THE POLITICAL ECONOMY OF THE INTERWAR YEARS

BY

ALAN DE BROMHEAD

MANSFIELD COLLEGE

A THESIS SUBMITTED TO THE UNIVERSITY OF OXFORD IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMIC & SOCIAL HISTORY.

HILLARY TERM 2014

ACKNOWLEDGEMENTS

Firstly, I would like to convey my sincerest gratitude to my supervisor, Prof. Kevin O'Rourke, for his ongoing support of my research, for his encouragement, incisive comments, and vast knowledge. His guidance through all the stages of my research is embodied in this thesis. Furthermore, for his support in the development of my academic career outside of my doctor research I am greatly indebted. I am also extremely grateful for the financial support I received through his European Research Council funded project *Trade and the Great Depression in a Long Run Perspective.*

I would also like to thank all the members of the Economic & Social History group for helpful suggestions, honest advice and for providing a sympathetic ear. In particular my thanks go to Prof. Rui Esteves, whose insightful comments and encouraging remarks during the Transfer and Confirmation of Status process were of immense help.

My thanks also go to Prof. Jürgen Falter for providing access to his data.

Finally, I would like to thank my family: my wife whose untiring optimism sustained me when my own waned, my parents for supporting me in every way, on every day, and my brothers for keeping me grounded throughout. Without their support not a single word would have been written.

TABLE OF CONTENTS

CHAPTER I INTRODUCTION

In a recent report on G-20 Trade Measures, the World Trade Organisation (WTO) expressed its mounting concern over what it called the "revival of protectionist rhetoric in some countries".[1] As the report states:

> "Some G-20 governments are reportedly considering raising import barriers, or in some cases have already done so, to protect their domestic industries from what they may consider to be unfair competition."[2]

Perhaps not surprisingly, the WTO presents these protectionist measures not just as a threat to the international trading system but also to global economic revival:

> "Increasing trade is critical to stimulating global recovery and to supporting fiscally sustainable growth. Stronger global cooperation is needed to rebuild a robust architecture for trade in the 21st century. Greater international cooperation is also needed to make the case for open trade, escape the current economic crisis, and advance the multilateral trade agenda."[3]

These appeals for international cooperation to resist protectionism echo those made by the League of Nations in the 1920s and 1930s, as they attempted to guide the reconstruction of the international economic system following the First World War. Although the onset of the Great Depression would later add a greater impetus to their mission, the protectionist rise had been identified even before the onset of the economic crisis. The declaration of the World Economic Conference in 1927 was clear about the need to address the issue of growing protectionism:

> "The time has come to put a stop to the growth of Customs tariffs and to reverse the direction of the movement".[4]

Despite the recommendations of the conference, by 1928:

---

[1] World Trade Organization, *World Trade Organization Report on G-20 Trade Measures, Executive Summary*, www.wto.org (Geneva, 2012)
[2] ibid.
[3] ibid.
[4] Quoted in League of Nations and J.B. Condliffe, *World Economic Survey, 1931-32* (1932) p.277

> "there were many signs that the protectionist current was setting in more strongly than ever."[5]

Before long, the collapse of the gold standard, the imposition of capital controls and the retreat to autarky during the early 1930s would reverse several decades of increasing globalisation.

To some observers the current world of internationally integrated goods and capital markets, constructed largely over the last four decades or so, sometimes appears as if it must be the natural state of the global economic system. The rhetoric employed by proponents of contemporary globalisation often presents the process as something of an inevitability, whose inexorable rise is somehow predetermined. Indeed to try to retreat from the process has been deemed economic folly.[6] Yet, with the perspective of history, it is clear that the globalised world in which we live today is far from inevitable. By a number of measures, the modern world economy is perhaps even less integrated than the global economy of the late nineteenth and early twentieth centuries. Although international trade as a proportion of world GDP regained its 1913 level in the 1970s, capital flows have only more recently reached the levels of the pre-First World War period.[7] There is little debate that international labour markets were far more integrated in the past. Levels of migration today are significantly below those of 1913.[8]

In describing the global nature of the economic system that prevailed before the First World War the well-known quote of John Maynard Keynes is often cited:

---

[5] ibid.pp.279
[6] J. Bhagwhati, *In Defense of Globalization*, (2004) Ch.1
[7] S. Fischer, 'Globalization and its Challenges', *The American Economic Review*, Vol. 93 (No. 2, Papers and Proceedings of the One Hundred Fifteenth Annual Meeting of the American Economic Association, Washington, DC, January 3-5, 2003, 2003)1-30., M. Obstfeld and A.M. Taylor, 'Credibility and the Gold Standard: 1870-1913 Versus 1925-1931', *The Economic Journal*, Vol. 113 (No. 487, 2003)241-75.
[8] K.H. O'Rourke and J.G. Williamson, *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy* (2001) p.2

> "The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages; or he could decide to couple the security of his fortunes with the good faith of the townspeople of any substantial municipality in any continent that fancy or information might recommend. He could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality, could despatch his servant to the neighboring office of a bank for such supply of the precious metals as might seem convenient, and could then proceed abroad to foreign quarters, without knowledge of their religion, language, or customs, bearing coined wealth upon his person, and would consider himself greatly aggrieved and much surprised at the least interference."[9]

However it is his next observation that makes for perhaps the most interesting comparison to today:

> "But, most important of all, he regarded this state of affairs as normal, certain, and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous, and avoidable."[10]

Clearly the notion that globalisation is a unidirectional and linear process is not one that is new, and also one that has proved misguided in the past.

1.2 NINETEENTH CENTURY GLOBALISATION BACKLASH

Beneath the surface of the seemingly inexorable rise of globalisation during the late nineteenth century however, lay an incipient backlash. Many of the consequences of free trade were increasingly seen as undesirable in a number of countries. The threat posed to agricultural incomes by the New World and Ukrainian grain 'invasion' flooding European markets led agricultural interests to call for protection. Mirroring this, New World manufactures claimed that protection was required to compete with European manufactured goods. The mass migrations of millions of Europeans to the New World and the effects this

[9] J.M. Keynes, *The Economic Consequences of the Peace* (1920) pp. 11-12
[10] ibid.

had on living standards also fostered resentments.[11] Much of continental Europe responded by raising tariffs, mainly on agricultural products. Political interests coalesced around the tariff issue and managed to overturn the previous free trade consensus, most famously in Bismarck's 'marriage of iron and rye' in Germany. The globalisation backlash led to a policy response in the New World too, with the US imposing tariffs on manufactured goods and implementing restrictions on migration. Only Britain remained committed to the policy of Free Trade, although protectionist rhetoric was certainly on the rise there too.[12]

Despite these policy shifts however, the integration of international markets continued apace. The dramatic and ongoing decline in transport costs during the last decades of the nineteenth century largely outstripped the detrimental effects of the globalisation backlash in terms of overall trade volumes, with freight rates estimated to have declined between 1870 and 1913 by about 30%. In the interwar period freight rates not only stagnated but actually rose mainly due to lower productivity growth, exacerbating the effects of policy changes.[13] In the 1950s and 1960s transport costs remained more or less constant. A change did take place however in the post-war period of "re-globalisation" beginning in the 1970s, when containerisation and declines in the cost of air transport contributed to a sustained decrease in transport costs.[14] The capacity for improvements in technology and increasing productivity of shipping to offset the negative effects of any backlash against globalised trade are particularly important to note, not just for the period before 1913 but also for today.

---

[11] O'Rourke and Williamson, *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy* Chapter 10

[12] F. Trentmann, *Free Trade Nation: Commerce, Consumption, and Civil Society in Modern Britain* (2008) p.5. Trentmann explains how the ideology of "Free Trade" (capitalised) evolved into the policy of "free trade" (lower case) in Britain over the late nineteenth and early twentieth centuries.

[13] A. Estevadeordal, B. Frantz and A.M. Taylor, 'The Rise and Fall of World Trade, 1870–1939', *The Quarterly Journal of Economics*, Vol. 118 (No. 2, 2003) 359-407.

