Committee" (ibid.). That this was considered among factors such as Korea's "sizable GDP... its free, open, and globalized economy" is reflective of how the FSS considered the implementation of Basel II to contribute to enhancing Korea's international standing.

The above reasons underpinned why the FSS purposefully and systematically looked to the Basel II implementation policies of other countries, in particular, those of the UK and US in formulating its own implementation policy. In addition to how other countries were implementing Basel II, the preparedness of domestic banks and the effects of Basel II on banks' capital adequacy ratios and lending were among the three factors that the FSS considered in deciding when and how to implement Basel II (FSS 2004). Between the time Korea's implementation policy was first announced in 2004 and the time the first banks implemented Basel II in 2008, none of these three factors remained static. As the supervisory authority's implementation target date approached, banks were not fully prepared to implement the advanced approaches of Basel II despite starting preparations since 2001. The potential impact of Basel II on banks' capital adequacy ratios and lending also deteriorated with the onset of the global financial crisis in 2007. Moreover, delays in



implementation occurred in other countries, particularly the US. These factors produced significant shifts in the way Basel II was implemented in Korea as they resulted in implementation delays and grace periods that reduced Korea's degree of convergence with Basel II.

### **7.3.3 The diffusion of policies that diverged from Basel II**

In Korea, delays in implementation and grace-periods were successively introduced on an ad hoc basis, but even these subsequent policy changes were not free from the effects of policy diffusion. Shortly after the FSS announced its implementation policy in 2004, the head of the New Basel Accord Office at the FSS, Moon, called for a reformulation of the FSS's implementation strategy. In stark contrast to the policy that the FSS had previously pursued, Moon argued for an implementation strategy that was "cautious and gradual" because Korea was set to become one of the first countries in the world to implement the AIRB approach for credit risk. (Moon 2005:10) Implementation of the advanced approaches of Basel II was due by the end of 2007, which meant that in practice, banks would have to complete their preparations and start using the AIRB approaches by the fourth quarter of 2007. In arguing for a shift in Korea's approach to implementation, the FSS official cited two developments. First, in contrast to Basel II, which stated that the advanced approaches "will be available for implementation as of year-end 2007" amongst Basel Committee countries (BCBS 2004:1), delays were occurring among Basel Committee members. The US banking authorities delayed implementation by one year in September 2005 and the EU consultations on the CRD proposed implementing the advanced approaches of Basel II from 2008. Furthermore, Korea's main competitors, Singapore and Hong Kong, were also implementing Basel II from 2008 rather than by the end of 2007.

Secondly, supervisors at the FSS had previously taken for granted that global banks from the G10 would implement the most advanced approaches of Basel II.

However, in practice, this was only the case for a handful of very large international banks based in the EU regarding the implementation of the AIRB approach for credit risk only, because for operational risk, the TSA was being adopted instead of the AMA even in these global banks due to the high costs of data management and model construction relative to the proportion of risks against which capital was held (Moon 2005:10). Moreover, in the US, the four core banks that were mandated to implement the advanced approaches of Basel II, namely, Citigroup, JPMorgan Chase, Wachovia and WAMU, requested that they be given the option to implement the SA rather than the AIRB approach as they were reluctant to incur the additional costs of implementing the AIRB approach if there were no regulatory benefits in terms of lower capital requirements (Herring 2007:424-425; Sloan 2006:4).<sup>24</sup>

These concerns soon took hold in the highest echelons of the FSS. The Chairman of the FSC and Governor of FSS specifically pointed out that whilst Korea endeavoured to implement Basel II by year-end of 2007 in order to enhance the international standing of Korean banks in line with those in advanced economies, countries such as the US and Singapore that previously said would implement Basel II before Korea have started to take a more cautious approach and have delayed their implementation of Basel II (Yoon 2006:7-9). The Governor then argued that Korea should no longer be too obsessed with sticking to its implementation timetable, but instead should concentrate on preparations to implement the advanced approaches of Basel II by addressing the difficulties domestic banks faced due to the lack of data and challenges in validating the models (*ibid.*). A string of delays in implementing Basel II were subsequently announced by the FSS, some more significant than others, but all of which made specific references to the implementation policies in the UK and US. In some cases, the policy decisions in the US and UK were simply used as benchmarks to justify the FSS's own policy decisions, but in other cases, they were used as benchmarks for more deep rooted reasons, for example, to

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<sup>24</sup> See Chapter 6 section 6.2.3 for discussion of Basel II policy debate in the US.

underplay the cause of delays being attributed to the lack of preparedness to implement Basel II in the domestic banking sector in order to limit the potential reputational damage.

The first change to the FSS's original implementation policy, although minor in substance but interesting in its rationale, was made immediately following the EU's adoption of the CRD in June 2006. The FSS stated that although it had previously followed the recommendations of the Basel Committee in requiring all banks in Korea to implement Basel II by the fourth quarter of 2007, "[t]he implementation date is being changed from the previously announced December 31, 2007 as full implementation of the new international capital standard was rescheduled for January 1, 2008 in other major countries such as the European Union countries, Australia, and Canada" (FSS 2006:239-240). The FSS specifically pointed out that these countries had also previously planned to adopt Basel II by the end of 2007, but had adjusted their implementation dates and Korea was following suit to remain consistent with key countries in the EU and US. Accordingly, all domestic banks were required to implement Basel II from January 2008. (FSS 2006)

Six months later in December 2006, the FSS postponed the implementation of the advanced approaches of Basel II by one year to January 2009. The implementation date was delayed after the FSS assessed banks' preparedness and found that it was unsatisfactory. As examined in detail in Chapter Six, domestic banks faced considerable challenges in developing their internal models, which the FSS found difficult to rely on for regulatory purposes. The FSS claimed that "[w]ith the postponement, banks will have more time to prepare at least five years of data to estimate the probability of default and other risk components" and added that "[o]ther major countries such as the United States have also rescheduled the implementation date for similar reasons." (FSS 2006:246-247) Furthermore, although the implementation of the SA was to go ahead in January 2008, the FSS provided the option for banks to remain on Basel I during 2008, which effectively

pushed back the implementation date to 2009. According to the FSS, this decision was made because the UK had adopted a similar approach that allowed banks to remain on Basel I until January 2008 (although the FSS was allowing banks to remain on Basel I until January 2009). At this point, although the FSS was no longer able to match the implementation timetable of the UK due to the lack of preparedness of domestic banks, it still insisted that its approach was internationally consistent, and emphasized their consistency with the ways the UK and US had implemented Basel II where there were parallels despite the fact that these parallels were no more than at a superficial level and due to different reasons.

Further delays were announced in November 2008, when the full transition onto Basel II was effectively postponed due to the introduction of a two-year grace period (FSS 2008; 2008a). The basic approaches of Basel II had come into force in January 2008, but regulations were subsequently revised to extend the parallel calculation period from one year starting in January 2008 to two years, effectively making Basel II binding from 2010 for supervisory purposes. During this period, banks were allowed to use the higher of their Basel I or Basel II capital adequacy ratios. This resulted in a form of regulatory forbearance because banks could select the capital adequacy ratio that gave them the most favourable ratio for the FSS's prompt corrective actions and CAMEL-based management evaluations.<sup>25</sup> Even if the underlying riskiness of banks' assets was the same or had increased, banks could make themselves appear better capitalized purely based on the use of different measures of capital adequacy. In explaining this decision, the FSS stated that "[r]ecently BIS capital ratios have been falling due to the global financial crisis, and if this is the case when Basel II is fully implemented next year, than banks may become hesitant to offer loans to small and medium sized companies (2008:248).

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<sup>25</sup> The CAMELs evaluation is a risk-based supervisory framework that assesses banks' risk in terms of capital, asset quality, market risk, earnings and liabilities, whilst the prompt corrective action framework defines threshold conditions that trigger intervention from the supervisory authorities. Capital adequacy ratios are key indicators in both supervisory frameworks.

The FSS specifically insisted that the extension of parallel reporting periods did not undermine the international consistency of supervisory standards in Korea and argued that this decision was made with specific reference to implementation in the EU, in particular the UK, which allowed banks to use capital adequacy ratios based on Basel I during the initial phases after Basel II had been implemented (FSS 2008a). This statement was made despite the fact the FSA's decision to allow banks to remain on Basel I during 2007 was based on practical considerations, and that the rationale for having parallel calculation periods in Basel II was for prudential reasons and not for window dressing.<sup>26</sup> In the case of the FSS, banks implementing the IRB approaches in 2009 were nevertheless required to implement the SA in 2008, and the extension of parallel reporting periods was introduced to give banks leeway in meeting capital adequacy ratio targets. The FSS argued that "with the extension, the BIS capital ratio is expected to stabilize allowing banks to have the ability to offer loans to small and medium sized companies. Also investor sentiment should return with the decreasing anxiety over cases involving Prompt Corrective Actions and management evaluations." (FSS 2008:149)

As shown in the above cases, when faced with domestic and international challenges in implementing Basel II due to the lack of preparedness of domestic banks or the adverse effects of the global financial crisis on Korean banks' capital adequacy ratios and lending, the FSS successively delayed the implementation of Basel II, and when doing so, insisted that such delays did not undermine the international consistency of Korea's implementation of Basel II by suggesting that the US and UK authorities had also adopted similar policies in order to reduce any reputational damage that could occur. This argument was invoked every time the FSS changed its policy, despite the fact that other than at a very superficial level, the

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<sup>26</sup> It would be impractical for banks implementing the IRB approaches to comply with the SA, and then switch to the IRB approach the following year. The FSA did however note that "[t]o the extent that firms opt to stay on Basel 1 for credit risk, they may have a corresponding reduction in their Pillar 1 charge for operational risk" (FSA 2005:14).

reasons behind the implementation decisions of supervisory authorities in the UK and US were often different to why the FSS were introducing successive changes to its policy. Nevertheless, the FSS went to great lengths to ensure its implementation looked consistent internationally, albeit at the formal level.

The case of Korea amply demonstrated that the policies of one's competitors not only motivates positive policy changes, but are also used to justify delays and divergences from Basel II. This is because diffusion mechanisms are not one-off drivers of policy change that affects whether a country implements a policy or not, but instead a process that persists over time affecting various aspects of Basel II implementation in a non-unidirectional way. Policymakers seem to have scope for framing and interpreting the importance and relevance of which financial sectors they are in competition with and how they should respond to the policy changes in these financial sectors, not least because the process of policy diffusion is complex and multidirectional.

#### **7.4 Comparative analysis**

A comparative analysis in relation to the three key questions of what, how and why policies diffused in Hong Kong and Korea is conducted in this section like the previous two chapters.

