The London School of Economics and Political Science

Evaluating Compulsory Voting: Australia in Comparative Perspective

Koichi KATO

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

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Abstract

Low turnout is a growing concern among the industrial democracies. Compulsory voting has achieved very high turnouts in several countries, but it has been mostly neglected as a solution to the problem of low turnout elsewhere. This thesis considers the usefulness of compulsory voting for industrial democracies. I argue that, for it to be useful, compulsory voting must be effective on two levels. First, compulsory voting must be effective in increasing turnout. Second, the high turnout resulting from compulsory voting must improve the total utility of the people—defined here as the well-being of the people—otherwise compulsory voting will not ultimately be useful.

Rational choice models are constructed and operationalised in order to describe, explain and evaluate compulsory voting. Although data analysis is undertaken for a range of industrial democracies in order to test these rational choice hypotheses, the major focus of this research is on Australia, which has achieved very high turnout levels (around 95% of the registered voters) since the introduction of compulsory voting for federal elections in 1924. Furthermore, by examining the case of Australia, this thesis determines the conditions and necessary adjustments for compulsory voting to work effectively in practice. Finally, compulsory voting is tested with rational choice theory and data analysis on the actual industrial democracies in order to see whether this system is applicable under globally varying conditions.

The conclusion of the analysis is that compulsory voting seems to be useful for several industrial democracies in theory and also seems to be workable in practice. However, some subjective judgement needs to be introduced for a full cost-benefit analysis to be made about compulsory voting.
Acknowledgements

This thesis owes a lot to many people. Without their help, it has been simply impossible to finish my PhD project. First, I would like to express my greatest appreciation to Professor Ian McAllister at the Australian National University (ANU). Since I first visited him and had a discussion on compulsory voting (CV) several years ago, he has kindly and generously offered abundant useful help to my research project. He helped me to get accepted as a visiting PhD student at the ANU to undertake my fieldwork. Moreover, he has taken a lot of time for me and has given me much useful advice on my PhD project. He provided me with de facto supervision, and he later accepted my request to officially become my external supervisor.

Second, I want to show my gratitude towards Mr Alan Beattie, who was my first supervisor at the LSE, and Dr Paul Mitchell, who accepted me as his PhD student after Mr Beattie departed from the LSE. As an experienced supervisor, Mr Beattie provided me with sensible advice when I was struggling with my English and methodological studies. Dr Mitchell accepted me as his PhD student when I lost my original supervisor, and so I could continue doing a PhD at the same college.

Third, I would like to express my gratefulness towards the ANU, which accepted me as a visiting PhD student for an extended period of time to exercise fieldwork and to write my thesis under the face-to-face supervision of Professor McAllister. Because of my official status at the ANU, I could also have access to useful survey data stored in the Australian Social Science Data Archive of the ANU.

Fourth, I must confess that I owe a lot to my parents who provided me with sufficient financial support during my prolonged PhD-student life. My father is a retired secondary-school teacher, and my parents live on a pension. Nevertheless, they provided adequate support to me. Without finance, we cannot do anything in a civilised society. This is also the case in academia.

There are many other people who have provided me with academic/personal advice and help, encouragement and mental support. However, it would be inappropriate to compile a very long list of them here. At the very least, I would like to express my deepest appreciation to all of them.
# Table of Contents

Declaration ............................................................................................................................ 2  
Abstract ................................................................................................................................ 3  
Acknowledgements ............................................................................................................. 4  
Table of Contents .................................................................................................................. 5  
List of Tables ........................................................................................................................ 6  
List of Figures ....................................................................................................................... 7  
Preface ................................................................................................................................... 8  
Abbreviations ........................................................................................................................ 9  

**Introduction** ....................................................................................................................... 10

**Part I. Context** .................................................................................................................. 14  
   Chapter 1. Decline in Turnout: Evaluating the Solutions ........................................... 15  
   Chapter 2. The Theory and Practice of Compulsory Voting ...................................... 31  

**Part II. The Effect on Turnout** ......................................................................................... 52  
   Chapter 3. The Impact of Compulsory Voting upon Turnout ....................................... 53  
   Chapter 4. Necessary Conditions and Adjustments ................................................... 74  

**Part III. Compulsory Voting and Public Policy** ............................................................. 99  
   Chapter 5. The Consequences for Voters ................................................................. 100  
   Chapter 6. The Implications for Political Parties ....................................................... 123  
   Chapter 7. Applicability to Actual Industrial Democracies ...................................... 146  

**Part IV. Evaluations** ....................................................................................................... 169  
   Chapter 8. Reassessing Compulsory Voting ............................................................ 170  

References ......................................................................................................................... 193
List of Tables

1.1: Turnout in 18 Industrial Democracies between the 1950s and 1990s .................... 20
2.1: Practice of CV in the World .................................................................................. 37
2.2: Likely Advantages and Disadvantages of CV ..................................................... 41
2.3: Checklist for Overall Assessment of CV .............................................................. 48
4.1: Respect for Freedom and Support for CV (Australia 2001) .................................. 76
4.2: Industrial Democracies and Enforcement of CV ................................................... 83
4.3: Five-Party Preference at Different Turnout Levels (Cumulative Percentages) ....... 93
5.1: Policy Shift and Utility Loss ..................................................................................... 109
5.2: Distance of FPP from the Median Elector and the Average Total Utility of Electors .................................................................................................................. 111
5.3: Policy Position and Voting ..................................................................................... 113
5.4: Willingness for Voting under Hypothetical VV (Column Percentages) .............. 114
5.5: Expected Turnout under Hypothetical VV (Cumulative Percentages) ............... 114
6.1: Electoral Fluidity (EF) ............................................................................................. 130
6.2: Turnout Fluidity (EFa) and Party-Support Fluidity (EFb) in a VV Country ............. 131
6.3: Turnout Fluidity (EFa) and Party-Support Fluidity (EFb) in a CV Country .......... 131
6.4: Party Identification Rate in Industrial Democracies ............................................. 133
6.5: Extremism and Election Campaign Activity Participation Rate ............................ 139
6.6: Charitable Organisation Membership and Political Party Membership .............. 141
7.1: Policy Position and Voting in Industrial Democracies ........................................... 148
7.2: \( \chi^2 \)-Test Results of the Relationship in Table 7.1 ............................................. 149
8.1: Political Knowledge and Voting in Industrial Democracies under VV ............... 184
8.2: Party Identification and Voting in Industrial Democracies under VV ................. 186
List of Figures

1.1: Turnout in Seven Major Industrial Democracies between the 1950s and 1990s ................................................................. 21
2.1: Relationship between Two Duties ................................................................. 33
3.1: Enforcement Level and Turnout ................................................................. 64
3.2: Turnout in Australia ..................................................................................... 67
3.3: Turnout in Belgium ...................................................................................... 69
3.4: Turnout in the Netherlands ........................................................................ 70
4.1: Public Views towards CV in Australia .......................................................... 92
4.2: Support for VV among Newly Elected Parliamentarians (Australia) ......... 95
5.1: Proportional Decrease in Turnout to 50% .................................................... 104
5.2: Disproportional Decrease in Turnout to 50% .............................................. 105
5.3: 0-Unit Policy Shift from the Median Elector .............................................. 106
5.4: 1-Unit Policy Shift from the Median Elector to the Right ....................... 107
5.5: Policy Distance and Additional Utility Loss .............................................. 109
5.6: Policy Distance and Cumulative Utility Loss ............................................. 110
5.7: Relationship between Two Major Parties and Electors ............................ 116
5.8: Elector's Policy Position and Their Differential Benefit ........................... 117
6.1: Two Major Party Policy Positions as Equilibria ........................................ 126
6.2: Shift of Two Major Party Policy Positions ................................................. 126
6.3: Effectiveness and Cost of Election-Fund Raising/Spending ..................... 128
6.4: Seat Fluidity (EFc) in a CV Country ........................................................... 134
6.5: Tactical Allocation of Electoral Resources ............................................... 136
6.6: Demand for and Supply of Election Campaigners .................................... 142
8.1: Expected Consequences of CV and Unexpected Ones ............................. 172
Preface

Compulsory voting (CV) might be regarded as a gimmick rather than as a real option, but I have been attached to this topic for a long time. I am from a white-collar worker family in Japan, and I have long thought that white-collar workers' interests are under-represented in politics, despite the large number of white-collar workers. They are not well-organised, they do not donate funds to political parties, and their turnout is low. As a result, their interests are not accurately represented in politics. On the other hand, many minority interests are well-organised, they donate election funds, and their turnout is high. Naturally, their interests are more likely to be represented politically. There is nothing wrong about respecting minority interests: members of minority-interest groups are citizens, and so their interests should be respected. However, white-collar workers are also citizens, and so their interests should also be respected—more so given their large numbers. Nevertheless, the system does not achieve that.

I understand that the under-representation of white-collar workers is partly a result of their low turnout. When I was a child, I used to advise my parents to vote. However, they said that their single vote would make no difference in politics and so they would not bother to turn out. In fact, they rarely voted. I now think that they were rational. I failed in persuading them to vote, and I thought that we were trapped and there was no way to escape. Therefore, when I encountered CV later, I was delighted that I finally found what appeared to be a solution to this conundrum. CV would realise our interests more accurately and would make a major contribution to the best interests of the whole population. I hope that this thesis can advance the understanding of CV and contribute to its wider acceptance as a real option rather than as a gimmick.
## Abbreviations

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<tr>
<td>AV</td>
<td>alternative voting</td>
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<td>CV</td>
<td>compulsory voting</td>
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<tr>
<td>IV</td>
<td>inducement voting</td>
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<td>JSCEM</td>
<td>Joint Standing Committee on Electoral Matters</td>
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<td>PR</td>
<td>proportional representation</td>
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<td>SMP</td>
<td>single member plurality</td>
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<td>VV</td>
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Introduction
Almost all of the industrial democracies have experienced a long-term decline in turnout, and this has led to a growing concern about how to remedy the problem. Compulsory voting (CV) is the most straightforward solution to the problem, and CV has achieved high turnout in several countries. Nevertheless, it has been mostly neglected elsewhere. Moreover, it seems that CV has not even been regarded as a real option (Jones 1954, 25; Mayo 1959, 323; Wertheimer 1975, 278). Although Lijphart demonstrated the usefulness of CV by combining scientific methods and values (Lijphart 1997) and his work drew new attention to CV (Hirczy de Miño 2000, 45), no other major academic advancement has been made on this topic since then. Although many papers have been published on CV in the past and several of them can be regarded as classics (e.g. Hughes 1966; Lijphart 1997; Robson 1923), there has been no comprehensive work about what impact the introduction of CV would have on the society. In order to fill this gap, this thesis aims at assessing the overall usefulness of CV for industrial democracies.

CV must be effective on two levels for it to be useful. First, CV must be effective in increasing turnout. Second, the high turnout resulting from CV must be effective in improving the well-being of the people. If these two requirements are not fulfilled, CV will not ultimately be useful. Although it is a matter of argument what the well-being of the people is, this thesis defines it as the total utility of individuals. However, for technical reasons, this thesis will use the total utility of electors as the value standard instead of that of all individuals. Moreover, CV must be workable for it to be useful in practice. If CV is useful on the two levels in theory but is unworkable in practice, CV cannot actually be applied. Therefore, this thesis tries to determine the conditions and necessary adjustments for CV to work effectively in practice.

The major methods used in this thesis are rational choice theory and data analysis. First, data analysis is performed to observe the reality. Second, rational choice theory is utilised to build a hypothesis. Third, data analysis is again performed to test this hypothesis in the real world. This thesis repeats this cycle in each stage of its research procedure though the first part of this cycle is occasionally fieldwork or examination into documents rather than data analysis. Although data analysis is undertaken for a
range of industrial democracies in order to test the hypotheses, the major focus of this research is on Australia, which has achieved very high turnout (around 95% of the registered electors) since the introduction of CV in 1924. Furthermore, by examining the case of Australia, this thesis tries to determine conditions and necessary adjustments for CV to work effectively in practice.

In order to achieve the research purpose with the methods and research subjects above, this thesis takes several steps and has eight chapters. First two chapters (i.e. Chapters 1 and 2) present the context of this thesis. Chapters 3 and 4 deal with the effect of CV on turnout. Chapters 5, 6 and 7 are about the effect of CV on public policy. Chapter 8 is the evaluation of the findings of this research project. More details of these chapters are as follows:

- Chapter 1: Assesses the level of turnout decline in the industrial democracies, and provides an overview of the effectiveness of major solutions to low turnout (inclusive of CV).
- Chapter 2: Provides an overview of the practice of CV across the world, and then reviews the previous studies of CV.
- Chapter 3: Develops a formula that provides the reason that CV achieves high turnout, and then tests this hypothesis on empirical data.
- Chapter 4: Determines the conditions for CV to effectively improve turnout and necessary adjustments to meet these conditions.
- Chapter 5: Builds a model showing the effect of CV on the median voter position in the left-right dimension, and then tests this hypothesis on the data.
- Chapter 6: Builds a model showing the effect of CV on party policy positions in the left-right dimension, and then tests this hypothesis on the data.
- Chapter 7: Examines whether the high turnout resulting from CV would be useful for the industrial democracies under globally varying conditions in order to improve the total utility of electors.
- Chapter 8: Produces an inventory of the findings and the gaps in this research project. The chapter then evaluates to what extent this research has succeeded in assessing the overall usefulness of CV for industrial democracies.

The overall conclusion of this thesis is that CV is likely to be useful for some industrial democracies though not for others. First, CV would achieve high turnout. Several conditions are necessary for CV to effectively realise its potential in this regard,
but the industrial democracies would have sufficient resources to meet these conditions. Second, the high turnout resulting from CV would improve the total utility of electors, which can be equated to the well-being of the people, in several industrial democracies. Although the actual industrial democracies exist under a variety of conditions, CV is versatile and would be useful for many of them. Meanwhile, the main shortcoming of this thesis is that the objective cost-benefit analysis of CV tends to be partial and some subjective judgement needs to be introduced to perform a full cost-benefit analysis.

It should be noted that the majoritarian model of democracy is used as the underlying assumption throughout this thesis. This assumption is characterised by a two-party system, in which the two major parties alternate in power, and is also featured by a majoritarian electoral system. More details of this underlying assumption is addressed as the 'default environment' in 7.2 of Chapter 7 in preparation for engineering the 'best' electoral system in this hypothetical environment. The choice of this underlying assumption inevitably limits the research scope of this thesis. More specifically, this thesis rules out alternative forms of democracy, such as consensus democracy characterised by a proportional representation (PR) electoral system, which is more common among industrial democracies and is appreciated by some leading scholars (e.g. Lijphart 1999). As a result, the viewpoint of this thesis is limited within this majoritarian assumption. All hypotheses of this thesis are formulated and are comparatively tested in this assumptive framework. Therefore, although this thesis analysed several countries and systems that do not share many characteristics with this majoritarian model, the reader should assess the relevance of this thesis to them (e.g. PR systems) with caution.¹

¹ The author chose the majoritarian assumption as the theoretical framework of this thesis because it is the most commonly-used one. However, this choice could also be attributed to his personal expectation for the adversarial two-party system to break the modest consensus between vested interests achieved at the cost of the general public.
PART I

Context
CHAPTER 1
Decline in Turnout: Evaluating the Solutions

During the last quarter of the twentieth century, democritisation has been a worldwide political trend in countries ranging from the former socialist regimes to former dictatorships. According to Huntington (1991, 26), 24.6% of the total number of countries (30 countries out of 122) were democratic in 1973, and 45.4% of the total (59 countries out of 130) were democratic in 1990, excluding countries with a population of less than one million. Huntington (1991, 3-30) calls this trend ‘the third wave’ of democratisation (starting in 1974), following ‘the first wave’ which took place around the late nineteenth century (1828-1926) and ‘the second wave’ in the post World War II period (1943-62). He describes this third wave of democratisation as follows, ‘Overall, the movement toward democracy was a global one. In fifteen years the democratic wave moved across southern Europe, swept through Latin America, moved on to Asia, and decimated dictatorship in the Soviet bloc’ (Huntington 1991, 25).

Despite the major trend of democratisation during the last quarter of the twentieth century, industrial democracies, which have a tradition of democracy accompanied by liberalism and economic prosperity, have been experiencing a long-term decline in political participation, such as turnout and party identification (Dalton 2000). Although there are many forms of political participation, the decline in turnout has drawn special attention from political students (e.g. Abramson and Aldrich 1982; Blais et al. 2004; Cassel and Luskin 1988; Gray and Caul 2000; Lijphart 1997, 5-7). If ‘the democratic method is,’ as Schumpeter ([1976] 1996, 269) defines, ‘that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people’s vote,’ it will be natural that turnout is one of major concerns for political scholars (see Franklin 2002, 148; Lijphart 2000, 314) though the electoral process actually comprises many aspects other than voting (e.g. political funds, election campaigns, and the mass media).

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2 According to Freedom House (Karatnycky 2002, 9), electoral democracies covered 40% of countries in the world (66 out of 164) in their 1987-88 survey and then this figure increased to 63% (121 out of 192) at the end of 2001.

3 LeDuc, Niemi and Norris (1996, 1) refers to the same trend as ‘a global surge toward democracy.’ According to Freedom House (1999), the last quarter of the twentieth century is often called the ‘democratic age’ by political scholars.
In the process of democratisation in history, franchise expansion was pursued (e.g. Chartism in the UK). However, if politics is open to the public but the public does not participate in politics, politics would end in minority rule rather than majority rule and so the country would hardly be a democracy in any proper sense. Therefore, it seems to be reasonable that the long-term decline in turnout among these successful democracies has been regarded as a serious problem. Political students have had three concerns in relation to low turnout:

1. Causes of low turnout,
2. Consequences of low turnout, and
3. Solutions to low turnout.

Among these three concerns, the main research topic has been the causes of low turnout. When there is a problem, it would be normal first to find the causes of the problem and then to eliminate or control those causes (Abraham 1955, 8). In order to identify the variables related to voting and the mechanisms of voting, numerous data analyses have been exercised (e.g. Campbell et al. [1960] 1980; Miller and Shanks 1996) and rational choice theory has been utilised (e.g. Downs 1957; Riker and Ordeshook 1968). However, the causes of low turnout are still unclear (see Niemi and Weisberg 2001, chap. 2), and this orthodox approach has not been productive in solving the problem of low turnout. Meanwhile, the consequences of low turnout do not appear to have drawn much attention, probably because it has been simply normal to regard low turnout as a problem to tackle in democracies (but see Lijphart 1997; Verba 2003).

The solutions to low turnout have drawn much less attention from researchers compared to its causes. However, the pragmatic approach to try to find effective solutions to low turnout without substantial knowledge about its causes (see Lijphart 1997, 7-10; Lijphart 2000, 321; Niemi and Weisberg 2001, 32) might be more productive in tackling with low turnout than the orthodox approach to try to find its causes first. There are several potential solutions to low turnout (e.g. automatic registration, weekend voting, machine voting, absentee voting and civic education), but CV has not been widely used and has not been seriously discussed though CV has recently drawn new attention (see Hirczy de Miño 2000, 45). CV might have been regarded as an unsophisticated measure, and so it might have been disregarded.

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4 This new attention can be attributed to Lijphart 1997.
However, taking the unceasing slide in turnout among industrial democracies into consideration, it seems to have been the time to pay a real attention to CV.

This thesis aims at assessing the overall usefulness of CV for industrial democracies. For this purpose, this thesis performs a full cost-benefit analysis of CV. However, before moving on to the evaluation of CV, this chapter first observes whether turnout among industrial democracies has actually been declining because, if the problem is not real, research into solutions to this problem would not make sense. The chapter then provides an overview to all the major solutions to low turnout because, if moderate measures are effective enough to achieve high turnout, we would not need to seriously consider using strong measures like CV. This chapter finds that CV should be combined with easy-voting devices and civic education in order to achieve high turnout.

1.1. The Decline in Turnout among the Industrial Democracies

When people claim that turnout has been declining among the industrial democracies, they tend to mention several examples of extremely low turnout only, such as the 1995 Japan upper-house election turnout of 44.5%, the 1996 USA presidential election turnout of 49.1%, or the 2001 UK general-election turnout of 59.4%. Although recent record-low turnouts might signify a general downward trend in turnout among industrial democracies, this kind of argument in itself is often misleading. Johnston and Pattie (2000, 1) argue that the extent of the decline in turnout might have been exaggerated. The general long-term trend in turnout among industrial democracies should be assessed with long-term records of turnout in all those countries.

In order to calculate turnout, the number of votes is divided by the total number of registered electors. However, the detailed calculation method is often a matter of judgement by researchers, whose research orientations are different from each other. Several academic works about the long-term trend in turnout among industrial democracies have been published. Nevertheless, as Norris (1999, 258) argues, these studies are divided about the comparative pattern (i.e. 3-10 percentage-point decline in
turnout). This diversity results from five causes: (a) selected countries (e.g. Western countries only or all industrial democracies in the world), (b) selected elections (e.g. presidential elections or parliamentary elections), (c) time span, (d) numerator (e.g. invalid votes are included or not), and (e) denominator (e.g. the number of registered electors or the voting age population). In order to meet the purpose of this research, this thesis will design its own method for calculating turnout and will then assess the results.

**Calculating Turnout**

In order to know the long-term trend in turnout among industrial democracies, this thesis will design a method for calculating turnout as follows.

**Selected countries:** 18 industrial democracies. The objects of observation are 18 industrial democracies: the USA, Japan, Germany, the UK, France, Italy, Canada, Australia, the Netherlands, Belgium, Sweden, Austria, Switzerland, Denmark, Finland, Ireland, New Zealand and Norway. The World Bank (2001, back cover) categorises these countries as 'high-income OECD members.' The World Bank (2001, back cover) also categorises Spain, Portugal, Greece, Iceland and Luxembourg as ‘high-income OECD members,’ but this thesis sets aside these countries. Spain, Portugal and Greece have not continuously had democratic competitive elections since 1951, though this thesis wants to observe the long-term trend in turnout. Iceland and Luxembourg have small populations of less than one million, and so this thesis excludes them in order to control conditions.

**Selected elections:** first-order elections. Presidential elections are observed for the USA, but parliamentary elections (lower house elections in the case of bicameral system) are observed for the other 17 industrial democracies.

**Time span:** 1951-2000. The average turnout for each decade from 1951 to 2000 is calculated. Turnouts after 1951 are used in order to avoid the confusion of the post World War II period. However, turnouts after 2000 are not included because we do not yet have a complete decade in order to produce an average. Using the average from 2001 to the present would be misleading.

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5 Political scholars have found a variety of trends in turnout among industrial democracies: Topf (1995, 40-41), 3 percentage-point decline; Dalton (1996, 44-45), 6 percentage-point decline; International IDEA (Pintor and Gratschew 2002, 85), 7 percentage-point decline; Gray and Caul (2000, 1094-95), around 10 percentage-point decline; Wattenberg (2000, 71), 10 percentage-point decline.
Numerator: the vote inclusive of invalid votes. The vote inclusive of invalid votes is used as the numerator. There are two widely-used types of numerators: the vote inclusive of invalid votes and the vote exclusive of invalid votes. This thesis uses the vote inclusive of invalid votes when it is available, because the purpose is to understand the level of participation in voting and invalid voting can be regarded as a form of this participation.\textsuperscript{7}

Denominator: voting age population. This thesis uses the voting age population as the denominator when calculating turnout for this section. There are two widely-used types of denominators: the number of registered electors and the voting age population. This thesis wants to know to what extent the government reflects the will of the people, and so its main concern around turnout is the consequences of abstention and the possible solutions to it. Therefore, we are interested in the fact of voting/abstention itself, and so what we want to know is not the level of participation in voting among registered people but among all of those who are eligible to vote.\textsuperscript{8}

Turnout in 18 Industrial Democracies
Table 1.1 shows the turnout averages by decade between the 1950s and 1990s in 18 industrial democracies. The result support the conventional wisdom that turnout has been declining in industrial democracies. The average turnout in 18 industrial democracies was 78.6\% in the 1950s. The figure slightly increased by 0.4 percentage point in the 1960s. However, it started declining in the 1970s and reached 71.1\% in the 1990s. The average decrease of 5.0 percentage points in the 1990s was relatively substantial. In total, there was a decline of 7.5 percentage points on average between the 1950s and 1990s. The average decline between the 1960s and 1990s was 7.9 percentage points. Although there have been a variety of trends in these countries, the general downward trend is clear between 1951 and 2000, particularly in the most recent decades.

\textsuperscript{6} Portugal and Spain had an authoritarian regime until late 70s. Greece had a military regime between 1967 and 1974.
\textsuperscript{7} In the case of the USA, the number of votes inclusive of invalid votes is not available and so this thesis uses the number of votes exclusive of invalid votes for the USA.
\textsuperscript{8} The voting age population is used as the denominator here. However, the number of registered electors is used when the effectiveness of CV in improving turnout is assessed in this thesis.
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<td>67.0</td>
<td>64.0</td>
<td>60.6</td>
<td>(-10.7)</td>
<td>(-6.6)</td>
</tr>
<tr>
<td>Germany</td>
<td>84.1</td>
<td>82.6</td>
<td>84.8</td>
<td>76.4</td>
<td>73.9</td>
<td>(-10.2)</td>
<td>(-8.7)</td>
</tr>
<tr>
<td>New Zealand</td>
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<td>82.7</td>
<td>83.1</td>
<td>84.1</td>
<td>79.1</td>
<td>(-10.2)</td>
<td>(-3.6)</td>
</tr>
<tr>
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<td>61.4</td>
<td>53.8</td>
<td>51.6</td>
<td>50.6</td>
<td>(-10.0)</td>
<td>(-10.8)</td>
</tr>
<tr>
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<td>84.7</td>
<td>82.0</td>
<td>79.2</td>
<td>69.4</td>
<td>(-6.9)</td>
<td>(-15.3)</td>
</tr>
<tr>
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<td>73.4</td>
<td>75.2</td>
<td>73.5</td>
<td>72.4</td>
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<tr>
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<td>82.5</td>
<td>75.7</td>
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<td>(-6.9)</td>
</tr>
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<td>93.1</td>
<td>90.2</td>
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<td>84.4</td>
<td>84.6</td>
<td>82.9</td>
<td>82.6</td>
<td>(+0.0)</td>
<td>(-1.8)</td>
</tr>
<tr>
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<td>87.1</td>
<td>86.5</td>
<td>84.3</td>
<td>82.4</td>
<td>(+1.8)</td>
<td>(-4.7)</td>
</tr>
<tr>
<td>Sweden</td>
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<td>84.9</td>
<td>87.1</td>
<td>85.8</td>
<td>81.4</td>
<td>(+3.1)</td>
<td>(-3.5)</td>
</tr>
<tr>
<td>Average</td>
<td>78.6</td>
<td>79.0</td>
<td>77.9</td>
<td>76.1</td>
<td>71.1</td>
<td>(-7.5)</td>
<td>(-7.9)</td>
</tr>
<tr>
<td>Increase</td>
<td>11 states</td>
<td>9 states</td>
<td>3 states</td>
<td>0 states</td>
<td>2 states</td>
<td>0 states</td>
<td></td>
</tr>
<tr>
<td>Decrease</td>
<td>7 states</td>
<td>9 states</td>
<td>15 states</td>
<td>18 states</td>
<td>15 states</td>
<td>18 states</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Seven major countries are underlined.
2. Figures in parentheses are turnout changes in percentage points.
3. The 1971 Switzerland election turnout is not included into the calculation because of the unavailability of appropriate voting age population.
4. The 1995 Japan election in the source below is not included because it is an upper-house election.

Turnout in Seven Major Industrial Democracies

It would be meaningful to extract seven major industrial democracies from 18 countries and to observe their trends in turnout. By limiting the number of countries in comparison, it becomes possible to graph the turnout change in each country in order to show national-level differences. The seven major industrial democracies are underlined in Table 1.1, and Figure 1.1 presents a graphical representation of turnout in these countries. The change in average turnout of these seven countries is added to this figure (75.5% in the 1950s, 74.4% in the 1960s, 73.7% in the 1970s, 71.0% in the 1980s, and 66.8% in the 1990s). The average turnout declined continuously from 75.5% to 66.8% over the whole period. Moreover, almost all seven major industrial democracies experienced a significant decline in turnout during that period.

Judging from Table 1.1 and Figure 1.1, it is clear that the industrial democracies have experienced a long-term downward trend in turnout. Although the seven
democracies had a variety of patterns of turnout between over the four-decade period, the general downward trend is clear. Furthermore, despite the globalisation of democracy during the last quarter of the twentieth century, which Huntington called ‘the third wave’ of democratisation, the decline in turnout among the industrial democracies was particularly clear during the same period (i.e. the 1980s and 1990s). It is a widely-accepted assumption that low turnout is a problem for democracy (e.g. Franklin 2002, 148; Lijphart 2000, 314-15). Facing this long-term downward trend in turnout, the solutions to low turnout have—particularly recently—drawn some attention of scholars. The next section will overview the potential solutions to low turnout.

1.2. Solutions to Low Turnout

While election is in effect a collective action to deliver proper representation of the people, voting in itself is very much an individual action. Therefore, even if high turnout is desirable for the society, it will not be achieved unless each individual is sufficiently motivated to vote. In other words, unless each individual estimates that the expected individual benefits from voting exceed the expected individual costs of voting, they will not vote and high turnout will not be achieved (see Models 1 and 2 in 3.1 of Chapter 3 for more theoretical descriptions). Therefore, there are two categories of solutions to low turnout as follows:

(1) Measures to diminish the expected individual costs of voting, and
(2) Measures to improve the expected individual benefits from voting.

This section presents an overview of the major potential solutions to low turnout from this viewpoint and will also review empirical studies into the effectiveness of these solutions in improving turnout.

Easy-Voting Devices

If the expected cost of voting is diminished, turnout would improve (see Models 1 and 2 in 3.1 of Chapter 3). There are many potential institutional devices for reducing the cost of voting, such as automatic registration, machine voting, short ballots, long polling hours, weekend voting, multiple polling days, postal voting, absentee voting, and less-crowded and close polling places. Empirical studies show that such easy-voting
devices would improve turnout to some extent (Franklin 2002, 158-60; Wolfinger and Rosenstone 1980, 61-88). Therefore, it will be reasonable to conclude that easy-voting devices are reliable and effective solutions to low turnout. Moreover, the introduction of easy-voting devices does not accompany any major change in the political system (see Lijphart 2000, 321). Although the administrative cost is a potential problem for the adoption of easy-voting devices, this is less of a problem for the established industrial democracies. However, the cost of voting is already low in most of the industrial democracies (Aldrich 1993, 261-62; Niemi 1976, 115-16), and so any further reduction in the cost of voting would not dramatically improve turnout in these countries.

**Concentration of Power**

If the significance of election result (e.g. the power of parliament) is higher, an individual elector will gain more differential benefit when their preferred party/candidate wins (see Models 1 and 2 in 3.1 of Chapter 3). The concentration of power (e.g. the abolition of second chambers, federal systems, local governments, presidential systems and referendums) would be useful in improving the differential benefit from the electoral outcome. However, this differential benefit will be inevitably discounted by the probability of a single vote to change the electoral outcome, and this probability is infinitesimal. Therefore, any increase in the significance of an election through the concentration of power would not substantially improve the individual benefit from casting a single vote in theory, and so it would hardly improve turnout. Nevertheless, empirical studies show that the concentration of power would have some positive effect in improving turnout though this effect is not substantial (Blais and Dobrzynska 1998, 246-47, 250; Franklin 2002, 158-60; R. Jackman 1987, 412, 416; R. Jackman and Miller 1995, 474, 476). However, the division of power has been implemented as a means to avoid despotism and to protect the freedom of citizens. Therefore, any prospect of a slight improvement in turnout is not likely to justify the drastic concentration of power in liberal democracies (see Lijphart 2000, 321).

**Small Population Size**

If the size of the population were smaller, the probability of a single vote changing the electoral outcome would be larger. Therefore, the expected individual benefits from voting would be larger, and so turnout should be higher (see Models 1 and 2 in 3.1 of
Chapter 3). The very high turnout levels found in Malta is an interesting example of this hypothesis (see Hirczy 1995). Empirical studies indicate that the small size of a population has some positive relationship with turnout, but the size of the population needs to be very small in order to make any substantial improvement in turnout according to these studies (Blais and Carty 1990, 176-77; Blais and Dobrzynska 1998, 247-48, 250; Franklin 2002, 158-60). The territory and population of a country has usually been determined in relation to its history, culture, language, ethnicity, religion, relationship with neighbouring countries, etc. Therefore, an improvement in turnout would hardly legitimise division of an already-large country into smaller units. As Lijphart (2000, 321) argues, this finding about the relationship between the small population size and turnout is clearly not useful at all for countries with a large population.

Proportional Representation (PR)
PR would reduce the probability of wasted votes, and so PR should improve the probability of a single vote influencing the electoral outcome. As a consequence, PR should improve the expected individual benefits from a single vote and should in turn improve turnout (see Cox 2000b, 236; Lijphart 2000, 318). This hypothesis sounds plausible, but it actually has a fatal defect. Although a vote cast by an individual elector does not end up as a so-called wasted vote under PR, it will still be highly unlikely that this single vote secures an additional seat for their favourite party. Therefore, the probability of a single vote to change the electoral outcome is still extremely small (see Models 1 and 2 in 3.1 of Chapter 3). Although empirical studies are divided over the level of its contribution to turnout, they still suggest that PR might have some positive effects on turnout (Blais and Carty 1990, 176-77; Blais and Dobrzynska 1998, 246-48, 250; Franklin 2002, 158-60; R. Jackman 1987, 412, 416; R. Jackman and Miller 1995, 474, 476).

However, the adoption of PR is a major electoral reform and is not likely to be accepted for the sole reason of improving turnout, particularly for a minor improvement in turnout. If a country has a homogenous society, in which people share political ends and means (Almond 1956, 398), and already has a combination of a single member plurality (SMP) electoral system and a two-party system, the adoption of PR is very unlikely (see Lijphart 2000, 321). The two major parties, which largely benefit from
SMP and are in a position to reform the present electoral system, have strong motivation to inhibit any major electoral reform because this electoral reform could erode their political/electoral domination (Reynolds 2000, 62). Moreover, the introduction of PR might result in a difficult political situation for the nation, such as a multi-party system, a succession of coalition governments, and possible instability of the government (see Cox 2000b, 236).

Civic Education

Some people might find pain in abstention and/or pleasure in voting, independently of the electoral outcome. This kind of pain/pleasure should have a positive effect on turnout (see the explanation about the $D$ term in Model 2 in 3.1 of Chapter 3). The problem is that this kind of pain/pleasure is largely a matter of political culture or political socialisation, and so it is difficult to manipulate it compared to institutional devices (see Lijphart 1997, 7). However, civic education could be instrumental for this purpose (see Almond and Verba [1963] 1989, 370-71; Denver and Hands 1990, 271-72; International IDEA 1999, 46-52; McAllister 1998, 11). Many countries provide children with some form of civic education (Ellis et al. 2006, 22-23). However, research into civic education as a solution to low turnout is underdeveloped, and it is not clear what type of civic education would be most useful in improving turnout. Moreover, it is even doubtful whether civic education has been, with a clear idea about the nature of voting, designed to motivate children to vote when they reach voting age and thereafter.

As Denver and Hands (1990, 271) argue, the assumption might have been that political awareness, exposure and discussion increased by civic education would result in more political participation. Their paper provides some empirical evidence supportive of this assumption in the UK (Denver and Hands 1990, 271-72). Although it could have been true that civic education has positive effect on turnout, it is also true that the UK has—particularly recently—experienced a long-term decline in turnout. Therefore, civic education is not likely to be a reliable measure to improve turnout at present, and a rapid technical development in this area is unlikely (see the next section for more explanation of civic education in this regard).

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9 New Zealand abolished SMP and adopted PR in 1995, but this was an extraordinary case (see Electoral Commission, New Zealand).
Compulsory Voting (CV)
CV imposes sanctions on abstainers, and CV provides electors with a disincentive to abstain. Therefore, CV should improve turnout (see Models 3 and 4 in 3.1 of Chapter 3 for its theoretical grounds). While an individual elector has to bear the cost of voting if they vote, they have to incur the sanction against abstention if they do not vote under the CV system. Although very high turnout has not been achieved in all CV countries (see Table 2.1), empirical studies (i.e. regression analyses) indicate that CV tends to improve turnout by 6-15 percentage points (Blais and Carty 1990, 176-77; Blais and Dobrzynska 1998, 246-77, 250; Franklin 2002, 158-60; R. Jackman 1987, 412, 416; R. Jackman and Miller 1995, 474, 476). If the cost of voting is low in industrial democracies as Niemi (1976, 115-16) and Aldrich (1993, 261-62) argue, some minor sanction against abstention would be sufficient to motivate electors to turn out.

1.3. Evaluating the Solutions
Among the major solutions to low turnout outlined above, CV is the most promising one (see Lijphart 2000, 321). CV has achieved very high turnout in several industrial democracies but it has mostly been neglected elsewhere. Moreover, the practice of CV has been declining across the world as Hirczy de Miño (2000, 45) argues. The Netherlands, which introduced CV in 1917, abolished it in 1970 (Mackie and Rose 1991, 322). The number of Swiss cantons with CV has declined to one (Gratschew 2004, 28-29). In Austria, three provinces had CV for national-level parliamentary elections but the CV system was abolished altogether in 1992 (Federal Ministry of the Interior, Austria 2007). CV is seen as an unsophisticated means of improving turnout and it is understandable that popularly-elected politicians and well-educated scholars have hesitated in discussing and proposing CV.

Solutions to low turnout must be adaptable and effective. Measures to improve the differential benefit from the electoral outcome (e.g. concentration of power) and measures to improve the probability of changing the electoral outcome by a single vote

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10 Nationwide CV for presidential elections was abolished in 1982, and the CV system was then up to provinces but the last CV province abolished it in 2004 (Federal Ministry of the Interior, Austria 2007).
(e.g. division of a large country into small units, and adoption of PR) are ineffective and/or impractical (see Lijphart 2000, 321). The remaining options are as follows:

1. **Easy-voting devices** to reduce the individual cost of voting,
2. **Civic education** as a ‘soft power’ measure to motivate people to vote, and
3. **Compulsory voting** as a ‘hard power’ measure to motivate people to vote.

**Evaluating Easy-Voting Devices**

Easy-voting devices are unlikely to provoke much fundamental objection, though they might have some practical/technical difficulties (e.g. administrative cost) and some of the easy-voting devices might not be adopted in the end. Any reduction in the cost of voting would have some effect of improving turnout, and empirical studies support this hypothesis (see the last section). However, these empirical studies also indicate that the effectiveness of easy-voting devices is not substantial. It will be impossible to reduce this cost to zero even if all possible easy-voting devices were adopted. Moreover, the cost of voting seems to be already low in most of the industrial democracies (see Aldrich 1993, 261-62; Niemi 1976, 115-16). Therefore, the government’s flexibility to introduce this measure is limited, and so the effect of this effort would also be limited. It seems that some other measures to motivate electors to vote need to be combined with the adoption of easy-voting devices in order to substantially improve turnout.

**Evaluating Civic Education**

Civic education might be the most respectable solution to the problem of low turnout. It might be a democratic ideal that citizens be well-informed about politics, be interested in politics and voluntarily participate in politics (see Katz 1997, 5; Pateman 1970, chap. 2). However, the major problem of civic education is that it does not appear to be sufficiently effective in improving turnout compared to institutional devices (Lijphart 1997, 7). First, it would be difficult to remould the belief system and the mindset of adults, and so civic education will be ineffective for the bulk of the population. Second, civic education could possibly be effective on children, but it would be technically difficult to design a curriculum that would motivate children to vote when they reached the voting age and thereafter. While election represents a collective action, voting in itself is an individual action. Therefore, even if civic education succeeded in convincing children that an election is important for the society and high turnout is socially
desirable, civic education might fail in motivating them to individually cast a vote, whose probability to change the electoral outcome is infinitesimal. Hence, electoral education would not be sufficiently effective in motivating children to vote though it could possibly have some positive effect on turnout (Denver and Hands 1990, 271-72).

Therefore, civic education also needs to be moral education for this purpose. A curriculum for this moral education should be designed to implant into children (1) a feeling of guilt if they failed to vote and/or (2) a feeling of satisfaction when they do vote. The current civic-education curricula of most industrial democracies do not appear to have achieved this goal judging from the fact that turnout has been decreasing. It is even doubtful whether civic education has ever been designed as moral education for this purpose with any clear understanding about the nature of voting as individual action. A simple intensification of current civic education is therefore not likely to substantially increase turnout.

It would be difficult to design an effective curriculum for moral education even if it were possible (see Lijphart 1997, 7). From an ethical viewpoint, it would be difficult to perform challenging experiments on children or young adults. Moreover, it would be difficult to identify and control the variables other than civic education. Furthermore, each cycle of experiment would inevitably be long, and curriculum designers cannot get a proper feedback from their experiment before tested children reach the voting age. Moreover, civic education might be insufficiently effective in improving turnout even if a proper curriculum were designed and implemented. Therefore, industrial democracies that already have a problem of low turnout would need to consider using other solutions to low turnout in addition to easy-voting devices and civic education.

**Evaluating Compulsory Voting (CV)**

In contrast to the two other devices, CV would achieve an immediate, substantial increase in turnout, and so CV is worthy of special attention (see Lijphart 1997, 8-10). However, CV has not been widely used in practice, and researchers have not paid much attention to it as a real option until recently (see Hirczy de Miño 2000, 45). Nevertheless, against the background of continuous decline in turnout among industrial democracies, it is worth seriously considering the usefulness of this 'hard-power' measure. There may

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11 I appreciate Professor Ken'ich Ikeda having mentioned it in conversation with the author on 13 July 2006.
be some cases in which 'soft power' is more useful in achieving the political goal in terms of cost and friction than 'hard power.' However, controlling human mind is more difficult than controlling human behaviour, and so 'soft power' is possibly less effective in achieving the same goal. Overall, when 'soft power' is sensibly combined with 'hard power,' the goal is likely to be achieved most sufficiently, most effectively and most smoothly (see Nye 2004, 147).12

1.4. Conclusion

As the first part of this chapter pointed out, turnout has been declining among the industrial democracies. As a result, the discussion of effective and practical solutions to remedy the problem has been growing. Measures to improve the differential benefit from the electoral outcome (e.g. concentration of power) and measures to improve the probability of changing the electoral outcome by a single vote (e.g. division of country and adoption of PR) are generally ineffective and/or impractical. However, measures to reduce the cost of voting and measures to motivate electors to vote independently of the electoral outcome may be effective in improving turnout. More specifically, these potentially effective measures are easy-voting devices (e.g. automatic registration, absentee voting and weekend voting), civic education and CV. These three measures are not opposed to each other either in theory or in practice, and so these measures can be used in combination.