[14] D. Hummels, 'Transportation Costs and International Trade in the Second Era of Globalization', *The Journal of Economic Perspectives*, Vol. 21 (No. 3, 2007) 131-54.

It is likely no coincidence that the interwar period was one of both stagnating transport costs and increased opposition to globalisation. In short, the capacity for declining transportation costs to absorb some of the perceived negative effects of globalisation may have important implications.

Another important aspect of the globalised world of the late nineteenth century identified by Keynes was the ability to undertake international transactions under a common medium of exchange, namely gold. The formation and spread of the gold standard during the 19th century had led to an international system of fixed exchange rates and increasingly globalised financial markets. However the deflationary bias of the gold standard system fostered much opposition, similar in character to the opposition generated by increasingly globalised trade. In the US this tension peaked during the 1890s when the gold standard system faced a serious challenge from the free-silver movement of William Jennings Bryan. The idea that the price of the gold standard was to crucify mankind on a cross of gold encapsulates the backlash against the gold standard system during the late 19th century. Clearly, the *laissez-faire* policies of free movement of goods and capital were beginning to face opposition from mass political movements.

1.3 DOMESTIC POLITICAL ECONOMY

But how does growing opposition to globalisation influence policy? The WTO report identifies the domestic political economy as being central to understanding the current resurgence in protectionism; indeed that

"the politics of trade in some countries seems to be turning inward-looking."[15]

[15] World Trade Organization, *World Trade Organization Report on G-20 Trade Measures, Executive Summary*

Balancing external and domestic policy goals has always been a difficult task for policy makers, not least during periods of economic adversity or dislocation. This thesis argues that the apparent inward-looking turn of economic policy objectives that characterised the interwar years was related to the abrupt changes to national political systems that occurred in the aftermath of the First World War.

Of the political changes that took place following the First World War, arguably the most significant were the extensions of the franchise that gave previously disenfranchised groups a distinct political voice for the first time. The effects of increased voting rights for previously disenfranchised working-class men on the political economy of the period has been identified previously but not extensively tested.[16] Another, and perhaps more substantial, dimension of post-First World War franchise extensions that has been even less well explored is the extension of voting rights to women that took place in many countries. This thesis suggests that the preferences and voting behaviour of these groups are key to understanding the political economy of this period - and indeed why the economic policies employed by governments during the interwar period stand in such stark contrast to those of the pre-First World War system.

Of course in many countries the political changes were far greater. The post-war period saw not merely an extension of voting rights in many of the newly created countries, but the establishment of democratic institutions for the first time. Not only did these countries face the challenge of balancing the preferences of different sections of society but they had to do so through institutions that were new, untested and that had to be shaped to fit the unique social and economic make-up of these new democratic nations. The choice of

[16] B. Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* (New York, 1992) pp.4-12, K. Polanyi, *The Great Transformation: The Political and Economic Origins of our Time* (1944) Ch.17 and Ch.
19

electoral system, whether a system based on proportionality or a more majoritarian system also had to be made; a choice that had the potential to influence the composition and stability of governments.

Political difficulties were not confined to the domestic arena: relations between nations were also strained. The legacy of the First World War was an international environment of resentment, mistrust and retribution. The Treaty of Versailles, alongside the other treaties with the defeated powers, had created complex claims for reparations that would ultimately poison efforts to reach international economic or political agreements - claims that would never be fully resolved. In addition the world lacked a hegemonic power, an important factor in the stability of both the pre-First World War and Post-Second World War global economic systems.[17] Britain, the hegemonic power at the centre of the world economy in the late nineteenth century, was financially hobbled by the war and was too weak militarily to project its power effectively across the globe as it had once done. The United States, the rising industrial and financial giant, was unwilling to assume fully the hegemonic role and pursued its policy of relative isolationism. The need for international coordination was well recognised however and the establishment of the League of Nations in 1920, among other international institutions, represented an effort to achieve this. However these institutions would ultimately prove powerless to achieve any effective cooperation between nations or to maintain amicable international relations. The failure of the United States to join the league, despite the fact that President Woodrow Wilson had been one of its main architects, exemplified these shortcomings.

[17] C.P. Kindleberger, *The World in Depression, 1929-1939* (1973) Ch.14

1.4 THE RETREAT TO AUTARKY

If globalisation is defined as the increased mobility of goods, capital and labour across national borders, then the contrasts between the period before the First World War and the interwar period are strikingly apparent. The First World War ripped apart the globalisation advancements of the 19th century. At the onset of war in 1914, countries suspended the gold standard and imposed capital controls. Trade collapsed and the little that remained was managed by governments in order to achieve war aims. Alongside the collapse in trade came a collapse in migration, marking the end of the era of the mass transfer of people from the old world to the new. With the end of the war attempts would be made to re-establish some semblance of the old global economy, attempts that would prove to be largely unsuccessful.

When belligerent nations suspended convertibility of their currencies into gold, the intention was clear that the gold standard would be re-established once hostilities had ceased. However following the end of the war - a war that had lasted far longer than had been expected - significant obstacles to the re-establishment of the pre-war monetary system existed. A fundamental issue was that war-time inflation had significantly raised domestic price levels. In order to return to gold at the old parities, countries would have to endure severe deflation. For counties such as France and Germany the problems were even more acute. Eventually, when the gold standard was reconstituted, Britain re-joined at the pre-war parity, while France entered at a devalued rate. Although the restoration of the gold standard was ultimately achieved, the system was built on relatively insecure foundations. The onset of the economic crisis would eventually put an end to the interwar gold standard, ushering in an era of capital controls and competitive devaluations.

Attempts to restore the pre-war system of international trade were even less successful in the 1920s. Tariffs and other trade restrictions imposed during the war proved stubbornly persistent while strained international relations ensured that trade negotiations

proved unsuccessful. The backlash against trade that had begun in the late nineteenth century grew in strength, not least in the newly created states of post-war Europe, invigorated by febrile nationalism. Ultimately the economic crisis of the early 1930s would place pressures on the international trading system that it could not sustain. Domestic conditions now took precedence over external matters of free trade and the gold standard.

Ultimately, the failure to reconstitute the pre-1914 global economy resulted in a decades–long retreat into autarky. The rules required for the operation of international systems could no longer be followed at the cost of the domestic economy. The Bretton Woods system conceived at the end of the Second World War attempted to strike a balance between these seemingly conflicting objectives. In terms of monetary policy, the system adopted a compromise solution to the Mundell-Flemming trilemma. According to the trilemma a national government can only pursue two out of three monetary policy goals at the same time: free movement of capital, fixed exchange rates and domestic monetary policy.[18] Under the gold standard, policy makers had chosen the first two elements. However this meant that the domestic economy might have to suffer as a result. External balance (balance of payments) had to take priority over internal balance (full employment). Under Bretton Woods, some elements of each part of the trilemma were applied. Limited exchange rate flexibility and some domestic monetary autonomy were accommodated by employing restrictions on the free movement of capital. According to the IMF:

> "The founders of the Bretton Woods system had taken it for granted that private capital flows would never again resume the prominent role they had in the nineteenth and early twentieth centuries..."[19]

[18] M. Obstfeld, J.C. Shambaugh and A.M. Taylor, 'The Trilemma in History: Tradeoffs among Exchange Rates, Monetary Policies, and Capital Mobility', *Review of Economics and Statistics*, Vol. 87 (No. 3, 2005) 423-38.
[19] International Monetary Fund, *Globalization and the Crisis (2005-Present)*, http://www.imf.org/external/about/histglob.htm (2014)

1.5 A CHANGING SOCIETY

The far-reaching domestic and international political realignments of the interwar period took place against the backdrop of a number of important economic and social developments. The rise of the Trade Union movement, which had emerged in the nineteenth century, had strengthened the position of workers in their advocacy of a larger share of the gains from the industrial revolution. As a result of this, and of the rise of large modern firms, wages became increasingly rigid, depriving the economic system of one of its traditional methods of adjustment.[20] Unions ensured that economic disputes between workers and employers would more frequently become public affairs, with strikes and demonstrations the result when agreements could not be reached. The spectre of Communism that swept across the industrialised world following the 1917 Bolshevik Revolution in Russia added an extra degree of alarm within sections of society that had traditionally held the reins of power. The electoral success of Communist parties in a number of countries during the early years of the 1920s only added to these tensions. Women too were carving out a greater role in the economy and public life through the growth of the services sector in particular, which was gaining in importance in most industrialised countries. The economic, cultural and sexual liberation embodied by the hedonistic 'New Woman' of the 1920s was something however that did not fit comfortably with more traditional sections of society.[21] These social changes and their associated tensions and conflicts would pose difficulties for any society, at any point in time. That these tensions coincided with dramatic and fundamental changes to political and economic systems, in a period when international cooperation was fraught with

[20] B.J. Eichengreen, T.J. Hatton, et al., *Interwar Unemployment in International Perspective* (1988)
[21] A. M. Ludovici, 'Woman's Encroachment on Man's Domain', in A. Howard and S. R. A. Tarrant (ed.), *Redefining the New Woman, 1920-1963* (1997) 81-85.

difficulties, only compounded the fragility and volatility of both international and domestic political systems.