##### **What diffused?**

The HKMA aimed to match the policies of London, Paris, Frankfurt and Tokyo, to ensure that Hong Kong was at par with other leading global financial centres it competed with, as well as countries that were home to global banks that had a strong presence in Hong Kong. This made Hong Kong one of the first jurisdictions in the world to implement Basel II, alongside other major international financial centres except the US. Although there were no subsequent ad hoc delays or changes in the way the HKMA implemented Basel II, which was the case in Korea, key divergences from Basel II unique to Hong Kong were strategically incorporated into

the HKMA's implementation policy from the beginning. These included the implementation of a fourth approach for credit risk, non-implementation of the AMA for operational risk and a gradual transition onto Basel II for banks after the formal regulatory regime came into effect. Such measures reduced the degree of convergence with Basel II in Hong Kong. In Korea, the FSS initially benchmarked the policies of the EU, in particular the UK, and the US, and announced the full implementation of Basel II by the end of 2007. However, as implementation progressed, delays and grace-periods were successively introduced. These included delays in the implementation of the advanced approaches to give domestic banks more time to prepare, a grace period that extended the parallel calculation period to provide leeway for banks in meeting capital adequacy ratio targets and adjustments to the FSS's implementation dates. In both Hong Kong and Korea, divergences from Basel II and delays in implementation were not only based on careful evaluation of what their main competitors were doing, but also provided an outlet to accommodate domestic opposition and constraints in implementation, which in part emanated directly from the supervisory authorities' efforts to match the policies of the their competitors in the first place. Thus, policy divergence and convergence can be seen as two sides of the same coin due the same underlying diffusion mechanism that drives convergence with policies as well as leading to divergent policy responses across countries.

### **How did policies diffuse?**

The practice of evaluating how implementation in Hong Kong and Korea compared with that of their competitors was systematically embedded into the policy making process of the HKMA and FSS. These policy benchmarks provided important policy inputs for the FSS and HKMA. However, differences in the countries with which Hong Kong and Korea competed, created distinct channels through which policies diffused, leading to differences in the way Hong Kong and Korea implemented Basel II. Hong Kong was most closely interconnected to the UK as the UK alone

accounted for over half of the foreign claims from the world to Hong Kong and hosted one of the world's leading international financial centres that directly competed with Hong Kong. In contrast, the UK and US were the most important sources of policy diffusion in Korea as they accounted for the majority of claims from the world to Korea as well as hosting leading international financial centres that Korea aspired to develop domestically. Consequently, delays in implementation in the US had a larger impact on policies in Korea than in Hong Kong as Korean policymakers looked to justify their policy moves in the context of policy developments in the US, especially when meeting the UK's standard of implementation became difficult.

The cases studies also demonstrated how competition between financial sectors created both vertical and horizontal channels of diffusion where the two did not coincide, and that there was a pecking-order within and between these modes of diffusion. In the first instance, Korea initially aspired to match the policies of countries that were setting the gold standard for the implementation of the advanced approaches of Basel II, namely the UK and the US before it delayed its implementation. This created a process of vertical diffusion. The vertical diffusion of policies from the UK and US to Korea dominated the horizontal diffusion of policies amongst competitive peers as the FSS looked to the UK and US rather than Mumbai or Beijing which were ranked similarly in the GFCI, or countries with similar credit rating as Korea such as Chile and Malaysia. This was partly due to policymakers' aspirations to develop a competitive domestic banking sector that could compete on equal terms with the most advanced financial centres. But on the other hand, despite the delays in implementation in the US, which eventually fell behind that of the likes of Malaysia and China, the FSS continued to link its domestic policies to that of the US. Thus, implementation delays in leading financial centres such as the US was also subject to diffusion, especially when it was politically convenient for the FSS to do so, that is, to justify delays by benchmarking



the US rather than attributing them to the lack of preparedness to implement Basel II in the domestic banking sector. In the case of Hong Kong, the distinction between horizontal and vertical diffusion was less meaningful as the former dominated the latter. Policies diffused horizontally from other leading international financial centres that set the highest standards, but not vertically from non-leading financial sectors to Hong Kong. Thus, the two cases showed the existence of a direction and pecking order in the way policies diffused. These case studies also underscored the importance of policymakers' perceptions in shaping how and which policies diffused, suggesting that emulation, rather than rational learning to maximize the outcome of policies, was driving the diffusion of policies. Moreover, policymakers seem to have leeway in defining which financial sectors they were competing with and how they should respond to the policy changes in these financial sectors.

#### **Why did policies diffuse?**

As a leading international financial centre with one of the highest concentrations of banking institutions in the world, the implementation of Basel II in Hong Kong was shaped by efforts to compete for international capital and business by reinforcing its reputation and international standing in line with other leading global financial centres and to create a correspondingly fitting regulatory environment that was attractive for international banks. Policymakers in Korea argued that it was necessary to implement Basel II according to financial sectors in the most advanced economies in order to enhance the international standing of the Korean banking sector and develop into a leading financial centre in north-east Asia. Thus, in Hong Kong, efforts to sustain the leading position of Hong Kong's financial sector relative to other financial centres Hong Kong was directly in competition with spurred the diffusion of policies. In Korea by contrast, competitive pressures to upgrade the domestic banking sector to internationally competitive levels underpinned the motivation to emulate the policies of other leading financial centres. Although the former was a response to direct competition between existing competitors, and the

latter, based on ambitions to become as competitive as one's self-identified competitors, both forms of competition provided a strong impetus for policies to diffuse and is reflective of two countries that are at different stages of financial sector development and different degrees of internationalization, but nonetheless have to co-exist in a globalized world economy.

## **7.5 Conclusions**

There is strong evidence to suggest that policies diffused at the level of financial sectors as they competed to attract international capital. Furthermore, the cases of Hong Kong and Korea lent support to the argument that policy diffusion not only promoted convergence with Basel II, but also explained divergences from Basel II and delays in its implementation. The underlying cause of these divergences and delays were not only consistent with the operation of policy diffusion, but also provided an outlet to accommodate domestic constraints and challenges in implementation, which in part emanated directly from supervisory authorities' efforts to match the policies of their competitors in the first place. This makes both divergences from and convergences with policies inseparable consequences of policy diffusion.

## Chapter Eight

### Conclusion

#### 8.1 Introduction

Why do countries implement Basel II? In order to answer this research question, this thesis addressed the following two sub-questions. First, what is the state of Basel II implementation across the world? Second, what explains the degree of convergence with Basel II, in particular, how does policy diffusion shape the implementation of Basel II? To answer the first question, a new global dataset of Basel II implementation across 150 countries was compiled by the author in order to evaluate the degree of regulatory convergence with Basel II at the global level. This data was then utilized to undertake regression analysis in *Chapter Three* to test whether policy diffusion was a significant driver of Basel II implementation. To develop a strong empirical test of the effects of policy diffusion on Basel II implementation, several economic and political variables were incorporated into the quantitative analysis, thereby shedding light onto a number of significant explanatory variables. The findings and methods of the quantitative analysis were put to an even stronger test in the subsequent four chapters.

A mixed-method approach was adopted in this thesis based on the recognition that certain aspects of the research question were more adequately addressed by statistical methods and others by the case study method. The overall design of the case studies conducted in this thesis was outlined in *Chapter Four*. The process of policy diffusion across three channels of diffusion formed by inter-supervisory authority networks, the cross-border structure of international banks and competition between financial sectors to attract international capital, were investigated in three pairs of case studies from Chile, Korea, Malaysia and Hong Kong. These six case studies were selected according to a rigorous three-step case

selection procedure that reduced the total number of potential cases from a population of 600 cases across 150 countries to six cases across four countries so that the most theoretically, empirically and methodologically relevant cases were selected for the case studies. *Chapter Five* examined how the implementation of Basel II in Malaysia and Chile was shaped by the diffusion of Basel II policies across different inter-supervisory authority networks in East Asia and the Americas respectively. *Chapter Six* investigated the diffusion of Basel II policies across the cross-border structure of international banks in Korea and Malaysia. In *Chapter Seven*, the process of policy diffusion across financial sectors that competed for international capital and financial business was investigated in the cases of Hong Kong and Korea. For each pair of case studies, comparative analyses with respect to what, how and why policies diffused was undertaken. The case study chapters on the three channels of diffusion complemented one another by providing three distinct dimensions of analyses in terms of how policies diffused not only due to interdependencies formed between financial sectors, but also between bank supervisors and banks, both of whom are key actors in the process of implementation.

The current chapter draws together the main findings from the preceding chapters. It is organized into three sections. The main empirical findings are summarized in section 8.2. The main contributions of this thesis to two sub-fields in the IPE literature, namely, the political economy of international financial regulation and the policy diffusion literature, and to the IPE debate on power is outlined in section 8.3. Then, three key policy implications that follow from the main research findings are discussed in section 8.4. Discussions in each section are structured to reflect the central research questions addressed in this thesis, that is, analyses of the state of Basel II implementation across the world and the factors that explain the degree of regulatory convergence with Basel II.

## **8.2 Summary of the main empirical findings**

The main empirical findings in relation to the state of Basel II implementation across 150 countries is discussed first, followed by a summary of the findings from the quantitative analysis and the three comparative case studies that investigated why countries implemented Basel II.

### **8.2.1 A highly uneven and clustered global regulatory landscape**

Basel II has profoundly shaped bank capital adequacy regimes across the world. Yet, the degree of regulatory convergence with Basel II at the global level was limited by considerable cross-national variations in implementation. Overall, the state of convergence with Basel II was highly uneven and clustered at the global level, where convergence and divergence coexisted. There was a high degree of convergence amongst certain groups of countries that adopted similar implementation policies. However, different groups of countries exhibited different levels of convergence with Basel II. Whilst around thirty countries fully transitioned onto Basel II according to the timeline and scope set out in Basel II for members of the Basel Committee, around half the world made minimal progress in implementing Basel II. In between these extremes, however, were considerable cross-national variations in the degree of regulatory convergence with Basel II, from early-comprehensive adopters that fully implemented all the key components of Basel II at a timetable comparable with most Basel Committee member countries to late-partial adopters that gradually and selectively implemented elements of Basel II and non-implementers. The uneven and clustered global regulatory landscape was more permanent than transitional for a large proportion of developing countries that were either non-implementers or late-partial adopters. The process of convergence at the global level was by no means automatic, and neither was it a seamlessly continuous process over time.

The state of Basel II implementation across the world was as follows. Countries in Africa made the least progress in implementing Basel II. Although

many countries had announced plans to implement Basel II, the degree of convergence with Basel II remained very low. All countries except two were late-partial adopters because implementation was significantly back-loaded and less than half the countries planning to implement the basic approaches intended to implement the advanced approaches. Countries in the Caribbean have not implemented Basel II, some having suspended implementation following the global financial crisis of 2007-8. Similarly, the degree of convergence with Basel II in Europe outside the EU was also very limited, although preparations were underway. Interestingly, most countries indicated plans to base their implementation on the EU's CRD, thus, distinguishing this group of non-implementing EU neighbours to the rest of the world. The majority of Middle Eastern countries were early-partial implementers of Basel II. Despite the swift move to implement the basic approaches of Basel II during 2006-8, implementation stalled and remained partial because supervisors in this region decided not to implement the advanced approaches of Basel II. The degree of regulatory convergence amongst South Asian countries was high as countries similarly adopted a gradual yet comprehensive approach to implementation. The basic approaches of Pillar 1 were implemented very early and were followed by the gradual implementation of the advanced approaches, thereby distinguishing implementation in South Asian countries to that in the Middle East.