Among these three likely solutions, easy-voting devices would diminish the cost of voting and so would help electors to overcome the threshold of the cost of voting and to turn out. However, the cost of voting is already low in most of the industrial democracies, and so the scope for improvement in turnout by the use of these devices would be limited. Civic education is an attempt to motivate people to vote by using 'soft power.' However, civic education deals with psychological orientations towards politics, about which we do relatively little. Consequently, its successful exercise would be technically difficult. Moreover, civic education is a long-term measure, and it would

12 Apart from effectiveness, it is doubtful whether soft power is more humane than hard power. While hard power tries to control human behaviour, soft power tries to control their mind. If soft power were effectively exercised, people would not be free even in their mind. Soft power could be regarded as a paraphrase of mind control or propaganda.
have little immediate effect on turnout. In contrast, CV is an attempt to motivate people to vote by using 'hard power.' It would have an immediate, substantial effect in improving turnout and this effect would persist so long as CV exists. CV is a promising solution to low turnout, and so CV is worth serious consideration to use in combination with easy-voting devices and civic education. The next chapter examines the practice of CV across the world and reviews previous studies of CV.
CHAPTER 2
The Theory and Practice of Compulsory Voting

As Chapter 1 demonstrated, turnout has been declining among the industrial democracies, and CV is the most promising solution to low turnout. CV has achieved high turnout in several countries (e.g. Australia and Belgium). However, it has been mostly neglected elsewhere as a solution to the problem of turnout. CV is a strong measure, and so it is understandable that governments hesitate in its introduction. Nevertheless, if it becomes clear for industrial democracies that CV is useful to a great degree, many industrial democracies will overcome this hesitation and will introduce CV. Many academic studies have examined CV (and major works are introduced in this chapter), but they have not persuaded many industrial democracies to adopt it. This thesis aims at assessing the overall usefulness of CV for industrial democracies. However, before starting this assessment, this chapter will overview the practice of CV in the world and the previous studies on CV in order to identify the proper course of research into the usefulness of CV.

In order to lay the foundations of the research into the usefulness of CV, this chapter will first define CV and describe actual CV systems across the world. This observation suggests that the practice of CV is enormously diverse, and the reality of CV is too unwieldy to make any meaningful assessment of its usefulness. Therefore, without formulating an ideal type, it would be impossible to properly assess the usefulness of CV. Thus, this chapter will describe the typical CV and will then formulate the ideal type of CV for industrial democracies. Second, the chapter will evaluate previous studies of CV with an intention of assessing the overall usefulness of CV. Finally, the chapter will identify niches in the previous studies in regard to the usefulness of CV for industrial democracies.

2.1. Practice of Compulsory Voting

This section will overview the practice of CV in the world in order to identify its main features. In order to accomplish this task, this section will first provide a 'definition of
CV and will determine the scope of CV for observation. Next, the section will describe how CV operates across the world. This overview suggests that the practice of CV is enormously diverse even within the accepted parameters of CV. Consequently, this section will identify the 'typical CV' and will finally formulate the 'ideal type of CV' for industrial democracies.

A Definition of CV

CV is a much disputed concept (but see a definition of CV by Hirczy de Miño 2000, 44). For example, social (or political) sanction against abstention, like that of the former Soviet-block countries, has occasionally been included in the concept of CV (e.g. Derbyshire and Derbyshire 1989, 98-103). Meanwhile, it has been argued that compulsory voting is a misnomer, and it is practically compulsory attendance at the polling place because of the existence of the secret ballot system (Robson 1923, 576). It is also arguable whether a law that requires electors to vote but does not provide any penalty against offenders should be considered to be CV. Therefore, CV needs to be defined, otherwise it will be difficult to identify actual CVs for examination. For the purpose of this thesis, a minimalist approach defines CV as follows:

CV is a legal arrangement to provide that voting/turning-out is a legal duty.

However, this definition is not sufficiently inclusive. Therefore, this subsection will try to clarify it by providing several examples and more explanations as follows.

Turning out to vote is the minimum requirement to meet this definition, though voting rather than turning-out \textit{per se} is the actual purpose of the introduction of CV. So long as a legal regulation meets this condition, it does not matter whether this regulation requires turning-out only (i.e. an attendance at the polling place), the casting of a valid or invalid vote, or the casting of a valid vote. Although this is an abstention abatement regulation rather than 'compulsory voting,' this thesis still regards it as a broad definition of CV. Under the secret ballot system, it is technically difficult to check whether each elector actually cast a valid vote. Therefore, what can be compulsory is attendance at the polling place rather than voting, as Robson (1923, 576) argues.

A legal duty to vote/turn-out is an essential part of this definition. So long as a regulation provides that voting/turning-out is a legal duty, this regulation fits the
definition of CV. Therefore, any prescription of legal sanctions against offences is not essential for the definition of CV. Moreover, even if some sanction against abstention is provided, the actual imposition of prescribed sanctions on offenders is not essential, either. Furthermore, if a regulation does not explicitly provide that voting/turning-out is a legal duty but prescribes legal sanctions against non-voting/abstention, this regulation is regarded as implicitly providing that voting/turning-out is a legal duty.

A moral duty to vote/turn-out is irrelevant to this definition, while a legal duty to vote/turn-out is essential to the definition. As shown in Figure 2.1 below, the moral duty overlaps with the legal duty. However, all moral duties are not—and do not need to be—legal duties (Wertheimer 1975, 283). So long as a legal regulation provides a legal duty (i.e. shaded (b) and (c) in Figure 2.1) of voting/turning-out, this regulation fits the definition of CV and it does not matter whether voting/turning-out is a moral duty. Therefore, a legal regulation that merely declares voting/turning-out to be a moral duty (like that of Portugal) falls into the sub-set (a) in Figure 2.1 below. However, if a legal regulation provides that voting/turning-out is a duty without specifying whether it is a moral or a legal duty, this duty is regarded as a legal one because rules and regulations are supposed to make legal arrangements rather than making moral declarations.

Figure 2.1: Relationship between Two Duties

Legal sanctions against non-voting/abstention may be provided but are not essential for this definition of CV. For example, the CV law may provide that voting is a

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13 Constitution of the Portuguese Republic, Article 49, Section 2 provides as follows, "The right to vote shall be exercised personally and shall constitute a civic duty." <www.parlamento.pt/ingles/cons_leg/crp_ingles/index.html> (18 September 2007). However, there is no other legal arrangement in relation to the duty to vote.
duty but it may not stipulate any penalty for illegitimate abstention (see Table 2.1). Without any sanctions, it is impossible for the government to legally enforce voting/turning-out and so this legal regulation cannot be ‘compulsory’ voting/turning-out in the literal sense, though there can still be ‘obligatory’ voting/turning-out. However, compulsory voting (CV) is a much more widely-used expression than obligatory voting among political students, and so this thesis follows the majority and uses this conventional expression of CV.

The actual enforcement of voting/turning-out is not essential for meeting this definition of CV even if the law provides legal sanctions against non-voting/abstention. When rules and regulations prescribe legal sanctions against offences, the government is supposed to impose these sanctions on offenders. However, in reality, the government may not be interested in actually imposing these sanctions on offenders (Gratschew 2002, 106; Gratschew 2004, 26). In particular, the government may not have sufficient resources to investigate cases, identify offenders and impose sanctions on them. Even if the government does not impose the prescribed sanctions on non-voters/abstainers, this omission does not matter regarding this definition of CV. For example, the sanction against abstention is imprisonment in Greece, but this sanction has never been applied, according to IPU 2007. However, the case of Greece fits the definition of CV (see Table 2.1 for cases of ‘weak’ enforcement).

Social sanction/enforcement of voting/turning-out does not satisfy this definition of CV. This is because social sanction/enforcement implies that voting/turning-out is a social duty but does not imply that it is a legal duty. In many of the former Soviet-block countries, voting/turning-out was legally voluntary but was socially—or politically—compulsory (see Derbyshire and Derbyshire 1989, 98-103). However, the definition of CV of this thesis does not include such kind of ‘de facto’ compulsory voting. Even in authentic liberal democracies, some peer pressure to vote/turn-out exists. However, none of such social sanction/enforcement of voting/turning-out is relevant to this definition of CV.

**Function of CV**

The subsection above provided a descriptive, legal definition of CV. In order to examine its function, it is possible to explain the expected, direct effect of CV and its mechanism as follows:
The function of CV is to mobilise electors to vote/turn-out by providing them with material and non-material disincentives to abstain from voting.

This explanation of the function of CV should not be confused with the definition of CV. For example, the social sanction/enforcement of voting/turning-out satisfies this explanation of CV above, but it does not satisfy the descriptive, legal definition of CV used in the last subsection. However, this thesis does not regard such social sanction/enforcement as CV. CV is nothing more than an institutional device and, as is so often the case with such devices, CV can have a variety of effects according to its usage and environment. However, this variety does not affect the nature of CV as an institutional device, and CV in itself is neither useful nor harmful. Therefore, CV might eventually be useful for several countries but might not so for others.

Inducement voting (IV), under which the government offers electors some material inducement to vote/turn-out (e.g. a monetary reward), can be logically an alternative to CV (Hasen 1996, 2135, 2169; Lijphart 1997, 11; Rydon and Goot 1989, 11). However, its exercise is new and rare (see Balinov 2006; Birch 2007, 19-20; Ellis et al. 2006, 23-24; Gratschew 2006; Hasen 1996, 2136; Hasen 2000; Hicks 2002; Keaney and Rogers 2006, 24). Its effect and mechanism can be explained as follows:

The function of IV is to mobilise electors to vote/turn-out by providing them with material incentives.

The major advantage of IV is that it does not restrict freedom of electors. One of the major objections against CV is that it infringes personal liberty (see the next section for the major objections against CV). However, IV does not have this disadvantage, and so IV is a safer alternative to CV in this regard. Meanwhile, the main shortcoming of IV is that it might not be as effective in improving turnout as is CV. IV provides electors with material incentives to vote/turn-out but does not provide them with non-material incentives, with which CV can provide them by stimulating their law-abiding mentality (see Hasen 1996, 2171). Another possible objection to IV is a moral one. It might be argued that voting is a civic duty and so voting/turning-out should not be paid for. However, parliamentarians and civil servants are paid for their public service in many countries, and this payment is hardly regarded as being shameful. In any case, neither IV itself nor such moral argument is the main concern of this thesis, but 3.1 of Chapter 3
will briefly explain the underlying mechanism of IV.

**The Practice of CV in the World**

Table 2.1 below lists the countries in the world that use CV, including developing countries. In this table, CV countries are listed according to the level of turnout of the registered electors (i.e. ‘Turnout/Reg’ in Table 2.1 below). The results show that the practice of CV is not common, but it is not necessarily rare either. The number of CV countries is 28 (16.1%) out of the 174 independent democracies whose data are stored in the International IDEA database of elections (Pintor, and Gratschew 2002). CV countries are therefore a substantial minority among democracies.

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14 Table 2.1 is compiled from Gratschew 2002 and Gratschew 2004, because her implicit selection standard of CV countries seems to be the same as the definition of CV by this thesis and her lists of CV countries are more informative than other lists: CIA 2007; Derbyshire and Derbyshire 1989, 98-103; Herman 1976, 146-47; LeDuc, Niemi and Norris 2002, 13-15; Nohlen et al. 2000, 355-73. IPU 2007 also provides information about electoral systems and voting systems (inclusive of CV) in each country.

15 Switzerland is counted as one of CV countries in this calculation.
Table 2.1: Practice of CV in the World

<table>
<thead>
<tr>
<th>Country</th>
<th>Turnout/Reg (%)</th>
<th>Turnout/VAP (%)</th>
<th>Sanctions</th>
<th>Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>95.5</td>
<td>82.1</td>
<td>a, b</td>
<td>Strict</td>
</tr>
<tr>
<td>Singapore</td>
<td>95.3</td>
<td>35.4</td>
<td>d</td>
<td>Strict</td>
</tr>
<tr>
<td>Uruguay</td>
<td>91.6</td>
<td>95.4</td>
<td>b, d</td>
<td>Strict</td>
</tr>
<tr>
<td>Cyprus</td>
<td>91.0</td>
<td>76.8</td>
<td>a, b</td>
<td>Strict</td>
</tr>
<tr>
<td>Belgium</td>
<td>90.9</td>
<td>83.2</td>
<td>a, b, d, e</td>
<td>Strict</td>
</tr>
<tr>
<td>Nauru</td>
<td>90.3</td>
<td>50.1</td>
<td>a, b</td>
<td>Strict</td>
</tr>
<tr>
<td>Chile</td>
<td>89.2</td>
<td>77.5</td>
<td>a, b, c</td>
<td>Weak</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>87.4</td>
<td>58.7</td>
<td>a, b</td>
<td>Strict</td>
</tr>
<tr>
<td>Liechtenstein</td>
<td>86.8</td>
<td>54.0</td>
<td>a, b</td>
<td>Weak</td>
</tr>
<tr>
<td>Turkey</td>
<td>86.2</td>
<td>79.8</td>
<td>b</td>
<td>Weak</td>
</tr>
<tr>
<td>Italy</td>
<td>82.2</td>
<td>86.1</td>
<td>None</td>
<td>Not enforced</td>
</tr>
<tr>
<td>Fiji</td>
<td>82.1</td>
<td>65.3</td>
<td>a, b, c</td>
<td>Strict</td>
</tr>
<tr>
<td>Peru</td>
<td>81.7</td>
<td>78.6</td>
<td>b, d</td>
<td>Weak</td>
</tr>
<tr>
<td>Brazil</td>
<td>80.4</td>
<td>80.5</td>
<td>b</td>
<td>Weak</td>
</tr>
<tr>
<td>Argentina</td>
<td>78.4</td>
<td>78.8</td>
<td>a, b, d</td>
<td>Weak</td>
</tr>
<tr>
<td>Greece</td>
<td>75.7</td>
<td>86.5</td>
<td>a, c</td>
<td>Weak</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>75.6</td>
<td>79.0</td>
<td>None</td>
<td>Not enforced</td>
</tr>
<tr>
<td>Paraguay</td>
<td>73.4</td>
<td>52.4</td>
<td>b</td>
<td>N/A</td>
</tr>
<tr>
<td>Bolivia</td>
<td>71.1</td>
<td>56.2</td>
<td>d</td>
<td>N/A</td>
</tr>
<tr>
<td>Honduras</td>
<td>68.4</td>
<td>65.8</td>
<td>None</td>
<td>Not enforced</td>
</tr>
<tr>
<td>Thailand</td>
<td>66.2</td>
<td>70.1</td>
<td>None</td>
<td>Not enforced</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>65.8</td>
<td>53.9</td>
<td>None</td>
<td>Not enforced</td>
</tr>
<tr>
<td>Mexico</td>
<td>57.8</td>
<td>51.3</td>
<td>None/e</td>
<td>Weak</td>
</tr>
<tr>
<td>Ecuador</td>
<td>57.6</td>
<td>58.2</td>
<td>b</td>
<td>Weak</td>
</tr>
<tr>
<td>Egypt</td>
<td>46.2</td>
<td>27.7</td>
<td>a, b, c</td>
<td>N/A</td>
</tr>
<tr>
<td>Guatemala</td>
<td>43.6</td>
<td>32.3</td>
<td>None</td>
<td>Not enforced</td>
</tr>
<tr>
<td>Gabon</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Switzerland (Schaffhausen)</td>
<td>-</td>
<td>-</td>
<td>b</td>
<td>Strict</td>
</tr>
</tbody>
</table>

Average 77.3 66.0

Notes:
1. Turnout is the average of last two parliamentary (lower-house if applicable) elections compiled by Pintor and Gratschew 2002. Votes include invalid votes when available.
2. Reg: the registered electors, VAP: the voting age population, N/A: not available.
3. Sanctions: a=Explanation, b=Fine, c=Possible Imprisonment, d=Infringement of Civil Rights or Disenfranchisement, e=Other.
4. In Switzerland, only one of 26 cantons has CV.
5. The Netherlands abolished CV in 1970. In Austria, several provinces had CV for the National Council but this CV was abolished in 1992 according to the Federal Ministry of Interior, Austria (2007). Italy abolished sanctions against abstention but still has a law providing that voting is a duty without clarifying whether it is a legal duty or moral duty, according to Gratschew (2004, 28-29).

Sources: Electoral Commission 2006, 18; Gratschew 2002; Gratschew 2004; Pintor and Gratschew 2002, 125-56.

The first conclusion from Table 2.1 is that the practice of CV is enormously diverse. Gratschew (2002, 106; 2004, 26) argues that CV should be understood in a spectrum from a purely symbolic law to a government that systematically follows up each abstainer and imposes sanctions on offenders. This spectrum model is useful in
understanding the practice of CV across the world. However, the reality of the practice of CV is, of course, much more complex than this model. First, the regulation of CV varies widely; reprimand, fine, imprisonment, disenfranchisement, etc. are prescribed as sanctions against non-voting/abstention. While some countries combine several types of sanctions (e.g. Belgium) and several use only one of them (e.g. Australia), others do not prescribe any sanction though a legal regulation provides that voting/turning-out is a duty. Moreover, there are many other varieties of CV in regard to age, marital status, distance from the registered polling place, etc. Therefore, there is no such thing as the CV, but CV varies greatly in its provision and practice. However, this complexity is the very reason why Gratschew’s spectrum model is useful in simplifying and understanding the reality.

The practice of CV involves further complexities. First, the level of turnout in CV countries varies considerably. While the average turnout of the registered electors is 95.5% in Australia, it is merely 43.6% in Guatemala. Moreover, the political and economic character of CV countries is very diverse; some are liberal democracies (e.g. Australia and Belgium), but others are not (e.g. Peru and Mexico). In addition, some are industrial countries, while others are economically underdeveloped. Therefore, the practice of CV is also diverse in regard to its effect (i.e. turnout) and environment (i.e. country features). Moreover, Gratschew’s spectrum model is still unwieldy for assessing the usefulness of CV for industrial democracies. Therefore, this thesis will formulate the ideal type of CV and will assess its usefulness for industrial democracies. However, before formulating the ideal type of CV, this thesis will identify the typical CV from the overview of the practice of CV in the world.

The Typical CV System

From the overview of the practice of CV in the world, the typical CV can be defined as follows:

For a typical CV system, a law provides that voting is a legal duty and prescribes a moderate fine for non-voting/abstention without any

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16 CV in itself is an institutional device, and CV can work only on the registered electors. Therefore, ‘Turnout/Reg’ can be regarded as the main index of the effectiveness of CV. However, the purpose of the introduction of CV is high turnout among all electors rather than all registered electors. Therefore, ‘Turnout/VAP’ is also listed as the secondary index in Table 2.1. There is usually some discrepancy between the registered electors and the voting age population.
legitimate reason. Although the level of enforcement is weak (and fines are rarely imposed on offenders), the turnout of the registered electors is 80% and that of the voting age population is slightly lower than 80%. The country is politically a liberal democracy and is economically a developing country.

As CV is practiced across the world, sanctions against non-voting/abstention vary widely though a moderate fine is the norm. Among 26 CV countries, seven countries (26.9%) do not have any penal code for non-voting/abstention, 16 countries (61.5%) impose a fine, four countries (14.8%) even have an imprisonment system, and six countries (23.1%) have a system of deprivation of civil rights or disenfranchisement. A fine is therefore the typical sanction against non-voting/abstention, but the amount involved is usually small. Among 26 CV countries, the level of enforcement is ‘strict’ in eight countries, ‘weak’ in nine countries and relevant information is unavailable about four countries. Another six countries do not have any penal code, and so there is no enforcement of voting/turning-out in these six countries. Therefore, the median level of enforcement is ‘weak.’ Turnout among registered electors is typically 80%, judging from the fact that the median of nine ‘weak’ enforcement countries is 80.4% in Brazil. Turnout of the voting age population is typically slightly lower than 80%, judging from the fact that the median of nine ‘weak’ enforcement countries is 78.6% in Peru. The typical CV country is politically a liberal democracy by definition, and it is economically a developing country.

The Ideal Type of CV for Industrial Democracies
The last subsection identified the typical type of CV. However, this typical CV will not be useful for the research purpose of this thesis. First, the typical CV country is a developing country, while this thesis aims at assessing the usefulness of CV for industrial democracies. Second, the typical CV system is unlikely to be the most effective one in achieving high turnout, particularly in regard to the level of its enforcement. Therefore, this thesis will formulate the ideal type of CV for industrial democracies as follows:

For the ideal type of CV system, a law provides that voting is a legal
duty and the law prescribes a moderate fine for abstention without any legitimate reason. The government systematically and effectively investigates abstainers and then imposes sanctions on offenders.

The administration of CV would be costly in terms of financial and human resources (Gratschew 2002, 106; Gratschew 2004, 26; Hughes 1966, 83; Phillips 2001, 21-22). However, industrial democracies are prosperous, and so the government will be able to allocate the necessary resources to the administration of CV. This thesis will assess the usefulness of this ideal type of CV for industrial democracies.

2.2. Previous Studies of Compulsory Voting

CV is not a new research topic. Belgium introduced CV in 1893, the Netherlands in 1917, and Australia in 1924.18 The history of the argument over CV is naturally older than that of its practice, and many academic works have been published on CV to the present. However, despite the scientific development of political science after World War II, new scientific methods were rarely applied to CV before the 1980s. Because of their methodological limitations, the pre-scientific studies on CV tended to be anecdotal about the effectiveness of CV in improving turnout and uncertain how to evaluate the system. Nevertheless, it should be noted that the older studies effectively identified the advantages and disadvantages of CV and laid the groundwork for the later academic study of CV using modern methods in the 1980s and 1990s.

This section will review the previous studies of CV in order to identify what they have achieved and what they have not yet achieved in assessing the overall usefulness of CV. First, this section will overview major advantages and disadvantages of CV. Then, the section will overview the recent scientific development achieved by applying new methods. In the 1980s, regression analysis started providing scientific evidence for the hypothesis that CV is effective in improving turnout, over which the older studies had anecdotally argued. In the 1990s, data analysis was combined with a value standard (i.e. democracy) to provide a scientific explanation as to the main advantage of CV (i.e. precise representation). As a preparation for assessing the overall usefulness of CV for

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18 Belgium was probably the first country that introduced nationwide CV. However, this thesis will not pursue this issue because the history of CV is not its main concern. See Robson (1923, 570-72) for early exercises of CV.
industrial democracies, this section will then identify gaps in the previous studies.

Advantages and Disadvantages of CV

When Hughes (1966) comprehensively listed up the advantages and disadvantages of CV, he effectively accomplished this task though later political students amended his list and compiled their own (AEC 2007a; Bennett 2005, 7-10; Electoral Commission 2006, 12; Gratschew 2002, 105-6; Gratschew 2004, 27-30; Healy and Warden 1995, 19-30; Major 1995, 29-42; Phillips 2001, 7-26; Smith 2001). This list can be regarded as the groundwork for later scientific development in evaluation of CV starting in the 1990s, and Lijphart (1997) provided a scientific explanation as to one of them. This thesis will list up likely advantages and disadvantages of CV as follows.

Table 2.2: Likely Advantages and Disadvantages of CV

<table>
<thead>
<tr>
<th>(1) Advantages</th>
<th>(2) Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Correct representation</td>
<td>a. Restriction on freedom</td>
</tr>
<tr>
<td>b. Democratic legitimacy</td>
<td>b. Degeneration of votes</td>
</tr>
<tr>
<td>c. Fulfilment of the civic duty</td>
<td>c. Political inactivity</td>
</tr>
<tr>
<td>d. Reduction in election funds</td>
<td>d. Degeneration of election campaign</td>
</tr>
<tr>
<td>e. Educational effect</td>
<td>e. Difficulty and cost of enforcement</td>
</tr>
<tr>
<td>f. Safeguard against extremism</td>
<td>f. Danger of extremism</td>
</tr>
</tbody>
</table>

Note: This list is newly compiled mainly based on Hughes 1966.

Likely Advantages of CV. Correct representation is a major argument for CV. If the government is to serve the majority of the people, the will of the majority should be reflected in politics. This would result in improvement in the well-being of the people (or that of the majority at least). The direct effect of CV is high turnout, and high turnout should result in more precise representation of the will of the people (Hughes 1966, 81). Some social groups are more likely to vote than other social groups when
voting is voluntary. However, if everybody votes, the electoral outcome will more accurately represent the will of the majority. However, if turnout is low, there is a risk that the electoral outcome will be different from that of the majority of all electors. Therefore, high turnout is desirable (Lijphart 1997).  

Democratic legitimacy is occasionally mentioned as an advantage of CV (Hughes 1966, 82). As Teixeira (1992, 101-2) argues, the fewer people participate in elections, the more the extent to which the government truly rests on the consent of the people may be called into question. The result of such a deficit of democratic legitimacy could range from ineffective government to total failure of government. Democracy is not the sole source of legitimacy for the government. However, if the incumbent government is suffering a deficit of legitimacy, one way to try to improve its legitimacy will be a demonstration that the government is accurately reflecting the will of the people and so is genuinely democratic. Nevertheless, established democracies, as Hirczy de Miño (2000, 46) argues, seem to enjoy great legitimacy to begin with and so they would not have a strong need for visible demonstration of regime support.

Fulfilment of civic duty will be secured by CV. Voting is the right of all citizens in a democracy. However, voting is widely regarded as a civic duty, though voting is not currently a legal requirement in most democracies. Elections represent a collective action to produce the proper representation of the people. Meanwhile, voting represents an individual action, but citizens are supposed to exercise their right to vote in order to make a proper contribution to the election as collective action. Therefore, it would be reasonable to regard voting as a civic duty. If citizens voluntarily fulfil this civic duty, voting does not need to be legally enforced but, if they do not, it might be necessary to enforce them to fulfil this civic duty. CV would be useful for this purpose. However, this does not automatically mean that CV should be introduced unless all electors vote. If election as collective action fails to deliver what is required (i.e. proper representation of the people), then the introduction of CV will be justifiable though CV is a strong measure (Hughes 1966, 81; Phillips 2001, 12-14; Wertheimer 1975, 279-81).  


21 Also see arguments addressed by Australian parliamentarians: Senator Russell (Commonwealth Parliamentary Debates. Senate. 13 August 1915, 5753), Cook MP (Commonwealth Parliamentary Debates. House of Representatives. 8 September 1915,
Reduction in election funds should result from the introduction of CV (Lijphart 1997, 10). CV would mostly relieve parties and candidates from the burden of psychological/physical mobilisation of their supporters to attend polling places (Hughes 1966, 82), and so the campaign expenses borne by parties and candidates should diminish. First, this reduction in election funds would be useful for parties and candidates. If parties and candidates do not need to raise a lot of election funds, they should be relatively free from minority interests as major donors and so they would be less likely to be diverted from the policies that they actually want to pursue. Moreover, parties and candidates would not need to mobilise as many election campaigners as they do under VV, and this would further release them from the pressure of minority interests. Second, the reduction in election funds would be useful for the people. Even if parties and candidates are relatively independent from minority interests under CV, they will still need to seek votes from electors. Therefore, their relative independence from minority interests should result in the improvement in the influence of general electors on parties and candidates. This should result in more voter influence on public policy (Puplick 1994, 22-23).

An educational effect is also mentioned as an advantage of CV. Habitual abstainers may think that politics is irrelevant to them under VV, but they would inevitably start thinking about politics once they are forced to vote. CV should therefore improve the interest, knowledge and even the sense of responsibility about politics among the public (Hughes 1966, 82; Lijphart 1997, 10: also see Mill 1862, chap. 3, para. 2; Pateman 1970, 42-43). However, this argument has been challenged on the basis of empirical evidence (McAllister 1998, 12; Minchin 1996a, 244-45; Rydon and Goot 1989, 7). Indeed, the conventional argument on the educational effect of CV is questionable. Electors are more likely to take a shortcut by developing party affiliation rather than becoming more informed citizens (see Downs 1957, 98-100). Although they might think about politics in the process of the acquisition of party affiliation, they would think little about politics once they establish it. Even if CV has some educational...


22 Also see an argument addressed by an Australian parliamentarian: Senator Findley (Commonwealth Parliamentary Debates. Senate. 17 July 1924, 2184).

23 Also see arguments addressed by Australian parliamentarians: Senator Payne (Commonwealth Parliamentary Debates. Senate. 17 July 1924, 2180), Mann MP (Commonwealth Parliamentary Debates. House of Representatives. 24 July 1924, 2446-47).
effect upon electors, this effect would not be substantial.

Safeguard against extremism might be an advantage of CV. It is time-consuming for each elector to collect information about candidates, parties, policies and political and social events and make real choices at each election, but acquisition of party affiliation would substantially reduce this cost of information (Downs 1957, 98-100). Therefore, many electors would establish a party affiliation as a shortcut if CV is introduced. If electors establish this party affiliation under stable social/economic conditions, most of them would identify with a major party. This party affiliation would therefore operate as a safeguard against acute extremism. If the vast majority of electors are already aligned with major parties, they would not support extreme parties even if social/economic conditions deteriorate (Lijphart 1997, 10). However, the danger of extremism is not likely to be a major concern for established democracies.

Likely Disadvantages of CV. The restriction on freedom is one of the two most common arguments against CV, according to Hughes (1966, 83). Lijphart (1997, 11) also regards it as 'the most serious objection' to CV. Opponents to CV argue that CV logically contradicts the notion of the right to vote, which should be exercised as each elector's free will in a liberal democracy (Abraham 1955, 33; Jones 1954, 25). They continue that this free will can take the form of abstention. Here, opponents to CV claim that the right not to vote is an essential part of the right to vote (also see Abraham 1955, 31; JSCEM 1997, xix-xxi, 23-27; Minchin 1996a, 244-45; Rydon and Goot 1989, 7). However, proponents of CV claim that it does not actually infringe 'the right not to vote' because electors can safely cast an invalid vote at the polling place because of the secret ballot system (Hughes 1966, 82). This counter-argument by proponents of CV sounds reasonable. However, it is still true that electors have to go to the polling place under CV and so CV is surely a restriction on their freedom, though the level of its significance is a matter of argument.24

Degeneration of votes is the other of the two most common arguments against CV, according to Hughes (1966, 83). All electors are not equally interested in politics and are not equally informed about politics. Electors who are more interested and more informed about politics are more likely to vote than electors who are less interested and less informed. However, CV would bring these less-interested and less-informed
electors to polling places. Their participation in voting would weaken the quality of the electoral decision-making and so would harm the quality of government. Therefore, CV, which forcibly achieves high turnout, might not be desirable (Abraham 1955, 31; Rydon and Goot 1989, 7-8). When CV was debated in the Australian parliament in 1924, Senator Gardiner (Commonwealth Parliamentary Debates. Senate. 17 July 1924, 2182-83) argued, 'I hold the view that the opinions of the negligent and apathetic section of the electors are not worth obtaining.'

Political inactivity, which results from CV, may degrade the quality of government. Parties must make an effort to convert potential supporters to their side and to mobilise their existent supporters to polling places when voting is voluntary. However, if voting is compulsory, parties do not need to mobilise their supporters to polling places though they would still try to convert potential supporters—particularly floating voters—to their side. This means that CV would lessen the burden on parties and would make parties less active. Furthermore, people would become less active and more passive in election campaigns and voting. This would result in less interest in politics among the people and would further result in reduced initiative and less enterprise in politics. Moreover, if very high turnout is granted, the level of uncertainty about the electoral outcome would diminish and the number of marginal (or uncertain) seats would decrease. Therefore, parties would be involved in active election campaign only in a limited number of marginal (or uncertain) seats and would safely leave aside many other seats. As a result, the function of parties as liaison between the people and politics would wither. This would, in total, degrade the quality of government (Hughes 1966, 93-95; Jones 1954, 35; JSCEM 1997, 24; Minchin 1996a, 246).

The degeneration of election campaign/manifesto would result from the adoption of CV. If parties are rational and tactical, they will identify target electors and concentrate their campaign resources on them in order to make most of their precious resources. If voting is compulsory, their target electors would be floating voters in a very limited number of marginal (or uncertain) seats. These target electors under CV would generally be more volatile in their voting habits than the target electors under VV.

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Even when voting is voluntary, parties have a motivation to make easy promises in competition with their rival party. However, when voting is compulsory, parties would have a strong motivation to make easier promises in order to appeal to these more volatile target electors. This would damage the coherence and effectiveness of their policy plan (or their manifesto) (see Minchin 1996a, 247; Rydon and Goot 1989, 8).

The difficulty and cost of enforcement is a disadvantage of CV. A serious investigation into abstainers after each election would incur substantial administrative resources (Hughes 1966, 83). Although CV is effectively administered in several countries (e.g. Australia and Belgium), it is not in other countries (see Table 2.1). If a large number of electors did not turn out, it would be almost impossible to seriously investigate abstainers and apply sanctions on offenders (Hughes 1966, 83). Governmental resources should be allocated so as to maximise the well-being of the people, but there is doubt whether CV would have a sufficient, positive effect on the well-being of the people to justify its introduction and its expenses. Furthermore, if the necessary resources for serious administration of CV are unavailable, CV would eventually become lenient. In this case, the effectiveness of CV as a solution to low turnout would be limited (Abraham 1955, 16-20).26

The danger of extremism is arguably a disadvantage of CV. There are two types of possible danger. First, minor parties (inclusive of extreme parties) might gain more votes under CV than they do under VV (Ackaert and de Winter 1996, 8). Extreme electors know that their votes to extreme parties are highly likely to be wasted, and so they are more likely to abstain under VV. However, if voting is compulsory, many of these extreme electors would vote for extreme parties preferable for them. This would give extreme parties a better chance to gain seats in parliament and these parties might even grow to a 'relevant party,' which major parties cannot simply ignore.27 If so, they could have a substantial influence on politics. Second, most abstainers under VV may not be extremists, but they might be less interested and less informed about politics. These people would be relatively vulnerable to demagogy and extreme ideas. Therefore,

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26 Also see an argument addressed by an Australian parliamentarian: Duncan-Hughes MP (Commonwealth Parliamentary Debates. House of Representatives. 24 July 1924, 2450).

27 About the definition of relevant parties, see Sartori 1976, 121-25; Sartori 2000.
it is risky to bring these electors to polling places; acute extremism could prevail among them and could overwhelm normal politics in some circumstances, such as extremely difficult social/economic situations. However, the danger of extremism is not likely to be a major concern for established democracies.

Overall assessment of CV. It is necessary to assess the overall usefulness of CV in order to consider whether CV should be introduced. Even if there is an undeniable advantage for CV, this does not immediately justify its introduction. Therefore, it is unnecessary to deny all possible advantages in order to argue that CV should not be introduced. This is *vice versa* about possible disadvantages of CV. Therefore, the introduction of CV should be judged by taking into account all major advantages and disadvantages and by making an overall assessment of CV. This is what Robson (1923, 576) argued to be the appropriate course of research on CV, although he and his contemporaries were unable to make this overall assessment because of the then methodological limitations.

Normative arguments concerning CV tend to have ended in deadlock between the two most highly-evaluated values in liberal democracies: freedom and democracy. While opponents of CV argue that CV is anti-liberal and so it should not be introduced, proponents of CV claim that CV is pro-democratic and so it should be adopted. Robson (1923, 576) even claimed that normative arguments were inappropriate for thinking about CV. However, rather than being discarded, normative arguments should be integrated into the cost-benefit analysis of CV in order to arrive at an overall assessment. Table 2.3 is based on Table 2.2, so that unimportant advantages and disadvantages are deleted and similar ones are grouped. This table can be used as a checklist of major advantages and disadvantages for overall assessment of CV. New post-war methodological developments in political science might have been useful in making an overall assessment of CV. However, CV was mostly neglected after World War II, and new scientific methods were not applied to CV before the 1980s.

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28 Lijphart (1997, 10) introduces this argument and then addresses his own counterargument to it.
Table 2.3: Checklist for Overall Assessment of CV

<table>
<thead>
<tr>
<th>(1) Advantages</th>
<th>(2) Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Correct representation</td>
<td>a. Restriction on freedom</td>
</tr>
<tr>
<td>b. Democratic-legitimacy</td>
<td>b. Degeneration of votes</td>
</tr>
<tr>
<td>e. Fulfilment of the civic-duty</td>
<td>c. Political inactivity</td>
</tr>
<tr>
<td>d. Reduction in electoral funds</td>
<td>d. Degeneration of election campaign</td>
</tr>
<tr>
<td>e. Educational-effect</td>
<td>e. Difficulty and cost of enforcement</td>
</tr>
<tr>
<td>f. Safeguard against extremism</td>
<td>f. Danger of extremism</td>
</tr>
</tbody>
</table>

Note: Unimportant items are deleted. Similar items are grouped.

Recent Applications of Scientific Methods to CV

After World War II, scientific methods such as data analysis and rational choice theory have made major contribution to the advancement of political studies. However, CV was mostly a neglected research topic, and these new scientific methods were not applied to CV. Meanwhile, industrial democracies have been experiencing a long-term decline in turnout and the demand for effective solutions to the problem of turnout has become stronger. Against this background, some academic attention was paid to CV, resulting in several major findings. First, advanced data analysis verified its outstanding effectiveness in improving turnout. Second, scientific methods were, in the 1990s, combined with a value standard for the evaluation of the high turnout resulting from CV. The major findings from these recent developments are as follows.

In the 1980s, regression analysis started to be performed in order to assess the effectiveness of institutional devices (e.g. weekend voting, PR, postal voting and CV) in improving turnout. These analyses revealed the effectiveness of CV (i.e. 6-15 percentage-point increase) compared to other institutional devices (see Blais and Carty 1990, 176-77; Blais and Dobrzynska 1998, 246-47, 250; Franklin 2002, 158-60; R. Jackman 1987, 412, 416; R. Jackman and Miller 1995, 474, 476; Powell 1980, 9-10).29

Previous arguments on CV in this regard were anecdotal; by contrast, regression analysis provided scientific empirical evidence for the first time. However, there are still two major caveats in relation to the effectiveness of CV in improving turnout. First, any

29 Also see Hirczy 1994 for a case study of Austria.
solid theory about the effectiveness of CV in improving turnout has not yet been provided. This missing theory could be provided with rational choice theory. Second, the practical application of CV has not been sufficiently considered, and while CV has achieved high turnout in some countries (e.g. Australia and Belgium) it has not in others (see Table 2.1). This suggests that some conditions and adjustments are necessary for CV to effectively improve turnout.

Although regression analysis started providing empirical evidence that CV is highly effective in improving turnout, this finding in itself did not provide any evaluation about CV. In other words, while CV is an effective solution to low turnout, it was still unclear whether its introduction was desirable. However, as the next step, Lijphart (1997) evaluated the high turnout resulting from CV as a means to diminish unequal turnout between the privileged people and the less-privileged people and he evaluated it as a solution to the unequal influence on politics between these two groups. The previous studies examining the advantages and disadvantages of CV had been assertive or uncertain, but Lijphart (1997) gave a scientific explanation as to one of them (i.e. precise representation of the will of the people). His work was a breakthrough in this respect and drew great academic attention to CV.

Lijphart (1997) argued that less-privileged people are less likely to vote than privileged people. It should be noted that he combined scientific methods with a value standard (i.e. ‘democracy’ in this case). Without some value standard, it is impossible to evaluate the high turnout resulting from CV. Several other scholars have performed case studies on CV countries and verified this Lijphart’s theory of CV. Ackaert and de Winter (1996) performed data analysis and simulated the abolition of CV in Belgium.32 Mackerras and McAllister (1999) also simulated the abolition of CV in Australia.33 Both studies found that the turnout bias against the less-privileged people was insignificant in these CV countries but would have been significant if voting had been

30 Rational choice theorists have mostly neglected CV so far. Although several rational choice theorists (Crain 1995; Crain and Leonard 1993; O'Toole and Strobl 1995; Yeret 1995) have published a series of papers on the influence of CV over government spending, their argument was not about the effectiveness of CV in improving turnout. Jakee and Sun (2006) argued the policy impact of the high turnout resulting from CV, but their work was not about the effectiveness of CV in improving turnout, either.

31 McAllister (1986) performed regression analysis and predicted that the abolition of CV would result in lower turnout and would benefit the right-wing major party in Australia. His work can be regarded as a precedent for Lijphart 1997. However, McAllister did not evaluate his own finding with any value standard.

32 In relation to this paper, see de Winter and Ackaert 1998; Hooghe and Pelleriaux 1998.

33 In relation to this paper, see S. Jackman 1999a, 1999b.
voluntary.

However, this Lijphart theory of CV (Lijphart 1997) has not been persuasive enough for industrial democracies to introduce CV. Although the Lijphart theory of CV is a landmark study, three problems can be identified. First, Lijphart combined science with 'democracy' as a value standard for evaluating CV. However, democracy is not an intrinsic value but is a secondary value. In other words, CV might be democratic but this does not automatically guarantee that CV is desirable. Second, Lijphart did not consider the applicability of the theory to actual industrial democracies. Third, Lijphart provided a scientific explanation for the main advantage of CV (i.e. precise representation), but his study effectively left aside all the other advantages and disadvantages of CV. Lijphart (1997, 1) argued that the advantages of CV 'far outweigh the normative and practical objections to it.' However, he did not provide any evidence or theory to this remark, and this claim was nothing more than an assertion.

2.3. Conclusion

In order to lay the foundations of this thesis, this chapter first overviewed the practice of CV in the world and proposed an ideal type of CV, which is to be used for assessing its overall usefulness in the industrial democracies. For this ideal type of CV, a law provides that voting is a legal duty and prescribes a moderate fine for illegitimate abstention, and the government systematically imposes sanctions on offenders. Second, by reviewing the previous studies of CV, this chapter identified its gap in properly assessing the overall usefulness of CV. While the older studies were largely anecdotal and assertive, new methods began to be applied in the 1980s. First, regression analysis provided empirical evidence that CV is substantially effective in improving turnout. In the 1990s, scientific methods were combined with a value standard (i.e. democracy) to provide a scientific explanation of the main advantage of CV. However, despite recent substantial advancements, the previous studies of CV have not yet been persuasive enough for industrial democracies to introduce CV.