1.6 AGENDA

This thesis attempts to understand why the globalised system of the 19th century could not be resurrected in the interwar years, by focusing on the changes to voting rights that took place after the First World War. By doing so it hopes to shed light on the inward turn of policy makers and to induce the reader to recognise similarities and differences between the interwar years and the present day. The lessons of the interwar years can help us better understand the pressures caused by increasing globalisation as well as the limits the process potentially faces.

The attempt to untangle how changes to domestic political systems impacted economic policy during the interwar period will proceed as follows. The next chapter explores the relationship between the extension of the franchise and interwar protectionism. Using a panel data set of 30 countries between the years 1919 and 1939, I introduce variables that measure the proportion of the population with the right to vote as well as a variable indicating whether or not women were enfranchised. I argue that interwar trade policy can be explained, at least partially, by changes in the franchise. In particular I argue that the granting of voting rights to women would have resulted in a shift in the median voter towards one that was more protectionist. More protectionist attitudes among women are revealed through the analysis of US public opinion survey data from 1939. Furthermore, the empirical analysis is complemented by an examination of attitudes towards women voters and the issue of tariff policy in the interwar media.

The third chapter focuses on another aspect of the breakdown in international integration during the interwar period, namely the breakdown of the interwar gold standard

of fixed exchange rates. I argue that changes in the franchise are also crucial to understanding the collapse of this international monetary system. I explore this hypothesis using a data set containing data for 23 gold standard participating countries between the years 1919 and 1936, implementing a panel probit fixed effects model as well as undertaking survival analyses. As in the previous chapter, I explore micro-level data in the form of public opinion surveys to assess opinions on topics related to the gold standard and how they differed by class and gender. This chapter also attempts to gain an insight into contemporary opinions. As such, a number of qualitative sources regarding attitudes towards the effects of the enfranchisement of women on the political environment are explored.

One of the key arguments of this thesis is that women and men had different preferences when it came to policies related to trade and the maintenance of the gold standard. Public opinion surveys may expose different preferences of men and women on these policy issues, but unless these different preferences are expressed as votes, the mechanism of the median voter model breaks down. This is even more important in the context of the analysis in this thesis as many contemporary commentators expressed the belief that women would not express an independent vote, and that giving them the vote would have no impact on policy. In fact many contemporary observers believed that women would simply vote as their father or husband voted and that consequently the distribution of preferences would not be altered. In order to explore the actual voting preferences of women during the interwar period, the fourth chapter of this thesis analyses the political preferences of newly enfranchised women voters using a unique resource. The votes of men and women were counted separately in a number of electoral districts in Weimar Germany, of which the national elections of 1928 and 1930 are the most complete. As such, an assessment of differences between the voting behaviour of men and women can be conducted. This is an unusual resource even today, as most modern assessments of gender differences in voting

intentions are conducted using survey data. The fact that these Weimar voting data can be combined with census data allows for voting patterns not only to be analysed by gender but also with respect to socio-economic factors, such as class, and religion. The analysis finds that men and women did in fact display different voting preferences. Although it is not possible to establish voting preferences of women on the issues of trade and the gold standard directly in this study, the fact that men and women did not display identical voting patterns supports the argument that the extension of the franchise to women had an impact on the political environment of the interwar years. Indeed, the opportunity to examine what role the votes of women played in the rise of the Nazis and the collapse of democracy in Weimar Germany makes this analysis important in its own right.

The final section of the thesis outlines some conclusions arising from the analysis. Extensive appendices are also provided which contain an outline of the evolution of voting rights in the countries under examination in the analysis, a description of variables included and methods employed as well as supplemental analytical material.

This thesis represents an attempt to understand the complex and turbulent economic and political history of the interwar years. It offers potential explanations for the dramatic inward-turn of politics and the retrenchment of globalisation which characterised the period. It also illuminates issues surrounding burgeoning protectionism and opposition to globalisation today. At its heart is the same "globalisation trilemma" outlined by Dani Rodrik; that it is not possible for nations to pursue globalisation, the nation state and democracy at the same time.[22] In such a trilemma any advance in one dimension must be at the expense of one of the others. As increases in the franchise after the First World War represented significant advances in democracy alongside an affirmation of the nation state

[22] D. Rodrik, *The Globalization Paradox: Democracy and the Future of the World Economy* (2011) pp. xviii-xix

as the unit of global politics, the trilemma would predict that these advancements must come at the expense of globalisation. Today, the democratic ideal is largely unchallenged and we appear to be nearing the limits of the amount of sovereignty that nation states are willing to exchange for increased economic integration. What this suggests is that if current efforts to achieve "hyper-globalisation" continue, an anti-globalisation backlash should not come as a surprise; it should be expected.

Of course the economic, social and political dimensions of the interwar years are far too complex to present any mono-causal explanations of the retreat towards autarky characteristic of the period. This is something that this thesis does not attempt to do. Indeed to set off in pursuit of such a goal would most likely be a futile endeavour. Nonetheless, the relative importance of different aspects of the unique political economy of the period can be highlighted without succumbing to over simplistic explanations. As such this thesis argues that the changes in the franchise that took place during this period, including the enfranchisement of women voters, deserve recognition as an important factor that determined the unique political economy of the interwar years.

CHAPTER II WOMEN VOTERS AND TRADE PROTECTIONISM IN THE INTERWAR YEARS

2.1 INTRODUCTION

A dramatic increase in trade protection was one of the prominent features of the breakdown of the international economic system that took place during the interwar years. Average tariff rates for industrialised countries increased by 11% in the period 1923 to 1926, by 13% between 1927 and 1931 and by 18% between 1932 and 1939.[23] Needless to say, tariff policy is always a highly political issue. Calls for increased protection of home producers, either from special interests or from those who argued that higher tariffs were in the best interests of the public in order to maintain employment, became increasingly loud. Even in Britain, where the doctrine of Free Trade had been most firmly established in the 19th century, the advocates of protectionism were becoming ever more vocal.

In order to understand the rise of protectionism during this period it is important to recognise the great changes to the political environment that followed the First World War. The extension of the franchise to millions of new voters in many countries represented one of the most significant developments. This major change in democratic politics could have had an impact on the political economy of trade policy as new voters, with preferences arguably different to those of the former electorate, cast their ballots for the first time. But in which direction would these changes to the franchise influence policy? Would the new voters be more inclined towards trade protection or free trade? This chapter argues that extensions of the franchise to men and women influenced tariff policy in opposite directions. The granting of voting rights to previously disenfranchised men, largely working class, had a negative effect on tariff rates. Perhaps the most novel finding of the analysis is the impact of the enfranchisement of women on the politics of trade policy. Survey evidence from the

[23] H. James, *The End of Globalization: Lessons from the Great Depression* (2002) p.108

period suggests that women were more likely to express a preference for trade protection, as they do today. Furthermore, the cross-country evidence presented in this chapter indicates that where women were entitled to vote tariff rates were, on average, higher. Although previous studies have explored the political aspects of trade policy formation in terms of the "intensive" dimension of democracy - that is the openness of democratic institutions - this chapter focuses on the "extensive" dimension of democracy - that is the extent of the franchise. To my knowledge, this is the first time that this issue has been explored in this context.