In the Americas, Latin American countries moved towards full implementation, but very gradually. Although Canada implemented Basel II in 2007, implementation in the US was delayed and partial since only the most advanced approaches of Basel II were gradually implemented for the largest international banks while the rest remained on Basel I. The level of Basel II implementation in the East Asia Pacific region was generally high, as the region consisted mainly of early-comprehensive adopters. Hong Kong, Singapore and Australia led the way and were closely followed by Korea, and subsequently, by the likes of Indonesia, Malaysia, Philippines and Thailand. The latter countries adopted a more gradual approach in

implementing the advanced approaches of Basel II, but nevertheless at a timeframe comparable to most Basel Committee countries. The highest levels of convergence with Basel II were attained in the EU. The CRD implemented Basel II across the EU27 in two stages, the first in 2007 for banks applying the basic approaches and the second in 2008 for banks applying the advanced approaches. To investigate the cause of the uneven and clustered global regulatory landscape and the considerable variations in the way countries implemented Basel II, both quantitative and qualitative methods of research were utilized. The main findings from the quantitative analysis and case studies are presented next.

### **8.2.2 Explaining the implementation of Basel II at the global level**

The quantitative analysis tested whether on average policy diffusion promoted the degree of Basel II implementation across the world. To test the effects of policy diffusion, four distinct policy diffusion variables were constructed to describe how and to what extent each and every country in the world were interconnected to all other countries across inter-supervisory authority networks, the cross-border structure of international banks, financial sectors that competed for capital and the nexus of international economic exchange. These channels of diffusion modelled how countries were interconnected to one another at the level of banks, bank supervisors, financial sectors and economies. The statistical results provided strong and consistent evidence to support the argument that policy diffusion was an important driver of Basel II implementation across the world. The spatial lag variables are all statistically significant, three at the 1% level and one at the 5% level, and positively associated with Basel II implementation. The magnitude of these effects were moderate at the global level as countries on average did not over-react to policy changes in other countries by responding disproportionately more to such policy changes, but instead matched their policies at most. The diffusion of Basel II across the cross-border structure of international banks had the strongest average

effects on Basel II implementation across the world. Of the four channels of diffusion, the results indicated that the diffusion of Basel II at the level of actors, namely, the way bank supervisors and banks were interconnected with their foreign counterparts, were more effective drivers of regulatory convergence than diffusion at the level of financial sectors or economies. Policy diffusion at the level of the industry and economy, although statistically significant, may be too blunt to fully capture the way countries were interconnected with each other compared to the actor-level of analyses in explaining the timing and scope of Basel II implementation across countries.

The quantitative analysis also incorporated several economic and political variables in order to provide a stronger empirical test of policy diffusion. As expected, EU membership was highly significant. However, even when EU member states were treated as a single observation, the results underscored the importance of policy diffusion and several other economic and political variables in driving or hindering the degree of Basel II implementation across the world. That low income countries tended to be associated with low levels of Basel II implementation highlighted the real practical capacity constraints developing countries faced in implementing Basel II. In countries where bank credit intermediation was important for the economy and the credit market more developed, the pace and scope of convergence with Basel II was greater. Several measures of banking sector infrastructure were also significant, such as adopting internationally accepted accounting standards. The average level of regulatory capital in the banking system based on Basel I prior to the implementation of Basel II was negatively associated with the level of Basel II implementation countries subsequently attained. This disconfirmed the expectation that potential capital incentives arising from lower capital requirements following the implementation of the advanced approaches of Basel II motivated implementation across countries. In the face of high upfront implementation costs, it is highly likely that developed banking systems, which also



tend to maintain lower capital levels than those in emerging and developing countries, implemented Basel II earlier and fully.

The common thread running across these variables underscored the importance of economic and financial sector development in explaining whether and how countries implemented Basel II. A closer examination of implementation across countries suggested that the capacity to implement Basel II was a necessary but insufficient condition for Basel II policies to diffuse. No matter how strong the effects of policy diffusion in encouraging high levels of implementation, policy diffusion mechanisms were unable to overcome low capacity constraints. Moreover, less developed countries were rarely exposed to the effects of policy diffusion that encouraged convergence with Basel II in the first place due to the countries they were most closely interconnected to across the channels of diffusion. Thus, when the level of development was low, the prospects for converging with international financial standards were even poorer as policy diffusion tended to reinforce only low levels of implementation. This in turn tended to reinforce the permanent nature of the uneven and clustered global regulatory landscape.

The results also lent support to the argument that experiencing a systemic banking crisis promoted greater levels of convergence with international standards. Conversely, countries that did not experience systemic banking crises were likely to adopt a more protracted implementation timetable. Of the political variables, right of centre governments tended to disfavour introducing more extensive regulations by implementing Basel II, which could be seen as overly burdensome for banks, whereas leftist governments seemed more willing to regulate private enterprise by implementing Basel II. Also, that democracy was not statistically significant in explaining the implementation of Basel II contradicted claims made in the literature that democracies were more likely to comply with the Basel standards. Coercion via IMF conditionality did not have any systematic effect on Basel II implementation either. In sum, countries that were not developing countries, had a sizeable and

developed banking sector, maintained lower capital levels in the banking system, experienced a systemic banking crisis and had adopted international accounting standards before Basel II was implemented were on average associated with higher levels of Basel II implementation compared to those that did not. Although the quantitative analysis was highly informative in terms of assessing the average effects of variables on the degree of convergence with Basel II across the world, it provided very limited insight into the process through which policies diffused across the various channels of diffusion modelled in the analysis. This limitation was addressed by adopting the case study method, the aim of which was to build on the results of the quantitative study by unpacking the causal process of policy diffusion. The key findings from the case studies are summarized next.

### **8.2.3 The diffusion of Basel II across inter-supervisory authority networks**

The analysis of the diffusion of Basel II across inter-supervisory authority networks in the case of Malaysia and Chile provided strong evidence in support of the policy diffusion argument. Inter-supervisory authority networks defined which countries Malaysia and Chile were closely interconnected to, which in turn shaped the type and scope of Basel II policies that diffused. They emerged as effective self-help networks that helped officials understand and grapple with Basel II implementation issues from very early in the implementation process, thus, changing the trajectory of how countries implemented Basel II. Furthermore, supervisory networks fostered the diffusion of policies by providing a stable and on-going channel of diffusion across which both BNM and SBIF extensively shared experiences and policy ideas on various aspects of Basel II with their foreign counterparts and monitored each other's progress when formulating their own Basel II implementation policies. Although both supervisory networks created powerful channels of diffusion that reinforced the degree of policy convergence amongst countries in the same network, different policies about when and how to implement Basel II diffused across

supervisory networks in East Asia and the Americas. BNM and SBIF adopted different implementation policies because there were pros and cons for not moving ahead with the rest of one's peers in the case of Malaysia, as well as moving ahead without the rest of one's peers in the case of Chile.

The case of Malaysia showed how BNM's implementation of Basel II was shaped by how its foreign counterparts were implementing Basel II not only at the strategic level in terms of deciding on the speedy pace and comprehensive scope of implementation, but also at the tactical level in dealing with the procyclicality of Basel II and implementing the IRB approaches. Hence, while both BNM and SBIF claimed to have adopted a gradual approach to implementation, the degree of gradualness differed substantially in practice as supervisors adopted a gradual approach relative to the implementation policies of their foreign peers, which differed considerably between the two inter-supervisory authority networks. Whether supervisors should adopt Basel II at all was an open question for policymakers in ASBA. Supervisors instead focused on attaining greater levels of compliance with BCPs before gradually implementing various elements of Basel II to a capital adequacy regime based on Basel I. Hence, SBIF adopted a piecemeal and layered approach that gradually implemented various elements of the basic approaches of Basel II whilst remaining on Basel I. This was to be followed by the formal implementation of the basic approaches of Basel II before embarking on the implementation of the advanced approaches. Although convergence with Basel II was promoted in one supervisory network and deterred in the other, the findings in both case studies gave credence to the policy diffusion argument because these divergent outcomes resulted from incorporating the policy decisions of their supervisory peers when formulating their own Basel II implementation policies.

The case studies also identified several characteristics of supervisory networks that shaped the process of policy diffusion, which ultimately led to different levels of convergence with Basel II. The type of members and modus

operandi of supervisory networks were particularly relevant. Supervisory networks that consisted of less disparate countries in their preparedness to implement Basel II tended to be more conducive for promoting higher levels of convergence with Basel II as did networks that focused on a narrow range of supervisory issues and where interactions between supervisors in the network were more horizontal and based on sharing policy ideas and experiences. It was not that the channels of diffusion did not exist or was weaker across ASBA, but rather that the EMEAP WGBS network reinforced high and ASBA low levels of convergence with Basel II. In fact, efforts among supervisors to promote convergence in supervisory policies were arguably stronger in ASBA than EMEAP as supervisory authorities across ASBA engaged in a more expansive and longer-term project to promote the implementation of international and regional standards on a wide range of supervisory issues.

These findings underscored the importance of regionalism in the global financial system to the extent that supervisory networks were organized on a regional basis. This created two implications for the regional and global regulatory landscape for bank capital regulation. Firstly, in addition to shaping national capital adequacy regimes, as was the case in Malaysia and Chile, the diffusion of Basel II across channels of diffusion with a regional footprint had a profound effect on shaping the regional regulatory landscape. Secondly, channels of diffusion with a regional footprint have implications for the global regulatory landscape by undermining the extent to which international regulatory standards are implemented in a globally consistent way. This is because policies tend to diffuse only within supervisory networks rather than across networks, and while some supervisory networks promote convergence with international standards, others deter the pace and scope of implementation. Consequently, since the road to convergence is a long process, the global financial system can be expected to remain uneven and clustered along the lines of different regions.