CV must be effective on two levels for it to be useful. First, CV must increase turnout. Second, the high turnout resulting from CV must improve the well-being of the people, otherwise CV would not ultimately be useful. Moreover, CV must be effective
on these two levels not only in theory but also in practice. Judging from these three viewpoints, there are five gaps in previous studies. First, the mechanism by which CV substantially improves turnout has not yet been revealed. Second, the necessary conditions for CV to effectively increase turnout in reality have not been identified. Third, the primary value (i.e. some human-oriented value) for assessing the usefulness of CV needs to be identified and should be used instead of 'democracy,' which has a secondary value and which Lijphart 1997 used. Fourth, the applicability of CV to actual industrial democracies under globally varying conditions has not been considered. Fifth, Lijphart (1997) scientifically evaluated the major advantage of CV but he effectively put aside all the other advantages and disadvantages of CV. In the following chapters, this thesis assesses the overall usefulness of CV by analysing these five gaps in previous studies. As the first step, the next chapter will build a model to explain the mechanism by which CV improves turnout.
PART II

The Effect on Turnout
CHAPTER 3
The Impact of Compulsory Voting upon Turnout

The mechanism by which CV improves turnout has not yet been clarified. Since the 1980s, regression analysis has provided statistical evidence that there is a positive relationship between CV and turnout. However, regression analysis in itself does not guarantee that this relationship is genuine. Moreover, even if there is a genuine relationship between them, regression analysis in itself does not explain why CV improves turnout. Nevertheless, so long as this relationship is genuine, it is possible to take advantage of CV to improve turnout in practice without knowing its underlying mechanism. However, it will still be meaningful to clarify its mechanism. In the real world, there would be some obstacles to the realisation of the full potential of CV for achieving high turnout. However, if its mechanism is clarified, it will become easier to identify these obstacles and will become easier to find ways to remove or control these obstacles in order to utilise the potential of CV for improving turnout more effectively.

In order to clarify the mechanism by which CV improves turnout, this chapter will formulate a theory of voting under CV by utilising rational choice theory. Rational choice theorists have developed the theory of voting under VV. This chapter will review this theory of voting and will then introduce CV as an additional condition in order to explain the mechanism by which CV improves turnout. This modified theory suggests that CV has the potential to achieve almost universal turnout. However, there is a significant gap between this theoretical consequence of CV and the empirical evidence of turnout improvement of 5-16 percentage points, which several regression analyses have attributed to CV since the 1980s (see 2.2 of Chapter 2). Therefore, this chapter will then try to identify the major conditions for CV to realise its theoretical potential for substantially improving turnout by analysing the practice of CV. This analysis suggests that real sanction and serious administration are, as Robson (1923, 571) argued, two major conditions for CV to achieve high turnout in practice.
3.1. The Mechanism of Compulsory Voting

While election is a collective action, voting itself is an individual action. Therefore, even if high turnout is desirable for a society, it will not be achieved unless individual electors are sufficiently motivated to vote. In other words, unless each individual elector estimates that the expected benefits from voting exceed the expected costs of voting, they will abstain and high turnout will not be achieved. Rational choice theorists have tried to explain voting/abstention from this viewpoint. This section will first review the theory of voting advanced by Downs 1957 as a baseline theory. Then, the section will review the theory of voting by Riker and Ordeshook 1968, which introduced a new term to the baseline theory in order to improve the explanatory power of the Downs theory of voting. However, this Riker-Ordeshook theory is about voting under VV. Therefore, this section will introduce another new term to this Riker-Ordeshook theory in order to formulate a theory of voting under CV. Finally, this section will formulate a theory of voting under inducement voting (IV), which can be regarded as a logical alternative to CV.

The Downs Theory of Voting under VV

Downs (1957) explained voting/abstention as a function of the cost and benefit for each individual elector. According to his theory, the cost consists of the cost of information and that of voting itself. An individual elector needs to bear some opportunity costs (i.e. time, effort and money) in order to collect and examine relevant information before deciding for which party or candidate the elector prefers to vote. Furthermore, the individual elector needs to pay some personal opportunity costs in order to actually vote at a polling place. If and only if the expected individual benefits from the act of voting exceed the expected individual costs, the person will vote. Downs’ theory is strictly based on the rational actor model, which assumes that individual electors are rational in trying to achieve their personal goals, and the emotional and altruistic aspects of human behaviour are carefully excluded from the scope of his theory. Although his theory successfully explained major aspects of the individual costs of the act of voting, it is clear that his theory failed in explaining the major individual benefits from the act of voting. As a result of this limitation, the vast majority of individual electors are unlikely to vote according to his theory, but this theoretical consequence is contrary to the reality
that many individual electors actually vote. This gap between his theory and the reality is sometimes called the ‘paradox of voting.’

Riker and Ordeshook (1968) formulated the Downs theory above as follows:

\[ R = pB - C \quad \text{(Model 1)} \]

- \( R \): the reward, in utiles, that an individual elector receives from their act of voting,
- \( B \): the differential benefit, in utiles, that an individual elector receives from the success of their more preferred candidate over their less preferred one,
- \( p \): \((0 \leq p \leq 1)\) the probability that an individual elector will, by voting, bring about the differential benefit \((B)\),
- \( C \): the cost to an individual elector of the act of voting.

If and only if the expected individual benefits from the act of voting \((pB)\) surpass the expected individual costs of the act of voting \((C)\) (i.e. if \( pB > C \), and so if \( R > 0 \)), the individual elector will vote. If the expected individual benefits from voting \((pB)\) fall below the expected individual costs \((C)\) (i.e. if \( pB < C \), and so if \( R < 0 \)), the individual elector will abstain. If the expected individual benefits \((pB)\) are the same as the expected individual costs \((C)\) (i.e. if \( pB = C \), and so if \( R = 0 \)), the individual elector will not find any difference between voting and abstention and so they may vote but may abstain.

Judging from this Model 1 above, it is possible to say that an increase in the differential benefit \((B)\) or the probability \((p)\) will improve the chance of the reward \((R)\) being positive (i.e. \( R > 0 \)). A decrease in the cost \((C)\) will also improve the chance of the reward \((R)\) being positive (i.e. \( R > 0 \)). However, it is very unlikely to happen that a single vote cast by an individual elector changes the outcome of the election, and so the probability \((p)\) is infinitesimal. Therefore, the expected benefit \((pB)\) is also infinitesimal. Although the cost \((C)\) may be insubstantial for most individual electors in industrial democracies (Aldrich 1993, 261-62; Niemi 1976, 115-16), it would still be more than infinitesimal. Therefore, the reward \((R)\) would be negative for most individual electors, and so most individual electors would not vote. Nevertheless, in most of the industrial democracies, the actual turnout is, in fact, far much more than the expected turnout from this Model 1. It is clear that there is a wide gap between the Downs theory of voting (i.e. Model 1) and the practice of voting.

**The Riker-Ordeshook Theory of Voting under VV**

In order to fill the gap between the expected turnout from the Downs theory and the
actual turnout, Riker and Ordeshook (1968, 25-28) introduced the $D$ term to Model 1 and formulated another model as follows:

$$R = pB - C + D \quad \text{(Model 2)}$$

$D$: the benefit, in utiles, that an individual elector receives independent of the individual contribution to the electoral outcome.

While the individual benefit ‘$B$’ is almost completely discounted by the infinitesimal probability ($p$) of their single vote having an influence on the electoral outcome, the individual benefit ‘$D$’ is independent of the electoral outcome and so the individual elector can always obtain it without any discount rate. It will be appropriate to understand that Riker and Ordeshook (1968) had recognised the limitation of conventional rational choice theory in explaining the expected individual benefits from the act of voting and so they introduced a new term ($D$), which is beyond the conventional rational choice theory, in order to fill the gap between the Downs theory (Model 1) and the reality.

Since Riker and Ordeshook (1968) introduced the $D$ term into the model of voting, three major hypotheses have been proposed about the content of the $D$ term (see Mueller 2003, 303-32). First, there is ‘a taste for voting’ hypothesis, which argues that voters obtain satisfaction from deciding for whom to vote, from going to the polling place and from affirming their political efficacy (Riker and Ordeshook 1968, 28). Another argument is the expressive voter hypothesis, which regards voting as an opportunity to express an opinion about a desirable outcome just like cheering at a football match (Brennan and Lomasky 1993; Brennan and Hamlin 1998, 150; Fiorina 1976). The third is the ethical voter hypothesis, which argues that individual electors have ethical preferences in addition to egoistic preferences (Goodin and Roberts 1975, 927). Although it seems to be difficult to identify the content of the $D$ term, there appears to be some individual benefit independent of the electoral outcome and it will be reasonable to adopt the $D$ term in the theory of voting.

However, it also seems to be clear that the level of such extra benefit from the act

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34 There are two other major explanations for filling this gap. One is the minimax regret hypothesis proposed by Ferejohn and Fiorina (1974, 1975). The other is one based on advanced game theory (Ledyard 1981, 1984; Palfrey and Rosenthal 1983, 1985). However, these two are not in the mainstream, and this thesis puts them aside.

35 Instead of introducing a new term, Tullock (1967, 110) described the same idea as a negative cost ($C$) though this description was very brief.
of voting \((D)\) largely varies between individual electors, and individual electors who do not have much extra benefit \((D)\) may fail to overcome the threshold of the cost of voting \((C)\) and may fail to vote. Judging from actual turnout, the number of such individual electors seems to be enormous in several industrial democracies. Moreover, if the value level of \('D'\) is largely a matter of political culture or political socialisation, it will not be easy to artificially improve \('D',\) for example, by means of civic education. Therefore, academic acquisition of the knowledge about the \(D\) term may not be ultimately useful in improving turnout. Provision of easy-voting devices may reduce the cost of voting \((C)\). However, this cost of voting \((C)\) is already small for most individual electors in industrial democracies (Aldrich 1993, 261-62; Niemi 1976, 115-16), and so the government's flexibility to introduce this measure is limited. Nevertheless, if it is, by electoral engineering, possible to give individual electors a substantial selective incentive to voting (or a sufficient selective disincentive to abstention), even the individual electors with little \('D'\) will overcome the threshold of the cost of voting \((C)\) and will vote.

**A Theory of Voting under CV**

The ideal type of CV, which the last chapter formulated, provides a legal sanction against abstention in order to give individual electors a disincentive to abstention. Therefore, in order to formulate a theory of voting under CV, the sanction against abstention \((S)\) will be introduced as a new term to Model 2 as follows:

\[
R = pB - C + D - S \quad \text{(Model 3)}
\]

\(S\): the sanction against abstention.

If an individual elector votes, they must bear the cost of voting \((C)\). However, if they abstain, they must incur the sanction against abstention \((S)\). In other words, the cost \((C)\) and the sanction \((S)\) are alternative to each other, and an individual elector cannot avoid both of them. If an individual elector votes, the reward that they receive will be as follows:

\[
R_{(voting)} = pB - C + D.
\]

However, if this individual elector abstains, the reward that they receive will be as follows:

\[
R_{(abstention)} = -S.
\]
In the case of Model 2 under VV, the reward for abstention is zero (i.e. \( R_{\text{abstention}} = 0 \)) and so the reward for voting must be positive (i.e. \( R_{\text{voting}} > 0 \)) for an individual elector to vote. However, in this Model 3 under CV, so long as the reward for voting is larger than the reward for abstention (i.e. \( R_{\text{voting}} > R_{\text{abstention}} \)), the reward for voting \( R_{\text{voting}} \) does not need to be positive. The formula of the reward for voting in Model 3 \( R_{\text{voting}} = pB - C + D \) is actually the same as that of Model 2 under VV. However, some of the electors who do not vote under VV would vote under CV because their reward for voting is below zero but is above the reward for abstention in Model 3. They are the potential new voters by the introduction of CV.

An individual elector will vote/turn-out when
\[
R_{\text{voting}} > R_{\text{abstention}},
\]
that is, when
\[
pB - C + D > -S.
\]
This formula can be transformed as follows:
\[
pB + D + S > C.
\]
Therefore, if the total of the expected benefit dependent on the electoral outcome \( pB \), the benefit independent of the electoral outcome \( D \) and the sanction \( S \) surpasses the cost of voting \( C \), the individual elector will vote.

So long as 'S > 0,' any level of sanction \( S \) will improve the chance of 'pB + D + S' being larger than 'C' to induce an individual elector to vote. Meanwhile, 'pB' is known to be infinitesimal.\(^{36}\) Moreover, the level of 'D' would be largely different between individual electors, and so 'D' might be very small for some electors. Nevertheless, if the significance of sanction against abstention \( S \) is larger than the cost of voting \( C \) as follows:
\[
S > C,
\]
then even individual electors with very small 'D' will vote. Both the sanction against abstention \( S \) and the cost of voting \( C \) are materialistic, and so the significance of these would not vary between individual electors as largely as that of 'D.' Therefore, it would not be extremely difficult to ensure that the level of significance of sanction against abstention \( S \) for most individual electors is larger than that of the cost of voting.

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\(^{36}\) Refer to the first footnote of this chapter for counter-arguments. However, even if 'pB' were not infinitesimal, it would not ruin this explanation as to CV of this section because 'pB + D' is still smaller than 'C' for many electors in industrial countries and they actually abstain under VV.
(C). The cost of voting (C) is usually assumed to be small for most individual electors in industrial democracies (Aldrich 1993, 261-62; Niemi 1976, 115-16), and so the sanction against abstention (S) would not need to be very large to make it larger than the cost of voting (C). For example, a moderate fine would be appropriate as a sanction against illegitimate abstainers.

Therefore, even a minor sanction against abstention (S) would easily surpass the cost of voting (C) and would entice even individual electors with very small ‘D’ to vote. This is because each individual elector would accept the cost of voting (C) and would avoid the sanction against abstention (S) in order to minimise their individual loss even if they cannot obtain a positive reward (R) from the act of voting. Therefore, by the adoption of CV, it would be possible to engineer the electoral system to effectively entice individual electors to make a contribution to the social benefit (if high turnout is actually desirable for the society) while they are pursuing their personal benefit (or trying to diminish their personal loss) in their intention. Introduction of CV will nullify the difference between election as a collective action and voting as an individual action in this respect.

A Logical Alternative to CV: A Theory of Voting under Inducement Voting (IV)

A logical alternative to CV will be inducement voting (IV), under which the government offers electors some material inducement to voting/turning-out (e.g. a monetary reward). A theory of voting under IV can be formulated as follows:

$$R = pB - C + D + I$$  \hspace{1cm} (Model 5)

$I$: the inducement to voting/turning-out.

By calculating the above formula, it is possible to reveal that IV is also effective in improving turnout. An individual elector will vote/turn-out when

$$R_{\text{voting}} > R_{\text{abstention}},$$

that is, when

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37 As Hasen (1996, 2169-72) argues, the CV law would serve much the same function as a social norm of voting for law-abiding electors. Therefore, an interaction term ($aD*S$) might need to be introduced for better explanation of voting under CV as follows: $R = pB - C + D - S + aD*S$ (Model 4: ‘$a$’ is a constant). Therefore, the condition for voting would be as follows: $pB + S + D + aD*S > C$. Also see Hirczy 2000, 45.

38 The definition of IV is given in 2.1 of Chapter 2.

39 Model 4 is given in the 4th footnote of this chapter.
This formula can be transformed as follows:

\[ pB + D + I > C. \]

Therefore, if the total of the expected benefit dependent on the electoral outcome \((pB)\), the benefit independent of the electoral outcome \((D)\) and the inducement to voting/turning-out \((I)\) surpasses the cost of voting \((C)\), an individual elector will vote/turn-out.

The value of \('D'\) will largely vary between individual electors. However, \('I'\) is materialistic and so its value would not vary as largely as that of \('D'\). If \('C'\) is very small for most individual electors, even small monetary inducements to voting/turning-out \((I)\) should substantially increase turnout. However, IV might not be as effective in improving turnout as CV, which can appeal to the law-abiding mentality of individual electors in addition to their material interest (see Model 4 in the 4th footnote of this chapter). Nevertheless, IV does not have the problem of the infringement of freedom, which is regarded as a major disadvantage of CV (see 2.2 of Chapter 2). Therefore, IV could be a useful alternative to CV. IV may look incongruous at first sight, but offers of similar inducements are already a part of our daily life. For example, respondents to surveys are often provided with some inducement. In Japan, magazines offer prizes in order to get feedback from their readers. However, IV has not been largely argued, and its implementation for improving turnout has been new and rare in modern democracies (see Balinov 2006; Birch 2007, 19-20; Ellis et al. 2006, 23-24; Gratschew 2006; Hasen 1996, 2136; Hasen 2000; Hicks 2002; Keaney and Rogers 2006, 24).

Moreover, CV and IV do not need to be regarded as alternatives to each other, and they can actually be combined. It is technically possible for the government to offer electors an inducement to voting/turning-out and to impose sanctions on illegitimate abstainers. In this case, the theory of voting under CV and IV can be formulated as follows:

\[ R = pB - C + D - S + I \]  \hspace{1em} (Model 6).

The combined usage of CV and IV will be more effective in achieving high turnout than the sole usage of CV or IV. Some people may think that voting and abstention are two sides of the same coin, and so it does not make sense to provide electors with both incentives to vote/turn-out and disincentives to abstain. However, actual electors would
be more complex than the electors that this section has assumed. Therefore, IV could be effective on some of the electors on whom CV is not very effective, and *vice versa*. Therefore, the combination of them would be more effective in achieving high turnout than the intensification of only CV or IV. However, because the topic of this thesis is CV only, this thesis will put aside IV and will concentrate on CV.

### 3.2. The Effectiveness of Compulsory Voting in Practice

With respect to turnout, there is a wide gap between the theoretical consequences of CV and the empirical evidence. The theory of voting under CV (Model 3), which the last section formulated, suggests that CV will achieve almost universal turnout. Meanwhile, the empirical evidence shows modest outcomes as follows. First, regression analysis has attributed between 6 and 15 percentage-point turnout improvement to CV controlling for other conditions. This figure is much larger than those achieved by other institutional devices (see 1.2 of Chapter 1). Second, a comparison of CVs and turnouts around the world (Table 2.1) shows that turnout is not very high in all CV countries but it varies significantly among them.\(^40\) However, this wide gap between the theoretical consequence of CV and the empirical evidence does not necessarily mean that the theory contradicts the practice. While the CV in this theory is an ideal one operating within an ideal environment, the CVs from which the empirical evidence is derived are a variety of real ones in a variety of real environments. Therefore, the existence of some discrepancy between the theoretical consequence of CV and the empirical evidence is simply normal. However, there remains a concern over the reason for this wide gap.

Robson (1923, 571) argued that serious administration is a necessary condition for CV to effectively improve turnout. Although he did not mention the type and severity of the sanction that should be applied, the legal provision of real sanction can be regarded as a precondition of his argument. This Robson hypothesis that real sanction and serious administration are necessary for achieving high turnout is useful in explaining the wide gap between the theoretical consequence of CV and the empirical

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\(^{40}\) Average=77.3%, SD=14.4, N=26; Max=95.5%, Min=43.6%.
In the theory of voting under CV (Model 3 in 3.1 of this chapter), each individual elector is assumed to estimate that the sanction against abstention ($S$) is real and is unavoidable if they abstain. Meanwhile, the cost of voting ($C$) is small for the vast majority of individual electors. Therefore, almost all of them will find that the sanction ($S$) is more significant than the cost of voting ($C$), and so they will turn out to vote at the election. As a result, the expected turnout under CV is extremely high in this theory. Real sanction and serious administration are implicit preconditions of this theory of voting under CV.

However, if real sanction and serious administration are not provided, CV may fail to achieve high turnout. If the sanction does not exist or is trivial, the significance of sanction ($S$) may fall short of the cost of voting ($C$) for many individual electors and the CV system might not substantially increase turnout. Otherwise, if the sanction is real but the administration of CV is not serious, the sanction ($S$) will be discounted by the probability of the actual imposition of sanction and the expected sanction may fall short of the cost of voting ($C$) for many individual electors. In this case, turnout will not dramatically increase by the adoption of CV. In practice, the type and severity of sanction varies considerably among CV countries as does the seriousness of its administration (see Table 2.1). Therefore, it is natural that turnout among CV countries also varies substantially. Consequently, the Robson hypothesis is theoretically plausible as an explanation about the gap between the theoretical consequence of CV and the empirical evidence, and this hypothesis is consistent with the theory of voting under CV even when several conditions for this theory are modified. As the next step, this section will examine whether this Robson hypothesis is also consistent with the practice of CV by carrying out two tests as follows.

**Test 1: Bar Chart Test**
The strictness of CV should have a positive relationship with turnout. There are two types of strictness about CV. One is the strictness of sanction arrangement against abstention, and the other is the strictness of the administration of CV. On the one hand, it is difficult to compare the strictness of sanction arrangement between different

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41 Robson posed his argument as an observation. However, this section accepts it as a hypothesis and tests it on the reality.

systems (e.g. fine, imprisonment and disenfranchisement). Moreover, several countries (e.g. Belgium) combine two or more types of sanctions. As a result, it is difficult to make overall comparisons of the level of strictness between such different sanction regimes. On the other hand, it is also difficult to properly estimate and compare the level of strictness about the administration of CV across the world. However, Gratschew (2002) classified CV administrations into three levels of enforcement (i.e. 'not enforced,' 'weak,' and 'strict'). An overview of Table 2.1 suggests that strictness about the administration of CV has a perceptible positive relationship with turnout. While CV countries with some sanction and strict administration are around the top of this table, CV countries with some sanction and weak administration are in the middle and CV countries without any sanction are at the bottom of the table.

In order to observe this tendency more systematically, this subsection will calculate the average turnout of each administration level of CV countries and will compare them with the average turnout of VV countries (see Figure 3.1 below). Figure 3.1 overall suggests that the Robson hypothesis is plausible in practice. The average turnout among countries that strictly administrate CV is 91.3%, which can be regarded as being very high by any standards. This figure is higher by 22.0 percentage points than the average turnout of 69.3% among VV countries. The average turnout among weak CV countries is 76.9%, and the existence of a penal code for abstainers in itself seems to be somewhat effective in improving turnout even if sanctions are rarely imposed. This might be caused by the fact that many individual electors overestimate the probability of the imposition of sanctions on them when they abstain. Otherwise, CV with real sanction in itself might stimulate the law-abiding mentality that most individual electors possess.\(^{43}\)

The average turnout of 63.9% among nominal CV countries is even lower than the average among VV countries, and this fact suggests that a mere legal declaration of the duty of voting/turning-out does not have any real, positive impact on turnout.

\(^{43}\) This is a probable advantage of CV over IV. For its theoretical description, see Model 4 in the 4th footnote of this chapter.
Moreover, the relationship between the enforcement level and turnout is mostly positive in Figure 3.1. However, the average turnout of nominal CV countries is a clear exception. It might look unreasonable that the average turnout of VV countries, which do not have any legal arrangement about the duty of voting/turning-out, is higher by 5.4 percentage points than that of nominal CV countries, which provide that voting/turning-out is a legal duty. If individual electors had some law-abiding mentality in a country, even nominal CV must have been effective in modestly improving turnout. However, if most of the CV countries have introduced CV because they used to suffer low turnout but many of the VV countries have not adopted CV because they have enjoyed high turnout or have been satisfied with their current turnout,

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44 This relationship is not statistically significant at the 5% level (p=0.332).
this result is not necessarily unreasonable. Therefore, it will be reasonable to understand that the overview of this bar-chart is supportive of the Robson hypothesis in regard to serious administration.

Statistical analysis of Figure 3.1 supports this interpretation. Figure 3.1 is an observation of all democracies in the world, which can be called the 'population.' However, it is also possible to deal with these democracies as a 'sample' and make inferences about the underlying process of this 'population.' When the two means of the five categories in Figure 3.1 are combined and compared (see the t-test results below Figure 3.1), the test results indicate that the difference between means is statistically significant at the 5% level (or the 10% level in the case of small sample size) in most pairs. For example, the difference between the means of VV countries and strict CV countries is statistically significant at the 5% level (p<0.001). Therefore, there is sufficient evidence to say that strict CV countries are likely to achieve higher turnout than VV countries do. The results of these statistical tests provide strong evidence for the Robson hypothesis in regard to the strictness of enforcement of voting.

One caveat to this finding is that the bar-chart test does not control for other conditions. It is particularly a problem that this test does not control for the severity of the sanction arrangement, which is a precondition for the administration of CV to effectively improve turnout. As a result, while some of the CV countries with strict administration seriously impose a trivial sanction on illegitimate abstainers (e.g. Singapore), some CV countries with weak administration hardly ever impose their severe sanction on illegitimate abstainers (e.g. Greece). Because of this limitation, it is difficult to regard this bar-chart test result as conclusive evidence for the Robson hypothesis. However, it is still possible to say that this test result has improved its plausibility. Moreover, Table 2.1 suggests that the Robson hypothesis is plausible even if the severity of sanction is taken into consideration. For further verification of the Robson hypothesis, this section will move on to another test that is mostly free from the problem of uncontrolled conditions.

Test 2: Graph Test
Several industrial democracies have adopted and abolished CV. Chronological
observation on turnout in each of these countries will be useful in testing the plausibility of the Robson hypothesis in practice. If the Robson hypothesis is correct, the introduction of virtually ideal CV (i.e. CV with real sanction and serious administration) will dramatically increase turnout and this CV will continue achieving high turnout. However, its abolition should dramatically decrease turnout. Meanwhile, CVs far different from the ideal type would have a limited but positive effect on turnout but may fail to achieve high turnout. Because this test compares turnouts before and after the adoption and abolition of CV in the context of each country, this test can be regarded as being mostly free from the problem of uncontrolled other conditions, which Test 1 suffered. For this graph test, three industrial democracies (i.e. Australia, Belgium and the Netherlands) will be examined as follows.46

Turnout Change in Australia. Australia introduced CV for federal elections (and referendums) in 1924. The CV system of Australia is as follows.47 The current sanction against illegitimate abstention is an administrative fine of Aus$20 (≈US$16). The electoral authority investigates all abstainers after each election, and the authority requires them to pay a fine or provide a valid and sufficient reason for abstention. If the case is not settled in this administrative stage, the abstainer would be prosecuted and might be sentenced up to Aus$50 (≈US$41) plus court costs. This sanction can be regarded as being minor but still real. The administration of CV is exhaustive and serious. The government seriously tries to identify illegitimate abstainers and impose the penalty on them though such governmental investigation cannot be perfect in practice.48 Overall, the practice of CV in Australia is very close to the ideal type of CV. As Figure 3.2 below shows, turnout fluctuated between 50% and 80% under VV before 1924. The adoption of CV in 1924 dramatically improved turnout in Australia (by around 30 percentage points), and very high turnout (at around 95% of the registered electors) has been continually achieved since then.

46 The precise history of CV in Greece and Italy is difficult to identify, and so these two countries are not examined in this subsection. Moreover, Austria and Switzerland are not examined because their CV was/is not nationwide. However, see Hirczy 1994 for a case study of Austria.
48 After the 1996 election, 29,154 electors paid Aus$20 administrative penalty and 6,027 cases were dealt with by courts (as of 31 July 2001). After the 1998 election, 40,396 electors paid Aus$20 administrative penalty and 6,246 cases were dealt by courts (as of 31 July 2001). This information was provided by an official letter from the Australian Electoral Commission (AEC) dated 9 August 2001.
Turnout Change in Belgium. In 1893, Belgium adopted CV simultaneously with universal male suffrage modified by plural voting. The sanction against illegitimate abstention is aggravated by the repetition of offence. The sanction system is as follows (Ministry of the Interior, Belgium 2002).\(^4^9\) The first illegitimate abstention may be punished with a reprimand or a fine of €25 to 50 (≈US$34 to 68). Repetition of the offence leads to a fine of €50 to 125 (≈US$68 to 171). If the offence occurs at least four times in 15 years, the elector can be dropped from the electoral roll for 10 years and, during this period, they cannot get an appointment, a promotion or a decoration from the authorities. This sanction system can be assessed as a real one.

Meanwhile, the administration of CV is not exhaustive but is still real. The government randomly selects several districts after each election, and the investigation into abstainers in these districts is serious.\(^5^0\) The CV system is administrated as follows

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\(^{49}\) The reference provided the amount of fine in the former national currency of Belgium, and the amount of fine in Euro was provided by email correspondence with Mr Edwin Lefebre, Ministry of Home Affairs, Belgium (2 July 2002).

\(^{50}\) This information about the random selection was first provided by Ms Maria Gratschew, International IDEA, at the interview with her (19 April 2002), and it was later confirmed by email correspondence with Mr Edwin Lefebre, Ministry of Home Affairs, Belgium (14 October 2002).
(Ministry of the Interior, Belgium 2002). The public prosecutor makes a list of the electors who abstained and whose excuse is not accepted, and then the Prosecution Counsel decides which offences will be prosecuted. Abstainers have an opportunity to justify their abstention in the Magistrates’ court. However, if the case is once judged in court, further appeal is not possible.

The practice of CV in Belgium is some distance from the ideal type of CV, but it is still somewhat close to it. Figure 3.3 below indicates that the introduction of CV in 1893 improved turnout, and turnout has been mostly between 90-95% since this introduction. However, there are two points that should be noted. First, universal male suffrage modified by plural voting simultaneously introduced with CV was also a major electoral reform, and so the level of contribution of CV to turnout improvement is not clear. Second, in four elections after the adoption of CV in 1893, turnout improved even more to around 90-95%. This further improvement in turnout could have resulted from the introduction of another major electoral reform (i.e. PR) in 1899. Moreover, turnout in Belgium is generally a little lower than that of Australia, and it fluctuates more widely than that of Australia. However, taking into consideration the fact that the Belgian CV has some more distance from the ideal type of CV compared to the Australian one, this difference in turnout between these two CV countries can be regarded as another piece of evidence to support the Robson hypothesis.

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51 According to Ackaert and de Winter (1996, 2), 153 people were dealt with by courts and 138 people among them were convicted between 1987 and 1990.
Turnout Change in the Netherlands. In 1917, the Netherlands adopted CV simultaneously with universal male suffrage and PR. The sanction against illegitimate abstention was minor but real. In regard to the sanction system, an illegitimate abstainer might have been fined up to three guilders and, if they had been guilty of the same offence within a previous term of two years, the fine might have been raised to up to ten guilders, but a reprimand might have been substituted for the fine until 1925 (Tingsten 1937, 193). The administration of CV was as follows (Tingsten 1937, 192-93). The electoral law provided that every elector who did not vote at the election was, if possible, to be requested by the mayor of their commune within one month after the election to provide a written or oral explanation. If the mayor found that a valid excuse for abstention had been given, the case was settled. However, if not, the case was to be brought to court. This administration of CV was actually exercised to some degree, and

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52 According to the International Institute of Social History <www.iisg.nl/hpw/calculate.php> (25 August 2007), three guilders in 1937 had the same purchasing power as €24.57 (=US$33) in 2006 and ten guilders in 1937 had the same purchasing power as €81.90 (=US$112) in 2006.
so the administration of CV can be assumed to have been serious to some extent.53

Therefore, CV in the Netherlands is supposed to have been close to the ideal type of CV when it was in operation. However, the Netherlands abolished CV in 1970. Figure 3.4 below suggests that CV was effective in achieving high turnout in the Netherlands. Turnout surged after CV was introduced in 1917, and it plunged after it was abolished in 1970. Turnout was mostly around 95% during CV was in operation. However, it should be noted that CV was not the only major electoral reform in 1917, and so the level of its contribution to turnout is not necessarily clear. Nevertheless, it is still reasonable to argue that the adoption of CV with real sanctions and serious administration substantially improved turnout and its abolition substantially decreased turnout in the Netherlands.

Figure 3.4: Turnout in the Netherlands

[Graph showing turnout percentages over time]

Notes:
1. CV was adopted in 1917 and was abolished in 1970.
2. Reg: the registered electors.


53 More than 30 years have passed since the abolition of CV in 1970, and so it is difficulty to identify the level of administration of CV before its abolition. However, according to Tingsten (1937, 194), 1,084 people were penalised for abstention in 1922; the corresponding number was 10,545 in 1925 and that was 6,392 in 1927. According to Irwin (1974, 294), 577 abstainers were brought to court in 1966.
Judging from the cases of Australia, Belgium and the Netherlands, it seems that CV with real sanctions and serious administration is effective in achieving high turnout. This graph test is mostly free from the problems of uncontrolled other conditions because of the chronological comparison of turnout in each country. However, these three cases do not constitute decisive evidence for the Robson hypothesis. First, there is a possibility that several countries with virtually ideal CV failed to achieve high turnout in the past, and then they might have abandoned strict administration or abolished CV altogether in order to stop consuming resources on an unworkable CV system. In other words, it might be as a result of natural selection that all the industrial democracies with virtually ideal CV appear to have achieved high turnout. Second, the sample size of this graph test is merely three (i.e. Australia, Belgium and the Netherlands), and so this test has the problem of small sample size. Therefore, its generalisation to other industrial democracies is problematic. Nevertheless, it is reasonable to argue that this graph-test has further improved the plausibility of the Robson hypothesis.

3.3. Conclusion

In theory, CV is expected to achieve almost universal turnout. However, the empirical evidence indicates moderate outcomes, and there is a wide gap between the theoretical consequences of CV and the empirical evidence. First, regression analyses have attributed a 6-15 percentage-point turnout improvement to CV, controlling for other conditions. Second, a comparison of CVs and turnouts across the world (see Table 2.1) suggests that turnout is not necessarily high in all CV countries and turnout largely varies among them. However, the Robson hypothesis (Robson 1923, 571) is useful in explaining this gap between the theoretical consequence of CV and the empirical evidence. This Robson hypothesis argues that real sanction and serious administration are necessary conditions for CV to effectively improve turnout. International comparisons of CVs across the world (Figure 3.1) and chronological comparisons of

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54 In order to deny this possibility, extensive research on past/present CV countries is necessary. However, its conduct will be technically difficult and will be extremely costly.
turnouts in several CV countries (Figures 3.2, 3.3 and 3.4) support the Robson hypothesis though these tests have several limitations. Therefore, it will be reasonable to understand that CV will achieve high turnout upon the condition that real sanction and serious administration are put in place.

The theory of voting under CV is free from a concern over the 'paradox of voting' posed by Downs 1957. In order to resolve this 'paradox' in the theory of voting under VV, scholars have tried to identify the content of the $D$ term (i.e. the benefit that an individual elector receives independent of the individual contribution to the electoral outcome), which Riker and Ordeshook (1968, 25-28) added to the Downs theory of voting. The content of this $D$ term is still unclear, and its clarification remains a challenge. However, upon the condition that CV with real sanction is adopted and the government seriously administers CV, almost all electors will vote and high turnout will be achieved. If high turnout resulting from CV is ensured, political students will cease to worry about abstention. As a result, they will stop trying to clarify the content of the $D$ term and will stop trying to utilise their knowledge of the $D$ term to improve turnout. Therefore, the prevalence of CV with real sanction and serious administration in the world will make high turnout common and will eliminate this research topic in political studies.

Moreover, CV will diminish the significance of the 'dilemma of collective action' addressed by Olson [1965] 1971. Interest groups (i.e. organised interests) are privileged in influencing politics to protect and advance their minority interests. Under VV, one of their major advantages is the mobilisation of their group members to attend polling places. Interest groups can increase the turnout of their group members by decreasing the value of the cost of voting ($C$) and by improving the value of the $D$ term (e.g. by means of providing information about affiliated candidates and parties). This mobilisation power is particularly advantageous for interest groups when general turnout is low. However, high turnout resulting from CV will deprive them of this advantage, though they will retain the other advantages, such as guidance of their group members to vote to affiliated parties and candidates, mobilisation of election campaigners, and donation of election funds.

55 It should be noted that the number of industrial democracies in itself is limited, and the number of CV countries among them is even more limited. Therefore, from the beginning, it is difficult to obtain decisive empirical evidence for the theory of voting under CV and the Robson hypothesis.
However, CV will surely achieve high turnout only when the necessary conditions are satisfied, and so it is important to meet these conditions to utilise the full potential of CV for achieving high turnout. Real sanctions and serious administration are two major conditions for CV to effectively improve turnout according to the Robson hypothesis, and this chapter found the Robson hypothesis plausible. The next chapter will consider the necessary conditions for CV to realise its potential for improving turnout more comprehensively, and it will propose the necessary adjustments to meet these conditions.
CHAPTER 4
Necessary Conditions and Adjustments

This chapter aims at identifying the conditions and necessary adjustments for CV to be effective in substantially improving turnout. CV with real sanction and serious administration will be effective in this regard, as Robson (1923, 571) argued and the last chapter tested the proposition by using several methods. CV with real sanction and serious administration has achieved very high turnout in several countries, most notably Australia and Belgium. However, the legal provision of real sanction against abstention has not necessarily been the norm among the countries that operate the system (see Table 2.1). Moreover, some countries have failed to seriously administrate their CV with real sanction (e.g. Greece). Furthermore, several countries have even abolished their CV with real sanction and serious administration in the past (e.g. the Netherlands in 1970). This suggests that CV with real sanction and serious administration requires some conditions in order to function effectively and continuously. This chapter will identify some of these conditions and will discuss the necessary political adjustments for satisfying these conditions.

This chapter will examine ‘adoption,’ ‘administration’ and ‘persistence’ of CV with real sanction. This chapter regards these as necessary conditions for CV to work effectively for three reasons as follows. First, unless CV with real sanction is adopted, it cannot be effective in achieving high turnout. Second, unless this CV is rigorously administered, high turnout is not likely to be achieved. Third, unless CV with real sanction and serious administration is sustainable, CV will not continue being effective in achieving high turnout. This chapter finds that it is difficult to meet the first condition, but most industrial democracies have the capability to satisfy the other two conditions.

4.1. Adoption of Compulsory Voting

CV with real sanction must first get adopted in order for the system to be effective in improving turnout. If it is verified that CV is ultimately useful for the people in a democracy, CV will get adopted in this country. However, the adoption of CV would be
difficult for industrial democracies in practice. This is because, in addition to the technical difficulty in clarifying the usefulness of CV, there are three major psychological barriers to the adoption of CV, namely (1) popular commitment to freedom, (2) path dependence of parliamentarians, and (3) that of electors. First, freedom is highly respected in industrial democracies. CV is surely a restriction on the freedom (or the choice) not to vote. Therefore, popular commitment to freedom is a barrier to the adoption of CV. Second, once a system is adopted, it will not be replaced by another system unless the alternative has a clear and significant advantage over the current one. This is because the switching cost is usually high, and it results in path dependence as a barrier to the adoption of new systems like CV. Third, people are not substantially interested in politics. Moreover, CV is an imposition of the legal duty to vote on electors. People do not like duties, and they tend to show negative reaction against new duties so this too represents a barrier to the adoption of CV. This section will consider these three psychological barriers to the adoption of CV and will try to find out necessary adjustments to lower each barrier.

**Popular Commitment to Freedom**

Although utility is a common value for human-beings, freedom and democracy are highly evaluated in industrial democracies. Therefore, even if people recognise that CV is useful from the viewpoint of utility, they may still think that the freedom not to vote should be preserved. Electors have to go to polling places under CV, and so CV represents a restriction on their physical freedom. Moreover, some people may regard the freedom not to vote as a derivative from the freedom of voting like that the freedom not to express is derived from the freedom of expression (JSCEM 1997, xix, 26; Minchin 1996a, 245; Rydon and Goot 1989, 7). In this context, CV is contrary to liberalism though the type and level of this contradiction is a matter of argument (see 2.2 of Chapter 2 for more arguments and references). Furthermore, if the freedom not to vote is an inalienable right of citizens, CV will clash with this inalienable right and so the cost-benefit analysis of CV will be simply unacceptable. If it is allowed to restrict the freedom not to vote but this freedom is highly valued, the cost-benefit analysis of CV will be acceptable but the total expected benefits from CV will have little chance to exceed the total expected costs of CV. Accordingly, the popular commitment to liberal values has critical influence on the adoption of CV.
The level of popular commitment to freedom would vary widely across the industrial democracies. Industrial democracies with fundamental faith in freedom will be more reluctant to adopt CV than ones with moderate ideas about freedom. In reverse, liberal democracies with moderate ideas about freedom should be relatively flexible about controlling the level of freedom for practical purposes. Some scholars have regarded utilitarianism as the leading political principle of Australia, and they have used it to explain why Australia has been flexible enough to restrict the freedom not to vote and to employ CV while the USA has not, despite the fact that both countries share a British colonial heritage (Collins 1985, 150-52; Hancock 1930, 61; Hartz 1964, chap. 1; Mackerras and McAllister 1999, 231). According to a survey of the 2001 Australian election (Bean, Gow and McAllister 2002), people who respect freedom are more likely to support CV at the 5% significance level in Australia (Table 4.1 below). According to a survey of the 2001 Australian election (Bean, Gow and McAllister 2002), people who respect freedom are more likely to support CV at the 5% significance level in Australia (Table 4.1 below). According to a survey of the 2001 Australian election (Bean, Gow and McAllister 2002), people who respect freedom are more likely to support CV at the 5% significance level in Australia (Table 4.1 below). Accordingly, it can be argued that Australian people generally do not perceive CV seriously undermining liberal values. However, this tendency is not likely to be shared by all the other industrial democracies. For example, CV might be strongly opposed in the USA because of their strong commitment to freedom (Colantuono 1987, 1503; Hasen 1996, 2176-78).

<table>
<thead>
<tr>
<th>Respect for Individual Freedom</th>
<th>Much (%)</th>
<th>Some (%)</th>
<th>Not much (%)</th>
<th>No respect (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Favour CV</td>
<td>52</td>
<td>46</td>
<td>46</td>
<td>38</td>
<td>47</td>
</tr>
<tr>
<td>Favour CV</td>
<td>23</td>
<td>24</td>
<td>21</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Favour VV</td>
<td>15</td>
<td>18</td>
<td>17</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Strongly Favour VV</td>
<td>10</td>
<td>12</td>
<td>16</td>
<td>42</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>(n)</td>
<td>(446)</td>
<td>(1,057)</td>
<td>(383)</td>
<td>(60)</td>
<td>(1,946)</td>
</tr>
</tbody>
</table>

*a=0.05, p<0.001, G=0.113

Source: 2001 Australian Election Study (Bean, Gow and McAllister 2002).

All industrial democracies share some respect for freedom, thereby representing a barrier to the adoption of CV in any industrial democracy. We would expect this barrier to be relatively high in some industrial democracies, but relatively low in others.