The analysis of the link between increases in the extent of the franchise and tariff rates will proceed as follows: The next section examines the theoretical relationships between democracy and protectionism and outlines some of the predicted relationships in advance of the empirical analysis. In addition the determinants of interwar tariff policy highlighted in the literature are discussed, before exploring the contemporary debates surrounding women's attitudes to trade. The third section contains the empirical analysis, presenting public opinion survey evidence of a difference between the trade policy preferences of men and women during the interwar period. Following this, a cross-country analysis of the determinants of interwar trade policy is undertaken, and the implications considered. The final section outlines some general conclusions.

2.2 BACKGROUND

DEMOCRACY AND PROTECTIONISM

The relationship between democracy and trade is one that is often assumed to be causal, although whether the effect is positive or negative is disputed. So too is the direction of causality running between them. On the one hand, trade is believed to increase the level of transparency and accountability of political institutions, while politically open societies

are less likely to desire restrictions on freedom of trade. On the other hand, where sections of the economy in import competing sectors have a political voice, democracy may result in a higher level of trade protection.[24] A number of studies have uncovered a positive correlation between democracy and trade while those uncovering a negative relationship are probably in the minority.[25] The basic elements of the political economy of trade policy are outlined by Dani Rodrik.[26] Using a theoretical model, such as Heckscher-Ohlin or Stopler-Samuelson, differences between countries' levels of trade protection can be understood through the operation of interest groups and their power within the political system. Under such a framework tariffs will raise the real rate of return to the scarce factor of production and reduce the returns to the abundant factor. In a median-voter framework, the group representing the interests of the factor of production that manages to capture the median voter, will determine trade policy in the interests of that factor. These effects however will be conditional both on the electoral system, and on the general institutional setting within which trade policy is set. O'Rourke and Taylor employ this framework to argue that the effect of democracy on trade policy was dependent upon factor endowments.[27] Adopting the Stopler-Samuelson theorem in their analysis of the period 1870-1913, they argue that voting behaviour based on endowments of land and labour would foster greater protectionism in countries that are land abundant relative to the rest of the world. This effect however is likely to be muted in richer countries. Their study indicates that the relationship between democracy and trade is not as straightforward as other studies might suggest.

---

[24] B. Eichengreen and D. LeBlang, 'Democracy and Globalization', *Economics & Politics*, Vol. 20 (No. 3, 2008) 289-334.
[25] J.E. Lopez-Cordova and C.M. Meissner, *The Globalization of Trade and Democracy, 1870-2000,* NBER w11117, (2005), Eichengreen and LeBlang, *Democracy and Globalization* 289-334., R. Rigobon and D. Rodrik, 'Rule of Law, Democracy, Openness, and Income', *Economics of Transition*, Vol. 13 (No. 3, 2005) 533-64.
[26] D. Rodrik, 'The Political Economy of Trade Policy', in G. Grossman and K. Rogoff (ed.), *Handbook of International Economics*, Vol. III edn (1995)1457-94.
[27] K.H. O'Rourke and A.M. Taylor, *Democracy and Protectionism, NBER* w12250 (2006)

Attempts have also been made to address the problem of the simultaneity between democracy and trade. Eichengreen and Leblang address the two-way causation issue using an instrumental variables approach with an extensive sample covering the years 1870-2000. Using distance and years since independence as instruments for the ratio of trade to GDP, as well as democracy measures such as polity scores and a dummy variable indicating the contestability of elections, they find positive effects running in both directions. They also find support for the conclusions of O'Rourke and Taylor for the entire period 1870-2000.[28] Yu takes a different approach to untangling the "endogeneity nexus" and employs a gravity model to analyse data from 134 IMF countries between 1974 and 1998. The relationship found is a complex one, with political liberalisation being judged to foster the globalisation of trade, while increased trade discourages political liberalisation.[29]

One major drawback of these studies of the relationship between democracy and trade, is that they rely on measures of democracy that do not adequately capture the effects of changes in the extent of the franchise. Polity scores and dummy variables based on the contestability of elections do not capture the change in the composition of the electorate that occurs when the franchise is extended. Although it is necessary to consider democracy along the "intensive" dimension – the degree of openness and contestability of the political institutions – this is not sufficient, as it fails to capture changes resulting from increases in the extent of democracy – or the "extensive" dimension. This failure of Polity scores to capture the extent of voting rights has been identified by Moon *et al*, Munck and Verkuilen and Paxton.[30] The failure is evident if we look at some examples. From 1901 the UK receives

[28] Eichengreen and LeBlang, *Democracy and Globalization* 289-334., O'Rourke and Taylor, *Democracy and Protectionism*

[29] M. Yu, 'Trade Globalization and Political Liberalization: A Gravity Approach', *Available at SSRN: Http://Ssrn.Com/abstract=906280 Or Http://Dx.Doi.Org/10.2139/Ssrn.906280,* 2007)

[30] B. Moon, J. Birdsall, S. Ciesluk, et al., 'Voting Counts: Participation in the Measurement of Democracy', *Studies in Comparative International Development (SCID),* Vol. 41 (No. 2,

a Polity score of +8, two points from the highest possible democracy rating.[31] This then rises to +10 in 1922 where it remains to the present day. However, only 16% of the population could vote in 1901. By 1929, after successive franchise extensions, this figure had reached 63%. This dramatic change in the electorate is only represented by a two point increase in the Polity score. Similarly, France attained a +10 polity score in 1930, some fifteen years before women were entitled to vote. The inclusion of measures of the extent of the franchise in the empirical analysis in this chapter, in addition to measures such as Polity scores, is an attempt to better capture changes to political systems that took place during the interwar years.

As the extension of the franchise to women, where it occurred, represented a greater increase in the number of voters that had occurred previously, it is also important to assess the potential impact that the granting of voting rights to women may have had on the political economy of the period. If men and women had different opinions regarding protectionism, then the granting of votes to women in many countries following the First World War would likely have altered the political environment. Furthermore, the impact would have been even greater in those countries which suffered a large number of casualties during the war. In many countries the extension of voting rights to women constituted a more than doubling of the electorate following the deaths of a large number of male soldiers.[32] As such an understanding of women's attitudes towards trade protection is also important.

The debate surrounding women's attitudes to trade policy is a relatively recent one. Hall, Kao and Nelson inspired many responses arising from their analysis of time-series data

---

2006) 3-32., G.L. Munck and J. Verkuilen, 'Conceptualizing and Measuring Democracy', *Comparative Political Studies,* Vol. 35 (No. 1, 2002)5-34., P. Paxton, 'Women's Suffrage in the Measurement of Democracy: Problems of Operationalization', *Studies in Comparative International Development (SCID),* Vol. 35 (No. 3, 2000) 92-111.

[31] This is the same Polity score awarded to the Czech Republic in 2009.

[32] H.L. Boak, '"Our Last Hope"; Women's Votes for Hitler: A Reappraisal', *German Studies Review,* Vol. 12 (No. 2, 1989) pp.289-310.

from the United States 1866-1934.[33] Their analysis was conducted using a political economy model of political preference based on a household in which men are assumed to be factor market participants and women product market participants. In effect this incorporates the belief that women cared only about tariffs in relation to prices and were not influenced at all by the impact of tariffs on labour markets. The model is tested using a dummy variable indicating the period after 1920, with the results leading the authors to conclude that the granting of voting rights to women had the effect of lowering tariffs. Their validity of these conclusions have been challenged by Burgoon and Hiscox who argued that their basic claim- that women were only concerned about the effect of tariffs on prices - is based on anecdotal evidence only and runs contrary to public opinion surveys from the period.[34] The authors examine survey data from the United States in 2003 and find that women were more likely to favour protectionism. Furthermore, this result remains even after controlling for other factors such as occupation and skill level. The reason suggested for this gender gap is that men have a greater exposure to economic theory, as the gap is only evident among the college educated.[35] Scheve and Slaughter uncover a similar gender gap in their analysis of survey data from the United States in 1992 and 1996.[36] Mayda and Rodrik and O'Rourke and Sinnot confirm the existence of a comparable difference between attitudes of men and

[33] H.K. Hall, C. Kao and D. Nelson, 'Women and Tariffs: Testing the Gender Gap Hypothesis in a Downs-Mayer Political-Economy Model', *Economic Inquiry*, Vol. 36 (No. 2, 1998) 320-32.