#### **8.2.4 The diffusion of Basel II across the cross-border structure of international banks**

The case studies of Korea and Malaysia found that the cross-border structure of international banks created powerful channels of diffusion by producing very specific and direct linkages between the policies of the home and host countries of international banks. They not only provided information to host supervisors about who their immediate competitors were, but also facilitated the cross-border transfer of implementation capabilities. Aided by the wider international supervisory architecture, the influence of foreign banks and their home supervisors was even more compelling in host countries. The case studies found two channels within the cross-border structure of international banks to be particularly important in shaping the diffusion of Basel II. One highlights the role of international banks, while the other that of the home and host supervisors as the key agents of policy diffusion. Through these two channels of diffusion, the empirical findings showed that the diffusion of Basel II across the structure of global banks produced two contrasting effects on the degree of Basel II implementation in Korea and Malaysia. Firstly, at the level of banks, the way one country was interconnected to another via international banks had significant implications on the degree of convergence with Basel II attained in the host country. In some cases, convergence with Basel II was facilitated as foreign banks were the first to use the most advanced yet operationally onerous approaches of Basel II in Korea and Malaysia. Foreign banks in host countries were able to benefit from their Basel II-knowledgeable parents, who actively sought to replicate their global models across their global banking networks, leading to the transfer of implementation capabilities across borders. In other cases, however, the presence of global banks hindered the full and timely implementation of Basel II. The case study of Korea showed that while progress in implementing Basel II in the EU promoted greater convergence with Basel II in the Korean banking sector, the delay and uncertainty in the US produced the opposite effect.

Secondly, at the level of supervisors, the Basel Committee's home-host supervisory principles and supervisory colleges tended to promote convergence in line with the home supervisors' Basel II policy. However, supervisory interactions also reinforced country-specific divergences through the mutual recognition and acceptance of such practices as shown in the case of the FSA's acknowledgment of the FSS's divergences from Basel II, suggesting that the channel of diffusion formed by the home and host supervisors of international banks could promote as well as deter the level of convergence with Basel II.

The case studies identified several conditions that limited the extent to which policies diffused across the cross-border structure of international banks. First, domestic capacities to implement the policies that diffused were a necessary condition for policy diffusion to take full effect and translate into actual policy outcomes. Otherwise, as the case of Korea demonstrated, the discrepancy between the level of implementation in policies that initially diffused and a country's implementation capabilities manifested itself in delays and backtrackings of national policies and the lack of progress in banks' implementation after regulations that implemented Basel II came into force. To this end, policy diffusion is conditional on relevant actors, banks and supervisors, having or being able to acquire the capacity to implement the policies that diffuse. Secondly, greater market liberalization was another necessary condition for policies to diffuse as it increased the level of exposure to competitive pressures from the policy decisions of other countries. Greater levels of market liberalization in Korea following the Korean financial crisis created conditions conducive for policies to diffuse compared to Malaysia, where the domestic market was more protected from foreign competition and BNM had more control over the pace and scope of liberalizing its banking sector. However, the overall level of market liberalization per se was not sufficient to explain exactly how policies diffused as the specific interdependencies created by such market opening between the home and host countries of international banks shaped which

policies diffused and from whom. Supervisors were more sophisticated than merely responding to greater levels of competition because they also responded to where the competitive pressures emanated from and who their key competitors were when formulating their Basel II policies.

### **8.2.5 The diffusion of Basel II across financial sectors that compete for capital**

There was strong evidence that Basel II policy choices in Hong Kong and Korea were made in consideration of the policy choices of other financial centres they directly competed with, or aspired to compete with in the case of Korea. Senior officials at the HKMA believed that it was not a question of whether to implement Basel II, but how and when that mattered, and to this end thought that the financial sector's reputation and international standing would be tarnished if the HKMA was slow to adopt Basel II relative to other leading international financial centres. Thus, efforts to strengthen Hong Kong's reputation and international position as a leading international financial centre and create a correspondingly fitting regulatory environment relative to other financial centres Hong Kong competed with led the HKMA to adopt an implementation policy that promoted a high level of convergence with Basel II. In Korea, the implementation policies of the UK and US were important policy benchmarks that provided key inputs into the FSS's Basel II policy. The FSS argued that it was necessary to implement Basel II in ways that were consistent with these countries in order to enhance the international standing of the Korean banking sector and become a leading financial centre in north-east Asia. In both cases, the policy making process of evaluating how implementation in Hong Kong and Korea compared with that in other financial sectors they competed with was purposefully and systematically embedded into the way supervisors formulated their own Basel II implementation policies.

However, it was not always the case that policy diffusion promoted convergence with Basel II. The same underlying process of diffusion also led to

policies that diverged from Basel II in the two cases, making both divergences from and convergences with Basel II inseparable consequences of policy diffusion. Although Hong Kong's formal capital adequacy framework was Basel II-ready by 2007, policies that diverged from Basel II, such as the implementation of a fourth approach for credit risk and the non-implementation of the AMA, were strategically built into the HKMA's implementation policy. Likewise, in the case of Korea, delays in implementation and grace-periods were successively introduced as implementation progressed. Policy implementation delays in leading financial centres such as the US was also subject to diffusion, especially when it became politically convenient for the FSS to do so, that is, to justify delays by benchmarking the US rather than attributing them to the lack of preparedness to implement Basel II in the domestic banking sector in order to limit any reputational damage. In both Hong Kong and Korea, divergences from Basel II were not only based on careful consideration of how Hong Kong and Korea's competitive counterparts were implementing Basel II, but also provided an outlet to accommodate domestic constraints, which in part emanated directly from supervisory authorities' efforts to match the policies of other financial sectors in the first place.

The cases studies also demonstrated how competing for capital created both vertical and horizontal channels of diffusion where the two did not coincide, and that there was a direction in how policies diffused and a pecking-order within and between these modes of policy diffusion. Countries that were setting the gold standard for implementation became the initial targets for benchmarking policies within the process of vertical diffusion. Then, the vertical diffusion of policies tended to dominate the horizontal diffusion of policies. For example, the FSS looked to the UK first, and then the US, but less so to the policies of Malaysia or Chile that measures of horizontal diffusion suggested. In the case of Hong Kong, the distinction between vertical and horizontal diffusion was less meaningful as policies



diffused from other leading financial centres Hong Kong competed with rather than diffusing vertically from non-leading financial sectors to Hong Kong.

In sum, by adopting a mixed-method research design, this thesis contributed to understanding both the effects of policy diffusion at the global level as well as the underlying process of policy diffusion in specific country cases, which combined, provided a rich yet comprehensive account of how Basel II policies diffused and shaped national capital adequacy regimes. In both the quantitative analysis and three pairs of case studies, strong support was found in favour of policy diffusion, leading one to conclude that Basel II policy decisions in countries are highly interdependent on the policy decisions of other countries with which those countries are closely interconnected. The main contributions of these empirical findings to the IPE literature are discussed next.

### **8.3 Contributions to the IPE literature**

This thesis contributes to two sub-fields in the IPE literature, first, on the political economy of international finance and money, in particular, on the topic of international financial regulation, and second, on the policy diffusion literature. The findings also have several bearings on the wider age-old debate in IPE about the role of power in the world economy.

#### **8.3.1 Contributions to the literature on the political economy of international financial regulation**

Despite the importance of the Basel standards in profoundly shaping bank capital adequacy regimes across the world, empirical research on the state of Basel II implementation across developed and developing countries was scarce and patchy and the factors that promoted or hindered the implementation of these voluntary standards were particularly under-researched. The aim of this thesis was to address these major gaps in the IPE literature. To this end, this thesis makes two distinct contributions to knowledge on the political economy of international financial

regulation, firstly by measuring and assessing the state of regulatory convergence with Basel II at the global level, and secondly by explaining the factors that drive Basel II implementation. These contributions are discussed in turn next.

The measurement and assessment of the state of regulatory convergence with Basel II at the global level using a new dataset of Basel II implementation compiled by the author contributes to the literature in an original way through the exploration of new facts. Three contributions are made in this respect. Firstly, the Basel II implementation dataset is the first large-N dataset to measure Basel II implementation in a comprehensive and systematic way in the academic literature, and thus contributes to the state of knowledge in the literature. The Basel II implementation dataset is superior in terms of the coverage of countries and level of detail measured compared to other datasets on implementation that have come to exist recently, namely, the Basel Committee's dataset of members' Basel II implementation published in October 2011, the FSI's Survey on Basel II, 2.5 and III implementation published in July 2012, and the World Bank's research dataset on Bank Regulation and Supervision revised in July 2008. At the time the author completed the compilation of the dataset, the first two of these datasets were not in existence in the public domain let alone in academia. It was only after the global financial crisis of 2007-8 and the reform of global financial regulations that the international regulatory debate shifted its focus to the issue of implementation, in response to which the Basel Committee, at the behest of the G20, started to monitor the implementation of the Basel standards in 2011.

Secondly, this thesis enhances the quality of measurement by improving the method for measuring the implementation of the Basel standards compared to studies in the literature. The study of Basel I implementation by Ho (2001) measured implementation in a binary way. This method failed to capture the extent and timing of implementation and would not have distinguished early-comprehensive adopters of Basel II such as the UK from gradual-comprehensive adopters such as India, or

late-partial adopters such as the Cayman Islands. There are several medium-N studies that look at the substance of Basel I implementation, but at a cost that they do not codify implementation across countries in a comparable way (Chey 2006). Others that codified implementation (Quillin 2008), did so in a subjective way that introduced risks of judgement error in interpreting national regulations that supposedly implemented Basel I.

Thirdly, the measurement of Basel II implementation in this thesis contributes to the literature by providing a solid building block for making further enhancements in measuring the implementation of the Basel standards. Based on what has been measured in the dataset, a more detailed and nuanced measure of the degree of regulatory convergence with the Basel standards may be achieved by measuring other relevant aspects of Basel II and extending the measurement to Basel III. Further areas of implementation that may be measured to expand the Basel II implementation dataset include the following. The codification of the use of key national discretions provided in Basel II, in particular those that afford preferential treatment to certain classes of assets or borrowers, the discretionary use of super-equivalent and sub-equivalent standards not recognized in Basel II and validation standards for IRB banks will help gauge the stringency of the standards implemented. Enhancements in measuring the scope of implementation may be achieved through the codification of how Basel II is applied in the banking sector, including approaches actually applied by banks and the proportion of banks' assets that are subject to the various approaches of Basel II. Examination of the level and consistency of Pillar 3 disclosures and supervisory review processes across banks and banking sectors will also enhance the measurement of Basel II. Moreover, the Basel II implementation dataset can be easily extended to construct a dataset of Basel III implementation. This is because Basel II constitutes a core component of Basel III, which is *additive* to Basel II. Moreover, the capital requirements, liquidity standards and macroprudential measures in Basel III are relatively more

straightforward to measure than Basel II, which is more technical and complex in depth and breadth. However, achieving the above is likely to be a life-long project as countries in the first wave of implementation, such as the G20, are expected to complete their transition onto Basel III by 2019, after which many other countries are expected to follow eventually. As implementation progresses over such time span, it is not impossible that a future financial crisis may trigger another round of reforms in global financial regulatory standards, making the measurement of convergence with global regulatory standards an on-going task. In this context, this research project achieves the first step in measuring the degree of convergence with Basel II, and to this end, represents a major contribution to the literature and a strong foundation for future academic studies to build on.