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56 The author visited the Australian National University (ANU) and gained access to opinion survey data useful for this thesis because of his official status at the ANU. However, he has not had access to the 2004 Australian Election Study and the 2004 Australian Candidate Study because these were not yet available when he left the ANU. This means that these latest survey data are not used for this thesis.
Nevertheless, utility is a common value for human beings, and so utility should be consciously or unconsciously evaluated in any country. Therefore, if CV is useful for the people from the viewpoint of utility and this is clarified, it will become easier for industrial democracies to overcome this barrier. However, it is difficult to verify the usefulness of CV and so it is difficult to overcome this barrier.

Path Dependence of Parliamentarians
Industrial democracies under VV are unlikely to adopt CV because they do not have CV at present. Several industrial democracies introduced CV with real sanction in the early years of mass democracy (e.g. Belgium in 1893 and Australia in 1924), and these countries have achieved very high turnouts since then. Meanwhile, most of the other industrial democracies did not adopt CV at that critical juncture, and they already have a long experience in mass democracy under VV (e.g. the USA, the UK and France). This fact in itself seems to make it difficult for these countries to adopt CV. In other words, the switch from VV to CV is costly for parliamentarians and electors, and so this switch is unlikely to occur. This is because all the political stakeholders are already committed to VV. Since the end of World War II, many of these countries have experienced a long-term decline in turnout, but CV as the most straightforward and potentially most effective solution to low turnout has been ignored until recently (but see Chapter 2 for new academic development in the 1980s and 1990s).

This path dependence (or lock-in) rests on parliamentarians and electors. First, the people who are in a position to reform the electoral system are usually those who benefit from the current system, and so any major reform is unlikely to occur (Reynolds 2000, 62). In a representative democracy, parliamentarians have the legislative power to initiate the electoral system reform, but they are ones who have been successful under the current electoral system (i.e. the current set of electoral rules) inclusive of VV. However, under CV (or a new set of electoral rules inclusive of CV), they may be replaced by other people who have been less successful under the current system but are possibly more successful under the new system. As such, the status quo of the electoral system is the safest and best choice for incumbent parliamentarians (Dunleavy and Margetts 1995, 20; Margetts and Dunleavy 2002, 7).

However, if one of the two major parties under a two-party system is likely to out-manoeuvre the other major party by switching from VV to CV, this party would
have a collective motivation to seek the introduction of CV. On the other hand, the other major party will try to block its adoption. However, the reality would be more complex than this simple proposition implies. Although CV might be desirable for the collective benefit of one of the two major parties, its parliamentary organisation consists of individual parliamentarians and each parliamentarian should have substantial concern for their own individual electoral benefit. Some of the parliamentarians may still press their case for CV for the collective benefit of their party. However, their proposal for CV is not likely to be popular among their party colleagues in parliament. Even if CV is raised as an issue, this major party will be divided over this issue. Meanwhile, the other major party will be able to achieve unanimous opposition to CV because their party benefit and their individual benefit has the same orientation.

Parliamentarians are also human, and it is understandable that they have much concern on their own interests. However, it would be difficult for them to distinguish their egoistic interests from their moral interests in their mind. In general, individual parliamentarians would be reluctant to seriously consider any major electoral reform. When they have to consider any major electoral reform, parliamentarians would feel comfortable about identifying its disadvantages and would tend to overestimate them. On the contrary, they would feel uncomfortable about finding its advantages, and they would tend to overlook or underestimate them. As a result, they would tend to conclude that its total expected costs exceed its total expected benefits and so the major electoral reform should not be implemented in the best interests of the people. This avoidance of electoral reform may, in reality, meet the best interests of their own rather than those of the people, and this tendency among parliamentarians will also be the case with the introduction of CV.

**Path Dependence of Electors**

Negligence and idleness among electors should be another cause of path dependence (or lock-in). Because of the search and information cost, it is not cost-effective for individuals to try to understand everything related to their life. Therefore, they would not pay much attention to most political issues unless they are strongly dissatisfied with them or they have strong necessity for them. This energy-saving attitude is rational. Moreover, this inactive and subject mentality has an advantage of giving stability to political systems inclusive of electoral systems (Almond and Verba [1963] 1989, 30,
339-41). However, this inactive mental tendency is surely an obstacle to any major system reform in a democracy.

Furthermore, people tend to dislike duties and burdens—particularly new ones—and so the introduction of new duties is likely to provoke an initial reaction against them. CV is an imposition of the legal duty to vote on electors, and so electors may resist its introduction. Although parliamentarians are in a position to reform the electoral system, they have to seek votes from electors at the election and, as a result, parliamentarians tend to avoid provoking electors (Schumpeter [1976] 1996, 269; Almond and Verba [1963] 1989, 342). Therefore, parliamentarians in the position to reform the electoral system would tend to refrain from introducing CV in this regard, too.

**Necessary Adjustments for the Adoption of CV**

As Irwin and van Holsteyn (2007, 1) argue, CV will not be introduced unless it is supported, or is at least tolerated, by electors. However, there are three major barriers to the introduction of CV: popular commitment to freedom, path dependence of parliamentarians and that of electors. These barriers are formidable, and the prospect of adopting CV seems to be slim in industrial democracies under VV at present.

Several attempts could be useful in lowering the barriers and in making the introduction relatively easier. First, if the usefulness of CV is recognised to be substantial, CV will have a better chance to get accepted by electors despite their commitment to liberal values and their inactive mentality. This is because utility is a common value no matter what other values the people embrace. Second, despite the path dependence of parliamentarians on VV, some parliamentarians may still try to raise CV as an issue for their party benefit. Their drive for the introduction of CV may provoke debate, and it may provide an opportunity for CV to gain wider recognition. Most of parliamentarians are likely to hesitate in implementing any major electoral reform in order to preserve their own best interests. However, if electors admire the usefulness of CV and eagerly seek it, parliamentarians will have a stronger motivation to respond to the preferences of electors and deliver CV in order to remain/become popular among electors and get re-elected (Schumpeter [1976] 1996, 269; Almond and
Verba [1963] 1989, 342; Farrell 2001, 181, 183-84). Third, although some negative reaction is expected for any new duty imposed on electors, popular understanding of the usefulness of CV would control the risk and level of their negative reaction.

4.2. Effective Administration

It is too optimistic to think that the adoption of CV with real sanction will automatically secure very high turnout. As Robson (1923, 571) argued and several analyses of the last chapter demonstrated, serious administration is a necessary condition for CV to assure high turnout. However, this serious administration should not be limited to the systematic investigation into abstainers and the rigorous imposition of sanctions on offenders. The goal of the administration of CV is the popular compliance with CV rather than the imposition of sanctions on offenders. In order to effectively achieve this goal, the government should provide facilities for easy voting, should exercise ‘soft power’ (i.e. public relations and civic education) and should only sparingly wield ‘hard power’ (i.e. imposition of sanctions). These three measures should be combined for the most effective achievement of popular compliance with CV (S. Jackman 2001, 16317). This section will consider these three administrative measures in more details as follows.

Easy-Voting Facilities

Somebody may think that CV transfers the burden of effort for turnout from the government to electors, and so CV would release the government from the need to provide substantial easy-voting facilities. Although this prediction looks plausible at first sight, further consideration will suggest otherwise (S. Jackman 2001, 16317). The easy-voting facilities that the government provides will include easy registration, easy access to polling places, easy voting methods and information campaigns for the purpose of reducing the cost of voting itself and the cost of information for each elector. The importance of the provision of easy-voting facilities was extensively argued in the Australian parliament when CV was adopted for a referendum scheduled in 1915, which

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57 Irwin and van Holsteyn 2007 is a draft version and is not for citation. However, a special permission was given for this.
was later cancelled.\textsuperscript{58}

The provision of easy-voting facilities will be more important for CV countries than for VV countries because of four reasons as follows.\textsuperscript{59} First, if voting is difficult and abstainers are sanctioned, CV will look to electors like a trap. Therefore, the government will need to reduce the burden imposed on electors. Second, the government of CV countries will have a practical necessity to ensure the ease of voting in order to contain the number of abstainers, whom the government has to deal with after each election, within a manageable size (Abraham 1955, 16-17; Hughes 1966, 83). Third, the government in CV countries has to make voting easy even for the least privileged electors in terms of electoral participation resources. Under VV, the government will set the target of their mobilisation effort at the electors who may vote by improving their voting environment, but the government may strategically neglect the electors who are very unlikely to vote for better allocation of precious administrative resources. Meanwhile, all electors must vote under CV and so voting must be easy for all electors inclusive of the least privileged. Fourth, even serious enforcement of CV with real sanction and serious administration will be unable to achieve 100\% turnout, and so the provision of easy-voting facilities will be useful in further improving turnout, which is the original purpose of the introduction of CV.

‘Soft Power’

If electors do not think that CV is legitimate, the system would not work effectively no matter how many easy-voting facilities the government provides and how systematically and enthusiastically the government wields ‘hard power.’ It is important therefore that CV is accepted in the minds of electors. In order to achieve this goal, the government should exercise ‘soft power.’\textsuperscript{60} More specifically, the government should inform the people about the necessity and usefulness of CV for the collective benefit of the people and should try to persuade them to comply with CV. This ‘soft power’ will be exercised in the form of public relations and civic education. Most of the industrial

\textsuperscript{58} Compulsory Voting Act 1915 (No. 36 of 1915). Refer to the debates made by Senator Millen (Commonwealth Parliamentary Debates. Senate. 25 August 1915, 6049) and Charlton MP (Commonwealth Parliamentary Debates. House of Representatives. 9 September 1915, 6842).

\textsuperscript{59} The second and third reasons are briefly expressed in AEC 2001.

\textsuperscript{60} For more explanation about ‘soft power’ and ‘hard power,’ see 1.3 of Chapter I.
democracies should be privileged in exercising 'soft power.' Law and order is already established in these countries, and most electors are law-abiding, at least, to some degree. Therefore, if CV is introduced as a legal system, then most will comply with it simply because it is a law (Hasen 1996, 2168, 2171).61

Australia represents a good example of this. The electoral authorities have made substantial efforts in fields of public relations and civic education (AEC 2005, 37-44; AEC 2006, 56-61, 77-96), and CV has been recognised to be legitimate by the vast majority of electors. According to a survey of the 2001 Australian election (Bean, Gow and McAllister 2002), 47% of the valid answers strongly supported CV, 23% supported it, 17% opposed it, and 13% strongly opposed it. If the two support levels and the two opposition levels are combined respectively, 70% of the valid cases supported CV and 30% of them opposed it (n=1,987). It will be possible to say that the vast majority of Australian people support CV. Moreover, considering the fact that 47% of valid answers strongly supported CV but only 13% of them strongly opposed it, it will be reasonable to say that the support for CV is not just vast but is also strong in Australia (also see Figure 4.1 in the next section for the long-term popular view towards CV in Australia).

'Hard Power'
Although 'hard power' is not the sole measure of achieving the popular compliance with CV, it is an essential one. Moreover, the exercise of 'hard power' is the face of CV as a legal system. Even if 'hard power' is rarely wielded, it will still be important to show that the government is serious about identifying illegitimate abstainers and is ready to impose sanctions on them. Exercise of 'hard power' should be regarded as the last resort in the whole process of administration of CV.

For effective achievement of popular compliance with CV, sanction needs to be systematically and seriously imposed on offenders, as Robson (1923, 571) argues. However, the serious exercise of 'hard power' for the administration of CV could be extremely costly in some countries (Hughes 1966, 83; Phillips 2001, 21-22; Gratschew 2002, 106; Gratschew 2004, 26), and it could exceed the resource capacity of the government. However, industrial democracies are privileged in two ways for achieving popular compliance with CV. First, law and order already exists and people are

61 For conditions of legitimacy for the electoral system and democratic institutions in general, see Reynolds 2000, 59; Reynolds,
generally law-abiding in most industrial democracies, and so it will be possible for the government to achieve the popular compliance with CV without consuming enormous resources. Second, industrial democracies are prosperous, and so the government has somewhat sufficient resources to implement the necessary administrative measures. In fact, empirical evidence suggests that high income OECD members with CV are more likely to strictly impose sanctions on offenders than other CV countries, and this relationship is statistically significant at the 10% level though the sample size is small (see Table 4.2 below).

Table 4.2: Industrial Democracies and Enforcement of CV

<table>
<thead>
<tr>
<th></th>
<th>High Income OECD</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strict Enforcement (n)</td>
<td>80% (4)</td>
<td>31% (4)</td>
<td>44% (8)</td>
</tr>
<tr>
<td>Weak Enforcement (n)</td>
<td>20% (1)</td>
<td>69% (9)</td>
<td>56% (10)</td>
</tr>
<tr>
<td>Total (n)</td>
<td>100% (5)</td>
<td>100% (13)</td>
<td>100% (18)</td>
</tr>
</tbody>
</table>

\(a=0.10, p=0.060, G=0.800\)

Notes:
1. High income OECD: (Strict Enforcement) Australia, Belgium, Switzerland, Luxemburg; (Weak Enforcement) Greece. Others: (Strict Enforcement) Cyprus, Nauru, Singapore, Uruguay; (Weak Enforcement) Argentina, Brazil, Chile, Ecuador, Fiji, Liechtenstein, Mexico, Peru, Turkey.
2. Although the sample size is small, column percentages are presented for reference.
Sources: Table 2.1; World Bank 2001, back cover.

Australia is a typical case of strict enforcement of CV. For achieving the popular compliance with CV, the level of sanction is also important in addition to serious administration of CV. As 3.1 of Chapter 3 argued, a moderate fine is appropriate as a sanction against abstention. In the case of Australia, the electoral authority, after each election, investigates all abstainers and tries to impose sanctions on all offenders. Moreover, in a leading court case of Australia, the judgement declared that the electoral law requires electors to actually vote and, if they do not have any idea whom to vote for, they should cast a randomly marked vote or an invalid vote. In effect, the judgement clarified the legal requirements of CV in Australia. Overall, the administration of CV in Australia is systematic and serious in regard to the use of 'hard power.' Turnout is consistently around 95% of the registered electors, and the electoral authority has effectively controlled the number of abstainers (see Figure 3.2).

Reilly and Ellis 2005, 11-12.

62 For this test, \(a=0.10\) is used because the sample size is small.
63 See 3.2 of Chapter 3 for more details of enforcement procedure and the number of electors who paid the fine.
On the other hand, Greece represents a typical case of weak enforcement of CV. The sanction against abstention is imprisonment (and imprisonment only), but this sanction has never been imposed on any abstainer.\textsuperscript{65} Turnout has recently been decreasing from 84.5\% of the registered electors in 1989 to 75.0\% of them in 2000 (see Pintor and Gratschew 2002, 136-37).\textsuperscript{66} Although the turnout is still high by international standards, it will be reasonable to argue that CV has not been very effective in sustaining high turnout in Greece. The major problem is that imprisonment appears to be an excessive sanction, and this makes it psychologically and politically difficult to impose any sanctions on offenders. Moreover, the Greek government would not have sufficient resources to systematically sanction offenders; the administrative cost of enforcement would be enormous for this serious sanction. Although the existence of CV in itself could pressure electors to vote, minor but real sanctions (e.g. a moderate fine) would be more useful to actually impose them and achieve high turnout than major and unwieldy sanctions (e.g. imprisonment).

**Necessary Adjustments for Effective Administration**

The goal of CV administration is to achieve public compliance with CV. In order to successfully achieve the goal, it will still be necessary for the government to sensibly combine three measures: the provision of easy-voting facilities, the exercise of ‘soft power’ and the use of ‘hard power.’ Although the second measure—‘soft power’—may sound peaceful and reasonable, the importance of the third measure—‘hard power’—should not be undervalued. The application of ‘hard power’ is the face of CV as a legal system, and the government would fail to achieve public compliance if it were disregarded by electors. It will also be important to allocate substantial administrative resources to the three administrative measures.

For serious application of CV, the sanction should be real but minor. The sanction should be systematically applied on offenders in order to avoid letting electors disregarding CV. Although the full administration of CV—as occurs in Australia—might be financially difficult for many countries, more economical versions like that of Belgium might be affordable. In Belgium, all abstainers are not investigated

\textsuperscript{65} According to IPU 2007, voting is compulsory in Greece until the age of 70 and failure to vote may result in a prison sentence of one month to one year, and a loss of the offender's post (however, no one has ever been prosecuted).

\textsuperscript{66} Turnout was 76.6\% of the registered electors at the 2004 election (Pintor and Gratschew 2002 [updated online version]).
after each election but only abstainers in randomly selected districts are prosecuted for
the best allocation of governmental resources. By this method, it would be possible to
substantially reduce the cost of using 'hard power' for the administration of CV. Despite
this cost-conscious exercise of 'hard power,' turnout has been at around the 90-95%
under CV in Belgium (see Figure 3.3).\textsuperscript{67} The sanction should also be minor in order to
avoid being unwieldy.

\section*{4.3. Persistence of Compulsory Voting}

Unless CV is sustained, it will not be continuously effective in achieving high turnout.
However, it will not be difficult to sustain CV for industrial democracies once it is
introduced. The reasons that make it difficult for CV to get adopted (see 4.1 of this
chapter) are, in reverse, the very reasons that make it difficult to get abolished. First,
popular commitment to democracy will work as a protector of CV. Liberalism and
democracy are core principles in industrial democracies. CV is anti-liberal, but CV is
pro-democratic in its nature (see 2.2 of Chapter 2 for arguments and references).
Arguments over the abolition of CV tend to reach a deadlock between liberalism and
democracy, so the normative arguments are not likely to reach a clear-cut conclusion
that CV should be abolished.

Second, the path dependence on CV will start to develop once it is introduced.
Parliamentarians are in a position to reform the electoral system in a parliamentary
democracy, but they are the very people who benefit from the current arrangements so
most parliamentarians will not want to implement any major electoral reform like the
abolition of CV (Reynolds 2000, 62). Because of the party disadvantage of CV, one of
the two major parties will have a motivation to abolish CV in a two-party system.
However, this party consists of individual parliamentarians who have a motivation to
keep CV for their individual benefit. Some members of this party might still pursue the
abolition of CV for their collective party benefit, but this party is likely to be divided
over its abolition while the parliamentarians in the other major party will unanimously
seek to keep it because their collective party benefit and individual benefit have the

\textsuperscript{67} For more details of the exercise of enforcement of voting in Belgium, see 3.2 of Chapter 3.
same orientation. Third, the prevalence of negligence and idleness among electors will give stability to CV once it is adopted and the initial confusion and reaction dissipate.

Australia has maintained CV since its introduction in 1924 despite persistent arguments against it and several attempts at abolition (Farrell and McAllister 2006, 138-40). Belgium has also sustained CV since its introduction in 1893 despite a substantial argument over its abolition during the 1990s (Pilet 2007, 6-12). However, it is also true that several industrial democracies have abolished CV. The Netherlands, which adopted CV in 1917, abolished it in 1970 (for the reasons of this abolition, see Gratschew 2004, 29). Italy abolished all sanctions against abstention in 1993 though the law still provides that voting is a duty (Gratschew 2004, 28). Several Swiss cantons used to have CV for national-level parliamentary elections, but there remains only one CV canton (i.e. Schaffhausen) at present (Gratschew 2004, 29). In Austria, provinces were entitled to make voting compulsory for national-level parliamentary elections and several provinces had utilised this system, but this CV system was abolished altogether in 1992 (Federal Ministry of Interior, Austria 2007).68 These facts suggest that some maintenance will be necessary for CV to continue existing. This section will examine the case of Australia in order to learn lessons from it. Then, this section will try to identify necessary adjustments to sustain CV.

Argument over the Abolition of CV in Australia during the 1990s
As already noted, Australia has retained CV since its introduction in 1924 but persistent arguments against CV have existed. Several academics (e.g. Rydon 1968; Rydon 1997; Rydon and Goot 1989)69 and commentators (e.g. McGuiness 1994, 1998)70 have expressed their objection to CV in journals and newspapers. However, they have not generated any substantial argument over CV. Nevertheless, bitter argument over the abolition of CV arose among parliamentarians during the 1990s though it declined in some time.

The argument for the abolition of CV was raised by several conservative coalition

68 For presidential elections, nationwide CV existed until 1982 but then CV was up to provinces. Several provinces retained CV, but the last CV province (i.e. Tyrol) abolished it in 2004 (Federal Ministry of Interior, Austria 2007).

69 Also see Geoffrey Blainey, "The Quiet Custom of Compulsory Voting," The Australian, 21 February 1990.

parliamentarians. Australia has a *de facto* two-party system consisting of the Australian Labor Party (hereafter the Labor Party) and the conservative coalition of the Liberal Party of Australia and the National Party of Australia. In addition to these two major parties, there are also a few minor parties mainly in the upper-house (i.e. the Senate). The conservative coalition lost the 1983 election to the Labor Party lead by Robert Hawke, and the coalition fell from power. Moreover, the conservative coalition lost the 1984, 1987, 1990 elections to the Labor Party under Hawke. Then, the Labor Party experienced an intra-party conflict and its leadership was taken by John Keating. However, the coalition lost the 1993 election to the Labor Party under Keating. In total, the coalition was in opposition for 13 years from 1983 to 1996. During this period, the coalition struggled to return to power. The coalition formulated public policies (e.g. a radical economic policy package ‘Fightback!’ launched in 1991) and they changed their leader several times (Andrew Peacock, John Howard, Andrew Peacock, John Hewson, Alexander Downer, and then John Howard) during this period. In this process, the abolition of CV was raised as an issue among the coalition members (e.g. Minchin 1994).

The most prominent figure among the anti-CV coalition parliamentarians was Senator Nick Minchin (Liberal Party).71 From 1985 to 1993, he was the State Director of the South Australian Liberal Party (i.e. the secretary-general of the extra-parliamentary organisation of the South Australian Liberal Party). During this period, he already made a commitment to the case for the abolition of CV (see Minchin 1992). In 1993, he was elected to the federal parliament as a Senator for South Australia. In the federal parliament, Senator Minchin became a member of the Joint Standing Committee on Electoral Matters (hereafter the JSCEM) in 1993 and he continued being a member of the committee until 1997. This committee is to inquire into and report on matters relating to electoral laws and practices and their administration as may be referred to it by either the parliament or a minister. This is a joint committee and so it consisted of Senators and MPs. The committee reflects the partisan constitution of the parliament, and so the coalition were then in a minority in this committee. However, Senator Minchin and his coalition colleagues addressed their case for the abolition of

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CV in this committee.

In 16 November 1994, the JSCEM submitted a report about the conduct of the 1993 federal election to the parliament (JSCEM 1994). Although the majority report did not mention CV, a dissent report compiled by four coalition members recommended the abolition of CV. The committee then consisted of 12 members: seven Labor members, four coalition members (three Liberals and one National), and one Democrats member. This dissent report argued that CV was contrary to the 'fundamental democratic right to choose not to vote' (JSCEM 1994, 157). However, the coalition was in opposition and so this recommendation for the abolition of CV did not have any real impact on politics. Nevertheless, they, at least, registered their case for the abolition of CV in this stage. This fact suggests that the abolition of CV could grow into a real topic when the conservative coalition wins the election and assumes power in the future.

The conservative coalition under John Howard finally won the 1996 election and assumed power. The coalition was in the majority in the lower house, but they were not in the majority in the upper house (i.e. the Senate). Therefore, it was still technically difficult for the coalition to abolish CV. However, by this electoral victory, the abolition of CV gained more attention. As a result of the 1996 election, the committee consisted of five coalition members (four Liberals and one National), three Labor members, and one Democrats member. The committee, which was chaired by a coalition member, argued over the abolition of CV. The committee submitted a report on the conduct of the 1996 federal election on 16 June 1997, and this report recommended the abolition of CV (JSCEM 1997, xix-xx, 23-27). However, this report was accompanied by two minority reports: one by three Labor members, and the other by one Democrats member, and both minority reports criticised the attempt to abolish CV made by coalition members (JSCEM 1997, 119, 124-130, 135, 138-146). Judging from the fact that several pages were dedicated to the argument over the abolition of CV in the majority report and the minority reports, CV seems to have been substantially argued in this committee.

The major reasons for recommending the abolition of CV were (1) democracy was sustainable without CV in Australia, (2) CV was contrary to the notion of the right of voting, and (3) the abolition of CV would encourage party membership and party activities (JSCEM 1997, xix-xx, 23-27). Meanwhile, the main counter-argument was that the conservative coalition members pursued the abolition of CV only for their
partisan interest, but the democratic fairness and other reasons for CV were also listed up (JSCEM 1997, 119, 124-130, 135, 138-146). Overall, the arguments for and against CV were mostly reproductions of past arguments over CV (for these past arguments, see 2.2 of Chapter 2).

However, the abolition of CV had not been shared even among the coalition parliamentarians. Petro Georgiou MP (Liberal Party) addressed his case for CV at a meeting of some Liberal parliamentarians on 29 October 1996 (Georgiou 1996), and the division in the party over this issue was revealed. It would be possible to say that his speech gave a shape to a growing concern over the abolition of CV among Liberal parliamentarians. The Liberal Party is the major coalition partner, and this revealed division among them would have been a considerable damage to the anti-CV drive.

However, the anti-CV drive in the parliament still had another chance. Senator Minchin became the Parliamentary Secretary to the Prime Minister in charge of the Constitutional Convention after the 1996 federal election. The Constitutional Convention was an *ad hoc* assembly for discussing whether Australia should become a republic, which republic model should be put to the electorate to consider against the status quo (i.e. the constitutional monarchy), etc. Later, the government introduced the Constitutional Convention (Election) Bill 1997 on 26 March 1997, which provided that VV and postal vote would be used for the election of half of the convention delegates. Amendments to the Constitutional Convention (Election) Bill 1997 were affirmed on 28 August 1997, and the usage of VV and postal vote for the Constitutional Convention election was confirmed. Although one of the amendments provided that this usage of VV for this special election would not be a precedent for any parliamentary election or referendum, this usage of VV could still have been regarded as a test case for parliamentary elections and referendums in the future. If the usage of VV for this special election had been regarded as being successful, the anti-CV drive could have gained a new momentum.

Polling by mail for the Constitutional Convention election was closed on 9

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72 This was the inaugural meeting of the John Stuart Mill Society. This society was a non-membership association of Liberal parliamentarians that offers an opportunity of having dinner and of hearing a speech with other Liberal parliamentarians. Therefore, this was a kind of a friendship association and a study group in this party. However, this association was a de facto loose faction of centre-right Liberal parliamentarians.

73 The other half of the convention delegates were appointed by the government.

74 Constitutional Convention (Election) Act 1997(No. 128, 1997), Section 12.
December 1997, and the voting rate was 45.30% of the registered electors. This turnout was far much lower than ordinary parliamentary election turnout of around 95%. The Constitutional Convention election was a special one and its result was not a scientifically meaningful sample to be referred to ordinary parliamentary elections and referendums. However, this low turnout of 45.30% must have been an anecdote surprising enough for many parliamentarians to doubt whether Australia could achieve decent turnouts without CV. When anti-CV parliamentarians argued 'if Australia is to consider itself a mature democracy compulsory voting should now be abolished' (JSCEM 1997, xix), this statement should have suggested that turnout would not become very low in Australia even if CV were abolished. However, the turnout of this special election indicated contrary to this prediction.

On 8 April 1998, the conservative coalition government, to the parliament, submitted a government response to the JSCEM report. This official response stated that the Howard coalition government did not support the recommendation of the abolition of CV. Furthermore, the extra-parliamentary organisation of the Liberal Party expressed its opposition to the abolition of CV in a submission to the JSCEM after the 1998 election, which the coalition won (Liberal Party of Australia 1999). The JSCEM, in which the coalition was in the majority, submitted a report about the 1998 federal election on 26 June 2000. The majority report mentioned CV but did not recommend its abolition (JSCEM 2000, 106-7). Although the coalition members were in the majority in the JSCEM, the reports about the 2001 federal election and the 2004 federal election mentioned CV as a topic but did not recommend its abolition, either (JSCEM 2003, 247-251; JSCEM 2005, 183-204). These facts suggest that the drive for the abolition of CV had effectively broken down by 1998.

The anti-CV drive started after the 1993 election and it mounted after the 1996 election, at which the conservative coalition won the election and came into power. However, when the drive had a real chance to abolish CV and gained publicity, it was countered by their party colleagues and it broke down before the 1998 election. Argument against CV still exists. However, since its breakdown in 1998, the case for the abolition of CV has not gained any real momentum.

75 Somebody may attribute this statement to Linton Crosby, the Federal Director of the Federal Secretariat of the Liberal Party of Australia. However, this was an official submission made by the extra-parliamentary organisation under the name of the Liberal Party of Australia.
Analysing the Case of Australia

This subsection analyses the argument over the abolition of CV in Australian during the 1990s, which the last subsection described. This subsection will first try to identify the reasons why the argument mounted during the 1990s and then will pursue the reasons why it broke down in several years.

There seems to have been four major reasons for the rise in argument over the abolition of CV. First, substantial minority of Australian people had persistently been against CV. Although opinion surveys before 1943 are not available, the obtainable surveys indicate that CV has been continuously supported by the vast majority of the electorate (see Figure 4.1 below). Since 1943, the support rate for CV has been persistently around 70% and the opposition rate has been around 30%. Nevertheless, it should also be noted that a substantial minority of around 30% have opposed CV in Australia. Moreover, several libertarians have defied the electoral authorities in relation to CV and have attracted the attention of the mass media.76 Judging from the fact that CV is a strong legal measure, it will be natural that there is some objections and resistance to it in a liberal society. Furthermore, this anti-CV sentiment among the substantial minority of the electorate would be worth being represented in the parliament in a democracy.

The second reason was that the conservative coalition had a partisan interest in abolishing CV. An academic paper (McAllister 1986) had provided empirical evidence that high turnout resulting from CV was advantageous for the conservative coalition and was disadvantageous for the Labor Party in Australia.77 Parties are assumed to play a game of election within the framework of a set of rules, and this is a zero-sum (or a fixed-sum) game because the number of seats is fixed. However, parties might also play another game of manipulating the rules in order to win the game of election and assume political power. Judging from an opinion survey about the 2001 Senate election (Table 4.3 below), high turnout resulting from CV is a disadvantage for the conservative coalition (Coalition) and is an advantage for the Labor Party (ALP). This finding is in

77 Mackerras and McAllister 1999 provides more substantial empirical evidence, but this paper was not available yet.
line with the analyses of other elections in Australia (McAllister 1986; Mackerras and McAllister 1999; Tables 5.3 and 5.4 of this thesis). If voting had been voluntary rather than compulsory and turnout had been 62% at the 2001 Senate election, the conservative coalition would have increased its vote share by three percentage points. On the other hand, the vote for the Labor Party would have been lower by two percentage points. Meanwhile, it is not clear whether CV has any implications for the vote share of the minor parties (i.e. Democrats, the Greens and One Nation). Under this condition, the conservative coalition will have a collective motivation to seek the abolition of CV for their electoral benefit. On the other hand, the Labor Party will have a collective motivation to protect CV.

Table 4.3: Five-Party Preference at Different Turnout Levels (Cumulative Percentages)

<table>
<thead>
<tr>
<th>(2001 Senate Election, Australia)</th>
<th>Coalition</th>
<th>ALP</th>
<th>Dems</th>
<th>Greens</th>
<th>One Nation</th>
<th>Total (n)</th>
<th>Expected Turnout (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely would have voted (%)</td>
<td>47</td>
<td>32</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>100 (1,166)</td>
<td>62</td>
</tr>
<tr>
<td>(+) Probably would (%)</td>
<td>46</td>
<td>33</td>
<td>9</td>
<td>8</td>
<td>4</td>
<td>100 (1,479)</td>
<td>82</td>
</tr>
<tr>
<td>(+) Might, might not (%)</td>
<td>46</td>
<td>33</td>
<td>9</td>
<td>8</td>
<td>4</td>
<td>100 (1,613)</td>
<td>90</td>
</tr>
<tr>
<td>(+) Probably not (%)</td>
<td>45</td>
<td>34</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>100 (1,730)</td>
<td>96</td>
</tr>
<tr>
<td>(+) Definitely not (%)</td>
<td>44</td>
<td>34</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>100 (1,796)</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ a=0.05, \ p<0.001, \ V=0.080 (x^2 \text{-test results for the column-percentage table) \]

Notes:
1. The 'Coalition' consists of the Liberal Party of Australia (Liberal) and the National Party of Australia (The Nationals). The other parties are the Australian Labor Party (ALP), Australian Democrats (Democrats), Australian Greens (The Greens) and Pauline Hansen's One Nation (One Nation).
2. This table has been remodelled from one in Mackerras and McAllister (1999, 228). The first row represents the expected vote share of five parties and expected turnout when only the 'definitely would have voted' vote. The second row represents the expected vote share of their expected turnout when the 'probably would have been voted' also vote. The following rows are calculated in the same manner.

Source: 2001 Australian Election Study (Bean, Gow and McAllister 2002).

As the third reason, the sadness and disappointment with their successive electoral defeats at the 1983, 1984, 1987, 1990 and 1993 elections might have stimulated their latent partisan interest in the abolition of CV among coalition members. Fourth, there was Nick Minchin, who personally had a strong commitment to the abolition of CV and played a leading role in the anti-CV drive after he became a Senator in 1993 and became a member of the JSCEM. Without a political entrepreneur like

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78 From a survey of the 1996 Australian federal election (Jones, McAllister and Gow 1996), S. Jackman 1999a estimates that turnout would have been in the 55-65% range if voting had been voluntary. This is a companion paper of S. Jackman 1999b in the same volume of a journal. S. Jackman took non-response and measurement errors into account in these papers and estimated the turnout under simulative VV in Australia.
Senator Minchin, the anti-CV drive would not have substantially mounted like that of the 1990s.

Meanwhile, there seems to have been five major reasons for the breakdown of the anti-CV drive. First, the coalition parliamentarians were divided over the abolition of CV whereas the Labor parliamentarians and minor party parliamentarians were, at least mostly, unanimous in supporting CV. Judging from the 1993, 1996 and 2001 Australian Candidate Studies (see Figure 4.2 below), newly-elected coalition parliamentarians were always divided over the issue during the rise and decline of the argument for the abolition of CV though the support rate for VV experienced rise and fall. Therefore, it would have been difficult for the coalition to achieve a party consensus. Meanwhile, newly-elected parliamentarians from other parties (i.e. the Labor Party, Democrats, and the Greens) were not divided, and a consensus that CV should be retained existed among them.
Second, the anti-CV drive in the 1990s did not develop into a perceptible public discontent with CV and did not threaten the predominance of popular support for it, judging from the past surveys illustrated in Figure 4.1. The support for CV even seems to have increased during the 1990s. CV is not provided for by the constitution but is provided by the electoral law in Australia, and so it is technically possible for the parliament to abolish CV without a consensus of the Australian people through a referendum. However, the substantial popular support for CV should discourage parliamentarians from seeking its abolition. This is because most of them have to seek re-election and the two major parties want to win the next election and take or retain power, and so they cannot simply ignore the preferences of the people (Almond and Verba [1963] 1989, 342; Farrell 2001, 181, 183-84; Schumpeter [1976] 1996, 269). This would have been a concern for many coalition parliamentarians in relation to the drive
for the abolition of CV.

Third, the coalition parliamentarians might have realised that they could win elections even under CV, which was likely to be disadvantageous for them. When they could not win elections, they might have thought that the abolition of CV would be useful for them and could give them an electoral victory. However, once they win an election, they would not feel a strong desire to abolish CV any more. In other words, this is a catch-22 situation. When they are in opposition, they have a motivation to abolish CV but they do not have power to achieve it. When they are in power, they may be able to abolish CV but they do not have a substantial motivation for it. In either case, the abolition of CV is not likely to be delivered. If the anti-CV coalition parliamentarians could gain a real chance to abolish CV in the future, it would be the time when the coalition is still in power but is likely to lose the next election. In this particular situation, their party colleagues might get upset and might try to do anything, inclusive of the abolition of CV, useful in winning the next election. For example, according to a research paper published by the Australian Electoral Commission (Evans 2006, 5), the conservative government of Queensland introduced CV for the state lower-house election in 1915 in the expectation of the partisan advantage for them, but the conservative government lost the 1915 election in the end.79

Fourth, any major electoral reform is not the benefit of incumbent parliamentarians inclusive of coalition parliamentarians (Reynolds 2000, 62), and another entrepreneur for CV gave a shape to a growing concern among coalition parliamentarians over the abolition of CV. The incumbent parliamentarians are the most successful people in their own party under the present electoral system. If this system is largely reformed, they may not be as successful as they are at present and they may be even replaced by other people in their own party. Therefore, the more the anti-CV drive mounted, the greater concern the incumbent parliamentarians would have about the abolition of CV for their individual benefit. While several anti-CV coalition members were pressing the case for the abolition of CV mainly in the JSCEM, a concern on this issue should have grown among other Liberal parliamentarians. In this situation, Petro Georgiou MP (Liberal Party) gave a speech in which he expressed his support for CV (Georgiou 1996) and played a leading role in giving a shape to the concern among his

79 Queensland was the first state that introduced CV for state elections in Australia.
Liberal colleagues.

Fifth, the test case of VV in 1997 was regarded as a failure. The turnout of a special election under the VV system was 45.30%, which was much lower than the turnout of around 95% for parliamentary elections and referendums under CV. This low turnout suggested that Australia was unable to achieve decent turnouts under VV though this election was a special one and its turnout was not a proper indicator of the turnout of federal elections and referendums in a strict sense. It would be reasonable to understand that the outcome of the test case caused a great concern over the abolition of CV from the viewpoint of democracy in addition to their individual electoral interest.

The breakdown of the anti-CV drive among the conservative coalition parliamentarians can be traced in past opinion surveys (see Figure 4.2). While the anti-CV drive mounted then broke down, the support rate for VV among newly-elected coalition parliamentarians also experienced rise and fall. Although the conservative coalition was in opposition after the 1993 election, several coalition parliamentarians addressed the case for VV and gained some support from their party colleagues. The support rate for VV among the newly-elected conservative coalition parliamentarians at the 1993 election was 48%. However, the support rate for VV increased to 62% among the newly-elected coalition parliamentarians at the 1996 election, at which the conservative coalition finally won the election and came into power. Then, anti-CV coalition parliamentarians started strongly pressing their case for VV in parliament. However, they encountered a backlash from their party colleagues, and the test case of VV was regarded as a total failure. The Australian Candidate Study was not conducted at the 1998 election, but the support rate for VV declined to 42% among the newly-elected coalition parliamentarians at the 2001 election. The rise and fall of the anti-CV drive during the 1990s suggests that CV is locked in Australian politics and that it is difficult to unlock it.

**Necessary Adjustments for Persistence of CV**

Judging from the case of Australia, it will not be difficult to maintain CV once it is adopted and is properly administered for some time. There would remain some opposition to CV among parliamentarians and the people, but the opposition does not seem to be viable. However, it is also true that the practice of CV has been declining among industrial democracies as Hirczy de Miño (2000, 45) argues, and several
industrial democracies have abolished their CV (e.g. the Netherlands and Austria). For persistence of CV, three administrative measures (i.e. the provision of easy voting facilities, the exercise of ‘soft power,’ and the use of ‘hard power’) should be sensibly combined in order to achieve popular voluntary compliance with CV. Moreover, the imposition of sanctions on illegitimate abstainers should be regarded as the last resort and should be applied sensibly, reasonably and sparingly in order to avoid provoking electors though sanctions should also be applied systematically in order to effectively achieve popular compliance with CV. Civic education would also be useful in achieving and maintaining the popular support for CV. So long as popular support for CV is overwhelming, it will be difficult for popularly-elected parliamentarians to abolish CV because they do not like to take a risk of loosing their popularity even if they have some partisan or normative motivation to abolish CV.

4.4. Conclusion

Adoption, serious administration and persistence are three major conditions for CV to be effective in continuously achieving high turnout. Of these three conditions, adoption is the most difficult one to satisfy for industrial democracies because of (1) popular commitment to freedom, (2) the path dependence of parliamentarians, and (3) that of electors. However, if the usefulness of CV is widely recognised, it will become easier for CV to get adopted. Industrial democracies are prosperous, and so they will be able to allocate necessary resources to the administration of CV. However, for effective and efficient administration, it is necessary to sensibly combine three administrative measures: the provision of easy-voting facilities, the exercise of ‘soft power,’ and the use of ‘hard power.’ The actual usage of ‘hard power’ should be regarded as the last resort in the whole process, but it should not be disregarded either. Once CV is adopted, it will not be difficult for industrial democracies to sustain it because of popular commitment to democracy, and path dependence of parliamentarians and electors on CV. However, some effort for maintenance will still be necessary, and proper administration of CV should be continuously provided to retain popular voluntary compliance with CV. Civic education might also be useful in achieving/retaining popular support for CV.
PART III

Compulsory Voting and Public Policy
CHAPTER 5
The Consequences for Voters

This chapter assesses whether the high turnout resulting from CV is effective in improving the well-being of the people. This is because, even if CV is highly effective in improving turnout, CV cannot ultimately be useful unless the high turnout resulting from CV is also effective in improving the well-being of the people. This well-being of the people could be most easily measured by some value standard. Although scientific political studies do not usually deal with values, Lijphart (1997) combined scientific methods with the value standard of democracy (or precise representation of the will of the people) and he admired the high turnout resulting from CV. This attempt was a breakthrough for the research on CV, but his choice of value standard is questionable. This chapter will, therefore, with another value standard, remodel and develop his hypothesis in order to assess the effectiveness of the high turnout resulting from CV in improving the well-being of the people.

In order to achieve the goal of this chapter, this chapter will first identify a value standard appropriate to measure the well-being of the people. Second, this chapter will remodel the Lijphart hypothesis by applying his argument on the left-right dimension and by replacing his value standard with the one that is selected here. Third, this chapter will carry out a case study of Australia and evaluate the simulative abolition of CV in Australia by using the remodelled hypothesis and the chosen value standard. Finally, based on the findings of this chapter, the concluding section will consider whether the introduction of CV and its resulting high turnout would improve the well-being of the people in industrial democracies under VV at present.

5.1. Value Standard for Assessment

Although it is a matter of argument what the well-being of the people is, this thesis regards it as the total utility of individuals. However, non-electors (e.g. children) among the people cannot participate in election and so it is difficult to take the utility of non-electors into consideration in relation to the effect of CV. Therefore, this thesis
further narrows it down to the total utility of electors, and this thesis uses it as a working value standard. The reason for this choice among several conceivable value standards is outlined as follows.