[34] B.A. Burgoon and M.J. Hiscox, 'The Mysterious Case of Female Protectionism: Gender Bias in Attitudes Toward International Trade', *Mimeo, Harvard*, 2004) The opening quote of Hall, Kao and Nelson Women and Tariffs sets the tone of the analysis, outlining the convictions of the President of the American Tariff League in 1928, W. Warren Barbour, that two-thirds of women are opposed to tariffs solely due to their impact on consumer prices. Burgoon and Hiscox cite a Fortune magazine survey from 1939 but do not, as far as can be ascertained, undertake a more rigorous statistical analysis.

[35] The level of education of the respondent is unfortunately unavailable for the interwar survey analysis that follows.

[36] K.F. Scheve and M.J. Slaughter, *Globalization and the Perceptions of American Workers* (2001) p.63

women towards trade protection using the same International Social Survey data. Most recently, using survey data from the United States between 1986 and 1998, Blonigen found that women are 9.5% more likely than men to support new import limits.[37]

So what is behind these differences between men and women? As survey studies that control for individual's socio-economic characteristics still find a "gender gap" in attitudes towards trade policy, the cause of this persistent gap is therefore most likely to be found in attributes that are not captured by the data. One potential source of difference between men and women that might help explain the gender gap is attitudes towards risk. A number of behavioural studies suggest that women are consistently more risk averse than men.[38] With respect to tariff policy, if favouring domestic production is perceived as being less risky than having to rely on foreign goods, then consequently women may display a greater appetite for protectionism relative to men. Other possible explanations of the gender gap include those that are socio-psychological in nature, with women suggested to be more sceptical of market based solutions to economic problems.[39] As such, explaining the gender gap in attitudes to trade policy may go beyond a traditional political economy framework.

In order to clarify our expectations regarding the association between the variables capturing democracy and tariff policy, the hypothesised relationships are summarised in table 1. Firstly, if the view that women cared more about the effect of tariffs on prices is assumed, then the relationship between the extension of the franchise to women and tariff

---

[37] B.A. Blonigen, 'Revisiting the Evidence on Trade Policy Preferences', *Journal of International Economics*, Vol. 85 (No. 1, 2011)129-35.

[38] *Inter alia* R. Croson and U. Gneezy. 'Gender Differences in Preferences', *Journal of Economic Literature*, Vol. 47, (No. 2, 2009), pp.448-474., B.M. Barber and T. Odean. "Boys will be boys: Gender, overconfidence, and common stock investment." *Quarterly Journal of Economics*, Vol.116, (No. 1, 2001), pp.261-292., N.A. Jianakoplos and A. Bernasek. "Are women more risk averse?" *Economic inquiry*, Vol.36, (No.4, 1998), pp. 620-630.

[39] E. Gidengil et al, 'Women to the Left?: Gender Differences in Political Beliefs and Policy Preferences' in M. Tremblay and L. J. Trimble eds. *Women in Electoral Politics in Canada*, (2003).

rates is expected to be negative. Female enfranchisement would result in the addition of a large group of relatively price sensitive voters to the electorate. This would imply a shift of the median voter in the electorate towards a voter that is more inclined towards free trade. However if this assumption is incorrect, or if for instance women's relative risk aversion dominates, then the opposite effect could potentially be observed. Extensions of the franchise to previously disenfranchised male voters are expected to have a negative effect on tariff rates in the empirical analysis that follows. As the sample of countries is mainly European, where labour was relatively abundant and where labour movements traditionally supported free trade, the granting of voting rights to largely working-class men would have the effect of shifting the median voter to one that is more free trade inclined. To further explore this relationship, an interaction term between the abundance of land relative to labour and the franchise variable, is also included in the analysis. According to the Stopler-Samuelson theorem the relatively scarce factor will favour protection. When the franchise increases in countries that are relatively land abundant, this is predicted to have a positive effect on tariff rates, as newly enfranchised (and relatively scarce) workers seek to increase protection. Finally, an increase in "institutional" democracy as captured by the polity score, based on the findings of the majority of the literature, is also expected to have a negative effect on tariff rates. It is these predicted relationships which will tested in the empirical analysis that follows.

OTHER DETERMINANTS OF INTERWAR TRADE POLICY

In addition to those that explore the relationship between democracy and protectionism explicitly, a number of studies examine the specific reasons for the pronounced shift towards protectionism across the world during the interwar period.

A collection of variables worthy of consideration in cross-sectional and time-series models of interwar trade policy are suggested by Blattman *et al* in their analysis of average

Table 1

Expected Relationships Between Democracy Variables and Tariffs

Variable	Expected Direction of Effect on Tariffs
Female Vote	negative
Polity	negative
Franchise	negative
*Relative Land Abundance*Log Franchise*	positive

tariff rates of 35 countries between 1870 and 1938.[40] A variable identified as having a particularly important impact on the average tariff rate is the tariff rate of a country's trading partners. This captures the "beggar-my-neighbour" policies that were characteristic of the increase in protectionism during the interwar years.

Furthermore, a number of studies have looked at the specific economic and political environment of the interwar years to explain the slide into protectionism that occurred during this period. Eichengreen and Irwin argue that a principal cause of increases in protectionism was the constraints of the gold standard system of fixed exchange rates.[41] Having given up a powerful policy instrument that could be utilised to achieve domestic policy aims - an independent monetary policy – governments were driven towards the adoption of another instrument; tariff policy. This was chiefly the case among countries that remained on gold

[40] C. Blattman, M.A. Clemens and J.G. Williamson, 'Who Protected and Why? Tariffs the World Around 1870-1938.', *Harvard Institute of Economic Research Discussion Paper no. 2010. Available at SSRN: Http://Ssrn.Com/abstract=431740 Or Http://Dx.Doi.Org/10.2139/Ssrn.431740,* 2003)

[41] B. Eichengreen and D.A. Irwin, 'The Slide to Protectionism in the Great Depression: Who Succumbed and Why?', *Journal of Economic History,* Vol. 70 (No. 4, 2010) 871.

after the Sterling devaluation of 1931. A regression of the change in tariff rates between 1928 and 1935 on the degree of currency depreciation lends support to this theory. However the parsimonious model employed largely ignores the effects of political factors.[42] That Britain's move to protectionism occurred after the devaluation of sterling is acknowledged, but only a brief explanation is offered: that a weakened Labour Party was dominated by Conservative interests within the national government formed in response to the economic crisis.

Harold James presents a number of reasons for a turn towards protectionism following the First World War.[43] The war itself had a legacy that ensured the international environment was one not well suited to free trade. During the war, tariffs imposed to promote domestic industry played a major part in wartime economic strategy and proved persistent even after the war's end. Shipping was also scarce following the war and a tariff policy that discouraged non-essential imports was therefore deemed appropriate. Economic nationalism also played a role. The new states created from the empires of the defeated powers were eager to assert their economic independence and were reluctant to restore the old intra-empire networks of trade. As such, protectionism gained ground in the fractionalised political environments of these emerging states. The poisonous atmosphere of post-war international relations due to tensions over the conduct of the war and the payment of reparations ensured that any agreement over tariff policy proved exceptionally difficult, with the League of Nations failing to sponsor negotiations on trade liberalisation.[44] Important domestic political matters are also identified. The move towards democracy and

42 The authors state that Polity scores were included in unreported regressions and proved to be insignificant.

43 James, *The End of Globalization: Lessons from the Great Depression* Ch. 3

44 D.A. Irwin, 'The GATT in Historical Perspective', *The American Economic Review*, Vol. 85 (No. 2, 1995) 323-8. Attempts at stopping the protectionist drift through international conferences were made during the 1920s and early 1930s but with little substantive success. James, *The End of Globalization: Lessons from the Great Depression*. p.109

the extensions of the franchise might have been expected to encourage policies of free trade as newly empowered labour interests were traditional supporters of free trade, particularly in European countries. This view is also echoed by Simmons, who links the newly enfranchised working class to an increase in support for parties on the Left across Europe, parties traditionally opposed to protectionism.[45] However the unique position of farmers within the political system – that they often held the balance of power between socialist and conservative factions – is suggested to have produced a shift towards protectionism as both socialists and conservatives looked to extend their vote beyond their traditional constituencies. Farmers are often assumed to have been in favour of protectionism as land is finite; ownership of land allows for the benefits derived from protection to be more securely captured, as farmers are relatively more insulated from domestic competition that might erode these benefits.[46] In a related way, tariffs are seen as being a particularly sensitive issue in the period immediately preceding elections.