Explaining why countries implemented Basel II constitutes the second major contribution to the IPE literature. The literature had yet to specifically investigate the implementation of Basel II, in particular, the empirical question of why countries implemented Basel II. As discussed in the literature review chapter, considerable advances were made in explaining why countries created and complied with Basel I (Oatley and Nabors 1998, Kapstein 1989, Simmons 2001, Ho 2002, Singer 2007, Quillin 2008 and Goodhart 2011). Others took the concept of compliance one step further by distinguishing substantive compliance from formal compliance (Walter 2008, Chey 2006). The negotiations that led to Basel II have also been documented in the literature (Claessens et al 2008a, Wood 2005 and Tarullo 2008). However, there has been no attempt in the literature to explain why countries implemented Basel II. This thesis is the first systematic study of Basel II implementation that addresses this question across developed and developing countries and to this end represents an original contribution to the literature.

Finally, this thesis contributes to the literature on the political economy of international financial regulation by testing a theory that had not been tested before to explain why and how countries implemented the Basel standards, or more broadly,

international financial standards. In contrast to existing empirical studies that test various economic and political variables, this study adopted policy diffusion as the main theoretical framework to explain why countries implemented Basel II. This thesis demonstrated that countries were highly interdependent on each other's Basel II policies when formulating their own policy on when and how to implement Basel II in the increasingly globalized and interconnected world that they operated in. Moreover, the mixed-method research design helped to test both the effects of policy diffusion at the global level as well as the underlying process of policy diffusion in specific country cases, which together, provided a rich yet comprehensive explanation of how policy diffusion shaped the national implementation of Basel II. The main empirical findings from the quantitative study and case studies are not repeated here, although their specific contribution to the policy diffusion literature is discussed next.

### **8.3.2 Contributions to the policy diffusion literature**

This thesis contributes to the policy diffusion literature in the following five ways. In particular, increased interests in policy diffusion has developed alongside growing criticisms of the weak empirical basis of the diffusion process as most existing studies have left unidentified and underspecified the channels and key agents through which policies diffused. The second and third points discussed below specifically contribute to the literature by addressing these limitations.

The first and most significant contribution is that this thesis expands the scope of the policy diffusion literature to international financial standards for bank capital regulation. Previous studies have examined the diffusion of various financial policies such as capital account and interest rate policies, and the diffusion of various standards such as environmental and labour standards. This left a clear gap in the literature. By studying the diffusion of bank capital standards, namely Basel II,

this thesis makes an original contribution to the portfolio of policies investigated in the policy diffusion literature.

Secondly, this thesis contributes to the policy diffusion literature by strengthening the empirical underpinnings in relation to the channels of diffusion. The imprecise specification of the channels of diffusion in the literature, which are often only vaguely related to the policies that are hypothesized to diffuse, produced very generic channels of diffusion that made the tests of policy diffusion less convincing. In this thesis, three novel channels of policy diffusion formed across supervisory authorities, global banks and financial sectors were specifically constructed to study the diffusion of Basel II policies. In particular, inter-supervisory authority networks and the cross-border structure of international banks are innovative channels of diffusion that highlight the role of key actors in implementing Basel II, namely, banks and supervisors, and their interdependent relationships with their foreign counterparts in forming the paths through which policies diffuse. These tailored channels of diffusion make original contributions to the literature as they have not been studied elsewhere. Research on international supervisory networks is very scarce in the IPE literature, and non-existent in terms of how they act as a channel through which policies diffuse. Like the Basel Committee, which until recently “has frequently been idealized as a purely technical, as an esoteric body of specialist engaging in technocratic deliberations... in a political vacuum” (Wood 2005:21), and thus, insulated from public and private institutions of government and markets (Claessens et al 2008a:319), the activities of inter-supervisory authority networks are not well known and have not received much academic attention. This may be due to the lack of public awareness about their existence, lack of formal institutionalization and decision-making powers, or because they have only recently become more prominent with the emergence of international financial regulatory standards and the globalization of finance, despite that some have existed for over fifty years. Whatever the reason, inter-supervisory

authority networks can easily be overlooked as an esoteric group of apolitical technocrats notwithstanding their significant role in shaping the national implementation of international standards, which in turn has shaped the international, if not regional financial regulatory landscape. To this end, Chapter Three and Five in particular contributed to understanding how inter-supervisory authority networks functioned as effective channels of policy diffusion.

Similarly, highlighting the impact of the cross-border structure of global banks also marks an original contribution to the literature. Empirical research has generally focused on the effects of foreign bank entry on various aspects of the host's financial systems, such as on the productivity and profitability of banks, credit intermediation and financial stability.<sup>1</sup> Others have suggested that growing foreign bank presence was instrumental in aligning developing countries' financial systems more closely with international standards for capital allocation, risk management and corporate governance (Domanski 2005:69), but have not investigated how and to what extent this was the case. The case studies in Chapter Six specifically investigated how the presence of foreign banks and their wider global presence provided a channel through which policies diffused and thus shaped the national implementation of Basel II across host countries.

Thirdly, this thesis contributes to the policy diffusion literature by highlighting the role of key agents involved in the process of diffusion. All three case studies investigated the international activities of bank supervisors and banks and the interdependencies formed between them and their foreign counterparts, and by doing so, underlined their importance as political actors that shaped the process of diffusion and the implementation of international financial standards. In analysing how supervisors acted as catalysts of policy diffusion, Chapter Six provided analytical continuity from Chapter Five by examining vertical relationships between home and host supervisors of international banks, in addition to horizontal

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<sup>1</sup> See footnote 1 in Chapter Six for references to relevant studies.

relationships amongst supervisory peers in the same supervisory network. Chapter Seven added another dimension to this analysis by investigating how supervisors in different financial sectors competed for capital as they implemented Basel II.

Fourthly, this thesis contributes to the policy diffusion literature by highlighting the double-edged power of policy diffusion, namely, how policy diffusion can promote as well as deter the implementation of Basel II. The literature generally attempts to explain how policy diffusion drives positive policy outcomes across countries. Negative outcomes rarely receive the same attention despite their importance for drawing causal inferences and being highly relevant from a public policy point of view. The case studies in this thesis examined whether policy diffusion not only promoted, but also deterred the diffusion of Basel II. The absence of a positive outcome, in this context, a low level of convergence with Basel II, may have resulted either from the effects of policy diffusion that deterred Basel II implementation or from the absence of these effects. The findings from the three pairs of cross-country comparative studies provided strong and consistent evidence suggesting that policy diffusion worked both ways to spread as well as to contain the spread of policies across the same channel of diffusion. Thus, the effect of policy diffusion is not unidirectional as it can reinforce both convergences with and divergences from international regulatory standards.

Finally, this thesis makes theoretical contributions to the policy diffusion literature by identifying conditions that were necessary for policies to diffuse. On average, the capacity to implement the policies that diffused domestically was a necessary but insufficient condition for diffusion to take full effect and translate into policy outcomes.<sup>2</sup> Otherwise, the discrepancy between the policies that initially

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<sup>2</sup> Implementation capacity is a necessary but insufficient condition since it does not fully explain implementation in countries that possess the capacity to implement Basel II. A good example is the delayed and partial implementation of Basel II in the US (Herring 2007). Capacity constraints faced by banks and supervisors played a limited role in shaping the Basel II policies of US banking



diffused and a country's implementation capabilities manifested itself in delays and backtracking of national policies and the lack of progress in banks' implementation after Basel II regulations came into force, making certain elements of national implementation white elephants that were not adopted by banks. The case studies that examined how policies diffused across international banks showed that market liberalization was another necessary but insufficient condition for policies to diffuse. Greater market liberalization increased the level and intensity of exposures to competitive pressures that arose from the Basel II policy decisions of other countries. However, the overall level of market liberalization per se was not sufficient to explain exactly how policies diffused as the specific interdependencies created by such market opening between the home and host countries of international banks shaped which policies diffused from whom.

In sum, this thesis makes several empirical contributions by extending the policy diffusion literature to Basel II and investigating novel channels of diffusion that highlighted the role of key agents involved in the process of diffusion. Several theoretical contributions are also made by showing how policy diffusion spreads as well as contains the spread of policies and identifying conditions that affected the diffusion of policies.

### **8.3.3 Contributions to the debate on power in the world economy**

The question of power and its distribution in the world economy has been at the heart of IPE since its inception (Strange 1970; 1996, Krasner 1976, Gilpin 1987).<sup>3</sup>

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authorities, other than indirectly by affecting the ability of small US banks to compete with large international US banks domestically.

<sup>3</sup> In its most general sense, power can be defined as "the aggregate of political resources available to an actor" and can, but not necessarily be converted into influence, which refers to the "modification of one actor's behavior by that of another" (Cox and Jacobson 1974:3-4). Different forms of power can also be distinguished. Hard power is generally associated with military and economic might, whereas soft power refers to "the ability to get what you want through attraction rather than coercion or payments. It arises from the attractiveness of a country's culture, political ideals, and policies."

The findings of this thesis have several bearings on this wider debate on power, in particular, regarding whose policies diffuse and how. Despite Basel II being a technical voluntary standard without any “teeth” and the Basel Committee not possessing any supranational authority to coerce other countries, that Basel II, rather than any other regulatory framework, diffused across the world is one manifestation of the dominant soft power and influence of the G10, in particular, the supervisory authorities in the US and the EU and their private sector interlocutors, to set global rules governing bank capital. Although Basel II came under severe criticism following the 2007-8 global financial crisis, it remained the undisputed global regulatory standard for bank capital as did the Basel Committee as the locus of regulatory reform efforts.<sup>4</sup> Whist compiling the Basel II implementation dataset, there was not a single case where supervisors in non-G10 countries overtly implemented or said they would implement a regulatory framework that was not based on the Basel standards. To this end, non-G10 countries are mostly “voluntary” standard-takers. Moreover, the case studies showed that implementation in the EU and US had repercussions on how other countries implemented Basel II around the world because both the EU’s full and timely implementation and the US’s delayed and partial implementation diffused. Thus, not only are the EU and US “great powers” in setting international standards (Drezner 2007:5), they are also leading powers in shaping the implementation of those standards around the world.

At first glance, one could question the dominant influence of G10 supervisors in light of the considerable cross-national variations in implementation across the world. Also, although the results did suggest that at the global level, the lack of implementation in many countries may be involuntary, that is, due to factors such as the lack of implementation capabilities, country-specific divergences from

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(Nye 2004:x) Although hard and soft power are related, soft power tends to be associated with “co-optive power - the ability to shape what others want” and hard power with “command power - the ability to change what other do” (ibid. p7)

<sup>4</sup> See footnote 12 in this chapter for a detailed discussion on this point.