The advantages and disadvantages of CV have been identified based on a variety of value standards, such as liberalism and democracy (see the discussion in 2.2 of Chapter 2). For example, Lijphart (1997) argued that the turnout of privileged people is higher than that of less privileged people and public policy would be distorted for the benefit of the high turnout group. Then, he evaluated CV as a useful measure to substantially improve turnout and to solve this democratic deficit. He appreciated the usefulness of CV from the viewpoint of democracy (more specifically 'precise representation of the will of the people'). However, this choice of value standard is questionable. Both liberalism and democracy are highly valued in industrial democracies as goals in their own right. Nevertheless, people do not exist for liberalism or democracy, but liberalism and democracy exist for people. Therefore, the values that liberalism and democracy have are secondary, and the intrinsic value resides only in human beings. Although it is difficult to identify this intrinsic value, it must be some human-oriented one.80

Both the utilitarian efficiency and the Pareto efficiency are human-oriented value standards.81 On the one hand, the utilitarian efficiency finds the intrinsic value in the utility that each individual receives and appreciates the maximisation of the total utility of individuals (i.e. the aggregation of individual utilities in the population). So long as a system reform improves the total utility of individuals, this reform should, from the viewpoint of the utilitarian efficiency, be implemented even if this reform makes some individuals worse off (Mill 1879, chap. 2, paras. 10, 21; Mueller 2003, 151-52; Suzuki 1994, 156-57). On the other hand, the Pareto efficiency accepts a system reform if and only if this reform makes some individuals better off and does not make any individual worse off. In other words, the Pareto efficiency does not accept any system reform that makes some individuals worse off even if this reform makes many individuals better off substantially (Suzuki 1994, 154-55). It will be possible to say that the Pareto efficiency

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80 It should be noted that this humanistic statement in itself is a value standard chosen by the author. In the following paragraphs, the author examines several human-oriented value standards and chooses one of them. This is also his choice and is a provisional choice.
is, in a sense, more humane than the utilitarian efficiency, which does not hesitate in making some individuals worse off in order to improve the total utility of individuals.\footnote{It should be noted that the Pareto efficiency could fail to be humane. Even if the status quo is extremely unfair and inhumane, the Pareto efficiency does not accept any reform if this reform makes some individuals (e.g. a despot) worse off.} However, many interests conflict with each other in the real society, and the Pareto efficiency is ineffective in reforming the current regime tangled with vested interests and in improving the well-being of the people. Therefore, this thesis disregards the Pareto efficiency but adopts the utilitarian efficiency (i.e. the maximisation of the total utility of individuals) as the value standard for assessing the usefulness of CV for the people. However, because of technical limitations, this thesis actually uses the total utility of electors instead of that of all individuals.

The Nash efficiency (Nash 1950; Suzuki 1994, 157-67), for which individual utilities are multiplied together rather than being summed up, can be regarded as being fairer than the utilitarian efficiency (i.e. the total utility of individuals).\footnote{Vilfredo Pareto (1848-1923) was a sociologist, economist and philosopher. The Pareto efficiency is also called the Pareto optimality.} The Nash solution was originally addressed as a bargaining solution between two players, but the same idea can be used as a normative criterion for authoritative distribution of utilities. This thesis will hereafter call it the ‘Nash efficiency’ for this purpose. For example, the distribution of 100 utility-units between two individuals as [90, 10] is equal to another distribution as [50, 50] from the viewpoint of the utilitarian efficiency because the total utility of these two individuals is 100 in either case. Meanwhile, from the viewpoint of the Nash efficiency, the latter set of utility-unit distribution is more desirable than the former set because the product (or the Nash product) of the former set is 900 (=90*10) but that of the latter one is 2,500 (=50*50). Moreover, between two sets of [90, 10] and [50, 40], the first set is more desirable than the second set from the viewpoint of the utilitarian efficiency (90+10 > 50+40), but the first one is less desirable than the second one from the viewpoint of the Nash efficiency (90*10 < 50*40).

Although the Nash efficiency is a credible idea, this chapter will not use the Nash efficiency but will instead use the utilitarian efficiency for three reasons. First, the Nash efficiency and the utilitarian efficiency are the same in a simple model used in the following sections of this chapter. Second, the calculation of the Nash efficiency is much more complex than that of the utilitarian efficiency. Third, while it is possible to
engineer a set of rules to achieve the utilitarian efficiency (see 7.2 of Chapter 7), it is
technically difficult to engineer a set of rules to achieve the Nash efficiency. To
summarise, the Nash efficiency is not manageable.\textsuperscript{84}

\textbf{5.2. Distance between Two Medians}

The median voter position and the median elector position in the left-right dimension
could be the same but could also be different from each other. If turnout is not 100%,
the distribution of electors (i.e. all eligible voters) along the left-right dimension could
be different from the distribution of voters (i.e. all actual voters) along this dimension.
Therefore, the median voter position could be different from the median elector position,
which can be regarded as the estimate of the will of the people. If voters are normally
distributed along the left-right dimension and there are two established major parties,
the policy positions of these major parties will, as Downs (1957, 117-18) argues,
converge around the median voter as a result that the two major parties compete for
more votes in order to win the election and ultimately to come into power. In other
words, the median voter position is the focal policy position for two major parties. If all
the other conditions are the same for these two major parties, these parties would take
the same distance from the median voter position, one on the left and the other on the
right.

Although misrepresentation of the will of the people is more likely to happen
when voting is voluntary and turnout is low, low turnout does not automatically result in
disproportional influence of minority interests upon public policy in theory. The
left-right dimension model is useful in demonstrating this possibility of precise
representation of the will of the people under conditions of low turnout. In Figure 5.1
below, the policy preferences of all electors in a country are hypothesised to be
normally distributed along the left-right dimension. If turnout is 100% and all electors
are voters, then the median elector position will be the same as the median voter
position. Even if turnout is much lower than 100% (e.g. 50%), then the median voter

\textsuperscript{83} John Forbes Nash, Jr. (1928- ) is a mathematician. In game theory, he is also famous for the Nash equilibrium.
\textsuperscript{84} This paragraph argued the Nash efficiency because it is a typical attempt to seek a proper balance between effectiveness and
fairness.
position will still be the same as the median elector position so long as the constitution of all voters along the left-right dimension is exactly proportional to that of all electors. Therefore, under this hypothetical condition, the focal policy-position for the two major parties (i.e. the median voter) under some low turnout (e.g. 50%) will be the same as that of 100% turnout. Furthermore, this is also the case even if turnout is extremely low (e.g. 10%). Therefore, low turnout under VV will not automatically result in a distortion of the will of the people upon public policy.

Although low turnout in itself is not a problem and it does not automatically result in a distortion of the will of the people in theory, low turnout under VV is likely to result in a distortion of the will of the people because personal resources for voting participation are not evenly distributed among electors. Lijphart (1997, 1) argues that, ‘... the inequality of representation and influence are not randomly distributed but systematically biased in favor of more privileged citizens—those with higher incomes, greater wealth, and better education—and against less advantaged citizens.’ If the turnout under VV is much lower than 100% and less-privileged electors are more likely to support the left-wing major party rather than the right-wing major party but are less
likely to choose to vote than privileged electors, the median voter position will be to the right of the median elector position, as presented in Figure 5.2 below. This distance between the median elector and the median voter can be regarded as a distortion of the will of the people. Moreover, the less the turnout is, the wider this distance is likely to be.\textsuperscript{85}

![Figure 5.2: Disproportional Decrease in Turnout to 50%](image)

Note: In this figure, 'electors' are all potential voters, and 'voters' are all actual voters.

However, it is still a matter of argument whether the existence of the distance between the median elector and the median voter is a problem. Some people like Lijphart (1997) may regard it as a democratic deficit. However, some people (e.g. new liberalists) may argue that the governmental policy-position should be to the right because a welfare-based society will diminish people's spirit of self-help and will discourage people's effort for self-development and so the government should be small and should deliberately leave people alone. On the contrary, some others (e.g. social democrats) may claim that the governmental policy-position should be to the left because less-privileged people have greater needs and, by offering them a better chance

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\textsuperscript{85} Tingsten (1937, 230) argued from empirical data that, if the general turnout is high in a certain election, the difference in voting participation between different categories of electors is comparatively low and he called this tendency 'the law of dispersion.'
of education, better health services, etc., the well-being of the whole society will benefit. It is difficult to dismiss either position. If there is some reason that the governmental policy-position should be at the median elector, this reason must be explained.

To demonstrate these arguments, a country of 100 electors is assumed in Figure 5.3 below. These 100 electors are unimodally and symmetrically (i.e. roughly normally) distributed along the left-right dimension and they fall into 19 groups. There is a group of 10 electors in the centre of the left-right dimension (i.e. the tallest bar in the centre of Figure 5.3), and the number of electors in each group decreases one by one as the policy position goes away from this centre. If the whole population of 100 electors vote under CV, the median voter will be exactly the same as the median elector and so the focal policy-position for the two major parties will be at the policy position of the 10-elector group in the centre.

![Figure 5.3: 0-Unit Policy Shift from the Median Elector](image)

Note: FPP: the focal policy position.

It is also assumed in Figure 5.3 that each elector obtains a certain number of utility-units according to the distance from the focal policy-position (see numbers in brackets in Figure 5.3). For example, each of 10 electors in the centre obtains 10 utility-units. Therefore, the sum of utility-units of these 10 electors in the centre is as follows:

$$10\text{(units/elector)} \times 10\text{(electors)} = 100\text{(units)}.$$ 
Each elector of the other groups obtains a diminished number of utility-units according to the distance from the focal policy-position. In Figure 5.3, each elector of the 9-elector...
group that is on the right to the 10-elector group obtains 9 utility-units and so the sum of utility-units that these electors obtain is as follows:

\[ 9(\text{units/elector}) \times 9(\text{electors}) = 81(\text{units}). \]

By continuing this calculation and then summing them up, it is possible to obtain the total utility of the population of 100 electors when the focal policy-position is at the median elector as follows:

\[
\text{(Total utility of 100 electors)} \\
= 1\times1 + 2\times2 + 3\times3 + 4\times4 + 5\times5 + 6\times6 + 7\times7 + 8\times8 + 9\times9 + 10\times10 + 9\times9 + 8\times8 + 7\times7 + 6\times6 + 5\times5 + 4\times4 + 3\times3 + 2\times2 + 1\times1 \\
= 670.
\]

If turnout decreases as a result of the introduction of VV and the focal policy-position for the two major parties shifts from the median elector to the 9-elector group on the right to the 10-elector group in the centre, the quantity of utility unit that each elector obtains will change according to the change in the distance from the focal policy-position, as presented in Figure 5.4 below.

![Figure 5.4: 1-Unit Policy Shift from the Median Elector to the Right](image)

Each elector in the 10-elector group (i.e. the tallest bar) in the centre will obtain only 9 utility-units in Figure 5.4 because of this focal policy-position shift to the right. Therefore, the total utility of these 10 electors will be as follows:

\[ 9(\text{units/elector}) \times 10(\text{electors}) = 90(\text{units}). \]

Each elector to the left of this 10-elector group will also lose one utility-unit. For example, each of the 9-elector group to the left of the 10-elector group in the centre
obtains 8 utility units upon this condition, instead of 9 utility units upon the former condition. On the other hand, each elector of the 9-elector group to the right of the 10-elector group in the centre obtains 10 utility-units upon this condition instead of 9 units upon the former condition because the focal policy-position is now exactly at their policy position. Therefore, the total utility of these 9 electors is as follows: 

\[ 10(\text{units/elector}) \times 9(\text{electors}) = 90(\text{units}). \]

Each elector to the right of this 9-elector group also obtains one additional utility-unit because of the focal policy-position shift to the right. It should be noted here that the number of electors who obtain one additional utility-unit by this shift (the diagonal in Figure 5.4) is less than the number of electors who lose one utility-unit by this shift (the shadowed in Figure 5.4).

By continuing this calculation, it is possible to obtain the total utility of 100 electors when the focal policy-position shifts rightwards by one unit of policy position from the 10-elector group as follows:

\[
\begin{align*}
\text{(Total utility of 100 electors)} & = 0 \times 1 + 1 \times 2 + 2 \times 3 + 3 \times 4 + 4 \times 5 + 5 \times 6 + 6 \times 7 + 7 \times 8 + 8 \times 9 + 9 \times 10 + 10 \times 9 + 9 \times 8 \\
& \quad + 8 \times 7 + 7 \times 6 + 6 \times 5 + 5 \times 4 + 4 \times 3 + 3 \times 2 + 2 \times 1 \\
& = 660.
\end{align*}
\]

Therefore, the total utility of 100 electors decreases by 10 units from 670 units to 660 units, as a result of one-unit rightward policy-position shift from the 10-elector group in the centre. As turnout decreases farther under VV and the focal policy-position shifts rightwards farther, the number of electors who obtain one additional utility-unit decreases and the number of electors who lose one utility-unit increases. Therefore, as the focal policy-position shifts rightwards, the total utility of 100 electors accumulatively decreases. This change is summarised in Table 5.1 below.
Table 5.1: Policy Shift and Utility Loss

<table>
<thead>
<tr>
<th>Policy Distance from the Median Elector (units)</th>
<th>Total Utility (units)</th>
<th>Additional Utility Loss (units)</th>
<th>Cumulative Utility Loss (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>670</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>660</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>632</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>3</td>
<td>588</td>
<td>44</td>
<td>82</td>
</tr>
<tr>
<td>4</td>
<td>530</td>
<td>58</td>
<td>140</td>
</tr>
<tr>
<td>5</td>
<td>460</td>
<td>70</td>
<td>210</td>
</tr>
<tr>
<td>6</td>
<td>380</td>
<td>80</td>
<td>290</td>
</tr>
<tr>
<td>7</td>
<td>292</td>
<td>88</td>
<td>378</td>
</tr>
<tr>
<td>8</td>
<td>198</td>
<td>94</td>
<td>472</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>98</td>
<td>570</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>100</td>
<td>670</td>
</tr>
</tbody>
</table>

This table above indicates that, as turnout decreases under VV and the focal policy-position moves away from the median elector, the additional utility loss gradually increases and so the total utility loss of electors cumulatively increases. Figure 5.5 below graphically presents the change of the additional utility loss of 100 electors.

Figure 5.5: Policy Distance and Additional Utility Loss

Figure 5.6 below graphically presents the change of the cumulative utility loss of 100 electors, on the condition that the additional utility loss of electors increases as Figure 5.5 above. Judging from Figure 5.6 below, it would be reasonable to argue that, as turnout decreases under VV and the focal policy-position shifts away from the median elector, the loss of the total utility of electors increases cumulatively rather than proportionally. Therefore, the focal policy-position (i.e. the median voter position) should be as close as possible to the median elector in order to maximise the total utility of electors. If personal resources for voting participation are not evenly distributed among individual electors and so the level of voting participation is systematically biased, turnout should be maximised in order to maximise the total utility of electors.
The high turnout resulting from CV will be useful in achieving this goal.

The two major parties will converge around the median voter. However, if all the other conditions are the same for both major parties, the two major parties will take the same distance from this median voter—one on the left and the other on the right—because each major party is under the influence of centripetal power (i.e. vote power) and centrifugal power (i.e. lobby power) (McLean 1982, 124-29; McLean 1987, 70-71). If these two parties come into power alternately, the governmental policy-position will stay at either of these party positions rather than at the median voter position. Nevertheless, the approximation of the median voter position to the median elector position will still be useful in improving the total utility of electors. If two major parties always take the same distance from the focal policy position (i.e. the median voter position), the average of the total utility of electors achieved by the governmental policy position at one major party and that at the other major party will be maximised when the focal policy position is at the median elector position. As the focal policy position goes away from the median elector position, this average of the total utility of
electors will decrease. Upon the condition that the two major parties take a distance of one utility unit from the focal policy position, Table 5.2 below demonstrates that the expected (i.e. the average) total utility of electors will decline as the distance of the focal policy position (i.e. the median voter position) from the median elector position increases. Based on Table 5.1, the numbers of utility units are allocated to two major parties in Table 5.2.

Table 5.2: Distance of FPP from the Median Elector and the Average Total Utility of Electors

<table>
<thead>
<tr>
<th>Distance of the FPP from the median elector (units)</th>
<th>Total utility of electors at the policy position of Party 1 (units)</th>
<th>Total utility of electors at the policy position of Party 2 (units)</th>
<th>Total (units)</th>
<th>Average (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>660</td>
<td>660</td>
<td>1320</td>
<td>660</td>
</tr>
<tr>
<td>1</td>
<td>670</td>
<td>632</td>
<td>1302</td>
<td>651</td>
</tr>
<tr>
<td>2</td>
<td>660</td>
<td>588</td>
<td>1248</td>
<td>624</td>
</tr>
<tr>
<td>3</td>
<td>632</td>
<td>530</td>
<td>1162</td>
<td>581</td>
</tr>
<tr>
<td>4</td>
<td>588</td>
<td>460</td>
<td>1048</td>
<td>524</td>
</tr>
<tr>
<td>5</td>
<td>530</td>
<td>380</td>
<td>910</td>
<td>455</td>
</tr>
<tr>
<td>6</td>
<td>460</td>
<td>292</td>
<td>752</td>
<td>376</td>
</tr>
<tr>
<td>7</td>
<td>380</td>
<td>198</td>
<td>578</td>
<td>289</td>
</tr>
<tr>
<td>8</td>
<td>292</td>
<td>100</td>
<td>392</td>
<td>196</td>
</tr>
<tr>
<td>9</td>
<td>198</td>
<td>0</td>
<td>198</td>
<td>99</td>
</tr>
</tbody>
</table>

Note: FPP: the focal policy position for the two major parties.

This is a simple model to demonstrate that the total utility of electors is maximised when the focal policy position for the two major parties is at the median elector and so the median voter should approximate to the median elector (see the appendix at the end of this chapter for more mathematical description about the utility function of each elector). To achieve this goal, the high turnout resulting from CV will be useful in theory. However, this thesis has not yet tested this hypothesis on the reality. The next section will simulate the abolition of CV in Australia in order to see whether this abolition would decrease turnout and would shift the median voter position away from the median elector position in practice. If this is the case in Australia, it will, in reverse, suggest that the adoption of CV in industrial democracies under VV at present would improve turnout and would approximate the median voter position to the median elector position. Consequently, the introduction of CV would result in an increase in the total utility of electors in these industrial democracies.
5.3. Simulating the Abolition of Compulsory Voting in Australia

Australia has a fully enforced form of CV, and turnout is persistently high at around 95% of the registered electors. If the model outlined in the last section is valid, the distance between the median voter and the median elector in Australia must be short. However, if CV were abolished, this distance would become longer. Mackerras and McAllister (1999) found that the abolition of CV would advantage the conservative coalition but would disadvantage the Labor Party in Australia by analysing a survey of the 1996 Australian election (Jones, McAllister and Gow 1996). This section applies their research procedure on the left-right dimension and analyses a survey of the 2001 election in Australia (Bean, Gow and McAllister 2002) in order to confirm that their finding is also the case in the left-right dimension framework.

Distance between Two Medians

Table 5.3 below shows that, under the present CV system in Australia, the relationship between the left-right position of electors and their voting participation is not statistically significant at the 5% level (p=0.106). The turnout of electors on the left is almost the same as that of electors on the right. The turnout of electors in the centre is slightly less than that of electors on the left and on the right. However, this relationship would be very weak even if it existed in the parent group (i.e. the all electors). While 99% of respondents of the 2001 Australian election survey (Bean, Gow and McAllister 2002) answered that they had cast a valid vote, the actual turnout at the 2001 House of Representatives election was 94.9% of the registered electors. This means that there is a discrepancy between these two figures. However, it would still be reasonable to predict that the relationship of the left-right position with voting participation does not exist or exists only in a strictly limited degree under the present CV system in Australia.
Table 5.3: Policy Position and Voting

<table>
<thead>
<tr>
<th></th>
<th>2001 House of Representatives Election, Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Left (%)</td>
</tr>
<tr>
<td>Vote</td>
<td>99</td>
</tr>
<tr>
<td>Informal/Did not vote</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>(n)</td>
<td>(384)</td>
</tr>
</tbody>
</table>

\( \alpha=0.05, p=0.106 \)

Notes:
1. Each respondent’s self-claimed left-right position was surveyed on a scale from 0 (Left) to 10 (Right). However, in this table, ‘0-4’ are aggregated under the label of ‘Left,’ ‘5’ is labelled as ‘Centre’ and ‘6-10’ are aggregated under the label of ‘Right.’
2. The actual turnout at the 2001 House of Representatives election was 94.9% of the registered electors.

Source: 2001 Australian Election Study (Bean, Gow and McAllister 2002).

Based on precedent (i.e. Lijphart 1997), the last section argued that electors on the right are more likely to vote under VV than electors on the left and so the median voter position will be on the right to the median elector position when turnout is low. This argument is supported by a survey of the 2001 Australian election (Bean, Gow and McAllister 2002) as follows. Table 5.4 is a cross-tabulation of the left-right position of respondents and the level of willingness for voting under the hypothetical VV system. Figures in this table are column percentages. The relationship between the left-right position of respondents and the level of willingness to vote under hypothetical VV is statistically significant at the 5% level \((p<0.001)\) and is negative \((G=-0.122)\). Consequently, there is sufficient evidence to say that electors on the left would be less likely to vote than electors on the right if CV were abolished in Australia. Therefore, the median voter position would shift away from the median elector position to the right in the left-right dimension.
Table 5.4: Willingness for Voting under Hypothetical VV (Column Percentages)

<table>
<thead>
<tr>
<th></th>
<th>Australia 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Left (%)</td>
</tr>
<tr>
<td>Definitely would have voted</td>
<td>68</td>
</tr>
<tr>
<td>Probably would have voted</td>
<td>16</td>
</tr>
<tr>
<td>Might, might not</td>
<td>8</td>
</tr>
<tr>
<td>Probably not</td>
<td>5</td>
</tr>
<tr>
<td>Definitely not</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>(n)</td>
<td>(386)</td>
</tr>
</tbody>
</table>

α=0.05, p<0.001, G = -0.122

Note:
1. Each respondent’s self-claimed left-right policy position was surveyed on a scale from 0 (Left) to 10 (Right). However, in this table, ‘0-4’ are aggregated under the label of ‘Left,’ ‘5’ is labelled as ‘Centre’ and ‘6-10’ are aggregated under the label of ‘Right.’
2. The row question was as follows: Would you have voted in the election if voting had not been compulsory?

Source: 2001 Australian Election Study (Bean, Gow and McAllister 2002)

Table 5.5 below is compiled from Table 5.4 above in order to present the predicted turnout of three column groups (i.e. left, centre and right) at several turnout levels under the hypothetical VV system. It should be noted that figures in Table 5.5 below are cumulative percentages rather than column percentages.

Table 5.5: Expected Turnout under Hypothetical VV (Cumulative Percentages)

<table>
<thead>
<tr>
<th></th>
<th>Australia 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Left (%)</td>
</tr>
<tr>
<td>Definitely would have voted</td>
<td>68</td>
</tr>
<tr>
<td>+ Probably would have voted</td>
<td>84</td>
</tr>
<tr>
<td>+ Might, might not</td>
<td>91</td>
</tr>
<tr>
<td>+ Probably not</td>
<td>96</td>
</tr>
<tr>
<td>+ Definitely not</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>(n)</td>
<td>(386)</td>
</tr>
</tbody>
</table>

Notes:
1. Each respondent’s self-claimed left-right policy position was surveyed on a scale from 0 (Left) to 10 (Right). However, in this table, ‘0-4’ are aggregated under the label of ‘Left,’ ‘5’ is labelled as ‘Centre’ and ‘6-10’ are aggregated under the label of ‘Right.’
2. The row question was as follows: Would you have voted in the election if voting had not been compulsory?
3. This table is compiled from Table 5.4. Each row of this table is the sum of column percentages from the top row to the equivalent row in Table 5.4. Therefore, figures in this table are cumulative percentages. p-value and Gamma to the right of each row are calculated from a table of the sum of column percentages from the top row to the equivalent row in Table 5.4 and the sum of the other rows.

Source: 2001 Australian Election Study (Bean, Gow and McAllister 2002)

The relationship between two variables at the hypothetical turnout of 64%, 82%, 90% and 96% is statistically significant at the 5% level, and this relationship is negative (G<0). Therefore, it would be reasonable to conclude that electors on the left are less likely to vote than electors on the right under the hypothetical VV system in Australia.
Judging from Table 5.5 above, it would also be reasonable to understand that, as turnout decreases, the level of imbalance in turnout between electors on the left and those on the right increases. Although it is difficult to predict the turnout level under VV in Australia, S. Jackman (1999a) estimated from a survey of the 1996 Australian election (Jones, McAllister, and Gow 1996) that it would be in the 55-65% range.86 If this prediction is correct, the hypothetical turnout of 64% (the first row in Table 5.5) will be useful for the prediction of turnout imbalance under the hypothetical VV system in the left-right dimension. At the 64% turnout level, the turnout of electors on the left (68%) would be lower by 6 percentage points than that of electors on the right (74%). Meanwhile, this imbalance is not detectable under the present CV system (see Table 5.3). Therefore, it would be reasonable to conclude that the turnout imbalance in the left-right dimension is mostly suppressed under the present CV system in Australia.87 However, this imbalance would become clearer and stronger if CV were abolished. The turnout of electors on the left would become lower than that of electors on the right and so the median voter position would shift away from the median elector position to the right.

**Turnout among Centre Electors**

Table 5.5 also suggests that turnout of centre electors would decrease more substantially than that of electors on the left and on the right if CV were abolished in Australia. This would result in reducing the electoral attractiveness of the centre policy position, and so the policy positions of the two major parties would move away from the median voter position. If the overall turnout were 64% under VV, the turnout of electors in the centre (53%) would be lower by 15 percentage points than that of electors on the left (68%) and by 21 percentage points than that of electors on the right (74%). This potential result under VV is consistent with the conventional wisdom that the two major parties are ambiguous for electors around the median voter and so centre electors tend to abstain. This argument can be extended by using Figure 5.7 below.

---

86 This is a companion paper of S. Jackman 1999b in the same volume of a journal. He took non-response and measurement errors into account in these papers and estimated the turnout under hypothetical VV in Australia.

87 McAllister (1986) found that, even in Australia under CV, there is a systematic relationship between turnout and electoral party advantage, though turnout is persistently very high in Australia and this party advantage is minor.
The two major parties ($P_1$ and $P_2$) and three electors ($X_1$, $X_2$ and $X_3$) are in the left-right dimension in Figure 5.7, and the two major parties are at the same distance from the median voter position ($M$). For elector $X_1$ at the median voter position, the two major parties are at the same distance from $X_1$. Therefore, $X_1$ cannot expect any differential benefit from the electoral outcome. In other words, the policy positions of these two major parties are indifferent to $X_1$. However, $X_3$ is to the right of $P_1$ and $P_2$ but is closer to $P_2$ than $P_1$. Therefore, $X_3$ can expect differential benefit from the electoral success of $P_2$ over $P_1$ and the level of this differential benefit can be measured by the policy distance between $P_1$ and $P_2$ (i.e. $|p_2 - p_1|$). Meanwhile, elector $X_2$ is between the two major parties and is closer to $P_2$ than $P_1$, and so $X_2$ can also expect differential benefit from the electoral success of $P_2$ over $P_1$. The level of this benefit can be measured as $|p_2 - p_1| - (x_2 - p_1)$ and this is not as much as that of $X_3$ (i.e. $|p_2 - p_1|$).

To summarise, although policy positions of the two major parties are totally indifferent only to electors at the exact middle of the two major party positions (e.g. elector $X_1$ in Figure 5.7), other electors between the two major party positions (e.g. elector $X_2$) have a diminished level of differential benefit from the electoral success of the party closer to them over the other party compared to electors at either of the two major party policy positions.

---

Notes:
1. $P_i$: major party; $i = 1, 2$.
2. $X_j$: elector; $j = 1, 2, 3$.
4. Values from 0 (Left) to 10 (Right) can be hypothetically allocated and can be expressed by small letters. For example, the value of the policy position of $P_1$ can be described as 'p_1.'
positions or exterior to them (e.g. elector \(X_3\)). The level of differential benefit from the electoral success of the party closer to them over the other party is visualised in Figure 5.8 below.

![Figure 5.8: Elector's Policy Position and Their Differential Benefit](image)

Notes:
1. \(P_i\): major party; \(i = 1, 2\).
2. \(X_j\): elector; \(j = 1, 2, 3\).
3. \(M\): the median voter position.
4. Values from 0 (Left) to 10 (Right) can be hypothetically allocated and can be expressed by small letters. For example, the value of the policy position of \(P_1\) can be described as "\(p_1\)."

Although party positions and voter positions in the left-right dimension are clear in Figure 5.7 and the differential benefit from the electoral outcome is measurable as demonstrated in Figure 5.8, the reality would be largely different from these two figures (Downs 1957, 45-47). There would be many policy dimensions in reality and so an elector might be closer to one of the two major parties on several policies but might be closer to the other major party on other policies. Therefore, it is not necessarily clear for electors around the centre which major party is closer to them taking all of their policy preferences as a whole. Therefore, although the policy positions of the two major parties are indifferent only to electors at the exact middle between the two major parties, the identity of the closer party would be ambiguous to more electors around the centre. This ambiguity could damage their motivation for voting in relation to the electoral outcome (Downs 1957, 78). On the other hand, although it is also difficult for extreme electors to
specify the exact policy positions of themselves and the two major parties in the left-right dimension, the level of differential benefit from the electoral outcome will still be high and clear to them so long as it is clear which major party is closer to them. Therefore, extreme electors on the left or the right would have a stronger and clearer motivation for turning out to vote compared to centre electors. Therefore, extreme electors are more likely to vote than centre electors under the VV system.

If the CV system were abolished in Australia, the turnout of centre electors would decrease more substantially than that of extreme electors on the left or the right and so the electoral attractiveness of the centre policy position would diminish for the two major parties. As a result, the policy positions of the two major parties would move farther away from the median voter position. If the governmental policy position stays alternately at the two party positions, this shift of the two major party positions would diminish the total utility of electors in the end.

5.4. Conclusion

This chapter assessed whether the high turnout resulting from CV is effective in improving the well-being of the people in industrial democracies. Previous works on CV have assessed CV and its effects by a variety of value standards, such as liberalism and democracy. For example, Lijphart (1997) used 'democracy' as the value standard to evaluate the high turnout resulting from CV. However, this chapter chose to regard the total utility of electors as the well-being of the people and to assess the usefulness of the high turnout resulting from CV by using this value standard, because of two reasons as follows. First, this chapter decided to choose some human-oriented value standard as a primary one rather than some secondary one like liberalism and democracy. Second, rather than other conceivable human-oriented value standards (i.e. the Pareto efficiency and the Nash efficiency), this chapter chose the total utility of electors (i.e. the utilitarian efficiency) because it is likely to be useful for improving the well-being of the people and also be manageable. On the left-right dimension model, this chapter applied the Lijphart theory that the turnout of privileged people is higher than that of less privileged people and public policy would be distorted for the benefit of the high turnout group but the high turnout resulting from CV will solve this democratic deficit.
The new model demonstrates that lower turnout is likely to widen the distance between the median voter (i.e. the median of all actual voters), around which the two major party policy positions converge, and the median elector (i.e. the median of all potential voters), at which the total utility of electors is maximised, in the left-right dimension. In reverse, the high turnout resulting from CV will be useful in approximating the median voter to the median elector and improving the total utility of electors.

This chapter simulated the consequences of the abolition of CV in Australia by using a survey of the 2001 Australia election (Bean, Gow and McAllister 2002). Under CV, the overall turnout is at around 95% of the registered electors and the turnout imbalance between electors on the left and those on the right is negligible—even if it exists. Therefore, the distance between the median elector position and the median voter position must be narrow. However, if CV were abolished in Australia and the overall turnout decreased to 64% for example, the turnout imbalance between the left and the right would become substantial. This finding is in line with Mackerras and McAllister 1999, which analysed a survey of the 1996 Australian election (Jones, McAllister and Gow 1996). This turnout imbalance would result in shifting the median voter position away from the median elector position to the right in the left-right dimension. Consequently, this shift would result in a decrease in the total utility of electors.

By analysing a survey of the 2001 Australia election (Bean, Gow and McAllister 2002), this chapter also found that turnout among electors in the centre would decrease more substantially than turnout of electors on the left and that on the right if CV were abolished in Australia. Consequently, the electoral attractiveness of the centre policy position would decrease, and so the two major parties would shift their policy positions farther away from the median voter position. When a two-party system is in operation, the policy positions of the two major parties will converge around the median voter position but will take the same distance from it—one on the left and one on the right—if all the other conditions are the same because each major party is under the influence of centripetal vector (i.e. vote power) and centrifugal vector (i.e. lobby power) (McLean 1982, 124-29; McLean 1987, 70-71; also see Downs 1957, 115-17). If the two major parties alternate in power, the governmental policy position will stay at either of these parties and will not stay at the median voter position. Therefore, the total utility of electors will not actually be maximised even if the median voter position is identical to the median elector position. However, the median voter position will still be important.
as the focal policy position around which the two major parties converge. The farther departure of the two major parties from the median voter position would result in a further decrease in the total utility of electors.

Therefore, if CV were abolished in Australia, the overall turnout would decrease and the total utility of electors would diminish in two folds. This result of the simulation of the abolition of CV in Australia, in reverse, implies twofold positive impact of the introduction of CV on the total utility of electors in industrial democracies under VV at present. Although the two major party policy positions are under the influence of the electoral attractiveness of the centre policy position, they are also assumed to be under the influence of some power that draws them back from the centre position. The next chapter will consider this outward power over the two major parties and the influence of CV upon it.

Appendix: Utility Function of Each Elector

This appendix is an extended explanation to Figure 5.3. In this figure, each elector is assumed to have a linear utility function as follows:

\[ U_i = M_i - a_i|\theta - x_i| \]

- \( U_i \): the \( i \)th elector's utility function
- \( M_i \): the maximum utility for the \( i \)th elector, which they get at their ideal policy position
- \( a_i \): the \( i \)th elector's characteristic constant
- \( \theta \): the focal policy position for two major parties
- \( x_i \): the ideal policy position for the \( i \)th elector.

This function means that the \( i \)th elector obtains the maximum utility for them \((M_i)\) at their ideal policy position \((x_i)\) but the utility that they obtain \((U_i)\) will decrease in proportion \((a_i)\) to the distance between their ideal policy position \((x_i)\) and the focal policy position \((\theta)\). Furthermore, neither \( M_i \) nor \( a_i \) is likely to be identical among all electors in reality, but these are set identical (i.e. \( M_i = 10 \) and \( a_i = 1 \)) for all electors in the hypothetical population of 100 individual electors in Figure 5.3. So long as these conditions are met, the total utility of electors is maximised when the focal policy position stays at the median of the distribution of ideal policy positions of electors.
because the median is the least absolute estimate.\textsuperscript{89} Ideal policy positions for the individual electors are unimodally and symmetrically distributed along the left-right policy dimension in Figure 5.3. However, even if the shape of the distribution is largely different from it, the median elector will still be the ideal policy position for the society from the viewpoint of the total utility of electors. For example, even if the distribution of the ideal positions is bimodal and/or asymmetrical, the total utility of electors is still maximised at the median elector.

Although the utility function of each elector is linear in the hypothetical population of 100 individual electors of Figure 5.3, Hinich and Munger (1994, 44-52) presented another model of a quadratic utility function for each elector as follows:

\[ U_i = M_i - a_i(\theta - x_i)^2. \]

In this model, the \(i\)th elector obtains the maximum utility for them (\(M_i\)) at their ideal policy position (\(x_i\)) but the utility that they obtain (\(U_i\)) quadratically decreases as the distance between their ideal policy position (\(x_i\)) and the focal policy position (\(\theta\)) increases. In their model, \(M_i\) and \(a_i\) are set identical for all electors and the total utility of electors is maximised when the focal policy position is at the mean of the ideal policy positions of electors rather than the median of them because the mean is the least squares estimate.\textsuperscript{90} If the distribution of the ideal policy positions of electors is symmetrical, the mean position and the median position are identical. However, if it is asymmetrical, the mean position and the median position will mostly be different from each other. Nevertheless, Hinich and Munger (1994, 50-51) still admired the median position rather than the mean position because the median is insensitive to a variety of preference shifts by the other electors. If the electoral system is engineered to allow each elector to register the intensity of their preference, some electors might tactically

\textsuperscript{89} 5.2 of this chapter demonstrates that the total utility of electors is maximised at the median, but it is hard to mathematically prove it because it is difficult to deal with absolute values.

\textsuperscript{90} It is possible to mathematically prove that the total utility of electors is maximised at the mean as follows.

\[
U_i = M_i - a(\theta - x_i)^2
\]

\[
U = \sum_{i=1}^{n} U_i = \sum_{i=1}^{n} [M_i - a(\theta - x_i)^2] = \sum_{i=1}^{n} [M - a\theta^2 + 2a\theta x_i - ax_i^2] = nM - n\theta^2 + 2a\theta \sum_{i=1}^{n} x_i - a \sum_{i=1}^{n} x_i^2
\]

\[
\frac{\partial U}{\partial \theta} = -2na + 2a \sum_{i=1}^{n} x_i = 0
\]

\[
\theta = \frac{\sum_{i=1}^{n} x_i}{n}
\]

\[
\theta = \frac{1}{n} \sum_{i=1}^{n} x_i
\]

121
exaggerate it in order to draw the mean position in their direction. However, the median position is not influenced by this kind of tactical manipulation of the intensity of preference.

Although it looks reasonable to think that each elector obtains the maximum utility at their ideal policy position and the utility that they obtain decreases as the focal policy position shifts away from it, the actual shape of the utility function of each elector is unknown. Even if each elector had a linear utility function, it is still unknown what $M_i$ and $a_i$ each elector has. Nevertheless, it would still be reasonable to assume that the total utility of electors is maximised at around the median elector position if each elector has a linear utility function and the difference of $M_i$ and $a_i$ among these electors is entirely random. Meanwhile, even if each elector had a quadratic utility function, it is still unknown what $M_i$ and $a_i$ each elector has. However, it would be reasonable to assume that the total utility of electors is maximised at around the mean position if each elector has a quadratic utility function and the difference of $M_i$ and $a_i$ among these electors is perfectly random. Moreover, the distribution of ideal policy positions of electors is not likely to be extremely skewed in the middle-class society that would be the case in most of the industrial democracies, and so the mean is not likely to be extremely far from the median. The mean is vulnerable to tactical manipulation of the intensity of preference but the median is not, and so it would be wise to be satisfied by the median. Taking all conditions above into consideration, although exact shape of the utility function that each elector has is unknown, it will be useful for practical purposes to hypothetically regard the median as the policy position at which the total utility of electors is maximised.
CHAPTER 6
The Implications for Political Parties

This chapter aims at extending the argument of the last chapter, by examining the implications of CV for political parties. If the two major parties come into power alternately, the government will stay at one of these two major party policy positions in the left-right dimension. The two major parties will not stay at the median voter position, but they will take the same distance from the median voter position—one to the left and the other to the right—if all the other conditions are the same. Upon this condition, the policy distance of the two major parties from the median voter position should have a relationship with the total utility of electors. When the major parties have a long distance from the median voter, the total utility of electors will be limited. However, if their policy positions are close to the median voter, the total utility of electors will be more substantial.

The policy position of each major party can be regarded as an equilibrium between one vector to the left and another to the right in the left-right dimension. On the one hand, each major party has a motivation to approximate their policy position to the median voter position in order to gain more votes and win the election (the centripetal vector). On the other hand, each major party has a motivation to appeal to the providers of electoral resources (i.e. election funds and campaigners) to run the election campaign and win the election. Consequently, each major party is drawn away from the median voter position by minority interests (i.e. interest groups and party activists) that provide electoral resources with the party (the centrifugal vector). The policy position of each major party would stay at the point where the centripetal vector and the centrifugal vector are in balance (McLean 1982, 124-29; McLean 1987, 70-71; also see Downs 1957, 115-17).

The last chapter argued that the median voter position and the centripetal vector influence the policy positions of the two major parties, and so this chapter will research the remaining centrifugal vector in order to complete the entire hypothesis about the relationship of CV with the total utility of electors. For this purpose, the chapter will first build a hypothesis that CV controls the demand of the two major parties for electoral resources, which draws them away from the median voter position in the
left-right dimension, by utilising rational choice theory. Second, the chapter will provide empirical evidence for this hypothesis by making statistical, international comparisons between the major industrial democracies.

6.1. The Distance between the Party and the Median Voter

This section considers whether the high turnout resulting from CV has the effect of controlling the size of the centrifugal vector that influences the policy position of the two major parties. The first subsection posits a hypothesis that the policy positions of the two major parties are in balance between the centripetal vector and the centrifugal vector. The second subsection provides a hypothesis that CV will release the two major parties from the requirement to mobilise their supporters to attend polling places and so the amount of electoral resources that the parties spend will diminish. The third subsection advances a hypothesis that CV will diminish the level of uncertainty about the electoral outcome in each constituency and will decrease the number of marginal seats, into which the two major parties concentrate their electoral resources. This decrease in the number of marginal seats will further limit the amount of electoral resources that the two major parties spend. As a result, minority interests (i.e. interest groups and party activists) will have less power to draw away the two major parties from the median voter position. This will result in a shift of the two major party positions in the direction of the median voter position and will further increase the total utility of electors.

Party Policy Positions as Equilibria

When the governmental policy position is at the median elector position in the left-right dimension, the total utility of electors will be maximised. However, the two major parties will converge around the median voter position rather than the median elector position, and so the median voter position will be the preferred policy position for the two major parties rather than the median elector position. Although CV is useful in approximating the median voter position to the median elector position, this does not mean that the introduction of CV will surely maximise the total utility of electors. The
two major parties will converge around the median voter position but will still position themselves some distance from it (McLean 1982, 124-29; McLean 1987, 70-71; also see Downs 1957, 115-17). If these two major parties come into power alternately, the governmental policy position will not remain at the median voter position but will alternately stay at the two major party policy positions. Therefore, even if the median voter position coincides with the median elector position, the level of the total utility of electors will depend on the distance of the two major party positions from the median voter position.