Beth Simmons analyses the determination of tariffs during the interwar period using a model that combines economic and political factors.[47] Using data covering 19 countries between 1924 and 1938, a dummy variable indicating whether or not a country was a democracy is included as a regressor in a pooled OLS model, with an average tariff index as the dependent variable. No *a priori* effect of democracy is predicted but rather the variable is included as a control for regime type. Her analysis finds, however, a positive and statistically significant effect of democracy on tariffs. Simmons suggests a number of interpretations of this result, including that it may reflect the fact that democracies were more sensitive to domestic calls for protection. While this is indeed an interesting finding,

[45] B. Simmons, *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years, 1923-1939* (Princeton, 1994) Ch. 6
[46] James, *The End of Globalization: Lessons from the Great Depression* p.111
[47] Simmons, *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years, 1923-1939* Ch. 6

the small sample size, the crudeness of the measure of democracy and the likely presence of unobserved heterogeneity all represent unsatisfactory elements of the analysis. A greater sample size, the use of more precise measures of democracy and the inclusion of fixed effects in the panel data analysis to follow, therefore constitutes an improvement within this context.

An additional study worthy of mention, although not examining the interwar period specifically, was conducted by Irwin exploring the support for free trade in the British general election of 1906.[48] The election resulted in a victory for the pro-free trade Liberal Party and defeat for the tariff-advocating Conservatives. Irwin combines data from electoral districts with data on occupations, with his analysis concluding that support for the Conservatives was largely drawn from occupations related to import-competing industries, while export oriented and non-traded sectors tended to support free trade. Because of this finding, it is suggested that the voting restrictions that existed at this time had the effect of dampening support for free trade and reducing the scale of the Liberal victory, as those disenfranchised, such as those that failed to meet property requirements, had interests closer to free trade. This would imply that as voting rights were granted to previously disenfranchised men, opposition to trade protection would have increased. What is more he suggests, based on anecdotal evidence, that women too would have supported free trade as they were largely responsible for the keeping of the household budget. Although this conclusion is understandable based on many of the views of analysts at the time, as will be discussed at a later stage, the accuracy of this prediction will be strongly challenged in the forthcoming analysis.

[48] D.A. Irwin, 'The Political Economy of Free Trade: Voting in the British General Election of 1906', *Journal of Law and Economics,* Vol. 37 (No. 1, 1994)75-108.

Finally, although without specific reference to the interwar period, an additional aspect of the institutional environment is also highlighted by Mansfield and Busch and Rogowski.[49] Whether or not a country has a Proportional Representation electoral system is considered an influential factor determining trade policy. The former study suggests that PR systems are more inclined to be protectionist, arguing that in these systems governments have less insulation from narrow interest groups and are more likely to need to reach compromises with these groups in order to exercise power. The latter study however argues that a PR system could also lead to stronger parties with greater party discipline, and that this would reduce the influence of minority interests. More recent research has failed to determine the impact of the electoral system on trade policy outcomes.[50] The influence of a proportional representation system on trade policy therefore is not determined *a priori.*

As a principal focus of this chapter is the relationship between women's voting rights and tariff policy, it is important to explore the relationship between women voters and tariffs during the interwar period from the point of view of contemporary observers. Was there a consensus about how women voters were different to men in how they viewed the issue of free trade? Were women recognised as an important constituency that needed to be convinced of the merits or evils of protectionist tariffs? It is to these questions that the focus will turn in the next section.

[49] E.D. Mansfield and M.L. Busch, 'The Political Economy of Nontariff Barriers: A Cross-National Analysis', *International Organization,* Vol. 49 (No. 04, 1995) 723., R. Rogowski, 'Trade and the Variety of Democratic Institutions', *International Organization,* Vol. 41 (No. 2, 1987)203-23.

[50] S.J. Rickard, 'A Non-Tariff Protectionist Bias in Majoritarian Politics: Government Subsidies and Electoral Institutions1', *International Studies Quarterly,* Vol. 56 (No. 4, 2012) 777-85.

WOMEN AND THE TARIFF QUESTION: INTERWAR BRITAIN AND THE UNITED STATES

The increase in the size of the electorate in many countries between the wars was of an unprecedented magnitude. In Britain the Representation of the People Act of 1918 resulted in the number of people entitled to vote increasing from 8 million to 21 million, of which 9 million were women.[51] The Equal Franchise Act of 1928 extended voting rights to women, on an equal footing to men, resulting in a further 7 million new women voters. In fact, principally due to the losses of the First World War, women voters now outnumbered men. In all countries that extended voting rights to women the debate over how these newly enfranchised women would vote became an important element of the electoral calculus. The propaganda machines of the political parties made direct appeals to women with both sides claiming that women would naturally favour their policies. No issue was perhaps more prominent in the debate over which way women would vote during the interwar years than that of trade policy, particularly during the elections of the 1920s.

Perhaps the most widely used appeal to women to support the free trade policies of the Liberal Party in Britain during the 1920s was the claim that trade protection would raise the prices of everyday items. As women were seen as being overwhelming, if not exclusively, concerned with the day-to-day of domestic management, their sensitivity to changes in the prices they faced for household necessities would predispose them to favour free trade. As the *Manchester Guardian* put it:

[51] P. Norton, *The House of Commons 1911-49*, in C. Jones ed., *A Short History of Parliament: England, Great Britain, the United Kingdom, Ireland & Scotland* (2012), p.271 The franchise was initially only extended to women over 30, provided they met a minimum property requirement UK Parliament, *Representation of the People Act 1918*, http://www.parliament.uk/about/living-heritage/transformingsociety/electionsvoting/womenvote/parliamentary-collections/representation-of-the-people-act-1918/ (2012)

> "women want to know, first of all, how tariffs will affect their shopping".[52]

Although acknowledging this view of women as the overseers of the domestic budget, the Conservative Party, which advocated tariffs on non-Empire products with the stated intention of bolstering domestic industry, claimed that women understood that maintaining employment was a far greater concern. In an appeal to women voters in the build up to the 1924 parliamentary election, Neville Chamberlain outlined the pro-employment argument in favour of protection:

> "In considering the possible effect of the tariff on prices, you who have to spend the money of the household have not to think merely of the cost of the things you are purchasing. You have to consider what is coming in to the household as well as what is going out. It is no use having the cheapest market in the world if you have nothing with which to buy what you want".[53]

Ultimately, the tone of the debate over women's attitude towards tariff protection throughout the 1920s was based around whether women were more sensitive to the issue of prices, or to that of unemployment. The Labour Party position was somewhat different however. Although traditionally supporters of free trade, the Labour Party position was more complex than that of the Liberals. The view that trade policy should prioritise the goal of welfare above wealth was one that was gaining ground throughout the 1920s, not least among the women's sections of the labour movement.[54] The women's section of the Labour Party increased from 120,000 in 1923 to 300,000 in 1927, with women becoming the majority in most local Labour group meetings. Indeed the traditional pro-Free Trade position came under sustained criticism from women members in particular.[55] Although it is difficult

[52] Manchester Guardian, *The Women's Vote: Its Probable Influence*, December 6 edn (1923)
[53] New York Times, *Plea for a Tariff to British Women*, November 23 edn (1923)
[54] F. Trentmann, 'Wealth Versus Welfare: The British Left between Free Trade and National Political Economy before the First World War', *Historical Research*, Vol. 70 (No. 171, 1997)70-98.
[55] Trentmann, *Free Trade Nation: Commerce, Consumption, and Civil Society in Modern Britain* p.228

to tell which of the arguments in favour or against free trade appealed to women voters overall, and indeed the weighting of the issue of free trade in women's voting decisions, the landslide Conservative victory in 1924 at least casts doubt on the simplistic notion that women voters only cared about the price of the goods in their shopping basket.