Basel II and the considerable leeway national supervisors enjoyed in implementing Basel II could be seen as evidence of the G10's limited influence over the rest of the world. However, even this may not so much be evidence of limitations in the G10's power as it is evidence of their deliberate choice to limit how much influence they wished to exercise over others. The G10 deliberately chose to formulate voluntary standards instead of using legally binding instruments. As a result, non-G10 countries were afforded leeway to adopt the Basel standards when they saw fit and implementation was not formally monitored or enforced (BCBS 2004:1).<sup>5</sup> Until recently, most financial sectors in non-G10 countries were peripheral to those in the G10 and were not significant sources of global systemic risk or hosts to many global banks. It was thus, arguably less of a policy priority for the standard setters to expend large sums of political capital and supervisory resources to require non-G10 countries to abide by the same set of rules as the G10.

Following the global financial crisis of 2007-8, the Basel Committee expanded its membership to include major financial centres outside the G10 and other members of the G20. Whether this membership expansion reflected the declining power of a G10 that was previously very reluctant to share its standard-setting powers with non-G10 countries is debateable, although it is much more likely that the crisis had diminished the G10's power. Whichever the case may be, although the new Basel Committee members have gained a voice over standard-setting and the monitoring of implementation, the G10 is able to exert greater influence on these new member countries, who are now explicitly expected to implement Basel III, which is a regulatory framework formulated primarily to

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<sup>5</sup> One could argue that as a result of setting international standards instead of binding agreements, the G10 has in effect increased its de facto influence on the rest of the world. Had the Basel standards been binding, non-G10 countries may have been much more resistant to implementation due higher sovereignty costs. Abbott and Snidal argue that “[a]ccepting a binding legal obligation, especially when it entails delegating authority to a supranational body, is costly to states” (2000:436), in which case, “[s]tates can limit sovereignty costs through arrangements that are nonbinding or imprecise or do not delegate extensive powers” (ibid. p439).

address problems that led to the financial crises in the US and UK. The role of monitoring implementation has also been added to the Basel Committee's main activities in its new Charter, which was created in January 2013. As several non-G10 countries have become major players in the world economy and increasingly significant players in the global financial system, the need to exert greater influence to induce their compliance with the Basel standards has arguably increased for the G10. This is more so the case as a considerable amount of political capital and supervisory resources was expended to reform global financial regulations and because the effective implementation of the Basel standards in the G10 has become increasingly dependent politically and economically on implementation in a wider set of countries than was the case for Basel I or II. To this end, the Basel Committee is being redefined according to what Susan Strange referred to as a strategic institution "serving as instruments of the structural strategy and foreign policy of the dominant state or states" as well as an adaptive institution "providing the necessary multilateral agreement on whatever arrangements are necessary to allow states to enjoy the political luxury of national autonomy without sacrificing the economic dividends of world markets and production structures" (1982:484).

As for the question of how policies diffused, although Basel II are voluntary standards and the conceptualization of policy diffusion as a process of uncoordinated interdependence appears seemingly detached from the realms of power and coercion exercised by dominant states, the structure of power in the world economy is nonetheless reflected in the channels of diffusion. Although inter-supervisory authority networks are formally autonomous and independent, the Basel Committee can potentially exert considerable influence over their activities at the strategic level. For example, the biennial International Conference of Banking Supervisors (ICBS) held since 1979 brings together in one place more than 260 senior representatives of supervisory authorities from over 120 countries to discuss supervisory issues such as Basel II, which was the main conference theme since the

Basel Committee announced the revision of Basel I in 1999 until recently (BIS 2004; 2006). Moreover, the FSI, which was jointly created by the Basel Committee and the BIS in 1999, is closely intertwined in the provision of training activities across supervisory networks, providing considerable scope for G10 supervisors to influence other supervisors around the world (FSI 2004a; 2005; 2006a; 2007).

The diffusion of Basel II across global banks also provides an example of how G10 policies diffused across the world because most global banks were either based in Europe or the US. Moreover, the Basel Committee's home-host supervisory principles and colleges tended to promote convergence with the home supervisors' Basel II policy and the way Basel II was implemented at the banking group-level of global banks in the home country, whilst adding constraints on the policies host supervisors could pursue, leaving them with less room to manoeuvre. This reflects two dimensions of power. Firstly, the rules governing home-host relations and supervisory colleges were written by the "great powers" to govern how Basel II is implemented across the world, thus, giving credence to Drezner's argument about the central role of the EU and US as global standard setters (2007). Secondly, the compelling influence of global banks on non-G10 host supervisors reflect the diffusion of power from states to market actors as Strange had argued (1996). However, that the rules governing home-host relations were initially written by G10 supervisors in response to demands from global banks based in the G10 seems to lend support to Strange's argument about the diffusion of power to market actors within the G10 and across non-G10 countries.

In short, although national supervisors had some leeway in responding to policy changes in other countries when implementing Basel II, the influence of the G10 permeated through the process of diffusion at a deeper level by shaping the channels of diffusions, and in doing so had indirectly, but profoundly shaped the global regulatory landscape for bank capital regulation. As long as countries remain interconnected to one another and the channels of diffusion persist over time, the

influences of the global standard setters and their private sector interlocutors are likely to persist through the process of policy diffusion.

#### **8.4 Three key policy implications**

In addition to making unique contributions to the IPE literature and informing the debate on power, the findings of this thesis also provide valuable insights for policy. The policy implications that follow from the findings are very pertinent to the contemporary international policy debate on international financial regulation following the global financial crisis of 2007-8. This is more so the case as policy priorities at the international level shifted from reforming the global financial system to implementing the agreed reforms.<sup>6</sup> The G20 Leaders committed to implement the Basel standards in the G20 Seoul Summit in November 2010, when they “endorsed the landmark agreement reached by the BCBS on the new bank capital and liquidity framework” and committed “to take action at the national and international level to raise standards, and ensure that... national authorities implement global standards developed to date, consistently, in a way that ensures a level playing field, a race to the top and avoids fragmentation of markets, protectionism and regulatory arbitrage” (G20 2010:2). This commitment was subsequently reaffirmed at the G20 Cannes Summit in November 2011. The declaration “call[ed] on jurisdictions to meet their commitment to implement fully and consistently the Basel II risk-based framework as well as the Basel II-5 additional requirements on market activities and securitisation by end 2011 and the Basel III capital and liquidity standards... starting in 2013” (G20 2011).<sup>7</sup> As the regulatory debate in the G20, FSB and Basel

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<sup>6</sup> The global financial crisis triggered a sting of financial sector reforms across areas as diverse as banks, OTC derivatives, compensation practices and credit rating agencies. Of the banking sector reforms, Basel III is the most significant along with initiatives to address systemic risk.

<sup>7</sup> So far, it is unclear how effective these G20’s commitments are. According to the Basel Committee, “[a]s of end-May 2012 [after the deadline set by the G20], 21 of 27 Basel member countries have implemented Basel II, which had been due to come into force from end-2006. In addition, Indonesia

Committee shifted from reforming regulations to the implementation of those reforms, several frameworks have also been devised to monitor the implementation of financial reforms.<sup>8</sup> In order to contribute to the international debate on the implementation of international financial standards and derive policy implications and priorities that are firmly grounded in the real world, the following three policy implications have been drawn from the empirical findings of this thesis.

#### **8.4.1 Shifting risks: From the risk of premature implementation to the risk of a globally uneven regulatory landscape**

Following the publication of Basel II in 2004, the Basel Committee, IMF and World Bank warned non-Basel Committee member countries against the risks of premature implementation (BCBS 2004a, IMF 2005, 2006). This cautious policy position was warranted in light of almost 100 non-Basel Committee countries that indicated their somewhat overly eager intentions to implement Basel II (FSI 2004, 2006, 2008). In particular, there were concerns that “many countries will begin to adopt the advanced IRB approach, because they think this is the global standard to which they must aspire, when it may not be appropriate for their banks at their current stage of development” (Davies 2005:249). The risks of premature implementation persist to this day, especially in least developed banking systems, although the risks are very low. Policy priorities based on the risks of premature implementation has become outdated and less relevant. The state of regulatory convergence with Basel II at the global level is highly uneven and fragmented into clusters. This regulatory landscape is more permanent than transitional. The ambitious implementation plans of many countries were not realized, partly because of real practical constraints in

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and Russia have implemented Basel II’s Pillar 1 (minimum capital requirements). Argentina, China, Turkey and the United States are in the process of implementing Basel II.” (BCBS 2011:2)

<sup>8</sup> The FSB was tasked by the G20 to coordinate, monitor and report to the G20 the implementation of financial reforms agreed by the G20/FSB (FSB 2011:4). The FSB established the Coordination Framework for Implementation Monitoring in October 2011, whereby the Basel Committee retained primary responsibility for monitoring the implementation of Basel II, 2.5 and III.

implementing Basel II.<sup>9</sup> Much of the caravan is falling behind, and the majority of developing countries are in the non-catch up category. The Basel Committee's intention to incentivize countries to improve risk management standards as they progress onto the more advanced approaches of Basel II is not being realized in these countries.

Policy priorities at the global level for international financial regulation must therefore be revised to reflect the shift in risks from the premature implementation of Basel II to the growing risks arising from a globally uneven and clustered regulatory landscape due to the non-implementation, partial and inconsistent implementation of Basel II, especially in countries that are becoming major players in the world economy and increasingly significant players in the global financial system. This is a particularly pressing issue in light of the flurry of international financial standards following the 2007-8 global financial crisis that build on the robust implementation of Basel II. According to the Basel Committee, the full, timely and consistent implementation of Basel II/III is fundamental to raising the resilience of the global banking system, in maintaining market confidence in regulatory ratios, and in providing a level playing field (BCBS 2011:1). The stakes are potentially high because financial markets and actors are global in scope and the uneven and inconsistent implementation of regulatory standards at the national level could be a potential source of risk not only to the stability of national financial systems, but also across the global financial system due to large, global financial institutions (G-SIBs) that can transmit shocks across financial systems.<sup>10</sup> For this reason, robust implementation in the G20, in particular the US and EU, is crucial as

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<sup>9</sup> As examined in the quantitative analysis, capacity constraints are one reason why this is the case, but based on numerous conversations with senior bankers at the management level, the lack of interest on the part of banks and dwindling domestic political impetus to implement Basel II is another growing concern in many developing countries that have not implemented Basel II.

<sup>10</sup> The interconnectedness of G-SIBs is one of the key features in addition to their size, complexity and lack of substitutability that creates negative externalities across borders, making them systemically important (BCBS 2011a:1).



they are home to most G-SIBs.<sup>11</sup> Implementation in countries that are becoming increasingly significant players in the global financial system is also important, not least because the implementation of Basel III in the G10 has become increasingly dependent politically and economically on implementation in a wider set of such countries than was the case for Basel I and II. Insofar as countries have announced policies to implement Basel II, the inadequate implementation of Basel II across countries can create a false sense of security that masks significant inconsistencies in national implementation.