Upon the hypothetical condition that the median voter position coincides with the median elector position, the approximation of the two major party policy positions to the median voter position will improve the total utility of electors. However, each of the two major party policy positions is in equilibrium between the centripetal vector and the centrifugal vector (see Figure 6.1 below). On the one hand, each major party has a motivation to approach the median voter position to gain more votes and win the election. Therefore, each major party policy position is under the influence of this centripetal vector, which the last chapter considered in detail. On the other hand, each major party needs electoral resources (i.e. election funds and campaigners) to conduct an election campaign and to win votes and the election. Therefore, each major party has to appeal to their potential donors and campaigners (i.e. interest groups and party activists), most of whom are not at around the median voter position. This means that each major party also has a motivation to move away from the median voter position and is under the influence of this centrifugal vector (Aldrich 1983, 985). As a result, each of the two major parties is under the influence of both the centripetal vector and the centrifugal vector, and each of them stays at the policy position where these two conflicting vectors are in equilibrium.

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91 Also see Downs (1957, 100-2) for another explanation about the reason the two major parties do not stay at the median voter.
If the size of the centrifugal vector of the two major parties is controlled and all
the other conditions remain the same, the two major party policy positions will cease to
be in equilibrium and will shift in the direction of the median voter position until they
restore their equilibrium (see Figure 6.2 below). This shift of the two major party policy
positions will improve the total utility of electors.
A Party’s Election Tasks
If electoral registration is voluntary, encouraging their supporters to register and offering them a help for registration will be one of the most important tasks for extra-parliamentary party organisations. For example, many states of the USA have a voluntary registration system and electoral registration is a major political concern (Brians 2000). However, the majority of industrial democracies have some form of compulsory or automatic registration system at present (ACE Project 2006), and so registration is not a major concern for parties any more in these countries. Nevertheless, most of the industrial democracies have VV and so mobilisation of their supporters to polling places is an important task for parties in these countries though conversion of electors might have increased its relative importance compared to their mobilisation as a result of decline in party identification (Katz and Mair 1995, 8). Meanwhile, several industrial democracies that have proper CV (i.e. Australia and Belgium) have achieved very high turnout, and so parties in these countries are mostly released from the task of mobilisation. In CV counties, then, parties can concentrate on the acquisition, conversion and reinforcement of party support among the electorate. In other words, parties in CV countries have fewer tasks compared to their counterparts in VV counties. This means that parties have relatively limited space for manipulation by election campaign in CV countries compared to those in VV countries.

The effectiveness of election funds measured by vote share can be expected to follow an S-shape curve like $V_i$ in Figure 6.3 below (Mueller 2003, 481-86). At the beginning of a campaign, election spending is highly productive because a candidate reaches electors who will vote for him/her once they learn something about the candidate. As more and more electors learn his/her name and his/her policy position on the issues, the number of new votes gained by a unit of election-fund spending will decline, probably reaching zero (the saturation) at the election-fund quantity of $S$ in Figure 6.3 (see also Abramowitz 1988; Coates 1998; Jacobson 1978; Jacobson 1985; Lott 1991).92

92 Beyond the saturation point ($S$), spending might even have a negative effect on the vote share (Coates 1998). However, this is not a concern of this thesis.
Meanwhile, election-fund raising is not cost-free, and fund-raisers incur the opportunity costs (i.e. time, effort and money) for it. Moreover, the cost per unit of election funds is not the same. At the beginning, a fund-raiser may be able to collect donations relatively easily. However, most people are not generous, and so fund-raising will gradually prove its difficulty and it will take more time and effort to earn one unit of election funds. In other words, the cost of fund-raising will accumulatively increase as the total spending of election funds increases. Line $C$ in Figure 6.3 represents the cost of election-fund raising. Line $V_1$ and Line $C$ cross at $E_1$. Beyond $E_1$, the total cost of fund-raising exceeds the total effectiveness of fund-spending. Therefore, a fund-raiser cannot afford to continue raising election funds any more. In other words, this point is
the equilibrium for fund-raising. If $V_i$ is the line of effectiveness of election spending in a VV country, the line of a CV country will conform to $V_2$ because the space for manipulation by the election campaign is relatively limited under CV and so election funds should be less effective in gaining additional votes. However, the total cost of fund-raising under CV will be the same as that of VV, and so Line $V_2$ crosses Line $C$ at $E_2$. Beyond this point of $E_2$, the total cost of fund-raising exceeds the total effectiveness of fund spending and so a fund-raiser cannot afford to continue his/her activity. In other words, this point of $E_2$ is the equilibrium for fund-raising in a CV country. In Figure 6.3, the quantity of election funds in equilibrium between effectiveness and cost under CV ($Q_2$) is less than that of VV ($Q_i$). Consequently, the election will be less costly under CV compared to that of VV. This argument is only about election funding, but electoral resources in general (i.e. election funds and campaigners) would take similar lines. Therefore, by releasing parties from having to mobilise their supporters to attend polling places, CV will decrease the electoral resources that the parties spend.

**Electoral Fluidity and Marginal Seats**
A CV country will tend to have more safe seats and fewer marginal seats than a VV country if all the other conditions are the same, because almost all electors vote under CV and so electoral uncertainty is limited compared to that of a VV country in which even electors with party identification may vote but may not. It is not cost-effective to spend a lot of electoral resources on safe seats, and so the number of constituencies for which parties work hard will be relatively limited in a CV country. Although parties could spend the same amount of electoral resources on a reduced number of marginal seats, this is not likely to happen from the viewpoint of cost effectiveness. For thinking about the level of electoral uncertainty in detail, this thesis will hereafter call it 'electoral fluidity (EF).’ This electoral fluidity can be divided into three sub-concepts.

---

93 If these two lines were gain and loss for a private company, this company would stop their business activity when the marginal loss catches up with the marginal gain (Equilibrium: $\Delta C=\Delta V$) because they are a profit maximiser. However, an election candidate is a production maximiser (i.e. a vote share maximiser) and so they will continue their election campaign activity as much as they can afford (Equilibrium: $C=V$).
presented in Table 6.1 below.\footnote{Electoral fluidity (EF) should be distinguished from 'electoral volatility' addressed on the dynamics of party systems by Pedersen 1979 (also see Mair 2000, 331).}

<table>
<thead>
<tr>
<th>Table 6.1: Electoral Fluidity (EF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Turnout Fluidity (EFa),</td>
</tr>
<tr>
<td>which comes from the difference</td>
</tr>
<tr>
<td>between persistent voters,</td>
</tr>
<tr>
<td>occasional voters and persistent</td>
</tr>
<tr>
<td>abstainers.</td>
</tr>
<tr>
<td>2. Party-Support Fluidity (EFb),</td>
</tr>
<tr>
<td>which comes from the difference</td>
</tr>
<tr>
<td>between party supporters and floating electors.</td>
</tr>
<tr>
<td>3. Seat Fluidity (EFc),</td>
</tr>
<tr>
<td>which is a result of EFa and EFb.</td>
</tr>
</tbody>
</table>

Turnout fluidity (EFa) is the first type of electoral fluidity. Under VV, electors may vote but may not vote. However, with closer observation, it will become clear that some electors almost always vote, some occasionally vote and others rarely vote. This type of fluidity mostly resides in occasional voters who may vote but may not vote (see Table 6.2), and they are the target for election campaign. Moreover, persistent abstainers are largely irrelevant to the electoral outcome under VV. If the rate of occasional voters is high among all electors except for persistent abstainers, the level of turnout fluidity (EFa) will be high and so the overall electoral fluidity (EF) will probably be high either. On the other hand, under the proper CV system, the vast majority of electors vote and so turnout is very high. Therefore, turnout fluidity (EFa) is small (see Table 6.3). Turnout is always very high in Australia and Belgium because of their proper CV system, and so turnout fluidity (EFa) should be little in these CV countries.
### Table 6.2: Turnout Fluidity (EFa) and Party-Support Fluidity (EFb) in a VV Country

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Centre</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Almost) always vote</td>
<td>Left-wing (solid)</td>
<td>Floating (EFb)</td>
<td>Right-wing (solid)</td>
</tr>
<tr>
<td>May vote but may not</td>
<td>Left-wing (EFa)</td>
<td>Floating (EFa, EFb)</td>
<td>Right-wing (EFa)</td>
</tr>
<tr>
<td>[Rarely/never vote]</td>
<td>[Left-wing] (irrelevant)</td>
<td>[Floating] (irrelevant)</td>
<td>[Right-wing] (irrelevant)</td>
</tr>
</tbody>
</table>

Notes:
1. The description in each cell indicates the party for which each cohort voters (may) vote. The description in parentheses is the level and type of electoral fluidity.
2. Electoral fluidity (EF) resides in the shadowed cells.
3. The description in square brackets are irrelevant to the electoral outcome and so these cells are also irrelevant to the level of electoral fluidity (EF). These cells are crossed in the table.

### Table 6.3: Turnout Fluidity (EFa) and Party-Support Fluidity (EFb) in a CV Country

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Centre</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Almost) always vote under hypothetical VV</td>
<td>Left-wing (solid)</td>
<td>Floating (EFb)</td>
<td>Right-wing (solid)</td>
</tr>
<tr>
<td>May vote but may not under hypothetical VV</td>
<td>Left-wing (solid)</td>
<td>Floating (EFb)</td>
<td>Right-wing (solid)</td>
</tr>
<tr>
<td>Rarely/never vote under hypothetical VV</td>
<td>Left-wing (solid)</td>
<td>Floating (EFb)</td>
<td>Right-wing (solid)</td>
</tr>
</tbody>
</table>

Notes:
1. The description in each cell indicates the party for which each cohort voters (may) vote. The description in parentheses is the level and type of electoral fluidity.
2. Electoral fluidity (EF) resides in the shadowed cells.
3. Turnout fluidity (EFa) is negligible in a CV country.

Party-support fluidity (EFb) is the second type of electoral fluidity. Some electors have party identification but others do not. Electors without party identification can be regarded as floating electors, and they are a source of electoral uncertainty and are the targeted electors of electoral campaign for acquisition and conversion (Katz and Mair 1995, 8; Kavanagh 2000, 29). This type of electoral fluidity can be measured by the rate of electors without party identification, who can be regarded as floating electors. If the rate of floating electors is high, the level of party-support fluidity (EFb) will also be high. According to Downs (1957, 273), the cost in relation to voting consists of the cost of information and the cost of voting itself. It takes considerable time and effort to collect, examine and assess information about each candidate or party in regard to their policies and track record. However, by developing a party identification, electors can bypass this process and can significantly reduce the cost of information (Downs 1957, 96-113).

Because of the cost of information for voting, electors who are mobilised by CV
but otherwise do not vote are likely to be a type of people who are less interested in politics or people who are less privileged in regard to electoral information (Downs 1957, 214-16; Putnam [2000] 2001, 35; Table 8.1). However, the development of party identification will make voting easier for them (Downs 1957, 85, 96-113). Therefore, the introduction of CV will encourage these electors to acquire a party identification (Mackerras and McAllister 1999, 229-30), and this will result in decreasing the level of party-support fluidity (EFb). International comparisons of the level of the party-support fluidity (EFb) are possible by using survey data (Table 6.4 below). Only Australia and Belgium have a proper CV system among the 19 industrial democracies in Table 6.4. Australia has the highest party-identification rate of 84%, and party-support fluidity (EFb) is relatively low in Australia (16%). This finding is supportive of the Downs ‘shortcut’ hypothesis of party identification (Downs 1957, 96-113). Meanwhile, the party identification rate of Belgium is 36% and this is the third from the bottom in this table. Therefore, party-support fluidity (EFb) is relatively high in Belgium (64%). This means that the Downs ‘shortcut’ hypothesis of party identification does not fit well with the case of Belgium.95

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95 Lundell applied ordinal logistic regression on European Social Survey 2-2004, and his analysis indicates that the relationship of CV with party identification is marginal though it is statistically significant (Lundell 2007). This result also suggests that the Downs 'shortcut' hypothesis is questionable in terms of empirical evidence. However, the number of CV countries in his sample is merely three, and his analysis has a limitation in this regard.
Table 6.4: Party Identification Rate in Industrial Democracies

<table>
<thead>
<tr>
<th>Party identification</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Total (%)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australia (2004)</strong></td>
<td>84</td>
<td>16</td>
<td>100</td>
<td>(1,719)</td>
</tr>
<tr>
<td>Spain (2004)</td>
<td>61</td>
<td>39</td>
<td>100</td>
<td>(1,168)</td>
</tr>
<tr>
<td>Japan (2004)*</td>
<td>58</td>
<td>42</td>
<td>100</td>
<td>(1,712)</td>
</tr>
<tr>
<td>France (2002)</td>
<td>56</td>
<td>44</td>
<td>100</td>
<td>(990)</td>
</tr>
<tr>
<td>New Zealand (2002)*</td>
<td>56</td>
<td>44</td>
<td>100</td>
<td>(1,682)</td>
</tr>
<tr>
<td>USA (2004)*</td>
<td>56</td>
<td>44</td>
<td>100</td>
<td>(1,061)</td>
</tr>
<tr>
<td>Denmark (2001)</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>(1,894)</td>
</tr>
<tr>
<td>Germany (2002 Mail-back)*</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>(992)</td>
</tr>
<tr>
<td>Sweden (2002)</td>
<td>49</td>
<td>51</td>
<td>100</td>
<td>(1,047)</td>
</tr>
<tr>
<td>Finland (2003)</td>
<td>47</td>
<td>53</td>
<td>100</td>
<td>(1,174)</td>
</tr>
<tr>
<td>Portugal (2005)</td>
<td>45</td>
<td>55</td>
<td>100</td>
<td>(2,721)</td>
</tr>
<tr>
<td>Italy (2006)*</td>
<td>43</td>
<td>57</td>
<td>100</td>
<td>(1,169)</td>
</tr>
<tr>
<td>Switzerland (2003)*</td>
<td>42</td>
<td>58</td>
<td>100</td>
<td>(1,403)</td>
</tr>
<tr>
<td>Norway (2001)</td>
<td>41</td>
<td>59</td>
<td>100</td>
<td>(2,021)</td>
</tr>
<tr>
<td>Netherlands (2002)</td>
<td>39</td>
<td>61</td>
<td>100</td>
<td>(1,564)</td>
</tr>
<tr>
<td>Canada (2004)*</td>
<td>38</td>
<td>62</td>
<td>100</td>
<td>(1,622)</td>
</tr>
<tr>
<td><strong>Belgium (2003)</strong></td>
<td>36</td>
<td>64</td>
<td>100</td>
<td>(2,149)</td>
</tr>
<tr>
<td>Great Britain (2005)*</td>
<td>35</td>
<td>65</td>
<td>100</td>
<td>(853)</td>
</tr>
<tr>
<td>Ireland (2002)*</td>
<td>28</td>
<td>72</td>
<td>100</td>
<td>(2,313)</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>48</td>
<td>52</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. CV countries are underlined and bold.
2. Invalid answers are excluded from the total.
3. Original sample weight is applied for countries with an asterisk (*), but the unmodified sample size is presented.
4. Data are not available for Austria and Greece.


Seat fluidity (EFc) is the third type of electoral fluidity. While turnout fluidity (EFa) and party-support fluidity (EFb) are about voting behaviour of electors, seat fluidity (EFc) is the result of these two types of electoral fluidity (i.e. EFa and EFb) in the framework of the single-seat constituency system and is more directly related to the electoral outcome. Seat fluidity (EFc) in a CV country is demonstrated in Figure 6.4 below. Turnout fluidity (EFa) is negligible in a CV country (e.g. Australia and Belgium) and so it is controlled for in this model. By controlling for turnout fluidity (EFa), it is also possible to make this model simpler and more intelligible.
The following example demonstrates this phenomenon. In Constituency A, the range of party-support fluidity (EFb) is narrow (i.e. EFb is low.), and this range does not stretch past the median voter position. This means that the electoral outcome of this constituency is certain and this is a safe, left-wing party seat. Therefore, seat fluidity (EFc) is low in this constituency. Meanwhile, in Constituency B, the range of party-support fluidity (EFb) is wide (i.e. EFb is high.) and it stretches past the median voter position. Therefore, the electoral outcome of this constituency is uncertain. However, the centre of this range is clearly to the right, and so the left-wing major party is more likely to win this seat than the right-wing major party. Overall, seat fluidity (EFc) is fairly high in this constituency. In general, seat fluidity (EFc) is likely to be low if the range of party-support fluidity (EFb) is short (i.e. EFb is low.). However, this will not always be the case, and Constituency C shows an exceptional case. In this constituency, the range of party-support fluidity (EFb) is narrow. However, this range covers the median voter position and the centre of this range is at around this median voter position. Therefore, the constituency fluidity (EFc) is very high and the electoral
outcome is extremely uncertain.

In Australia, turnout is persistently high and so turnout fluidity (EFa) is negligible. Moreover, the rate of party identification is high possibly because of its proper CV system, and so party support fluidity (EFb) is low. Although data for testing seat fluidity (EFc) is not available, it would be reasonable to think that seat fluidity (EFc) is low in Australia because both turnout fluidity (EFa) and party-support fluidity (EFb) are low. Therefore, the number of marginal seats is likely to be controlled by CV in Australia. Meanwhile, turnout is high in Belgium too, and so turnout fluidity (EFa) is limited. However, the party identification rate is low and so party-support fluidity (EFb) is high despite the existence of proper CV. Nevertheless, the low turnout-fluidity (EFa) resulting from CV is expected to be controlling the level of seat fluidity (EFc) at least, and so it should have operated to control the number of marginal seats. Belgium does not have a single-seat constituency system but has a PR system. However, the key point of this argument about electoral fluidity (EF) would still be relevant to Belgium.

The allocation of electoral resources will be influenced by the decrease in the number of marginal seats. If there are two constituencies in a country that are equally fluid in all of the three types of electoral fluidity and the two major parties procure the same amount of electoral resources from each constituency, each major party will not transfer any electoral resources between the constituencies and will spend all resources they procure in each constituency (see the two-marginal-seat situation in Figure 6.5 below). On the other hand, if one constituency is safe and the other is marginal, each major party will regard this safe seat as a 'resource cow' and will transfer the electoral resources they can milk from this safe seat to the marginal seat for better allocation of their electoral resources (see the one-safe, one-marginal seat situation in Figure 6.5 below). Although these two major parties will need to spend some keep-up cost on the safe seat in reality, these parties are here assumed to spend all electoral resources only on the marginal seat in this model for the purposes of simplicity. Furthermore, the allocation of electoral resources between constituencies is presumed to be centralised and smooth in this model.
If the number of marginal seats decreases, the scope for electoral manipulation will also diminish and the amount of electoral resources that two major parties spend will also decrease. For example, if the number of marginal seats becomes half in a country, the space for electoral manipulation will also become half. As a result, the effectiveness of election funds will also become half. This example is illustrated by the effectiveness line of $V_3$ in Figure 6.3.96 This effectiveness line of $V_3$ crosses the cost line of $C$ at $E_3$. The quantity of election funds $Q_3$ is more than the half of $Q_2$ in this figure. Therefore, even if the number of marginal seats becomes half, the election funds that the two major parties spend will not become half in total. This means that the election funds spent per marginal seat will even increase though it will not become

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96 Figure 6.3 was originally presented for a constituency. However, this figure is here used for a hypothetical country in which the number of marginal seats becomes half.
double. However, the value of $Q_3$ is, at least, smaller than that of $Q_2$. Therefore, the total quantity of election funds that the two major parties spend in a country will decrease. If $Q_3$ is compared with $Q_i$, it will be clearer that CV has an effect of decreasing the quantity of election funds that parties spend.\footnote{See 2.2 of Chapter 2 for arguments that CV will control the quantity of electoral funds.}

**CV's Control over Minority Interests**

The introduction of CV will diminish the influence of minority interests over the two major parties, and this will result in increasing the total utility of electors. First, the introduction of CV will release the two major parties from the task of mobilisation of their supporters to polling places. Second, it will reduce the number of marginal seats. These two effects of CV will decrease the electoral resources (e.g. election funds and campaigners) that the two major parties spend. The electoral resources are provided by minority interests (e.g. interest groups and party activists), which draw the policy positions of the two major parties away from the median voter position (McLean 1982, 124-29; McLean 1987, 70-71). As a result of the decrease in electoral resources, the two major parties will become relatively free from the influence of minority interests, and these parties will shift their policy positions in the direction of the median voter position (see Figure 6.2). Upon the condition that the two major parties alternately come into power, this centripetal shift of the two major party positions will result in a further increase in the total utility of electors. The next section will examine whether the demand for electoral resources is actually weaker in industrial democracies with proper CV than in those with VV.

### 6.2. Demand for Electoral Resources under Compulsory Voting (International Comparisons)

By making international comparisons, this section provides empirical evidence that CV controls the demand for electoral resources (i.e. election funds and campaigners). Taking into consideration the fact that the nature of election campaigns is changing from the human resource-oriented one to the centralised, finance-oriented one (Katz, and Mair 1995, 18, 20; Kavanagh 2000, 29; Scarrow 2000), international comparison of
election funds is particularly important. However, any meaningful comparison of election funds is difficult for two reasons. First, it is difficult to obtain data about election funds since all industrial democracies do not have a legal disclosure system of election funds.\(^9\) Without a legal disclosure system, some parties publish data about their funds but others do not. Second, even if data of party funds for comparison is available, any international comparison of the funds is not likely to make much sense. Some available data may be about the election campaign only, but others may be about continuous party activity. Moreover, the main fund-raisers may be parties in some countries but may be candidates in others, but data about funds raised by candidates may not be available or may be difficult to obtain. Furthermore, some countries have a system of party subsidy but others do not. Therefore, this section will concentrate on comparing election campaigners.\(^9\)  

Party activists may tend to be very different from electors around the median elector position (Aldrich 1983; McLean 1982, 124-29; McLean 1987, 70-71). Making a substantial contribution to a political party is costly in time, effort and money; as a result, the majority of the people would not bother to do it but people with clear, strong, political beliefs may. At the time of election, they would work as election campaigners. Survey data indicates that extreme electors are more likely to be actively involved in election campaign activity than centre electors in industrial democracies (see Table 6.5 below). In 15 industrial democracies out of 19, the relationship between the centre-extreme policy position of respondents and campaign activity participation is statistically significant at the 5% level. All gammas of these 15 countries are negative, and extreme electors on the left or on the right are more likely to participate in election campaign activity. Moreover, even in the other four countries, a similar pattern is observable.

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\(^9\) Katz and Mair (1992) provided campaign expenditure data in 12 industrial democracies until 1990. Meanwhile, funding and disclosure scheme has been in operation in Australia since the 1984 election. There is an overlap from 1984 to 1990, and so international comparison is possible. However, the meaningfulness of this comparison is questionable.

\(^9\) This means that an overall, empirical assessment of the demand for electoral resources is given up.
Table 6.5: Extremism and Election Campaign Activity Participation Rate

<table>
<thead>
<tr>
<th>Country</th>
<th>Self-assessed centre-extreme policy position (%)</th>
<th>Total (%)</th>
<th>p-value</th>
<th>Gamma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada (2004)*</td>
<td>29, 32, 40, 43, 56</td>
<td>36 (1,493)</td>
<td>&lt;0.001</td>
<td>-0.229</td>
</tr>
<tr>
<td>USA (2004)*</td>
<td>20, 31, 32, 47, 39</td>
<td>32 (917)</td>
<td>&lt;0.001</td>
<td>-0.266</td>
</tr>
<tr>
<td>Australia (2004)</td>
<td>11, 17, 20, 25, 21</td>
<td>17 (1,415)</td>
<td>&lt;0.001</td>
<td>-0.255</td>
</tr>
<tr>
<td>Great Britain (2005)*</td>
<td>8, 13, 19, 28, 25</td>
<td>16 (610)</td>
<td>&lt;0.001</td>
<td>-0.354</td>
</tr>
<tr>
<td>Germany (2002)*</td>
<td>8, 14, 16, 16, 15</td>
<td>14 (928)</td>
<td>0.119</td>
<td>-</td>
</tr>
<tr>
<td>Finland (2003)</td>
<td>10, 12, 12, 15, 17</td>
<td>12 (1,075)</td>
<td>0.271</td>
<td>-</td>
</tr>
<tr>
<td>Italy (2006)*</td>
<td>7, 8, 14, 13, 17</td>
<td>12 (891)</td>
<td>0.019</td>
<td>-0.239</td>
</tr>
<tr>
<td>Ireland (2002)*</td>
<td>6, 9, 9, 18, 11</td>
<td>9 (1,836)</td>
<td>&lt;0.001</td>
<td>-0.275</td>
</tr>
<tr>
<td>Denmark (2001)</td>
<td>9, 7, 6, 14, 12</td>
<td>8 (1,950)</td>
<td>0.002</td>
<td>-0.034</td>
</tr>
<tr>
<td>Portugal (2002)</td>
<td>5, 8, 7, 10, 14</td>
<td>8 (1,105)</td>
<td>0.020</td>
<td>-0.242</td>
</tr>
<tr>
<td>Belgium (2003)</td>
<td>5, 7, 8, 12, 12</td>
<td>7 (2,006)</td>
<td>&lt;0.001</td>
<td>-0.276</td>
</tr>
<tr>
<td>France (2002)</td>
<td>4, 4, 9, 7, 14</td>
<td>7 (964)</td>
<td>0.001</td>
<td>-0.330</td>
</tr>
<tr>
<td>Norway (2001)</td>
<td>5, 4, 7, 10, 14</td>
<td>7 (1,948)</td>
<td>&lt;0.001</td>
<td>-0.305</td>
</tr>
<tr>
<td>Netherlands (2002)</td>
<td>5, 6, 6, 9, 15</td>
<td>7 (1,546)</td>
<td>0.002</td>
<td>-0.225</td>
</tr>
<tr>
<td>New Zealand (2002)*</td>
<td>5, 6, 5, 7, 9</td>
<td>6 (1,262)</td>
<td>0.334</td>
<td>-</td>
</tr>
<tr>
<td>Switzerland (2003)*</td>
<td>4, 5, 6, 10, 9</td>
<td>6 (1,345)</td>
<td>0.007</td>
<td>-0.285</td>
</tr>
<tr>
<td>Spain (2004)</td>
<td>3, 4, 7, 9, 12</td>
<td>6 (1,060)</td>
<td>0.001</td>
<td>-0.371</td>
</tr>
<tr>
<td>Japan (2004)*</td>
<td>3, 4, 4, 6, 10</td>
<td>4 (1,801)</td>
<td>0.009</td>
<td>-0.204</td>
</tr>
<tr>
<td>Sweden (2002)</td>
<td>3, 2, 3, 4, 5</td>
<td>3 (1,017)</td>
<td>0.532</td>
<td>-</td>
</tr>
<tr>
<td>Average</td>
<td>8, 10, 12, 16, 17</td>
<td>17 (11)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. CV countries are underlined and bold.
2. 'Self-assessed centre-extreme policy position' was originally measured on a scale from 0 (Left) to 10 (Right). However, for this table, '5' in this original scale is relabelled as '0 (Centre),' and '0 (Left)' and '10 (Right)' in the original scale are combined and relabelled as '5 (Extreme). The others in the original scale are combined and relabelled in accordance.
3. In the case of Japan, the original scale was '0 (Progressive)—10 (Conservative). ' For this table, this Japanese scale is dealt with like the scale used for other countries.
4. Data are not available for Austria and Greece.
5. Portugal (2002) is used because Portugal (2005) does not include necessary data for this table.
6. Germany (2002) is a mail-back survey.
7. Sample weight is used for countries with an asterisk (*), but the unmodified sample size is presented.
8. Invalid answers are excluded from the total.

If parties need election campaigners, they will need to pay some ‘price’ to party activists (e.g. the adoption of policies that party activists want) in order to give them incentives (Clark and Wilson 1961; Downs 1957, 92). By paying this price, the parties will get drawn away from the median voter position. Interest groups might also provide election campaigners to the parties, and these election campaigners may not be
extremists. However, the parties will still need to pay some 'price' to these groups. If
the parties pay a high price to minority interests (i.e. interest groups and party activists)
for election campaigners, the parties will be strongly drawn away from the median voter
position.

If CV controls the demand for electoral resources (i.e. election funds and
campaigners), the election campaign participation rate in Australia and Belgium is
likely to be limited compared to that of other industrial democracies. However, the
campaign activity participation rate of the total is 17% in Australia and 7% in Belgium in
Table 6.5. These rates are not particularly low among 19 industrial democracies in
this table. An international comparison of party membership indicates a similar
tendency (see Table 6.6 below). The party membership rate of Australia is 10% and that
of Belgium is 7%. These figures are not particularly low among 22 industrial
democracies in this table. These findings are contrary to the hypothesis that CV controls
the demand for electoral resources. However, these findings are not necessarily solid
evidence against this hypothesis, and there may be another way of assessing the demand
for election campaigners.
<table>
<thead>
<tr>
<th>Country</th>
<th>Charitable Org Membership (%)</th>
<th>Political Party Membership (%)</th>
<th>Sample Size (n)</th>
<th>p-value</th>
<th>Gamma</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand (1998)</td>
<td>32</td>
<td>13</td>
<td>(1,033)</td>
<td>&lt;0.001</td>
<td>0.605</td>
</tr>
<tr>
<td>Australia (1995)</td>
<td>30</td>
<td>10</td>
<td>(2,040)</td>
<td>&lt;0.001</td>
<td>0.513</td>
</tr>
<tr>
<td>Norway (1996)</td>
<td>28</td>
<td>15</td>
<td>(1,126)</td>
<td>&lt;0.001</td>
<td>0.339</td>
</tr>
<tr>
<td>Switzerland (1996)</td>
<td>22</td>
<td>17</td>
<td>(1,191)</td>
<td>&lt;0.001</td>
<td>0.503</td>
</tr>
<tr>
<td>Netherlands (1999)</td>
<td>22</td>
<td>9</td>
<td>(1,003)</td>
<td>&lt;0.001</td>
<td>0.499</td>
</tr>
<tr>
<td>Sweden (1999)</td>
<td>21</td>
<td>10</td>
<td>(1,015)</td>
<td>&lt;0.001</td>
<td>0.445</td>
</tr>
<tr>
<td>USA (1999)</td>
<td>17</td>
<td>19</td>
<td>(1,200)</td>
<td>0.014</td>
<td>0.219</td>
</tr>
<tr>
<td>Canada (2000)</td>
<td>13</td>
<td>6</td>
<td>(1,931)</td>
<td>0.013</td>
<td>0.284</td>
</tr>
<tr>
<td>Belgium (1999)</td>
<td>11</td>
<td>7</td>
<td>(1,912)</td>
<td>&lt;0.001</td>
<td>0.531</td>
</tr>
<tr>
<td>Finland (2000)</td>
<td>10</td>
<td>6</td>
<td>(1,038)</td>
<td>0.002</td>
<td>0.453</td>
</tr>
<tr>
<td>Japan (2000)</td>
<td>9</td>
<td>3</td>
<td>(1,362)</td>
<td>&lt;0.001</td>
<td>0.744</td>
</tr>
<tr>
<td>Austria (1999)</td>
<td>7</td>
<td>12</td>
<td>(1,522)</td>
<td>0.001</td>
<td>0.389</td>
</tr>
<tr>
<td>Denmark (1999)</td>
<td>7</td>
<td>7</td>
<td>(1,023)</td>
<td>0.196</td>
<td>-</td>
</tr>
<tr>
<td>Ireland (1999)</td>
<td>7</td>
<td>4</td>
<td>(1,012)</td>
<td>0.957</td>
<td>-</td>
</tr>
<tr>
<td>Great Britain (1999)</td>
<td>7</td>
<td>3</td>
<td>(1,000)</td>
<td>&lt;0.001</td>
<td>0.783</td>
</tr>
<tr>
<td>Greece (1999)</td>
<td>6</td>
<td>8</td>
<td>(1,142)</td>
<td>0.001</td>
<td>0.466</td>
</tr>
<tr>
<td>Italy (1999)</td>
<td>6</td>
<td>4</td>
<td>(2,000)</td>
<td>0.001</td>
<td>0.464</td>
</tr>
<tr>
<td>France (1999)</td>
<td>6</td>
<td>2</td>
<td>(1,615)</td>
<td>&lt;0.001</td>
<td>0.638</td>
</tr>
<tr>
<td>N Ireland (1999)</td>
<td>5</td>
<td>2</td>
<td>(1,000)</td>
<td>0.972</td>
<td>-</td>
</tr>
<tr>
<td>Germany (1999)</td>
<td>4</td>
<td>3</td>
<td>(2,036)</td>
<td>0.873</td>
<td>-</td>
</tr>
<tr>
<td>Portugal (1999)</td>
<td>4</td>
<td>2</td>
<td>(1,000)</td>
<td>&lt;0.001</td>
<td>0.817</td>
</tr>
<tr>
<td>Spain (2000)</td>
<td>3</td>
<td>1</td>
<td>(1,209)</td>
<td>&lt;0.001</td>
<td>0.799</td>
</tr>
<tr>
<td>Average</td>
<td>13</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a=0.05

Notes:
1. CV countries are underlined and are bold.
2. The relationship between charitable organisation membership and political party membership is analysed in each country, and p-value and Gamma are provided.
3. While 'charitable organization' was questioned about for italicised country surveys, 'voluntary organisations and activities for social welfare services for elderly, handicapped or deprived people' was questioned about for others.
4. Active members and inactive members are consolidated for italicised country surveys.


Although it may be appropriate to regard the election campaign activity participation rate or the political party membership rate as an index of the quantity of election campaigners, the ‘price’ that parties pay to campaigners should also be taken into consideration in order to assess the total cost of election campaigners. This total
cost can be calculated by multiplying the price per campaigner with the total number of campaigners, and the price is determined by the strength of demand for election campaigners and that of supply as presented in Figure 6.6 below. When $D_i$ is the demand line and $S_i$ is the supply line, demand and supply are in equilibrium at $E_i$ and the price per campaigner is $P_i$ and the quantity (i.e. the number) of campaigners is $Q_i$. Therefore, the total cost of election campaigners is $iP_i*Q_i$. However, if the demand becomes weaker by some reason (e.g. the adoption of proper CV) and the demand line shifts from $D_i$ to $D_2$, the equilibrium will shift from $E_i$ to $E_2$. Therefore, the price will decrease from $P_i$ to $P_2$, and the quantity of campaigners will also decrease from $Q_i$ to $Q_2$. As a result, the total cost will decrease from $iP_i*Q_i$ to $iP_2*Q_2$. From this example, it is clear that, if the demand for election campaigners becomes weaker and the supply of them remains the same, the total cost of election campaigners, which draws away the two major parties from the median voter position, will decrease.

Figure 6.6: Demand for and Supply of Election Campaigners

Notes:
1. $D_i$: demand; $i=1, 2$.
2. $S_j$: supply; $j=1, 2$.
3. $E_k$: equilibrium; $k=1, 2, 3$.
4. $P_l$: price; $l=1, 2, 3$.
5. $Q_m$: quantity; $m=1, 2, 3$. 
However, the price and the quantity of election campaigners are not determined only by the strength of demand but are also determined by the strength of supply. If the demand becomes weaker from $D_1$ to $D_2$ but the supply becomes stronger from $S_1$ to $S_2$, the equilibrium will shift from $E_1$ to $E_3$. Therefore, although the price decreases from $P_1$ to $P_3$, the quantity increases from $Q_1$ to $Q_3$. As a result of this shift of the equilibrium, the total cost will change from $P_1Q_1$ to $P_3Q_3$. Although this change in the total cost still looks like a decrease in Figure 6.6 above, it will actually depend on the location of $E_1$ and $E_3$ in the first quadrant of this figure and so this change can be an increase. Therefore, even if CV actually weakens the demand for election campaigners, a CV country may have strong supply of election campaigners and could have much more election campaigners to pay more total cost than some VV country does. Nevertheless, it will still be reasonable to understand that, if the strength of supply remains the same, a decrease in the demand for election campaigners will always diminish the total cost. Therefore, if CV controls the strength of demand for election campaigners and all the other conditions remain the same, the total cost that the parties pay for election campaigners will decrease and the policy positions of the two major parties will shift in the direction of the median voter position.

It is difficult to measure the level of supply of election campaigners. However, it would be reasonable to suppose that, if people in a certain county have a general tendency to voluntarily make contributions to social causes (or if people have substantial social capital), they are also likely to have a tendency to voluntarily make contributions to political causes (Putnam 1993, 171-76; Putnam 2000, 35). Therefore, the charitable organisation membership rate can be useful as an index of the strength of supply of election campaigners. The relationship between charitable organisation membership and political party membership is statistically significant at the 5% level in 18 industrial democracies out of 22 in Table 6.6, and the relationship between them is positive and is generally strong in these 18 countries, judging from their gamma value. Therefore, it will be reasonable to conclude that charitable organisation membership has a positive relationship with political party membership. Moreover, it would be even reasonable to assume that the charitable organisation membership rate has a positive relationship with the strength of the supply of election campaigners.

As shown in Table 6.6, the charitable organisation membership rate in Australia is relatively high compared to the other industrial democracies. Therefore, it will be
reasonable to suppose that the supply of election campaigners is strong in Australia. When this strong supply is compared with its moderate quantity of election campaigners measured by its party membership rate, the demand for election campaigners is supposed to be a little weak in Australia. Meanwhile, Belgium is at around the same order in the charitable organisation membership rate and the political party membership rate in Table 6.6, and so the demand for campaigners can be interpreted as moderate in Belgium. Overall, the empirical evidence of Australia and Belgium is weakly supportive of the hypothesis that CV controls the level of demand for election campaigners, but available empirical evidence is not conclusive.

6.3. Conclusion

This chapter proposed a hypothesis that CV controls the demand of the two major parties for electoral resources in the left-right dimension. Under a two-party condition, the two major parties will converge around the median voter. If these two major parties alternate in power, the governmental policy position will stay at either of their policy positions. The two major parties need electoral resources (i.e. election funds and campaigners) to run an election campaign and to attract votes and win the election. These electoral resources are provided mainly by minority interests (i.e. interest groups and party activists), and so the major parties need to provide these minority interests with incentives. As a result, the two major parties are drawn away from the median voter position by minority interests. However, the high turnout resulting from CV would control the demand of the two major parties for electoral resources, first by releasing them from mobilising their supporters to polling places and, second, by diminishing the electoral uncertainty level and decreasing the number of marginal seats. Therefore, CV would free the two major parties from minority interests to some extent, and so the two major parties would shift their positions in the direction of the median voter position in the left-right policy dimension. This policy shift would increase the total utility of electors, which can be regarded as the well-being of the people.

This chapter then provided empirical evidence to the hypothesis that CV controls the demand of the two major parties for electoral resources. Although the empirical evidence is supportive of this hypothesis, it is weak. The number of industrial
democracies with proper CV is only two (i.e. Australia and Belgium), and the number of all industrial democracies in the world (i.e. high-income OECD members with the population more than one million) is 21. Therefore, substantial evidence for any hypothesis about CV is difficult to obtain. Australia and Belgium are wealthy countries, but it is too anecdotal to relate this fact with CV. The Netherlands abolished their system of CV in 1970, but it is difficult to provide sufficient evidence that this abolition has resulted in diminishing the well-being of the people in the Netherlands. Several rational choice theorists (Crain 1995; Crain and Leonard 1993; O'Toole and Strobl 1995; Yeret 1995) have tried to find a relationship between CV and government spending. However, even if this relationship is verified to exist, it will still be unclear whether more government spending, which is unavoidably accompanied with more taxing, improves the well-being of the people.

The previous chapter and this chapter have jointly provided a hypothesis that CV improves the total utility of electors, and these chapters have also provided some empirical evidence to support the hypothesis. However, this hypothesis has been built on a particular, ideal set of social conditions and electoral rules (e.g. homogenous society, single-seat constituency electoral system, and two-party system), which is by and large different from actual industrial democracies. If CV were useful only under this particular set of conditions and rules, CV would not be useful for most of the actual industrial democracies. However, this concern about the practicability of this hypothesis should not be regarded as its major defect. This is merely a limitation that any theory has. If a hypothesis can explain major aspects of the reality and this explanation can be useful in practice, the hypothesis should be considered to be useful. However, it is also true that, if a hypothesis is robust in theory but is utterly useless in practice, this hypothesis will ultimately be useless. The next chapter will consider whether CV is likely to be useful in actual industrial democracies despite of the wide variety of their social conditions and electoral rules.
CHAPTER 7
Applicability to Actual Industrial Democracies

This chapter considers whether CV would be effective in practice in improving the total utility of electors in industrial democracies under globally varying conditions. Chapters 5 and 6 formulated a hypothesis that the high turnout resulting from CV is effective in improving the total utility of electors, which can be equated to the well-being of the people. Moreover, these chapters managed to provide some empirical evidence for this hypothesis. However, the default environment assumed in this hypothesis is more or less different from actual industrial democracies. Unless CV is useful in actual industrial democracies, it will not ultimately be useful for these countries.

In order to estimate the potential usefulness of CV in practice, this chapter will first examine whether industrial democracies have problems that CV can solve or control. This is because, if industrial democracies do not have any problem solvable by CV, the introduction of CV will be pointless for these countries. Second, this chapter will identify the main features of the default environment in which Chapters 5 and 6 formulated a hypothesis about the usefulness of CV. Furthermore, this chapter will engineer the electoral system (inclusive of CV) that improves the total utility of electors to the extreme in this default environment. This default environment and the best electoral system will be useful as a baseline to compare it with those of actual industrial democracies. Third, the chapter will categorise actual social conditions and electoral rules of industrial democracies into several types and will consider whether CV is useful in each type of social environment and electoral rules. Finally, the chapter will discuss whether the high turnout resulting from CV is effective in improving the total utility of electors in actual industrial democracies.

7.1. Turnout Imbalance in Actual Industrial Democracies

This section examines whether industrial democracies have problems that CV can solve or control. In Chapters 5 and 6, we formulated a hypothesis that the high turnout
resulting from CV will improve the total utility of electors; this was based on the orthodox theory of CV (i.e. Ackaert and de Winter 1996; Lijphart 1997; Mackerras and McAllister 1999) and a case study of Australian CV (see Tables 5.3, 5.4 and 5.5). Then, we provided empirical evidence for this hypothesis using a case study of Australia in comparative perspective. However, the major purpose of this thesis is to consider whether CV would be useful for industrial democracies under VV at present (e.g. the UK and the USA) rather than testing whether CV has been useful for the industrial democracies under CV at present (e.g. Australia and Belgium). Accordingly, this section will first analyse the level of turnout imbalance between electors on the political left and those on the political right in each industrial democracy. Second, this section will observe whether the turnout of electors in the centre is lower than that on the left and the right in each country. If these two are the case under VV, it will be reasonable to predict that CV would be effective in improving the total utility of electors in these countries.