The granting of universal voting rights to women in the United States in 1920 also generated much debate as to where these new votes would go. As in Britain, women were often assumed to be motivated by domestic management concerns and a similar division among the traditionally pro-free trade party and the party more amenable to the imposition of protective tariffs was apparent. The Democratic Party appeal to women on the tariff issue was similar to that employed by the Liberals in Britain. The Democratic National Committee argued that women would oppose the tariff platform promoted by the Republican Party for the 1924 election asserting that women had seen

"all she wears and cooks and uses growing costlier ... due to the tariff".[56]

Republicans generally agreed that women were concerned mainly with household affairs but argued both that women would see that prices need not necessarily rise due to the imposition of tariffs on imported goods, and that the issue of prices was a lower priority than that of maintaining household income.

The priority for women according to Mrs. Pauline Sabin, Chairman of the Women's Division of the Republican national committee, was to maintain the employment and output on which their family income depended:

[56] Washington Post, *Women and the Tariff*, May 18 edn (1923)

> "(women) support the Republican Party because they believe in a protective tariff that will insure plenty of work at good wages for our citizens. That will keep our factories busy, our mills humming, our mines running and our wheat fields producing grain at a profit to the farmer".[57]

Commentators from both sides of the tariff divide nevertheless agreed on the importance of the 'women's vote' in determining the outcome of elections in the 1920s:

> "It is admitted on all sides that women will cast the deciding vote determining whether Republican tariff legislation shall be sustained or blocked".[58]

As such, great lengths were taken to attempt to sway women towards the merits of the respective arguments. Both Democrats and Republicans put on special exhibits directed at women voters to demonstrate the effects of tariffs on consumer prices. In the final weeks of the 1924 election campaign, leading Democratic women – among them Eleanor Roosevelt – gave

> "practical demonstration of how the protective tariff affects the prices of what women wear and use in the home".[59]

Republicans were equally keen to show that tariffs would not necessarily increase consumer prices. At a meeting of the Women's Republican Club in 1922, Senator William M. Calder put forward a somewhat theatrical demonstration. He produced a suitcase containing various household items and explained the proportions of the retail costs that were derived from the tariff and the relative costs of the items in the United States versus the country of origin:

[57] New York Times, *A Big Woman Vote seen by Mrs. Sabin: Republican Leader Expects as Many as Her Sex as Men to Go to the Polls* by William H. Crawford, October 27 edn (1924)
[58] Washington Post, *Tariff Easy Say Women: Will show Men with Vote*, June 11 edn (1922)
[59] New York Times, *Exposition for Women: Mrs. Hylan to Open Exhibition of Tariff's Effect on Prices.*, September 21 edn (1924)

> "This electric iron... has a foreign list price of 59 cents. The present duty is about 12 cents and the new duty will be about 36 cents. This same iron is sold in Brooklyn for $6.50... I am doing this to show that a higher tariff does not mean higher prices. We just want to raise the tariff high enough to give the American manufacturer a chance. I hope that you women will see that a great number of necessities and luxuries could stand a higher rate of duty without making you pay one cent more".[60]

For officials of both parties, new women voters represented perhaps the best opportunity to gain an edge over their political rivals. Ultimately the pro-tariff Republican Party was victorious in all the Presidential elections of the 1920s. Women voters were seen as being instrumental to this electoral success, not least in the campaign of Herbert Hoover against Al Smith in 1928:

> "The recent campaign of hectic memory, however, brought out what is generally accepted as the largest women's vote in history, as well as the largest general vote. And since the election various statements have been issued by G.O.P. managers reiterating the dulcet observation that the ladies elected Mr. Hoover".[61]

Clearly, millions of women, whom the Democrats believed to be naturally averse to tariffs, voted for a party that openly advocated the raising of tariffs during this period.

2.3 EMPIRICAL ANALYSIS

FORTUNE MAGAZINE PUBLIC OPINION POLL

Although recent survey analysis is useful in revealing the existence of more protectionist attitudes among women, it is possible that this gender gap is a phenomenon unique to recent decades. Uncovering women's attitudes towards free trade and protectionism during the interwar years is a more difficult task due to the dearth of individual level information available. As previously discussed, numerous modern studies of women's attitudes towards trade and protectionism have utilised public opinion surveys, with the general conclusion

[60] New York Times, *Calder has Tariff Show for Women: Argues with Aid of Exhibit that Higher Duties Don't Mean Higher Prices*, June 18 edn (1922)
[61] H. Huntington Smith, 'Weighing the Women's Vote', *The Outlook*, Vol. January 29 (1929) 126-9.

that women are more likely than men to favour protectionism, or at least are less likely to support free trade.[62] Nevertheless a valuable source relating to women's attitudes to trade policy in this period does exist in the form of a Fortune magazine public opinion survey from the United States in 1939. The market research firm of Elmo Roper completed its first public opinion survey in the United States for Fortune magazine in July 1935, while the first question dealing directly with opinions on free trade was included in their survey of almost 5,000 individuals in September 1939.[63] Through a probit analysis of these data, differing attitudes towards trade policy can be revealed. The first part of the question asks "Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?" with those responding either "bad" or "depends" being asked an additional question: "Do you believe in free trade".[64] The survey data allow for the isolation of a gender effect, while controlling for a number of other factors such as age (over 40 years old or not), occupation and political inclination, in the form of a variable capturing whether or not the respondent intended to vote for President Franklin D. Roosevelt in the next election. Although a more complete list of control variables would be desirable, the limitations of these data mean that only the factors listed above can be controlled for. Nonetheless the variables that can be included are likely to be important determinants of

[62] Blonigen, *Revisiting the Evidence on Trade Policy Preferences* 129-35., Mayda and Rodrik, *Why are some People (and Countries) More Protectionist than Others?* 1393-430., O'Rourke and Sinnott, *What Determines Attitudes Towards Protection? some Cross-Country Evidence.*157-206.

[63] G.R. Walden, *Polling and Survey Research Methods, 1935-1979: An Annotated Bibliography* (1996) p.27

[64] The responses to the first question are coded as "good", "bad" or "depends" in the original data. In order undertake this analysis the data was coded 1 if the response was "good" and zero otherwise. The second question therefore only includes those that answered "bad" or "depends" in the first question. The response of these individuals is either "Yes" or "No" as to whether or not they believed in free trade. The analysis was also conducted using an ordered probit specification. This produced very similar results which can be found in the appendix.

trade policy preferences and therefore represent a significant improvement over an analysis that merely tabulates the response of men and women separately. The results of the analysis of both questions can be seen in tables 2 & 3.

Table 2 shows the results of the analysis of the first question. The first column gives the marginal effects of the dummy variable indicating a female respondent based on a probit regression model, with the following columns giving the marginal effects from probit regressions including each of the control variables added in turn. The marginal effects indicate that women are 7 percentage points more likely than men to believe that a high tariff "is good policy", with this result robust and highly significant across all specifications.

Furthermore, this gap is of a very similar size to the effect identified in modern surveys.[65] Neither age nor voting intention has a significant effect. Attitudes to tariff policy also differ according to occupation. Those individuals classified as "Waged" are more likely to look on tariffs favourably relative to the omitted category, "Professional", while "Salaried Executives" are less likely to favour trade protection than professionals. This indicates that support for protectionist policies was not uniform across social class and specifically, that support for tariffs was greater among the wage-earning classes. This is an interesting result as it is consistent with the Stopler-Samuelson theorem that the relatively scarce factor, labour in the case of United States, would favour protection. Notably, those classed as "Proprietor–Farm" were also pro-tariff relative to the omitted professional category, a result that is perhaps not surprising given the general preference for protection among agricultural interests. Nevertheless the fact that US wage-earners are relatively more protectionist than farm proprietors is also consistent with a Stopler-Samuelson interpretation. Additionally, an independent effect is also evident of being a "Housekeeper" (housewife) – the category into

[65] Mayda and Rodrik, *Why are some People (and Countries) More Protectionist than Others?* 1393-430.