That said, although the issue of implementing internationally agreed rules is important, it is not assumed that Basel III is a silver bullet in terms of its effectiveness for protecting banking systems against future financial shocks and crises. Basel III and its Basel II component came under criticisms from policymakers at the center of the standard setting process.<sup>12</sup> Andrew Haldane, Executive Director for Financial Stability at the Bank of England, argued that Basel III was “almost certainly too complex” and the configuration of complex modern finance and regulation “spells trouble... [b]ecause complexity generates uncertainty, not risk” in addition to making “risk more difficult to monitor and manage, not less.” (Haldane 2012:22-24)<sup>13</sup> Similarly, the Chairman of the FSA, Adair Turner argued

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<sup>11</sup> As of November 2012, the fourteen most systemically important banking groups designated as G-SIBs by the FSB using a methodology developed by the Basel Committee are from the US (6 banking groups), EU (5) Switzerland (2) and Japan (1) (FSB:2012:3).

<sup>12</sup> Although the ink was barely dry on Basel II when the 2007-8 global financial crises struck, Basel II was severely criticised. Stiglitz declared the death of Basel II when he said “[a]fter the current crisis, it is clear that Basel II is dead” (2008:21). Similarly, a think tank claimed that “it is apparent that the Basle approach to regulatory capital is fundamentally flawed... and hence cannot adequately protect depositors and systemic financial stability” and proposed that “Basle II rules should be scrapped” altogether (Di Noia and Micossi 2009:57). Even the de Larosière report, prepared by a working group under the auspices of the EU, which had been institutionally committed to Basel II, advocated a “fundamental review”, although they did maintain that “[i]t is wrong to blame the Basel 2 rules per se for being one of the major causes of the crisis” (The de Larosière Group 2009:15-16).

<sup>13</sup> Citing that the documents making up Basel III added up to 616 pages (i.e. Basel II/2.5/III), Haldane called for regulators to simplify the way banks calculated their capital requirements as a first step.

that the move “from the crude category risk weights of Basel I to the complex risk sensitive weights produced by Basel II models... created new risks” and was “a mistake”, suggesting that “the same asset might be rated significantly differently by different banks, even in one jurisdiction, let alone across the world” (Turner 2012).<sup>14</sup> Nevertheless, to the extent that a new global financial regulatory framework has been agreed and countries have committed to implement Basel III until 2019, addressing the risks arising from the partial, inconsistent and non-implementation of Basel II and by extension Basel III is the more pressing policy priority than that of premature implementation. Moreover, with the introduction of Basel III, the regulatory gap between developed and developing countries is set to widen further, exacerbating any risks arising from partial, inconsistent and non-implementation. To this end, although Basel III represents a significant step *forward* in fundamentally strengthening the regulatory framework, it is a step *backwards* in achieving international regulatory convergence. The next policy implication discusses what may be done to address the globally uneven and clustered regulatory landscape.

#### **8.4.2 Exploiting the dynamics of policy diffusion for policy**

The dynamics of policy diffusion may be exploited in designing policies to attain greater levels of convergence with Basel II around the world by maximizing the effects of policy diffusion. This policy implication is most relevant to the FSB and Basel Committee, which have been tasked by the G20 to monitor and promote the implementation of regulatory reforms agreed by the G20 following the 2007-8

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<sup>14</sup> It is worth noting however, that the reverse position was taken by Turner in the Turner Review, which was much less critical of Basel II, suggesting that “[s]ome commentators have argued for abandoning it, citing both its procyclicality and its complexity. A strategy of adapting its implementation to avoid unnecessary procyclicality, while introducing separate measures to achieve overt counter-cyclicality, is preferable... Basel II aims to introduce a more risk-sensitive approach, building on banks’ detailed analysis of the risk characteristics... In theory this new approach has advantages: indeed if it had been in place over the last ten years, it might have helped avoid some of the problems which contributed to the current crisis.” (FSA 2009:59)

global financial crisis. Understanding how policies diffuse is critical from a policy design and implementation point of view due to the double-edged power of policy diffusion. The research findings highlighted that policy diffusion could promote as well as hinder the implementation of Basel II, which as a result, contributed to the formation of an uneven and clustered state of convergence with Basel II at the global level. Hence, left to their own devices, the dynamics of policy diffusion can reinforce the uneven and clustered global regulatory landscape and policies designed to attain greater levels of convergence may have unintended consequences and be counterproductive if divergences in policy implementation diffuse across countries instead. Policies that purposefully and effectively incorporate the dynamics of policy diffusion may prove to be powerful tools to achieve convergence with international regulatory standards. Moreover, such policies should be tailored to reflect the distinct properties of different policy diffusion channels to maximize policy effectiveness even further. The specific policy implications from the three channels of diffusion are discussed next.

Firstly, supervisory networks created powerful channels of diffusion that promoted convergence in implementation policies amongst countries, especially by shaping the formation of implementation norms amongst supervisory authorities from very early in the implementation process, thus, changing the trajectory of how countries implemented Basel II going forward. The diffusion of policies across supervisory networks can be exploited to facilitate convergence with Basel II across the world by creating an additional layer of vertical policy diffusion, whereby Basel II implementation policies first diffuse vertically from the Basel Committee to multiple inter-supervisory authority networks, before policies diffuse horizontally amongst national supervisors within their respective networks. Creating dynamics that lead to the vertical diffusion of Basel II may allow the Basel Committee to have greater scope in streamlining the policies that diffuse across different supervisory networks, which otherwise would have contributed to reinforcing the unevenly

clustered international regulatory landscape if left alone. The role of the Basel Committee as a focal point in promoting the timely and consistent implementation of Basel II is paramount in creating a new layer of vertical policy diffusion that sequentially ranks higher in this pecking order of policy diffusion. Most supervisory networks feed into the Basel Committee via the Committee's outreach activities and biennial ICBS's that brings together supervisors from over 120 countries. To facilitate convergence with Basel II, the Basel Committee should systematically expand and strengthen its outreach activities to non-members and provide the feedback that will sustain the impetus for non-members to prepare for the implementation of Basel II. In terms of timing, the dynamics of vertical diffusion should be created from the beginning of the standard setting process and before policies diffuse horizontally across supervisory networks. Creating the dynamics of vertical diffusion is more compelling as a policy proposition considering the evidence that less developed countries are rarely exposed to strong policy diffusion effects that encourage convergence with international regulatory standards in the first place. Hence, issues related to implementation should constitute a critical component of the standard setting process at the Basel Committee rather than being addressed after financial standards are agreed.<sup>15</sup> In short, by being the first in the sequence of policy diffusion, the Basel Committee can promote the consistent implementation of Basel II across countries by shaping the policies that diffuse horizontally across supervisory peers within supervisory networks.<sup>16</sup>

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<sup>15</sup> This is because by the time Basel II was agreed, most countries had already formed their initial implementation plans via interactions in supervisory networks that functioned as effective self-help networks that helped supervisors understand and respond to policy challenges in relation to Basel II.

<sup>16</sup> To this end, the FSB's initiative to establish regional groups in 2012 and attach a formal condition of compliance with FSB standards to their membership as part of its effort to promote the adoption of international standards may be effective to the extent that supervisory networks have the potential to act as powerful structures through which policies can diffuse. As of March 2012, despite significant efforts on the part of the FSB secretariat, these arrangements for regional groups, which were likely to take the form of consultation groups for non-FSB members, had not been formalized yet as they

The role of the Basel Committee in maximising the efficiency of diffusion by promoting the timely and consistent implementation of Basel II may require further governance and membership reforms since its enhanced role raises questions of its legitimacy. The legitimacy of the Basel Committee as the apex authority for setting standards for regulating banking systems around the world has been questioned due to the non-representation and non-participation of non-G10 countries on the input side, lack of transparency in the standard setting process, lack of accountability and the democratic deficit created within and outside the membership of the Basel Committee (Davies 2005:249; Claessens et al 2008a:314; Underhill and Zhang 2010). Hence, for some time, there have been calls that “it is time for a rethink on the membership of the committee and indeed on the international organization of banking supervision generally” (Davies 2005:248). The G20 reforms partially responded to the legitimacy problems of the Basel Committee by expanding its membership to the G20, thereby expanding the representation and potential role of major developing countries in the international standard setting process. Although “the relationship between input and output legitimacy in global financial governance is more complex than is sometimes supposed” (Walter 2010a:96), further governance and membership reforms may nonetheless be required for the Basel Committee to play an effective role in maximizing the efficiency of diffusion.<sup>17</sup> Greater participation from non-members of the Basel Committee through the strengthening the Basel Committee’s outreach activities, and ultimately an

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were deemed to be too politically controversial, according to conversation with David Green (Bank of Ireland), who was closely involved with the FSB secretariat on this issue.

<sup>17</sup> Walter argues that “[w]hile developing countries had little input into the standards and codes, there has been less resistance to *formal* adoption than might have been expected from the low degree of input legitimacy” (Walter 2010a:96, italics added). Furthermore, in the case of China, “[w]hen China was offered membership in the BCBS, it accepted, which in itself indicates a degree of acceptance of the Committee’s continuing legitimacy as the key locus of global standard setting in this area in spite of its past mistakes. The BCBS is, for China and other G20 members, simply indispensable” (Walter 2010b:160-161). Likewise, in the case study of Korea (Chapter 7), the Governor of the FSS lobbied the Chairman of the Basel Committee for Korea to join the Basel Committee.

expansion in its membership may be required. Moreover, it is important that the new members of the Basel Committee, which includes developing countries with relatively less developed banking systems such as China, India, Russia, Indonesia, Saudi Arabia and Turkey, play a greater and active role in the standard setting process to enhance the legitimacy of the Basel Committee and the Basel standards.

As a second-best solution to the above, inter-network cooperation and competition could be encouraged so that regulatory policies diffuse across supervisory networks, from countries in supervisory networks that have attained high levels of convergence with Basel II to those that have attained lower levels. This may be encouraged as best practice or by providing routine forums for supervisors to exchange policy ideas on Basel II and monitor each other's implementation. Such inter-network interactions will be effective as long as there is a willingness to implement Basel II amongst countries and when the lack of progress is due to capacity constraints or the lack of implementation know-how. Otherwise, policies may converge to the lowest common denominator as coalitions of supervisory networks against Basel II spread from one supervisory network to another. Such unintended policy outcomes, however, may be avoided if the Basel Committee effectively coordinates the activities between supervisory networks by fostering the vertical diffusion of policies as mentioned above.