Tables 7.1 and 7.2 show the turnout imbalance along the left-right dimension and the statistical test results of this imbalance. In the case of Australia in 2004 this imbalance did not exist or was negligible under CV, and this finding is in line with the 1997 Australian election survey analysed by Mackerras and McAllister 1999 and the 2001 Australian election survey analysed in 5.3 of Chapter 5 (see Tables 5.3, 5.4 and 5.5). The case of Belgium in 2003 shows a similar result and this finding is in line with the 1991 Belgian election survey analysed by Ackaert and de Winter 1996 (also see de Winder and Ackaert 1998; Hooghe and Pelleriaux 1998). Therefore, it will be reasonable to conclude that the turnout imbalance along the left-right dimension has been effectively controlled in these countries under CV.
Table 7.1: Policy Position and Voting in Industrial Democracies

<table>
<thead>
<tr>
<th>Country</th>
<th>Left (%)</th>
<th>Centre (%)</th>
<th>Right (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>99</td>
<td>97</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>Belgium</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>(2003)</td>
<td>(593)</td>
<td>(674)</td>
<td>(575)</td>
<td>(1,842)</td>
</tr>
<tr>
<td>Canada*</td>
<td>93</td>
<td>86</td>
<td>97</td>
<td>92</td>
</tr>
<tr>
<td>Denmark</td>
<td>95</td>
<td>97</td>
<td>97</td>
<td>96</td>
</tr>
<tr>
<td>(2001)</td>
<td>(576)</td>
<td>(441)</td>
<td>(911)</td>
<td>(1,928)</td>
</tr>
<tr>
<td>Finland</td>
<td>82</td>
<td>78</td>
<td>87</td>
<td>84</td>
</tr>
<tr>
<td>(2003)</td>
<td>(285)</td>
<td>(272)</td>
<td>(518)</td>
<td>(1,075)</td>
</tr>
<tr>
<td>France</td>
<td>79</td>
<td>73</td>
<td>86</td>
<td>80</td>
</tr>
<tr>
<td>Germany*</td>
<td>92</td>
<td>88</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>(2002 Mail-Back)</td>
<td>(466)</td>
<td>(207)</td>
<td>(246)</td>
<td>(919)</td>
</tr>
<tr>
<td>Great Britain*</td>
<td>70</td>
<td>73</td>
<td>83</td>
<td>76</td>
</tr>
<tr>
<td>(2005)</td>
<td>(183)</td>
<td>(209)</td>
<td>(234)</td>
<td>(626)</td>
</tr>
<tr>
<td>Ireland*</td>
<td>79</td>
<td>85</td>
<td>87</td>
<td>85</td>
</tr>
<tr>
<td>(2002)</td>
<td>(335)</td>
<td>(681)</td>
<td>(828)</td>
<td>(1,844)</td>
</tr>
<tr>
<td>Italy</td>
<td>92</td>
<td>78</td>
<td>89</td>
<td>87</td>
</tr>
<tr>
<td>Japan*</td>
<td>83</td>
<td>79</td>
<td>84</td>
<td>82</td>
</tr>
<tr>
<td>(2004)</td>
<td>(440)</td>
<td>(664)</td>
<td>(697)</td>
<td>(1,801)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>97</td>
<td>96</td>
<td>98</td>
<td>97</td>
</tr>
<tr>
<td>(2002)</td>
<td>(570)</td>
<td>(303)</td>
<td>(672)</td>
<td>(1,545)</td>
</tr>
<tr>
<td>New Zealand*</td>
<td>93</td>
<td>85</td>
<td>91</td>
<td>90</td>
</tr>
<tr>
<td>(2002)</td>
<td>(414)</td>
<td>(401)</td>
<td>(469)</td>
<td>(1,284)</td>
</tr>
<tr>
<td>Norway</td>
<td>86</td>
<td>78</td>
<td>86</td>
<td>84</td>
</tr>
<tr>
<td>(2001)</td>
<td>(576)</td>
<td>(439)</td>
<td>(932)</td>
<td>(1,947)</td>
</tr>
<tr>
<td>Portugal</td>
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<td>82</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>(2005)</td>
<td>(769)</td>
<td>(716)</td>
<td>(798)</td>
<td>(2,283)</td>
</tr>
<tr>
<td>Spain</td>
<td>93</td>
<td>88</td>
<td>94</td>
<td>92</td>
</tr>
<tr>
<td>Sweden</td>
<td>93</td>
<td>78</td>
<td>92</td>
<td>90</td>
</tr>
<tr>
<td>(2002)</td>
<td>(432)</td>
<td>(201)</td>
<td>(385)</td>
<td>(1,018)</td>
</tr>
<tr>
<td>Switzerland*</td>
<td>77</td>
<td>59</td>
<td>75</td>
<td>71</td>
</tr>
<tr>
<td>(2003)</td>
<td>(428)</td>
<td>(431)</td>
<td>(492)</td>
<td>(1,351)</td>
</tr>
<tr>
<td>USA*</td>
<td>83</td>
<td>68</td>
<td>83</td>
<td>79</td>
</tr>
</tbody>
</table>

Notes:
1. Each respondent's self-claimed left-right position was surveyed on a scale from 0 (Left) to 10 (Right). However, in this table, '0-4' are aggregated under the label of 'Left,' '5' is labelled as 'Centre' and '6-10' are aggregated under the label of 'Right.'
2. CV countries (i.e. Australia and Belgium) are underlined and bold, but Italy is not because Italy does not have a proper CV system.
3. Austria and Greece are not covered by the data source.
4. Original sample weight is applied for countries with an asterisk (*), but the unmodified sample size is presented.
Although CV should have suppressed the turnout imbalance along the left-right dimension in Australia and probably also in Belgium, this finding does not automatically suggest that CV will be equally effective in suppressing turnout imbalance in the industrial democracies that operate VV at present. First, if the turnout imbalance between electors on the left and electors on the right does not exist under VV, the introduction of CV will not make any contribution in this regard. Second, if the turnout of electors in the centre is not lower than that on the left and the right under VV, the adoption of CV will not be effective in this regard either. It is therefore necessary to examine the turnout imbalance along the left-right dimension in each industrial democracy under VV in order to predict whether the introduction of CV will make any substantive difference.

The turnout imbalance along the left-right dimension has a variety of patterns among the industrial democracies that use VV. Out of 17 VV countries in Tables 7.1 and 7.2, the turnout of respondents on the right is higher than that of the left in nine
countries (Canada, Denmark, Finland, France, Great Britain, Ireland, Japan, the Netherlands and Spain). This relationship is statistically significant at the 5% level in four countries (Canada, France, Great Britain and Ireland), and the strength of the relationship is substantial. However, this relationship is not statistically significant at the 5% level in the other five countries (Denmark, Finland, Japan, the Netherlands and Spain). Meanwhile, in Norway and the USA, the turnout of respondents on the left is the same as that on the right. Moreover, the turnout of respondents on the right is even lower than that on the left in six countries (Germany, Italy, New Zealand, Portugal, Sweden and Switzerland), though this relationship is not statistically significant at the 5% level in any of these countries.

The orthodox theory about CV (i.e. Ackaert and de Winter 1996; Lijphart 1997; Mackerras and McAllister 1999) argues that the high turnout resulting from CV will diminish unequal turnout between the privileged people and the less-privileged people and will be useful to equalise their influence on politics. If this orthodox theory is applied to the left-right dimension, the turnout of electors on the left would be lower than that on the right under VV. However, Tables 7.1 and 7.2 suggest that this orthodox argument is the case in several industrial democracies under VV at present but is not the case for others. Moreover, even in the cases that the electors on the right are more likely to vote than those on the left, this relationship is weak except for several countries. CV would be effective in correcting the turnout imbalance between electors on the left and electors on the right. However, if this imbalance does not exist or is weak, the introduction of CV will not be useful. Judging from Tables 7.1 and 7.2, the orthodox argument about the turnout imbalance between the left and the right is still detectable as a weak tendency but it is not always the case in each of them. Consequently, CV is likely to be useful for several industrial democracies but not for others.

The industrial democracies listed in Tables 7.1 and 7.2 have a variety of electoral systems. However, judging from these tables, the turnout between the left and the right does not seem to have any relationship with electoral system types. Among the 17 VV countries, majoritarian electoral systems are used in four countries (i.e. Canada, France, Denmark, Finland), and the strength of the relationship is substantial. However, this relationship is not statistically significant at the 5% level in the other five countries (Denmark, Finland, Japan, the Netherlands and Spain). Meanwhile, in Norway and the USA, the turnout of respondents on the left is the same as that on the right. Moreover, the turnout of respondents on the right is even lower than that on the left in six countries (Germany, Italy, New Zealand, Portugal, Sweden and Switzerland), though this relationship is not statistically significant at the 5% level in any of these countries.

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Great Britain and the USA), PR systems are used in 12 countries (i.e. Denmark, Finland, Germany, Ireland, Italy, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden and Switzerland), and a parallel system is used in one country (i.e. Japan). The turnout imbalance between the left and the right is substantial in some VV countries (e.g. Canada, France, Great Britain and Ireland), but it is not so in others (e.g. Norway, Sweden and the USA). Both groups include majoritarian electoral system countries and PR system countries. However, it is understandable in theory that turnout patterns and electoral systems do not have any relationship in this regard. The hypothesis that the turnout of electors on the right is higher than that on the left was formulated in the majoritarian model of democracy, and it was tested under the hypothetical VV system in the case study of Australia (see Tables 5.3, 5.4 and 5.5). Nevertheless, there is no reason for us to predict that turnout patterns between the left and the right in PR system countries would be different from those in majoritarian electoral system countries.

Meanwhile, the turnout of electors in the centre is lower than that on the left and the right in all the VV industrial democracies except Denmark, Great Britain and Ireland. Moreover, this relationship is statistically significant at the 5% level in nine countries (Canada, Italy, Japan, New Zealand, Norway, Spain, Sweden, Switzerland and the USA) out of 14. This means that the low turnout in the centre, which was identified under the hypothetical VV system in the case study of Australia (see Tables 5.3, 5.4 and 5.5), is more common among VV industrial democracies than the turnout imbalance between the left and the right is. Therefore, it will be reasonable to suppose that CV is effective in improving the electoral importance of the centre in these countries and so CV is effective in approximating the policy positions of the two major parties to the median voter position in the left-right dimension. We could conclude that CV would be effective in improving the total utility of electors in these countries. It should be noted that the effect of CV on centre electors has been under-discussed in previous works, inclusive of the orthodox theory of CV (i.e. Ackaert and de Winter 1996; Lijphart 1997; Mackerras and McAllister 1999).

Tables 7.1 and 7.2 suggest that the relative low turnout in the centre compared to the left and the right is common in both majoritarian electoral system countries and PR

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101 In this classification, MMP (mixed member proportional) and STV (single transferable voting) are categorised into PR systems. See Pintor and Gratschew (2002, 123-56) for the electoral systems in these country. Also see IPU 2007 for more detailed information about them.
system countries, and this empirical finding is problematic in terms of theory. Figures 5.7 and 5.8 formulated a hypothesis to explain the reason why electors in the centre are less likely to vote than those on the left and the right under a two-party system. However, this hypothesis is unlikely to explain the reason why the turnout of electors in the centre is also lower than that on the left and the right under a PR system, which is likely to be accompanied by a multi-party system.

Nevertheless, this hypothesis formulated in the majoritarian democracy model could still be useful to explain the relatively low turnout of centre electors in several PR system countries to some extent. If there are two major parties under a PR system (e.g. in Germany) or if multiple parties form two major party-blocks along the left-right dimension (e.g. in Sweden), the two major parties or the two major party-blocks under a PR system might have key features similar to the two major parties under a majoritarian electoral system. Upon this condition, electors in the centre might still have less motivation to vote than electors on the left and the right (though in the case of Germany the relationship is not statistically significant at the 5% level). However, in the case of Switzerland under a PR electoral system and a multi-party system, all major parties form a long-term coalition in power. Therefore, the hypothesis formulated in the majoritarian democracy model is not applicable to the case of Switzerland, and electors in the centre are likely to vote as much as electors on the left and the right in the case. Nevertheless, judging from Tables 7.1 and 7.2, the turnout of electors in the centre is lower than that on the left and the right in practice. This suggests that the relatively low turnout of electors in the centre under PR systems remains a puzzle.

This section will pick up four countries as typical cases and will examine them in detail. Canada (2004) is a case in which CV is likely to be useful in two ways. While Great Britain (2005) is a case in which CV is useful in one way, the USA (2004) is a case in which CV is useful in the other way. Meanwhile, CV is not likely to be useful in any way for the case of the Netherlands (2002). However, it should be noted that the case study of each industrial democracy is based on one election survey only, and so these studies might not properly reflect the general turnout pattern of each country. It should also be reminded that this section assesses the usefulness of CV for each country in the assumptive framework of majoritarian democracy. However, several industrial democracies (e.g. the Netherlands among the four cases below) actually have a PR system rather than a majoritarian electoral system. Therefore, the relevance of this
assessment to each country should be evaluated with caution.

Case 1: Canada (2004). Among the VV industrial democracies listed in Tables 7.1 and 7.2, CV is likely to work in two ways in Canada. Under VV at present, electors on the right are more likely to vote by four percentage points compared to electors on the left, and this relationship is statistically significant at the 5% level (p=0.002). Therefore, the median voter position is supposed to be clearly on the right to the median elector position in the left-right dimension. The introduction of CV would reduce the distance between the two medians. Moreover, electors on the left are more likely to vote by seven percentage points than electors in the centre, and electors in the centre are less likely to vote by 11 percentage points than electors on the right. These relationships are statistically significant at the 5% level (p=0.001; p<0.001). The introduction of CV would diminish this turnout imbalance between electors in the centre and electors on the left and the right. Therefore, CV would improve the electoral importance of the centre policy. Overall, CV would improve the total utility of Canadian electors on these two grounds. In Finland and France, CV would also be useful in two ways.

Case 2: Great Britain (2005). CV is likely to be useful in approximating the median voter position to the median elector position in Britain. The relationship between the left, centre and right and voting participation is statistically significant at the 5% level (p=0.003). Moreover, electors on the right are more likely to vote than those on the left by 13 percentage points, and this relationship is statistically significant at the 5% level (p=0.001). Therefore, the median voter position should be clearly on the right to the median elector position in the left-right dimension. The introduction of CV would diminish the turnout difference between the left and the right and would approximate the median voter to the median elector. This would result in improving the total utility of electors. However, the turnout of electors in the centre is not lower than both on the left and the right, and so CV would not necessarily be useful in correcting turnout imbalance in this regard. The turnout difference along the left-right dimension of Ireland has a similar pattern, and so CV would be useful for Ireland in the same manner.

Case 3: The USA (2004). Although CV is not likely to be useful in approximating the median voter position to the median elector position in the USA, it would be useful in improving the electoral importance of the centre policy. Electors on the left are likely to vote as much as electors on the right, and so CV would not be useful in diminishing
the distance between the two medians. However, electors in the centre are less likely to
vote by 15 percentage points than those on the left, and they are less likely to vote by 15
percentage points than those on the right. These relationships are statistically significant
at the 5% level (p<0.001; p<0.001). Therefore, the introduction of CV would improve
the electoral importance of the centre policy and would improve the total utility of
electors in the USA. CV would also be useful in Sweden and Switzerland by the same
reason.

Case 4: The Netherlands (2002). Until 1970, the Netherlands had employed CV
and had achieved turnout of around 95% of the registered electors (see Figure 3.4).
However, the re-introduction of around 95% of the registered electors (see Figure 3.4).
However, the re-introduction of CV is not likely to be useful for the Netherlands. First,
electors on the right are slightly more likely to vote than electors on the left (by one
percentage point) but this relationship is not statistically significant at the 5% level
(p=0.518), and so the distance between the median voter and the median elector is not
likely to be substantial even under VV. Second, electors in the centre are slightly less
likely to vote than electors on the left and on the right, but this relationship is not
statistically significant at the 5% level either (p=0.357; p=0.128). Therefore, the
adoption of CV is not likely to substantially improve the electoral importance of the
centre policy. Taking into consideration the fact that CV is a strong measure and its
serious administration is so costly, the re-adoption of CV seems to be unnecessary and
even to be undesirable for the Netherlands. CV is not likely to be useful in any way for
Denmark, either.

Judging from the examination into 17 industrial democracies that operate VV, we
can conclude that the level of effectiveness of CV in improving the total utility of
electors will vary considerably. There should be a gap between the median voter
position and the median elector position in most of the industrial democracies. However,
the size of this gap varies greatly. Meanwhile, the turnout of electors in the centre is
clearly lower than that on the left and the right in many VV industrial democracies.
Therefore, CV would be useful in improving the electoral importance of the centre
policy in these countries. Consequently, CV would be useful for several industrial
democracies that operate VV at present, but it would not be so for others. It remains a
puzzle why turnout imbalance between the left and the right largely varies among
industrial democracies under VV at present. It is also a puzzle why the turnout of
electors in the centre is lower than that on the left and the right even in PR system
countries. However, the purpose of this section was to examine whether industrial democracies under VV at present have problems that CV can solve or control. It would be reasonable to say that this section has achieved its original goal and has identified the problems solvable by the introduction of CV in many of these countries.

7.2. The Default Environment and the Best Electoral System

This section aims at laying the theoretical groundwork for further considering the usefulness of CV under globally varying conditions. For this purpose, this section will first identify the main features of the default environment in which Chapters 5 and 6 formulated a hypothesis that CV is useful in improving the total utility of electors. Then, this section will engineer an electoral system (inclusive of CV) that improves the total utility of electors within this default environment. The combination of the default environment and this electoral system will be used as a baseline from which to compare those of the actual industrial democracies in the next section and to consider the usefulness of CV for these countries.

The Default Environment

CV is an instrument that can be effective only under certain conditions. Therefore, without having adequate understanding of these conditions, it will be impossible to properly predict the effect of CV. Chapters 5 and 6 argued that the effects of the high turnout resulting from CV would improve the total utility of electors in industrial democracies in two ways. The last section observed the turnout imbalance along the left-right dimension as a problem that CV can solve, and this turnout imbalance is a part of the environment within which CV operates.

It will be impossible to define the default environment or describe all features of it, but it will still be possible to describe the major aspects of the default environment in which the hypothesis of this thesis has been constructed. In terms of social conditions, the default environment is a homogenous society where the left-right dimension predominates and electors are normally distributed along this dimension. Meanwhile, in regard to the party system, there are two established major parties, and these parties are
pragmatic and flexible about their policy positions in order to win elections. Finally, electors have a basic level of education and have sufficient social capital to ensure that democracy is a workable political system. In the same way that the perfect market in economics does not exist in reality, this ideal type of environment for electoral engineering is not likely to exist in reality. However, it will be useful as a virtual laboratory for thought experiments.

The Best Electoral System

It has been argued that it is impossible to engineer the best electoral system for two reasons. First, actual countries exist in a variety of environments so the best-for-all electoral system cannot exist, and the best electoral system will need to be tailored for a particular country environment (Farrell 2001, 181; Katz 1997, 308). Second, if the electoral system is required to meet several principles that cannot be fully achieved concurrently (e.g. political equality, representation of viewpoints, accountability, the importance of elections, governability, party system stability, and handling social conflicts), it is highly unlikely to be possible to engineer the best electoral system in all directions even for a particular environment (Dunleavy and Margetts 1995, 13-17; Farrell 2001, 11-12). Therefore, it will effectively be impossible to engineer the ‘best electoral system’ in this theoretical framework (Harrop and Miller 1987, 43). However, if this theoretical framework is replaced with another theoretical framework, it might become possible to engineer the best electoral system.

In developing a new theoretical framework, the first problem is the variety of environments. It would be true that actual countries exist in a variety of environments and so the best-for-all electoral system cannot exist. Tailoring an electoral system for one particular country is one way to control the environment and to solve this problem. However, the major weakness of this approach is that, even if it can be tailored for a particular country environment, this ‘best’ electoral system is radically different from the one that was originally sought. Meanwhile, modelling the ideal type of environment is another way to control the environment for engineering the best electoral system.

The second problem is the number of principles that the best electoral system should try and incorporate. Even if the ideal type of environment is identified, it would almost be impossible to engineer the best electoral system for this environment to fully achieve several principles concurrently. However, if the number of principles could be
limited to one, it would theoretically become possible to engineer an electoral system to
achieve this single principle. 5.1 of Chapter 5 chose the total utility of electors as the
primary value standard, and so this thesis will regard it as the sole principle that the best
electoral system should achieve (see Bordley 1983, 123; Mueller 2003, 151).

The next concern is how to engineer the electoral system so that it improves the
total utility of electors in the default environment. Chapters 5 and 6 demonstrated that
CV will be useful in improving the total utility of electors in the default environment in
two ways. First, CV will approximate the median voter position, around which the two
major parties converge, to the median elector position, at which the total utility of
electors is maximised. Second, CV will encourage the two major parties to shift their
policy positions in the direction of the median voter position. If all electoral rules are
designed to enhance these two effects, this set of electoral rules would constitute the
best electoral system in the default environment.

First, in order to approximate the median voter position to the median elector
position to the extreme, the electoral system should be engineered to achieve universal
voting. If universal voting is achieved, the median voter position will be identical to the
median elector position. To achieve this goal, everyone should first be eligible to vote,
and the universal franchise should be realised. Second, automatic registration based on
the national registration system should be institutionalised in order to achieve universal
registration. Third, CV should be adopted in order to make all registered electors turn
out to vote. Fourth, electronic or machine voting that does not to allow any elector to
cast an invalid vote should be introduced in order to ensure that all votes are valid. In
practice, it may be politically difficult to adopt such a machine/electronic voting system.
In this case, machine/electronic voting should be dismissed altogether in order to guide
electors to cast a valid vote without reminding them that they have a choice to cast an
invalid vote.

Second, in order to encourage the two major parties to shift their policy positions
in the direction of the median voter, the full alternative voting (AV) system should be
adopted. The full AV system requires electors to put consecutive numbers to all
candidates in a single-seat constituency. It is used for the lower house election in
Australia. The well-known electoral system that is likely to realise an election between
the two major parties is the single-member plurality (SMP) system (Duverger [1964]
1978, 217-28; also see Cox 2000a, 2000b). When Downs (1957) and Sartori (1976,
185-92, 345-47) argued the centripetal nature of the two-party system and claimed that the two major parties would converge around the median voter position, they should have envisaged how this SMP system operated in the USA and the UK. However, the most useful electoral system in utilising the nature of the median voter position as the Condorcet winner and in encouraging the two major parties to shift their policy positions in the direction of the median voter is the full AV system rather than the SMP system. Under the SMP system, tactical electors may realise that their votes will be wasted if they vote for minor parties and so most of them may vote for one of the two major parties as Duverger ([1964] 1978, 226) argues. Nevertheless, these two major parties will not be able to approximate their policy positions very close to the median voter because extreme electors on their side might become disgusted at the closeness of the two major parties and might abstain or vote for extreme minor parties (Downs 1957, 117, 131).\textsuperscript{102}

If every voter puts a preferential order to all candidates in a single-member constituency under the full AV system, all votes will ultimately be transferred to the two major party candidates whatever the actual number of candidates and parties. This electoral system will effectively bring about a perfectly two-candidate election setting and will be more useful in utilising Duverger’s law than SMP driven by tactical voting. The most important consequence of the full AV system is that the two major parties converging around the median voter position do not need to pay much attention to their own extreme voters and so these parties can confidently approximate their policy positions to the median voter. So long as extreme left-wing electors give an earlier preferential order to the left-wing major party than to the right-wing major party, their votes will ultimately be transferred to the left-wing major party. This is also the case for the right-wing major party and its extreme voters. Therefore, the two major parties do not need to be worried that extreme voters on their side might vote to extreme party candidates (e.g. candidates on the ticket of an ultra-socialist party or an ultra-nationalist party) rather than their candidates.\textsuperscript{103} This shift of policy positions of the two major parties in the direction of the median voter will improve the total utility of electors.

\textsuperscript{102} Also see Cox (1997, 35-148) for tactical voting.

\textsuperscript{103} It is technically possible for extreme voters to give an earlier preferential order to the major party candidate on the other side in order to punish the major party on their side when they think that the party on their side has shifted its policy position too.
However, if the AV system does not require voters to put a preferential order against all the candidates, some votes may fail to be transferred to either of the two major-party candidates and may end up invalid. If all voters are tactical and they include at least one of the two-major party candidates in their preferential order, all votes will ultimately be transferred to the two major-party candidates through the vote-transfer procedure and so the median voter position will remain the Condorcet winner. However, all voters would not be tactical in this manner in reality. Therefore, some votes would end up invalid under the non-full AV system, and so the Condorcet winner might not be located at the median voter position. If these invalid votes have some relationship with the left-right dimension, the distance between the two medians could be substantial. In this case, the full AV system will be more useful in realising a two-candidate election and in encouraging the two major parties to converge around the median voter position than the non-full AV system and in improving the total utility of electors.

Universal voting will also be useful in encouraging the two major parties to shift their policy positions in the direction of the median voter. This is because universal voting will relieve the two major parties from their concern over abstention among extreme electors on their side (see Downs 1957, 117). With universal voting, the two major parties will be able to confidently approximate their policy positions to the median voter. It is technically possible for extreme electors on the left or on the right to cast an invalid vote even under CV if voting is secret and invalid voting is not mechanically barred. However, once they go to the polling place, the vast majority will cast a valid vote in practice. Among the various electoral rules designed to achieve universal voting, CV will be particularly useful for this purpose. If electors in the centre are less likely to vote than electors on the left and on the right under VV (see Tables 7.1 and 7.2; also see Tables 5.3, 5.4 and 5.5 for the Australian case), CV will be useful in improving the electoral attractiveness of the centre policy position and in encouraging the two major parties to shift their policy positions in the direction of the median voter.

However, it should be remembered that this thesis has consistently used the majoritarian model of democracy as its underlying assumption as its introduction explained. This majoritarian assumption is characterised by a two-party system, in which the two major parties alternate in power, and is also featured by a majoritarian
electoral system. The choice of this underlying assumption inevitably limits the research scope of this thesis. Although this section has engineered the best system (i.e. the combination of the universal voting system and the full AV electoral system) in the default environment, this system might not be the fit-for-all system in the real world. Moreover, it should be noted that this 'best' system was designed in the assumptive framework of majoritarian democracy, and this thesis has ruled out alternative forms of democracy, such as consensus democracy (see Lijphart 1999). Therefore, the reader should, with caution, treat its desirability even in theory.

7.3. Compulsory Voting under Globally Varying Conditions

This section considers how CV would work in a variety of environments in order to find how it would be useful in actual industrial democracies. The first section of this chapter deliberately ignored the actual environment and electoral rules of each industrial democracy and assessed the usefulness of CV in regard to the turnout imbalance along the left-right dimension. The last section identified the main features of the default environment and then engineered an electoral system to improve the total utility of electors in this default environment (i.e. the ideal type of environment). However, the combination of the default environment and the engineered electoral system does not exist in any actual democracy. Therefore, if CV is introduced, its effect will depend on the actual set of social conditions and other electoral rules in each country. This means that it is necessary to take into consideration the social conditions and electoral rules to evaluate the usefulness of CV.

For this purpose, it is possible to modify the combination of social conditions and electoral rules in order to simulate the effect of CV under different sets of conditions and rules. However, it would be impractical to simulate all possible combinations. Therefore, this section will first replace the full AV system with other majority/plurality representation systems and proportional representation (PR) systems and will simulate of the effect of CV in the new sets of conditions and rules. These two types of electoral

their ideological conscience.
systems are identified because they are widely-used in industrial democracies. Then, this section will replace the single policy dimension of the default environment with the multiple policy dimensions, as well as replacing the homogenous society with the fragmented society. Finally, there is a general assessment of the usefulness of CV for actual industrial democracies under globally varying conditions.

Majority/Plurality Representation Systems (Centripetal Electoral Systems)

Although no actual industrial democracy has a perfect two-candidate election, it will be reasonable to suppose that, in an environment similar to the perfect two-candidate election setting, CV will work as hypothesised in Chapters 5 and 6. Although the full AV system is the best electoral system to be combined with universal voting in order to realise a two-candidate election and to improve the total utility of electors, other majority/plurality representation systems (e.g. the non-full AV system and the SMP system) would also have similar effects though these systems would be less effective in this regard than the full AV system. This subsection will first consider the usefulness of the non-full AV system and will then consider the SMP system.

While the full AV system requires electors to order all candidates in the single-seat constituency, the non-full AV system allows electors not to put a preferential order to all candidates or limits the number of ordered preferences that electors may put (e.g. the first preference and the second preference only). Even under the non-full AV system, CV and other electoral rules for universal voting will control abstention. Therefore, the two major parties can shift their policy positions in the direction of the median voter without concerning the abstention of extreme electors on their side. However, under the non-full AV system, some votes may fail to get transferred to either of the two major-party candidates and may end up invalid. Some electors may tactically put a preferential order to the major party candidate on their side in order to avoid wasting their vote, but others may not give any preferential order to either of them if they were disgusted by both major parties. In that circumstance, it would be difficult for the two major parties to totally ignore the wishes of the extreme electors on their side and to approximate their policy positions very close to the median voter. It will be reasonable to understand that the non-full AV system is centripetal in its nature, but it is

104 For other electoral systems, see Cox 1990. This paper systematically investigates how electoral laws affect the
less centripetal than the full AV system. Papua New Guinea uses a non-full AV system, and only first three preferences can be counted (IPU 2007). However, the non-full AV system is not widely used in the world.

Even under the SMP system, CV and other electoral rules for universal voting will control abstention. The two major parties can shift their policy positions in the direction of the median voter without concerning the abstention of extreme electors on their side. However, the combination of universal voting and the SMP system will be unable to bar extreme voters from voting for extreme party candidates. Under the non-full AV system, electors can express their real first preference and can still avoid missing a chance to influence the electoral outcome by adding one of the two major party candidates in their preferential order. Meanwhile, under the SMP system, electors have to think whom they will support and, they also have to think who has a real chance of being elected in order to be tactical and avoid wasting their vote. Some electors will give precedence to expressing their real first preference, but others will give precedence to avoiding missing the chance to influence the electoral outcome. However, the majority of electors will vote for one of the two major party candidates under SMP because they sincerely support one of the two major parties or because they want to avoid voting to unlikely candidates in vain (Cox 2000c; Duverger [1964] 1978, 217-28).

If all electors know what two parties are major and they decide to cast a tactical vote for one of the two major party candidates, all votes will be cast to the two major party candidates and none will be cast to unlikely candidates. However, in reality, some electors would vote for unlikely candidates in order to express their first preference or to express their dissatisfaction with both of the two major parties. Moreover, the number of votes cast for unlikely candidates under SMP would tend to be more than the number of wasted votes under non-full AV. If the votes cast to unlikely candidates have some relationship with the left-right dimension, these votes would result in some distance between the median voter position and the median elector position. Moreover, the two major parties would need to pay some attention to the policy preferences of extreme electors on their side, and so it would be difficult for the parties to shift their policy positions very close to the median voter. Therefore, it will be reasonable to consider that the SMP system is centripetal, but less so than the full/non-full AV system. SMP is used

centripetal/centrifugal position-taking incentives for parties and candidates.
in many countries, and the USA, the UK, Canada and India are several examples (IPU 2007).

In combination with any of majority/plurality representation systems, CV will be effective in improving the total utility of electors by approximating the median voter position to the median elector position in the left-right dimension. Although all majority/plurality representation systems are more or less centripetal in their nature and encourage the two major parties to converge around the median voter position, CV would amplify their centripetal nature by releasing the two major parties from their concern over the abstention of extreme electors on their side. Moreover, if electors around the median are less likely to vote under VV (see Tables 7.1 and 7.2; also see Tables 5.3, 5.4 and 5.5), CV will be useful in improving the electoral attractiveness of the median voter position and will encourage the two major parties to shift their policy positions in the direction of the median voter. Australia, the USA and the UK have majority/plurality representation systems and two-party systems though their systems are a little different from each other. Australia already has CV and it will be reasonable to suppose that CV has been effective in improving the total utility of electors in Australia. Furthermore, it would be sensible to predict that CV will have similar effect in the USA and the UK if proper CV is introduced in these countries.

PR Systems (Centrifugal Electoral Systems)
A PR system is unlikely to result in a two-candidate election setting and is likely to result in a multi-party system (Duverger [1964] 1978, 239-45). Consequently, the median voter position is unlikely to be the Condorcet winner under the PR system, and so party policy positions would not necessarily converge around the median voter position (Cox 1990, 919-22; Downs 1957, 127-132; Sartori 1976, 342-51). Moreover, the government is likely to be formed from a coalition of two or more parties, and the coalition government would adopt a wider spread of policies to attract the support of the majority of voters than the government under the two-party system does (Downs 1957, 142-63; Lijphart 1999, 34-41). Although multi-party systems will not always be centrifugal and could be centripetal particularly if helped by pivotal centre parties (see Green-Pedersen 2004; Hazan 1997; Keman 1994), the multi-party system under the PR system would tend to be more centrifugal than the two-party system under
majority/plurality representation systems.\textsuperscript{105} Therefore, the government is unlikely to approximate their policy position to the median voter, and so the government would fail to sufficiently improve the total utility of electors under the combination of the PR system, the multi-party system and the coalition government.

Even with a combination of the PR system, the multi-party system and the coalition government, CV would make some contribution to the improvement in the total utility of electors. If the PR system is hypothesised to secure perfect proportional representation of voters in parliament, the median parliamentarian position will be identical to the median voter position and will be the Condorcet winner in the left-right policy dimension in parliament. In this situation, CV will approximate the median voter position (equal to the median parliamentarian position) to the median elector position. Parliamentarians would form parties in reality, and they would vote in accordance with their party line. Therefore, the median parliamentarian position may not be the Condorcet winner in the party politics of the real parliament. However, the centre policy position would still tend to be important in any decision making in parliament. Therefore, the approximation of the median voter position to the median elector position by CV would still be useful in improving the total utility of electors.

Furthermore, if electors around the median voter are less likely to vote than electors on the left and those on the right under VV as 7.1 of this chapter demonstrated, CV would improve the electoral attractiveness of the median voter position. Under the multiple party system, parties would have more incentives to shift their policy positions in the direction of the median voter. Even if they do not change their policy positions, centre parties would gain more votes and seats and would have more influence on the formation of the coalition government. Therefore, centre parties would have more political clout about policy making in the coalition government (Green-Pedersen 2004; Hazan 1997; Keman 1994). As a result, CV would have an effect of improving the importance of the centre policy position and improving the total utility of electors even under the PR system.\textsuperscript{106}

However, it should be noted that this thesis has consistently used the majoritarian

\textsuperscript{105} For empirical evidence contrary to this argument, see Huber and Powell 1994.

\textsuperscript{106} If the turnout of electors in the centre is higher than that of the left and the right under VV, the introduction of CV will reduce the number of seats allocated to centre parties and will diminish their influence on policy making in the coalition government.
model of democracy as its underlying assumption as its introduction explained. This majoritarian assumption is characterised by a two-party system, in which the two major parties alternate in power, and is also featured by a majoritarian electoral system. This means that this thesis has ruled out alternative forms of democracy, such as consensus democracy characterised by a PR system and is appreciated by some leading scholars (e.g. Lijphart 1999). The underlying assumption of this thesis inevitably limits its research scope. This sub-section has assessed PR systems and the usefulness of CV under PR systems by utilising the hypotheses formulated in the majoritarian framework and the value standard chosen in the framework. However, the reader should be aware that this assessment of PR systems might have missed some useful features of PR systems in the real world.

The Multi-Dimensional Society
The single dimensionality of the left-right dimension is one feature of the default environment. If the society has one or more additional dimensions to the left-right continuum, it would be difficult to find the optimal combination of policy positions in these dimensions to improve the total utility of voters. However, this optimal combination is still the Condorcet winner in a two-candidate election, and so the two major parties will try to converge around this optimal combination. CV will approximate this optimal combination of policy positions for voters to that of electors. If the PR system is used in the multi-dimensional society, which has two or more major policy dimensions, a multi-party system is likely to emerge. For example, in addition to the left-right dimension, religion, ethnicity and language may provide other major dimensions though none of these is likely to constitute a continual dimension. The Netherlands may be appropriate as an example.

However, even under the multi-party system, this optimal combination of policy positions for the total utility of voters will still be a strategically important position for the formation of the coalition government and for policy making in the coalition government. As Cox (1990, 908) argues, the multi-dimensionality of the policy space would not radically change the degree to which parties and candidates converge around the centre or disperse fairly widely. Furthermore, CV would be useful in improving the

Therefore, in this case, CV will decrease the total utility of electors. However, such a case is not found in any industrial democracy.
strategic importance of the optimal combination of policy positions even more if electors around the optimal combination position in the multiple dimensions are less likely to vote than extreme policy seekers under VV.

**The Fragmented Society**

The homogenous society, in which people share political ends and means (Almond 1956, 398), is another feature of the default environment. This is an ideal type and so it is not likely to exist in reality, but the UK and the USA have been mentioned as examples. If the society consists of several major fragments, which do not share political ends and means, the maximisation of the total utility of electors by approximating the governmental policy position to the median elector will not be useful as a guiding principle for electoral engineering (Lijphart 1999, 32-33). Instead, the achievement of consociation between significant fragments will be regarded as the guiding principle. The fragmented society is likely to employ some type of PR system rather than some winner-take-all electoral system (i.e. the majority/plurality representation system) like AV or SMP in order to reduce the risk level of a hard crash between the fragments. Any majority/plurality representation system could exasperate minorities and could be hazardous to the unity of the society. Meanwhile, the PR system will properly reflect the social fragmentation in parliament and will provide a precondition for the post-electoral negotiation between elites representing each social fragment to achieve and maintain consociation between fragments (Lijphart 1969, 217-19). The Netherlands, Belgium and Switzerland are examples of fragmented societies that have been successful in achieving consociation between social fragments.

If CV is combined with the PR system, the fragmentation of the society will be more precisely reflected in parliament and it will provide a fairer condition for the post-electoral negotiation between fragment elites. Therefore, CV will be useful even in the fragmented society. Moreover, CV might be useful in controlling the level of conflict between fragments. CV would mostly nullify the usefulness of encouraging their fragment members to vote and discouraging electors in the other fragment members from voting. CV could therefore be useful in peacefully registering the

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examined in Tables 7.1 and 7.2.
7.4. Conclusion

This chapter found that CV and its resulting high turnout will be useful for several industrial democracies but will not necessarily so for others. Many industrial democracies have problems that CV can solve or control. Turnout imbalance between the left and the right is substantial in several industrial democracies under VV. Moreover, the turnout of electors in the centre is substantially lower than that on the left and the right in most of the industrial democracies now operating VV. The high turnout resulting from CV will suppress these two types of turnout imbalance along the left-right dimension and will improve the total utility of electors. Therefore, it will be reasonable to conclude that CV is useful for many industrial democracies though not for all. However, it should be noted that this hypothesis is formulated on the basis of the default environment. In the default environment, this chapter then engineered an electoral system that maximises the total utility of electors as follows: universal franchise, automatic registration based on the national registration system, CV, electronic/machine voting without a choice of invalid voting, and full AV.

In practice, industrial democracies have a variety of sets of social conditions and electoral rules, and so the introduction of CV would result in a variety of effects. Nevertheless, this chapter found that CV is versatile and would be useful in a variety of environments. For example, even under the combination of the PR system, the multi-party system and the coalition-government, CV would correct the turnout imbalance between the left and the right and would approximate the median voter position to the median elector position, which is the focal policy position even in this condition though its strategic importance would be much less than that of the default environment. Moreover, CV would be useful in improving the electoral importance of the centre policy, and so CV would encourage parties to shift their policy positions in the direction of the median voter in the left-right dimension. Even if parties do not shift

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107 However, it is also possible to imagine another scenario. Escalated intra-fragment conflict could result in extremism in each fragment. Some leaders in each fragment might try to show off how they are intolerant to the other fragment in order to gain more votes in their own fragment. As a result, the conflict between fragments could escalate in addition to the intra-fragment conflict.
their policy positions, CV would increase the political influence of centre parties. Ultimately, CV would improve the total utility of electors even under the combination of the PR system, the multi-party system and the coalition-government.

The high turnout resulting from CV will be useful for some industrial democracies in increasing the total utility of electors but not so for others. This chapter analysed election surveys of 17 industrial democracies now operating VV (Tables 7.1 and 7.2) and reached this general conclusion. However, for the actual introduction of CV, it would be necessary to assess the usefulness of CV in each country by analysing more past surveys and by taking the social/political/electoral conditions and rules of each country into consideration. The next and the last chapter will present a cost-benefit analysis of CV for industrial democracies.
PART IV

Evaluations
CHAPTER 8
Reassessing Compulsory Voting

This final chapter aims at assessing the extent to which this thesis has answered its major question, namely whether CV would be useful for industrial democracies in improving the total utility of electors, which can be equated to the well-being of the people. In order to answer this major question, this thesis conducted a cost-benefit analysis of CV. The argument recognised that CV needs to be effective on two levels for it to be useful. First, it needs to be effective in improving turnout. Second, the high turnout resulting from CV needs to be effective in improving the total utility of electors. For each level of effectiveness, this thesis formulated a hypothesis by utilising rational choice theory and then provided empirical evidence for this hypothesis. This thesis also tried to identify the necessary conditions and adjustments for CV to be effective on these two levels. Moreover, this thesis assessed whether CV would be useful for industrial democracies under globally varying conditions.

In order to assess the extent to which this thesis has answered its major question, this chapter will first summarise the points that this thesis has made for a cost-benefit analysis of CV and will clarify what has been found. Second, this chapter will identify the points missing from this thesis for the cost-benefit analysis to clarify its limitations and will then discuss how the gaps could be filled. Finally, this chapter will assess the values and limits of this thesis and will discuss the future course of research on CV.

8.1. The Major Findings

This section will summarise the points that this thesis has made regarding a cost-benefit analysis of CV. For this purpose, this section will first review the problem of low turnout among industrial democracies, which CV could solve. Then, this section will summarise the findings about the influence of CV on turnout. Third, this section will summarise the findings regarding the effectiveness of the high turnout resulting from CV in improving the total utility of electors. Last, this section will sum up the findings about the applicability of CV to actual industrial democracies.
The Problem of Low Turnout
According to Huntington (1991, 13-26), democratisation has not been gradual but has fluctuated. Democratisation during the last quarter of the twentieth century was overwhelming and he calls it the third wave of democratisation. Although his argument is based on robust empirical evidence about the global trend, it is also true that the industrial democracies, which can be regarded as the democratic core, have been experiencing a long-term decline in turnout since the end of World War II (Dalton 1996, 44-45; Gray and Caull 2000, 1094-95; Pintor and Gratschew 2002, 85; Topf 1995, 40-41; Wattenberg 2000, 71). The decline in turnout was particularly substantial during the last quarter of the twentieth century, which was the very time when democracy spread most rapidly. If politics is open to the public but the public do not participate in politics, politics would end in minority rule rather than majority rule and so the country would hardly be a democracy in any proper sense of the term. Therefore, the decline in turnout has naturally been a concern of political scholars and others who are interested in democracy.