Secondly, the research findings suggested that Basel II policies diffused across countries that were interconnected via the cross-border structure of international banks. The implementation of Basel II by a foreign bank in the host country was a function of how its parent bank at the banking group level implemented Basel II. This in turn was a function of how the home regulator of that international bank implemented Basel II in the home country. Thus, the full and timely implementation of Basel II by the home supervisors of international banks was crucial as it produced positive and negative knock-on effects across host countries. For example, the delayed implementation in the US not only delayed large

international US banks from implementing Basel II in the US, but also across their banking networks outside the US. To this end, the full and timely implementation of Basel II could be made compulsory for jurisdictions home to banks with material cross-border operations. In particular, G-SIFIs should take on greater responsibilities in raising standards across the markets in which they operate and act as catalysts in promoting convergence with sound regulatory standards since they have the ability to transfer implementation capabilities across borders. If need be, G-SIFIs could be incentivised to act as effective channels of diffusion through a reduction in G-SIFI surcharges. From the perspective of host countries, these considerations increase the complexity of national decisions about the desirability of financial sector FDI and suggest that regulatory convergence issues should be part of the decision process.

The existing international supervisory architecture that defined the rules of the game between home and host supervisors of international banks, and supervisory practices such as colleges were only partially conducive for promoting the consistent implementation of Basel II across countries and convergence at the global level. They promoted convergence across countries in some areas where home and host supervisors agreed to rely on each other's supervisory work, whilst reinforcing country-specific divergences in others. Being aware of national differences and divergences from Basel II is important for home and host supervisors, but the mutual recognition and acceptance of country-specific divergences in an uncoordinated way can be a slippery slope as country-specific divergences from Basel II become permanent features of the regulatory framework, hampering convergence with Basel II in the long run and reinforcing the uneven and clustered global regulatory landscape. Furthermore, supervisory principles and practices were not effective when interests conflicted and supervisors were not willing to trust each other, leading to a deadlock between home and host supervisors without any obvious ways of resolution. Home-host supervisory principles need to be more specific by not only defining broad responsibilities between home and host supervisors, but also the

specific areas of Basel II they apply to and the extent to which they apply. Colleges need to be streamlined such that there is consistency across decisions made in colleges to facilitate the consistent implementation of Basel II across countries. Whether supervisory colleges should be given greater decision-making powers that are binding across jurisdictions, or remain primarily as a forum for information exchange is a policy issue that also needs addressing.

Thirdly, the research findings demonstrated how policies diffused as financial sectors competed to attract international capital. Policies essentially diffused because investors and banks perceived Basel II implementation as contributing to more risk sensitive regulations, advancements in risk management in banks and theoretically, greater financial stability. This in turn incentivized national regulators to respond to investors' preferences by implementing Basel II as a way of competing with other financial sectors. To this end, it is important that investors and national policymakers have confidence in first, the Basel standards by understanding the positive payoffs for implementing Basel II, and second, the adequacy of their national implementation. In addition to being a prudential tool for supervisors, emphasizing the implementation of Basel II as a means to raise risk management standards in banks and foster financial sector development may ignite competitive pressures to implement Basel II, as was the case amongst many supervisors in East Asia following the Asian financial crisis. To ensure that the implementation of Basel II does not merely create white elephants that are not applied by banks or end up merely as a compliance exercise to satisfy supervisors, banks need to be driving implementation and reaping the benefits of higher risk management standards.<sup>18</sup>

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<sup>18</sup> Banks may have incentives to game the system. This cuts to the core of the moral hazard problem intrinsic between the regulator and the regulated, and is also a manifestation of regulatory capture, which is particularly pertinent to Basel II where "a regulatory rubicon had been crossed. This was not so much the use of risk models as the blurring of the distinction between commercial and regulatory risk judgements. The acceptance of banks' own models meant the baton had been passed. The regulatory backstop had been lifted, replaced by a complex, commercial judgement." (Haldane 2012:8) This underscores the importance of enhancing the sophistication and capacity of supervisors



Once expectations about the positive relationship between Basel II implementation and improved risk management standards or financial stability are established, competitive pressures for policies to diffuse may increase further. Secondly, greater confidence in the adequacy of national implementation may foster the diffusion of Basel II. More transparency in national implementation can spur competitive pressures across countries in this respect. For example, the FSI started to provide more information on the implementation of Basel II across non-member countries in 2012. This is expected to promote implementation amongst non-implementing countries. Regulators and banks that have not implemented Basel II or have done so in an inconsistent way may come under competitive pressures to raise their standards if there are greater levels of comparable information at hand on how national supervisors and banks have implemented Basel II. This could be achieved by requiring greater standardization of Pillar 3 disclosures across countries.

In sum, the process of regulatory convergence is not automatic, neither is it a seamlessly continuous process over time. Managing this process by exploiting the dynamics of policy diffusion may allow greater convergence with the Basel standards to be achieved without resorting to a multilateral institution or by creating legally binding obligations, which may not be politically feasible in the short run and take much longer and more resources to implement. Having said this, this latter policy option should not be ruled out completely in the long run. This is because in addition to policy diffusion, factors such as economic development and EU membership were also significant drivers of Basel II implementation across the world. These variables envisage a possible future role for multilateral institutions and the creation of formal obligations to implement Basel II as discussed next.

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to supervise the implementation of the advanced approaches of Basel II and ensuring that sound legal and regulatory conditions are in place “as set out in the BCP numbers 1, 6, 8, 21 and 22, relating to operational autonomy, adequate resources, appropriate regulatory and remedial powers, and a suitable legal framework including protection for supervisors.” (BCBS 2004:6)

### **8.4.3 Alternative modes of promoting convergence: From voluntary standards towards hard law and the role of multilateral economic institutions**

The policy option of converting the Basel standards into formal obligations through an international agreement, binding conditionality to access finance from international financial institutions or as a condition for membership to the G20 or possibly the FSB's regional groups should not be dismissed from policy considerations going forward. Whichever the form, the hardening of soft law, in particular, that of voluntary best practice standards, which are one of the softest of laws, is the crux of this policy implication. This is because of the variables that explained Basel II implementation, the exceptional case of the EU was one of the most important, since outside the EU, the degree of convergence with Basel II was limited. Although it is not possible to replicate the EU across the world, that the EU explained a significant proportion of the degree of international regulatory convergence with Basel II points to a possible role that formal institutions and explicit policy coordination could play in promoting international, if not regional regulatory convergence. This in turn underscores the limitations of the existing international regulatory framework, which consists of voluntary financial standards, in producing convergence at the global level. Policy diffusion is an important driver of regulatory convergence, but with limitations in achieving convergence that legally binding arrangements are able to attain. Rather than letting the regulatory gap widen between the most developed countries and the rest of the world, the implementation of Basel II/III could be formally promoted. Doing so, however, may have the disadvantages of further politicizing the Basel negotiation process, producing lower common denominator standards and reducing the agility of the Basel Committee to respond to rapid changes in global financial markets in a timely manner.

These potential disadvantages underscore the importance of complementing the transition towards more binding forms of governance with the institutional

strengthening of the Basel Committee, especially regarding its legal status, mandate, accountability, decision making processes and rules concerning membership.<sup>19</sup> Multilateral governance for managing the implementation of Basel II/III and for promoting consistency in their implementation across countries does not exist. To address the highly uneven and clustered international regulatory landscape, the adoption of a multilateral approach to coordinate implementation may be warranted. At the very minimum, the Basel Committee should monitor and publically disclose information on the implementation of Basel II/III in non-Basel Committee countries on a regular basis and in some detail so that progress in countries' implementation can be tracked over time. The scope of review should encompass not only the formal aspects of national implementation, such as countries' domestic implementation timelines for legislative or regulatory implementation, but also the consistency in domestic regulations with Basel II and banks' compliance with those regulations. The IMF should extend its financial sector surveillance on assessments of the adequacy of Basel II implementation from not only the economically advanced countries that have implemented the advanced approaches, but also to countries that have implemented the basic approaches. For countries that have not implemented Basel II, the IMF and World Bank should assess countries' readiness to implement Basel II as part of their Financial Sector Assessment Program.

In addition, the findings on the drivers of Basel II implementation underscored the importance of development and implementation capacities. Many emerging and developing countries faced real practical constraints that hindered their level of convergence with international standards. For countries that lack capacities, intentions to implement Basel II are necessary but insufficient, and a prolonged implementation timetable is not a solution in itself. In order to encourage the implementation of Basel II, it is not only imperative to gain political buy-in from

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<sup>19</sup> Until January 2013, the Basel Committee did not have a Charter for almost 40 years of its operation. The Charter primarily sets out the Basel Committee's existing objectives and key operating modalities. (BCBS 2013)

developing countries, but capacity building mechanisms and financial resources need to be made available to support the efforts of low and medium-capacity jurisdictions to implement Basel II. More work may also need to be done to demonstrate that the Basel standards are relevant and of value for developing countries. This is critical if developing and emerging countries are to have equal opportunities to implement the Basel standards that constitute the international regulatory framework for bank capital, and conversely, for the Basel standards to retain their relevancy as international financial standards.

## **8.5 Conclusion**

Why do countries implement Basel II? There was strong and consistent evidence to suggest that Basel II policy decisions in countries were highly interdependent on the policy decisions of other countries with which those countries were closely interconnected, even after taking into account important economic and political variables that shaped how countries implemented Basel II. Inter-supervisory authority networks, the cross-border structure of global banks and competition for capital proved to be effective channels of diffusion that promoted convergence in implementation policies across countries. In these channels of diffusion, national supervisors and banks acted as key agents of diffusion. The way one country is interconnected to another may change over time as countries reconfigure the way they integrate into the global economy. However, the dynamics of policy diffusion that underlie these channels of diffusion are expected to persist over time and shape the international regulatory landscape on an on-going basis as long as we live in a globalized economy where one country is interconnected to another economically, politically or socially. To this end, the diffusion of policies constitutes the very fabric of the globalized world economy. This can be a curse and a blessing for the future of Basel II/III and the broader international financial regulatory architecture. On the one hand, it can be a curse because policy diffusion left to their own devices

may persistently reinforce the uneven and clustered global regulatory landscape as divergences in policy implementation diffuse across countries over time. On the other hand, policy diffusion can be a blessing by providing a powerful tool to attain greater levels of global regulatory convergence with international financial standards. The dynamics of policy diffusion potentially offer policymakers the opportunity to manage the implementation of financial standards in their current form, that is, as voluntary standards of international best practice, until it becomes politically and practically feasible to resort to harder laws or the creation of a formal multilateral institution to promote their consistent implementation in the longer run. To ensure that the latter outcome prevails, understanding the double-edged power of policy diffusion and the wider question of why and how countries implement Basel II is critical, and to this end, it is hoped that this thesis has helped deepen our understanding of these important questions. As the Basel Committee pointed out, the stakes are high since the full, timely and consistent implementation of the Basel standards is fundamental to raising the resilience of the global banking system, in maintaining market confidence in regulatory ratios and in creating an internationally level playing field. The benefits of the recent round of regulatory reforms will not be realized without effective implementation.

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