When scholars recognised abstention as a problem, they first tried to identify the causes of the phenomenon. Despite their best efforts, including many survey analyses (e.g. Campbell et al. [1960] 1980; Miller and Shanks 1996) and rational choice theory works (e.g. Downs 1957; Riker and Ordeshook 1968), the causes of abstention have not yet been clarified (Niemi and Weisberg 2001, chap. 2) and turnout has continued to slide (see Table 1.1 and Figure 1.1). Meanwhile, since the 1980s, some political scholars have taken a different approach to low turnout. They have measured the effectiveness of possible countermeasures against low turnout by utilising statistical methods, and their studies have found that CV is outstandingly effective in improving turnout compared to other options (Blais and Carty 1990, 176-77; Blais and Dobrzynska 1998, 246-77, 250; Franklin 2002, 158-60; R. Jackman 1987, 412, 416; R. Jackman and Miller 1995, 474, 476). Its outstanding effectiveness in improving turnout had been anecdotal by then, although anecdotal counterargument had also lingered. However, these statistical analyses provided substantial scientific evidence for this conventional wisdom. Nevertheless, there have been several persistent concerns around CV, and CV has not been widely-used among industrial democracies so far.

To summarise, the major concern about CV is whether it will be useful for
industrial democracies. CV needs to be effective on two levels. First, it needs to be effective in increasing turnout. Second, the high turnout resulting from CV needs to be effective in improving the well-being of the people, otherwise CV will not ultimately be useful (see thick lines in Figure 8.1 below). However, CV may fail to achieve high turnout. And even if it achieves high turnout, this high turnout may fail to improve the well-being of the people (see thin lines in Figure 8.1 below). In fact, CV has achieved very high turnout in several countries but it has not in others (see Table 2.1 and Figure 3.1). Moreover, even in countries where CV has achieved high turnout (e.g. Australia and Belgium), it is unclear whether the high turnout resulting from CV has improved the well-being of the people. Furthermore, it is a matter of argument what the well-being of the people is.

Figure 8.1: Expected Consequences of CV and Unexpected Ones

CV in itself is an instrument and does not have any intrinsic value. However, when CV as an instrument is applied within an environment, it may cause several effects. Some of them would be advantageous for the people, but others would be disadvantageous. Therefore, in order to know whether CV would be ultimately useful for industrial democracies, it is appropriate to perform a cost-benefit analysis of CV. Robson argued that cost-benefit analysis was the proper course of research on CV (Robson 1923), but he could not perform it because of the then methodological limitations. Hughes examined parliamentary records in Australia and listed major arguments for and against CV (Hughes 1966). His work provided a checklist for an overall assessment of CV. Since the end of World War II, scientific research methods
for political studies have developed considerably. Lijphart combined scientific methods with a value standard of democracy and admired the usefulness of the high turnout resulting from CV (Lijphart 1997), but it was only a partial assessment of the usefulness of CV. The provision of a comprehensive cost-benefit analysis of CV has been the purpose of this thesis.

**Effectiveness of CV in Improving Turnout**

In theory, CV will achieve virtually universal turnout. While an election involves a collective action, voting in itself is an individual action. Therefore, unless individual electors are sufficiently motivated to vote, high turnout will not be achieved. Rational choice theorists have explained voting as a function of the costs and benefits for each individual (Downs 1957; Riker and Ordeshook 1968). While the costs of voting have been identified by rational choice theorists, the benefits remain a matter of conjecture. However, it is a general understanding that the cost of voting is small for the vast majority of electors in industrial democracies (Aldrich 1993, 261-62; Niemi 1976, 115-16). Therefore, if an incentive to voting (or a disincentive to abstention) is more significant than the small cost of voting, the provision of incentive/disincentive will make voting more beneficial (or less disadvantageous) than abstention for the vast majority of electors. As a result, this provision would overwhelmingly increase turnout. For example, if some minor and material sanction against abstention (e.g. a moderate fine) is applied, turnout will largely improve. This thesis formulated a model of voting under CV, and then it applied the model to reach this conclusion.

In regard to the effectiveness of CV in improving turnout, there is a wide gap between the theoretical finding and the empirical evidence. The effectiveness of CV in improving turnout is overwhelming in theory, and CV is expected to achieve almost universal voting. Meanwhile, statistical analyses have, since the 1980s, found that CV is effective in improving turnout by between 6 and 15 percentage points if all the other conditions are controlled (Blais and Carty 1990, 176-77; Blais and Dobrzynska 1998, 246-47, 250; Franklin 2002, 158-60; R. Jackman 1987, 412, 416; R. Jackman and Miller 1995, 474, 476). This empirical finding is modest compared to the theoretical finding of this thesis. Moreover, CV has achieved very high turnout in several countries (e.g. Australia and Belgium), but it has not in others (see Table 2.1). Nevertheless, the gap between theory and practice does not necessarily mean that the theory is wrong. While
the theoretical finding is a solution reached in ideal conditions, the empirical evidence reflects globally varying actual conditions. Therefore, it is natural that there is some gap between them. However, it should be noted that this gap between theory and practice suggests that some conditions and adjustments (e.g. real sanction and serious administration) are necessary for CV to effectively improve turnout in reality, as Robson (1923, 571) argued.

There are three major conditions necessary for CV to achieve high turnout. The adoption of CV with minor and material sanction against abstention (e.g. a moderate fine) is the first condition to be met. If CV is not actually adopted, its potential for improving turnout cannot be realised. However, it is generally difficult to introduce CV because of three psychological barriers: popular commitment to freedom, path dependence of parliamentarians, and that of electors. Effective administration is the second condition to be met. Unless CV is seriously administered and minor, material sanctions are systematically imposed on offenders, CV would fail to achieve its goal of mobilising reluctant electors to polling places. In general, industrial democracies are more privileged in administrative resources than developing countries, and people tend to be law-abiding. Therefore, industrial democracies would have sufficient potential for seriously administrating CV. Persistence of CV is the third condition to be met. If CV is not continuously operated, CV cannot continue achieving high turnout. However, because of path dependence of parliamentarians and electors, it would not be difficult to maintain CV once it was introduced and had gained widespread acceptance.

**Effectiveness of CV in Improving the Total Utility of Electors**

Although it is a matter of argument what the well-being of the people is, this thesis has defined it as the total utility of individuals. Furthermore, for technical reasons, this thesis chose to limit it to the total utility of electors. CV has been criticised mostly by liberal theorists (Abraham 1955, 31; Hughes 1966, 86; JSCEM 1997, xix-xxi, 23-27; Minchin 1996a, 1996b; Rydon and Goot 1989, 7), and it has been admired mainly by the standard of democracy that it achieves (Hughes 1966, 81; Lijphart 1997). Liberalism and democracy have been respected in many industrial democracies; however, human-beings do not exist for liberalism or democracy, but liberalism and democracy should exist for human-beings. In other words, liberalism and democracy have secondary values. Therefore, this thesis tried to identify and use a human-oriented value
standard as the primary one rather than using some secondary value standard. Although the Pareto efficiency, which does not accept any system reform that makes some individuals worse off even if this reform makes many individuals better off substantially (Suzuki 1994, 154-55), and the Nash efficiency, for which individual utilities are multiplied together (Nash 1950; Suzuki 1994, 157-67), are also human-oriented value standards, this thesis chose to use the utilitarian efficiency (or the total utility of individuals), for which individual utilities are summed up (Mill 1879, chap. 2, paras. 10, 21; Mueller 2003, 151-52; Suzuki 1994, 156-57), as the primary value standard. The Pareto efficiency is humane, but it is ineffective in reforming a matured society tangled with vested interests. The Nash efficiency is fair in theory, but it is impractical. Meanwhile, the utilitarian efficiency is effective in theory and workable in practice though it is not flawless.  

108

If electors on the left are less likely to vote than electors on the right under VV, the median voter position will stay some distance from the median elector position to the right in the left-right dimension. However, CV will achieve very high turnout and will mostly diminish turnout imbalance between electors on the left and those on the right, and this will result in diminishing the distance between the median elector position and the median voter position. The utility for each elector can be measured as a function of the distance between their optimal policy position and the governmental policy position. The total utility of electors is maximised when the governmental policy position is at the median elector position in the left-right dimension. The two major parties will converge around the median voter position rather than the median elector position because the median voter position is the Condorcet winner in a two-candidate election setting, and a major party at the median voter position will surely gain more votes than the other party that takes a policy position other than the median voter position (Hinich and Munger 1994, 50-51). Therefore, the approximation of the median voter position to the median elector position will improve the total utility of electors. In this regard, the high turnout resulting from CV will be effective in improving the total utility of electors.

5.3 of Chapter 5 analysed survey data from the 2001 Australian election and found that this analysis supported the hypothesis described in the last paragraph.

108 See 5.1 of Chapter 5 for more arguments over the three types of efficiency.
Moreover, this analysis found that the turnout of electors in the centre is as high as that on the left and the right under CV in Australia but that it would not be as high as that of the left and the right under simulative VV. Electors in the centre are expected to have less differential benefit from the electoral success of their preferential major party over the other major party than electors on the left and the right (see Figure 5.8). Therefore, electors in the centre are assumed to have less motivation to vote. If CV were to be abolished in Australia, the turnout of centre electors would decline more than that of electors on the left or the right. As a result, the electoral attractiveness of the centre policy position would diminish, and the two major party positions would shift away from the median voter position. The two major parties alternate in power under the two-party system, and so this outward policy shift of the two major parties would result in a decrease in the total utility of electors in Australia. On the contrary, the adoption of CV would improve the total utility of electors in the industrial democracies now under VV.

The two major parties will converge around the median voter position in the left-right dimension, but they will stay some distance from it (Downs 1957, 115-17; McLean 1982, 124-29; McLean 1987, 70-71). The policy position of each major party can be regarded as an equilibrium between the centripetal vector and the centrifugal vector. The median voter position is the Condorcet winner in a two-candidate election, and so each major party has a motivation to shift their policy position towards the centre. However, each major party needs electoral resources (i.e. election funds and campaigners) to run an election campaign to win more votes than the other major party. Therefore, each party has a motivation to shift their policy position outward in order to appeal to the minority interests that provide electoral resources. In the left-right dimension, the policy position of each party will stay at a position where the centripetal vector and the centrifugal vector are in equilibrium (see Figure 6.1). The introduction of CV would release the two major parties from the need to mobilise their supporters to polling places and would diminish the level of uncertainty about the election result in constituencies. As a result, the two major parties would have less demand for electoral resources under CV. Therefore, the two major parties would become relatively free from the influence of minority interests, and so their policy positions would shift inward in order to recover equilibrium between the two vectors. In the end, CV would increase the total utility of electors even more.
A comparison of industrial democracies provided empirical evidence for the hypothesis that CV will diminish the demand of the two major parties for electoral resources. Although it is difficult to make international comparisons about election funds in order to test this hypothesis, it is possible to test it with respect to election campaigners. First, data analysis about the industrial democracies indicates that electors in the centre are less likely to actively participate in election campaigns than electors who are further to the left or to the right (see Table 6.5). This finding suggests that extreme electors are the major source of election campaigners and so the two major parties need to appeal to them in order to undertake election campaign activities. However, CV would diminish the level of demand for electoral resources and would make the two major parties relatively free from the policy preferences of more extreme electors. Second, data analysis indicates that the demand of the parties for electoral resources is weaker in CV countries (i.e. Australia and Belgium) than in VV countries (see Table 6.6 and Figure 6.6). This finding suggests that CV has controlled the demand of the parties for electoral resources in these countries and has encouraged the two major parties to shift their policy positions inward. In the end, this finding indicates that CV has improved the total utility of electors in this regard.

Adaptability of CV to Actual Industrial Democracies

In theory, the ideal type of CV in the default environment will first be effective in improving turnout, and the high turnout resulting from CV will second be effective in improving the total utility of electors. However, the crucial point is whether CV will be useful in actual industrial democracies under VV at present. The orthodox theory about CV (i.e. Ackaert and de Winter 1996; Lijphart 1997; Mackerras and McAllister 1999) argues that the high turnout resulting from CV will diminish unequal turnout between the privileged people and the less-privileged people and will be useful to equalise their influence on politics. If this orthodox theory is applied on the left-right dimension, the turnout of electors on the left would be lower than that on the right and the median voter position would stay some distance from the median elector to the right under VV. However, the data analysis shows that this orthodox argument is not the case for all industrial democracies (see Tables 7.1 and 7.2).

The gap between the median elector position and the median voter position is substantial in several industrial democracies, but it is smaller in others. This finding
suggests that CV would be substantially effective in improving the total utility of electors in several countries but would not, in this regard, be so effective in others. However, the turnout of electors in the centre is significantly lower than those on the left and the right in many industrial democracies under VV. Therefore, CV would, in this regard, be effective in improving the total utility of electors in many industrial democracies. As a whole, the effectiveness of CV in improving the total utility of electors would vary among the industrial democracies.

In the default environment, which consists of a homogenous society, a left-right single policy dimension and a two party system, it is possible to engineer an electoral system to improve the total utility of electors. This electoral system should be engineered first to approximate the median voter position close to the median elector position and, second, to approximate the two-major party positions to the median voter position. First, in order to place the median voter position close to the median elector position, the electoral system should achieve universal voting. In order to realise it, a universal franchise, automatic registration based on the national registration system, CV and an electronic/machine voting system without a choice of invalid voting should be implemented. By the implementation of this set of electoral rules, every person will be eligible to vote, every eligible person will be registered, every registered person will cast a vote, and every vote will be valid. In effect, everyone will count as one, and no-one will count as less than or more than one.

Second, in order to reinforce the two-party system and approximate the two-major party positions to the median voter position, the full alternative voting (AV) system should be adopted. By the adoption of full AV, all valid votes will ultimately be transferred to the two most successful candidates in each constituency. In this regard, the full AV system is more effective in utilising Duverger’s law and realising a two-party system than the single-member plurality (SMP) system (Cox 1997, 35-148; Cox 2000a; Cox 2000c; Duverger [1964] 1978, 226). Moreover, under the condition of universal voting and full AV, the two major parties would effectively ignore the policy preferences of extreme electors and would shift their policy positions to the median voter in the centre. This policy shift of the two major parties will improve the total utility of electors.
Although CV is a component of the best electoral system, the real challenge is whether CV will also be useful in other social conditions and with other electoral rules. If CV is useful only in the particular set of social conditions and electoral rules described in the last paragraph, CV would be useless in most (or all) of the industrial democracies. However, CV is versatile and is likely to be useful in a variety of circumstances. First, under the condition of a majority/plurality representation electoral system other than full AV, CV would still be useful in approximating the median voter position to the median elector position and in encouraging the two major parties to shift their policy positions in the direction of the median voter position. Therefore, CV would still be useful in improving the total utility of electors upon the condition that full AV is replaced with another majority/plurality representation system (e.g. non-full AV or SMP).

Second, the majority of industrial democracies have a PR electoral system, and this electoral system tends to be accompanied by a multi-party system and coalition governments (IPU 2007; Lijphart 1999, 34-41; MOFAJ 2007). However, the median voter position would still be a strategic policy position for election and for the formation of the coalition government, and CV will be effective in approximating the median voter position to the median elector position even in the PR-system condition. Moreover, CV would encourage parties to shift their policy positions in the direction of the median voter position or would give more political clout to centre parties. Therefore, CV would be useful in improving the total utility of electors even under the combination of PR, a multi-party system and the coalition government largely different from the ideal electoral/party/government system.

Third, even in a multi-dimensional policy environment, two major parties would try to identify the combination of policy positions as the Condorcet winner in the multiple dimensions (Cox 1990, 908). CV would be effective in approximating the Condorcet-winner combination of policies to the policy combination at which the total utility of electors is maximised. Moreover, CV would be effective in encouraging the two major parties to shift their policy combinations in the direction of the Condorcet-winner combination of policies. Therefore, CV would be effective in improving the total utility of electors under the multi-dimensional policy condition.

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109 In this context, a “homogenous society” means a society in which people share political means and ends (Almond 1956,
Fourth, in a fragmented society, the maximisation of the total utility of electors would not be useful as a guiding principle for electoral engineering and the median elector position would not necessarily be the ideal policy position for the government to remain in office. In these circumstances, consociational arrangement between significant social fragments would be useful as a guiding principle for electoral engineering (Lijphart 1999, 32-33). However, CV could still be useful here: the fragmented society would not adopt any winner-take-all electoral system like AV and SMP but would adopt some form of PR in order to properly reflect the social fragmentation in parliament and provide a precondition for the post-electoral negotiation between elites representing each social fragment to achieve or maintain consociation between fragments (Lijphart 1969, 217-19). Under this condition, CV would be useful in precisely registering the fragmentation among the people. Moreover, CV would mostly nullify the usefulness of encouraging their fragment members to vote and discouraging electors in the other fragment members from voting. CV could therefore be useful in peacefully registering the fragmentation in the society.

8.2. Limitations of This Thesis

This thesis aimed at conducting a comprehensive cost-benefit analysis of CV for industrial democracies. For the purposes of this thesis, all major costs and benefits from CV should have been taken into account, but several major ones are missing from this analysis. A major limitation of this thesis is the fact that the cost-benefit analysis of CV could only be partially tested. Table 2.2 listed the major advantages and disadvantages of CV; some of them are deleted in Table 2.3 as being unimportant, and the others are retained for a comprehensive cost-benefit analysis. This thesis has researched the advantages of CV in Table 2.3 and has briefly mentioned the administrative difficulty and administrative costs of CV as one of its major disadvantages. However, this thesis has mostly left out the other major disadvantages of CV, namely, the restriction on freedom, the quality of government, and the administrative costs.

There are three major reasons why this thesis ended up only partially testing these
aspects of CV. First, although this thesis aimed at performing an objective analysis, some subjective judgement needs to be introduced to make an overall cost-benefit analysis. For example, it is difficult to objectively evaluate the significance of the freedom not to vote. Second, despite recent methodological advances in political science, it is still technically difficult to measure some types of costs and benefits from CV. The potential degradation of government by the introduction of CV is a case in point. The introduction of CV in itself is a change in the electoral rules. However, this change in the rules will result in a change in how the game (i.e. the election) is played. This change in the nature of the game is not necessarily predictable, and it is difficult to find a proper means for measuring the advantages/disadvantages of CV for the total utility of electors. Third, it is doubtful whether the 'total utility of electors,' which this thesis chose as a value standard, is a practical means for measuring the costs and benefits from CV. This thesis has used several figures to represent the quantity of utility and demonstrate the usefulness of CV in each category of its advantages. However, it is difficult to actually measure the quantity of utility each individual receives, as a common value standard. Therefore, it is difficult (probably impossible) to compare the total utility of electors between different types of costs and benefits from CV. Money is a widely-accepted value standard, but it would be difficult to measure and compare all advantages and disadvantages of CV by the standard of money. Therefore, a full-scale cost-benefit analysis of CV is difficult to perform. Nevertheless, this thesis will still try to extend the argument over the remaining elements for the cost-benefit analysis of CV.

Restriction on Freedom
Under CV, electors have to go to a polling place though they may be allowed to cast an invalid vote there. In this respect, CV is a restriction on their physical freedom (or their freedom of movement) and this should be counted as a cost of CV. Some people may even claim that CV is a violation of the right not to vote. Nevertheless, this claim does not automatically undermine CV because rights can be restricted. For example, property rights can be restricted, and taxes can be levied. Civic rights can also be restricted in some cases in liberal democracies, and even if the right not to vote is accepted it could still be restricted. However, some people may think that there is no substantial reason to justify CV as a necessary restriction against the right not to vote. Furthermore, some people may argue that the right not to vote is inalienable. Overall, the significance of the
restriction on the freedom not to vote is a matter of argument and one of subjective judgement (see Lardy 2004; Minchin 1996a, 244-45).

In 2.2 of Chapter 2, this thesis suggested that normative arguments (i.e. arguments based on liberalism and democracy) should be integrated into the cost-benefit analysis of CV in order to reach an overall assessment. This thesis has integrated democracy into this cost-benefit analysis by employing the value standard of utility. The freedom not to vote should also be assessed by the standard of utility and should be integrated into this cost-benefit analysis. However, its objective assessment is difficult, and a subjective judgement is necessary for integrating freedom into this cost-benefit analysis. If the freedom not to vote is judged to be an inalienable right, CV would not be a matter of cost-benefit analysis and this thesis would not make sense. If the freedom not to vote is not judged to be inalienable but is seen to be highly valuable, the total expected benefits from CV would have no chance of exceeding the total expected costs of CV. Meanwhile, if this freedom is not judged to be extremely significant, its restriction will be counted as a cost but there would be a chance for the total expected benefits from CV to exceed the total expected costs of CV.

Quality of Government

While liberalism tends to be deployed as a major emotional argument against CV, the quality of government is argued as a major practical concern in relation to the introduction of CV. If CV succeeds in achieving high turnout but fails to improve the total utility of electors, CV will not be useful in the end (see Figure 8.1). This thesis formulated a model and reached a conclusion that CV will be effective in improving turnout and the high turnout resulting from CV will also be effective in improving the total utility of electors in the model. However, it is still questionable whether CV will not severely damage the quality of government in any way. This kind of concern has been addressed in the process of franchise expansion in history, such as reduction in property and taxpaying qualifications, a universal male suffrage and enfranchisement of women. Even suffragists argued that several suffrage qualifications, which are unaccepted in modern democracies, were necessary (e.g. Mill 1862, chap. 8). Nevertheless, this historical experience does not necessarily mean that this kind of concern should be simply dismissed. This subsection will consider three concerns about the quality of government in relation to the introduction of CV. These three concerns are
the degeneration of votes, (2) political inactivity, and (3) the degradation of party policies.

Degeneration of votes. According to Hughes (1966, 83), the degeneration of votes is the other of the two most common arguments against CV. All electors are not equally interested in politics and are not equally informed about politics. Electors who are more interested and more informed about politics are more likely to vote than electors who are less interested and less informed. However, CV would bring these less-interested and less-informed electors to polling places. Their participation in voting would weaken the quality of the electoral decision-making and so would harm the quality of government. Therefore, CV, which forcibly achieves high turnout, might not be desirable (Abraham 1955, 31; Rydon and Goot 1989, 7-8). When CV was debated in the Australian parliament in 1924, Senator Gardiner (Commonwealth Parliamentary Debates. Senate. 17 July 1924, 2182-83) argued, ‘I hold the view that the opinions of the negligent and apathetic section of the electors are not worth obtaining.’ This potential risk of degeneration of votes needs to be counted as a cost in the analysis of CV.

Table 8.1 shows that voters are more knowledgeable about political issues than abstainers in industrial democracies under VV. Electors who know less about political issues are less likely to vote under VV in all 16 industrial democracies in Table 8.1. However, the introduction of CV would mobilise electors less knowledgeable about politics to polling places. If the forced participation in voting stimulates their interest in politics and results in educating these people in politics (Hughes 1966, 82; Lijphart 1997, 10; Mill 1862, chap. 3, para. 2; Pateman 1970, 42-43), it would not cause any major problem. However, the less knowledgeable and less interested electors might participate in voting without improving their knowledge of and interest in politics.
Table 8.1: Political Knowledge and Voting in Industrial Democracies under VV

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Correct Answers</th>
<th>Total (%)</th>
<th>χ²-Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 (%)</td>
<td>1 (%)</td>
<td>2 (%)</td>
</tr>
<tr>
<td>Canada*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>78</td>
<td>91</td>
<td>97</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(381)</td>
<td>(512)</td>
<td>(483)</td>
</tr>
<tr>
<td>Finland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2003)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>43</td>
<td>68</td>
<td>81</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(21)</td>
<td>(203)</td>
<td>(454)</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>71</td>
<td>77</td>
<td>83</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(118)</td>
<td>(407)</td>
<td>(351)</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>90</td>
<td>96</td>
<td>97</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(535)</td>
<td>(764)</td>
<td>(585)</td>
</tr>
<tr>
<td>Great Britain*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2005)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
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<td>70</td>
<td>80</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(215)</td>
<td>(264)</td>
<td>(242)</td>
</tr>
<tr>
<td>Ireland*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>63</td>
<td>75</td>
<td>82</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(63)</td>
<td>(534)</td>
<td>(756)</td>
</tr>
<tr>
<td>Italy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2006)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>61</td>
<td>74</td>
<td>86</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(190)</td>
<td>(163)</td>
<td>(548)</td>
</tr>
<tr>
<td>Japan*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>75</td>
<td>82</td>
<td>86</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(664)</td>
<td>(795)</td>
<td>(433)</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>94</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(406)</td>
<td>(385)</td>
<td>(440)</td>
</tr>
<tr>
<td>New Zealand*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>81</td>
<td>83</td>
<td>91</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(246)</td>
<td>(582)</td>
<td>(631)</td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>64</td>
<td>83</td>
<td>88</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(431)</td>
<td>(456)</td>
<td>(710)</td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2005)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>67</td>
<td>75</td>
<td>84</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(372)</td>
<td>(556)</td>
<td>(1,053)</td>
</tr>
<tr>
<td>Spain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>81</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(285)</td>
<td>(400)</td>
<td>(273)</td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>82</td>
<td>86</td>
<td>93</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(229)</td>
<td>(320)</td>
<td>(319)</td>
</tr>
<tr>
<td>Switzerland*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2003)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>40</td>
<td>61</td>
<td>79</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(171)</td>
<td>(594)</td>
<td>(451)</td>
</tr>
<tr>
<td>USA*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>44</td>
<td>73</td>
<td>81</td>
</tr>
<tr>
<td>(Total N.)</td>
<td>(140)</td>
<td>(225)</td>
<td>(387)</td>
</tr>
</tbody>
</table>

α=0.05

Notes:
1. Three political knowledge questions are different in each country, and so the level of their difficulty varies.
2. The total number is the sum of 'voted' and 'not-voted.'
3. When answers are not given to any of three questions, the respondent is included in the category of '0 correct answer.'
4. Australia and Belgium are excluded from this table because they are CV countries.
5. The relevant data are unavailable about Denmark (2001) and Germany (2002 Mail-Back), and Germany (2002 Telephone) is used in this table.
6. Austria and Greece are not covered by the data source.
7. Original sample weight is applied for the countries with an asterisk (*), but the unmodified sample size is presented.


Even the electors who vote under VV may not be sufficiently knowledgeable about politics and they may not have sophisticated judgements about it. However, most of their votes are channelled into established parties, so their votes are not likely to
cause major problems in the framework of established party politics. However, the voters who are newly mobilised by CV are more likely to be less knowledgeable about and less interested in politics than current voters under VV. Therefore, they are less likely to have a party identification than the voters under VV, and their votes may not be properly channelled into the established parties. These new voters might give more seats and bargaining power to extreme parties in parliament. Therefore, their voting participation could be a threat to the stability of party politics in liberal democracies. Table 8.2 indicates that electors without any party identification are less likely to vote than electors with a party identification in industrial democracies under VV.
<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Voted (%)</th>
<th>Not-voted (%)</th>
<th>Total (%)</th>
<th>χ² Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada*</td>
<td>2004</td>
<td>40%</td>
<td>17%</td>
<td>38%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(1,473)</td>
<td>(149)</td>
<td>(1,622)</td>
<td>G=0.536</td>
</tr>
<tr>
<td>Denmark</td>
<td>2001</td>
<td>98%</td>
<td>94%</td>
<td>96%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(936)</td>
<td>(932)</td>
<td>(1,868)</td>
<td>G=0.551</td>
</tr>
<tr>
<td>Finland</td>
<td>2003</td>
<td>91%</td>
<td>72%</td>
<td>88%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(544)</td>
<td>(622)</td>
<td>(1,166)</td>
<td>G=0.592</td>
</tr>
<tr>
<td>France</td>
<td>2002</td>
<td>85%</td>
<td>73%</td>
<td>79%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(551)</td>
<td>(436)</td>
<td>(987)</td>
<td>G=0.346</td>
</tr>
<tr>
<td>Germany*</td>
<td>2002</td>
<td>96%</td>
<td>84%</td>
<td>91%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Mail-Back</td>
<td>(Total N.)</td>
<td>(480)</td>
<td>(486)</td>
<td>(966)</td>
</tr>
<tr>
<td>Great Britain*</td>
<td>2005</td>
<td>83%</td>
<td>64%</td>
<td>74%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(302)</td>
<td>(551)</td>
<td>(853)</td>
<td>G=0.471</td>
</tr>
<tr>
<td>Ireland*</td>
<td>2002</td>
<td>90%</td>
<td>80%</td>
<td>83%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(668)</td>
<td>(1,644)</td>
<td>(2,312)</td>
<td>G=0.393</td>
</tr>
<tr>
<td>Italy</td>
<td>2006</td>
<td>96%</td>
<td>71%</td>
<td>83%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(503)</td>
<td>(632)</td>
<td>(1,135)</td>
<td>G=0.826</td>
</tr>
<tr>
<td>Japan*</td>
<td>2004</td>
<td>90%</td>
<td>71%</td>
<td>81%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(1,030)</td>
<td>(682)</td>
<td>(1,712)</td>
<td>G=0.591</td>
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<tr>
<td>Netherlands</td>
<td>2002</td>
<td>99%</td>
<td>96%</td>
<td>97%</td>
<td>p=0.002</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(616)</td>
<td>(947)</td>
<td>(1,563)</td>
<td>G=0.497</td>
</tr>
<tr>
<td>New Zealand*</td>
<td>2002</td>
<td>91%</td>
<td>82%</td>
<td>86%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(917)</td>
<td>(737)</td>
<td>(1,654)</td>
<td>G=0.393</td>
</tr>
<tr>
<td>Norway</td>
<td>2001</td>
<td>88%</td>
<td>79%</td>
<td>82%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(833)</td>
<td>(1,186)</td>
<td>(2,019)</td>
<td>G=0.335</td>
</tr>
<tr>
<td>Portugal</td>
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<td>88%</td>
<td>76%</td>
<td>82%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
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<td>(1,446)</td>
<td>(2,642)</td>
<td>G=0.410</td>
</tr>
<tr>
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<td>2004</td>
<td>95%</td>
<td>79%</td>
<td>89%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(715)</td>
<td>(448)</td>
<td>(1,163)</td>
<td>G=0.683</td>
</tr>
<tr>
<td>Sweden</td>
<td>2002</td>
<td>93%</td>
<td>84%</td>
<td>86%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(511)</td>
<td>(536)</td>
<td>(1,047)</td>
<td>G=0.433</td>
</tr>
<tr>
<td>Switzerland*</td>
<td>2003</td>
<td>88%</td>
<td>54%</td>
<td>68%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(630)</td>
<td>(772)</td>
<td>(1,402)</td>
<td>G=0.719</td>
</tr>
<tr>
<td>USA*</td>
<td>2004</td>
<td>83%</td>
<td>68%</td>
<td>77%</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>(Total N.)</td>
<td>(603)</td>
<td>(458)</td>
<td>(1,061)</td>
<td>G=0.381</td>
</tr>
</tbody>
</table>

α=0.05

Notes:
1. The total number is the sum of 'voted' and 'not-voted.'
2. Australia and Belgium are excluded because they are CV countries.
3. Austria and Greece are not covered by the data source.
4. Original sample weight is applied for countries with an asterisk (*), but the unmodified sample size is presented.


However, there is another possibility. If they are enforced to vote, they might acquire a party identification as a shortcut in order to control the cost of information in relation to voting (Downs 1957, 98-100) and, as a result, most of their votes might be channelled into the established parties. Nevertheless, they might not acquire a party
identification with the established parties (Lundell 2007), and so this risk of instability of democracy should be counted as a potential cost of CV in the cost-benefit analysis.

**Political inactivity.** The introduction of CV might result in political inactivity, and this might erode the foundations of democracy. Democracy would not be guaranteed solely by the existence of democratic institutions, and it would be reasonable to suppose that some sort of political culture congruent with democracy is necessary to animate the democratic system. Although it is difficult to identify the characteristics and preconditions of the political culture, one of them would be the orientation towards active participation. According to Almond and Verba ([1963] 1989, 19), active participation is not the sole condition for stable and effective democracy but a particular mixture of participant orientations and other orientations is necessary for it. However, this does not mean that they disregarded the participant orientations. According to their theoretical framework, it would be necessary to maintain the level of the participant orientations to a certain degree in order to avoid losing a balanced political culture congruent with democracy.

CV would weaken parties, by making parties less active. First, parties will lose their motivation to conduct positive election campaigns for mobilising their supporters to polling places though they might still try to convert potential supporters to their side. Second, the prediction of election results would become easier and so parties would have fewer marginal seats. Therefore, parties would be involved in election campaigning only in a limited number of marginal-seat constituencies and would ignore other safe-seat constituencies. Overall, parties would become inactive and the function of parties as liaison between the people and politics would wither (Hughes 1966, 93-95; Jones 1954, 35; JSCEM 1997, 24; Minchin 1996a, 246).

CV would also result in making electors, who are already passive, be even more passive in politics, undermining the foundation of democracy. With the introduction of CV, electors would become less active and more passive in voting and election campaign on two counts. First, CV will officially and effectively deprive electors of a choice not to vote, and so electors would stop thinking whether they should vote. They do not need to motivate themselves to turn out in order to fulfil their civic duty, and they do not need to motivate themselves to vote in order to meet their political duty to the party with which they identify. Second, they would not need to ask other people to turn out to vote for the party they support because all electors are expected to vote under CV,
and electors would find less necessity to become actively involved in fund raising and campaign activities for their favourite party because this party would have less demand for electoral resources (i.e. election funds and campaigners) under CV.

The political inactivity of electors and parties, which would result from the introduction of CV, might disturb the balance between several political orientations and might undermine the quality of government. Therefore, this political inactivity might have negative impact on the total utility of electors (Hughes 1966, 94-95; Jones 1954, 35; JSCEM 1997, 24; Minchin 1996a, 246). Once CV damages the participant orientation of electors as an essential component of the political culture congruent with democracy, the abolition of CV might not restore them. In other words, CV might irreversibly harm the political culture for stable, effective democracy. Although it is difficult to identify the characteristics and preconditions of political culture congruent with democracy, it would be even more difficult to manipulate them and so it would be a safe choice to leave them alone.

Degradation of party policies. The introduction of CV might result in the degradation of party politics, and it might impair the overall quality of decision-making. This problem would result from the quality of target electors for election campaigns rather than the general quality of voters (Abraham 1995, 31; Rydon and Goot 1989, 7-8). The two major parties would try to target electors during campaigns and formulate their campaign strategy to appeal to these electors in order to make most of their electoral resources. Under VV, their target electors would be the people who may vote but may not vote in marginal seats. However, once CV is introduced, the target electors for the two major parties would change to floating voters in a limited number of marginal seats. Many of these target electors would be former abstainers under VV who are less likely to be knowledgeable about politics (see Table 8.1) and are less likely to have a party identification (see Table 8.2) than voters under VV. Therefore, they would be more vulnerable to electoral manipulation. The two major parties would try to appeal to these limited number of less-qualified electors.

If parties cater to these less-qualified floating voters, the quality of party policies, which is not illustrated in the left-right dimension model, might be reduced. Even under VV, the two major parties may have a motivation to make easy promises because of escalation in competition with each other. However, under CV, these parties would have a strong motivation to make easier promises in order to appeal to the less
knowledgeable voters (Rydon and Goot 1989, 8). This might damage the coherence and effectiveness of their party policies. Moreover, rather than formulating and addressing their party policies, each of the two major parties might utilise negative campaign as a useful instrument to put floating voters off their rival party and to gain their votes in the end (Minchin 1996a, 247; Rydon and Goot 1989, 8). Under VV, negative campaign might be useful to discourage electors who support their rival party from voting. Meanwhile, under CV, the discouraged electors still have to vote and so negative campaign might not be a useful campaign measure (Lijphart 1997, 10). However, negative campaign could be even more effective under CV than under VV. CV might result in more floating voters (see Tables 8.1 and 8.2) who are less interested in politics and are not identified with any major party. Under CV, floating voters may be put off one major party by negative campaigning but, having to vote for somebody, the other major party that campaigned negatively may expect to benefit from these voters (Ballinger 2006, 18).

Administrative Costs

The administrative costs of CV should be taken account of in the cost-benefit analysis of CV. Although Chapter 4 (mainly its 4.2) mentioned the administration of CV, it did not count it as a cost. Effective administration is a necessary condition for CV to substantially improve turnout, and, in order to achieve this, the government (or tax payers in the end) must spend financial and human resources. It is obvious from the Australian case that substantial resources are consumed to investigate all abstainers and to continue this investigation until all cases are settled after each election.\footnote{After the 1996 election, 29,154 electors paid Aus$20 administrative penalty and 6,027 cases were dealt with by courts (as of 31 July 2001). After the 1998 election, 40,396 electors paid Aus$20 administrative penalty and 6,246 cases were dealt by courts (as of 31 July 2001). This information was provided by an official letter from the Australian Electoral Commission (AEC) dated 9 August 2001. This documentation suggests that they carry out a full-dress investigation into abstainers and its administrative costs are substantial. However, some industrial democracies could not afford to allocate so many resources to the administration of CV. CV would be useful to approximate the governmental policy position to the median elector position in the left-right dimension. However, its costs should be controlled as much as possible in order to spare sufficient resources for policy measures. In other words, the administration of CV should be effective but should also
be efficient.\textsuperscript{111}

Although the effective administration of CV is desirable to maximise turnout, it is costly and may not be cost-efficient for several countries. The necessity of allocating resources for the administration of CV and the availability of them would be different in each industrial democracy. If electors are generally law-abiding, most of the electors would comply with CV and the administrative costs would not be overwhelming. Moreover, if the notion of CV in itself is widely-accepted by electors, the administration of CV would work smoothly and its administrative costs would not be enormous. Meanwhile, if the budget of the government is under pressure, it would be difficult for the government to allocate sufficient resources to the administration of CV. Because of the financial limitations or for the purpose of the best allocation of resources, the level of administration of CV might need to be compromised (like the case of Belgium) in several countries.\textsuperscript{112} Furthermore, if the administration of CV encounters serious difficulties (e.g. neglect, incompliance and resistance), the administration of CV could need to be curtailed or dropped altogether. The administrative costs of CV should be estimated in each industrial democracy and should be counted in the cost-benefit analysis.

Costs of Voting for New Electors

While voters bear the cost of voting, abstainers do not bear it under VV. However, under CV, all electors have to vote and have to bear the cost of voting. Therefore, the introduction of CV will increase the total costs of voting in the society. This is not a cost that the government bears, but a cost that new voters must bear. The cost-benefit analysis of CV should be performed not for the government but for the whole society. Therefore, the additional costs of voting resulting from CV should be taken account of in the cost-benefit analysis of CV. Nevertheless, Tables 2.2 and 2.3 did not list this cost, and this thesis has not dealt with it. This cost can be calculated by multiplying the

\textsuperscript{111} Administrative cost is an old concern (Hughes 1966, 83) on the exercise of CV, and it has mostly been argued in relation to the sustainability of the CV system (Abraham 1955, 16-17; Phillips 2001, 21-22). However, it has rarely been argued from the viewpoint of justifiability of the costs (Healy and Warden 1995, 2, 29-30).

\textsuperscript{112} The Belgian government randomly selects several districts after each election, and the investigation into abstainers in these districts is serious. This information about the random selection was first provided by Ms Maria Gratschew, International IDEA, at the interview with her (19 April 2002), and it was later confirmed by email correspondence with Mr Edwin Lefebre, Ministry of Home Affairs, Belgium (14 October 2002).
estimated cost of voting per person and the expected number of new voters mobilised by the adoption of CV together. This calculation should be exercised in each industrial democracy because the estimated cost of voting and the expected number of new voters are different in each country.

8.3. Conclusion

This thesis aimed to assess the overall usefulness of CV for industrial democracies. It recognised that CV must be effective on two levels for it to be useful for the people. First, CV needs to be effective in improving turnout. Second, the high turnout resulting from CV needs to be effective in improving the total utility of electors, which can be equated to the well-being of the people. For assessing the overall usefulness of CV, this thesis also understood that a comprehensive cost-benefit analysis of CV should be performed as William Robson argued in 1923 (Robson 1923, 576). In regard to the first level of effectiveness, this thesis built a model of CV in order to clarify the mechanism by which CV achieves high turnout, and then it provided empirical evidence for the Robson hypothesis that real sanction and serious administration are two major conditions for CV to operate like this model (Robson 1923, 571). However, in regard to the second level of effectiveness, the cost-benefit analysis of CV could only be partially tested by this thesis. The partiality indicates that this thesis has failed to achieve its goal of assessing the overall usefulness of CV for industrial democracies.

Nevertheless, this thesis has advanced the research on CV in the direction towards its comprehensive cost-benefit analysis. Further research on CV will be necessary for assessing the usefulness of CV for industrial democracies more precisely and more comprehensively. However, general arguments over the usefulness of CV, like that of this thesis, will inevitably be abstract rather than being practical for the actual introduction of CV in each country. As this thesis has argued, CV in itself is an instrument and does not have any intrinsic value. However, CV might cause several effects when it is applied within an environment. The findings of this thesis also suggest that CV would be useful for some countries but would not be so for others (see Chapter 7). Therefore, for the actual introduction of CV in a country, the usefulness of CV should be assessed in the context of the country and a comprehensive case study
should be performed. Nevertheless, it would be impossible to perform a perfect cost-benefit analysis of CV even in each country environment. Nonetheless, the cost-benefit analysis of CV is a proper research framework, and so it should be attempted for each country environment in order to provide useful references for decision-making on the introduction of CV.

It should be remembered that this thesis has consistently used the majoritarian model of democracy as its underlying assumption as its introduction explained. This assumption is characterised by a two-party system, in which the two major parties alternate in power, and is also featured by a majoritarian electoral system. The choice of this underlying assumption inevitably limited the research scope of this thesis. All hypotheses of this thesis were formulated and were comparatively tested in this assumptive framework. Therefore, although this thesis analysed several countries and systems that do not share many characteristics with this majoritarian model, the reader should assess the relevance of this thesis to them (e.g. PR systems) with caution.
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199


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