Table 2

PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Dependent Variable: "Good Policy" = 1

Variable	Model I	Model II	Model III	Model IV	Model V
Female	0.0740***	0.0739***	0.0608**	0.0621**	-
	(0.0138)	(0.0138)	(0.0263)	(0.0267)	
Age Over 40		-0.00530	-0.00114	0.00424	-0.000263
		(0.0139)	(0.0145)	(0.0149)	(0.0210)
Proprietor-Farm			0.0604**	0.0656**	0.184***
			(0.0288)	(0.0291)	(0.0609)
Proprietor-Other			0.0391	0.0289	-0.186*
			(0.0291)	(0.0301)	(0.111)
Housekeeper			0.0665**	0.0644**	0.116**
			(0.0314)	(0.0319)	(0.0499)
Salaried-Executive			-0.0759*	-0.0779*	0.0838
			(0.0433)	(0.0438)	(0.109)
Salaried-Minor			0.0426	0.0402	0.0735
			(0.0277)	(0.0281)	(0.0517)
Wages-Factory			0.0792*	0.0860*	0.102
			(0.0451)	(0.0450)	(0.165)
Wages-Farm			0.182***	0.187***	0.199***
			(0.0295)	(0.0297)	(0.0500)
Wages-Other			0.104***	0.103***	0.225***
			(0.0252)	(0.0257)	(0.0262)
Retired			0.0346	0.0257	-0.0345
			(0.0444)	(0.0455)	(0.134)
Would vote FDR				-0.00361	-0.00462
				(0.0153)	(0.0213)
Pseudo R-squared	0.0053	0.0053	0.014	0.0145	0.0182
AIC	1.217	1.217	1.211	1.213	1.139
BIC	-31104.568	-31096.335	-31066.85	-29733.114	-11854.07
Observations	4,346	4,346	4,346	4,184	1,865

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table 3

PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"(If bad or depends) do you believe in free trade?"

Dependent Variable: "Yes" = 1

Variable	Model I	Model II	Model III	Model IV	Model V
Female	-0.0548*	-0.0557*	-0.208***	-0.224***	-
	(0.0289)	(0.0289)	(0.0522)	(0.0532)	
Age Over 40		-0.0288	-0.0233	-0.0420	-0.0788
		(0.0283)	(0.0295)	(0.0303)	(0.0482)
Proprietor-Farm			0.00575	0.00413	0.0191
			(0.0615)	(0.0624)	(0.284)
Proprietor-Other			-0.131**	-0.114**	-0.185
			(0.0534)	(0.0558)	(0.139)
Housekeeper			0.164**	0.187***	0.153**
			(0.0639)	(0.0653)	(0.0772)
Salaried-Executive			-0.0386	-0.0119	
			(0.0702)	(0.0725)	
Salaried-Minor			-0.0371	-0.0254	-0.0358
			(0.0547)	(0.0560)	(0.123)
Wages-Factory			0.0740	0.0734	
			(0.113)	(0.115)	
Wages-Farm			-0.00403	0.0333	-0.102
			(0.108)	(0.112)	(0.254)
Wages-Other			0.0127	0.0169	-0.156
			(0.0581)	(0.0597)	(0.153)
Retired			-0.219***	-0.200**	0.397*
			(0.0766)	(0.0803)	(0.218)
Would vote FDR				0.173***	0.0937*
				(0.0315)	(0.0498)
Pseudo R-squared	0.0021	0.0027	0.0193	0.0389	0.0344
AIC	1.369	1.37	1.362	1.338	1.358
BIC	-7070.189	-7064.107	-7028.018	-6782.745	-2077.3
Observations	1,232	1,232	1,232	1,192	448

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Note: "Salaried-Executive" and "Wages-Factory" omitted in Model V due to colinearity

which 85% of women in the sample fall – with those in this category being 6 percentage points more likely to favour tariffs than the reference category. Using the *Clarify* package for STATA to calculate predicted values suggests that, based on the specification in Model IV, female housekeepers were around 12 percentage points more likely to agree that a high tariff was a "good thing" than men.[66] The fact that the female dummy variable remains positive and statistically significant indicates that differences between the tariff policy preferences of men and women are not driven by occupation alone. In order to further explore differences in women's attitudes to free trade by occupation, Model V considers a sample consisting of women only. The positive and significant coefficient on "Housekeeper" implies that these women were more likely to believe that tariffs were a "good thing", than females from the "Professional" reference category. However, "Housekeepers" did not have the greatest relative support for tariffs among women, with women involved with farming and those falling into the "Wages-Other" category more likely to see tariffs as a "good thing". However the idea that "Housekeepers" were naturally pro-free trade, based on this evidence, seems questionable.[67]

The follow up question also reveals some interesting patterns, as can be seen in table 3. Of those respondents who answered "bad" or "depends" to the first question, i.e. those individuals that were relatively more inclined towards free trade, women were approximately 5 percentage points less likely to believe in free trade than men. Again this result is robust after including the controls for age, occupation and voting intention. Among

[66] M. Tomz, J. Wittenberg and G. King, 'CLARIFY: Software for Interpreting and Presenting Statistical Results', *Journal of Statistical Software,* Vol. 8 (No. 1, 2003) 1-30.
[67] The analysis was also undertaken examining each occupation separately to explore whether a gender effect applies to all occupations. The results can be seen in Appendix table A1. The "Female" variable is positive across all but two occupational groups and significant for "Proprietor-Farm" and "Wages-Other" groups. The coefficient on "Female" is negative and significant for the "Proprietor-Other" group, indicating that women in this occupation were more likely to oppose tariffs than men. However only 18 women fall into this category, representing just 4% of this group.

those who did not see tariff protection as an unambiguously "good thing", the retired and non-farm proprietors were relatively less devoted to free trade, while those expressing an intention to support President Franklin D. Roosevelt were more likely to also believe in free trade. Interestingly, although women in this sample were less likely to believe in free trade than men, "Housekeepers" were more likely to believe in free trade relative to the "Professional" occupation category. The net effect for female housekeepers in Model IV is again calculated using *Clarify* and suggests that female housekeepers were 4 percentage points less likely to believe in free trade. The opinions of women alone are once more explored in Model V. Of the women who answered "bad" or "it depends" to the question of whether higher tariffs were a good or bad thing, "Housekeepers" had the highest likelihood of believing in free trade, with the exception of the retired. Overall the results indicate that even among the subsample of individuals who hesitated to support tariffs, women were relatively less likely to believe in free trade than men.

The results of the analysis of inter-war public opinion suggests that women overall were more likely to favour trade protection in the form of tariffs. Contrary to the view that women would support free trade because they were the guardians of the household budget, and as such would be drawn to the guarantee of low prices that free trade ostensibly promised, women housekeepers were actually more likely to support tariffs than many categories of employed women. Attitudes towards tariffs also related to occupation, with wage-earners in the United States being the group most inclined to support tariffs as predicted by the Stopler-Samuelson theorem.

CROSS-COUNTRY PANEL DATA DESCRIPTION

Having outlined the theories related to the determination of tariff policy and uncovered evidence of a gender gap in trade policy preferences during the interwar period, the next step is to test various hypotheses using a macroeconomic panel data approach. The sample

consists of data from 30 countries covering the period 1919-1939 and contains observations from Africa, Asia as well as from North and South America. The remainder, or about two-thirds of the sample, is made up of European countries. The dependent variable under examination is the natural log of the average tariff rate, calculated as the total customs revenue divided by the value of total imports. Although some studies are critical of this variable as a measure of trade policy it is nonetheless the most widely used and accepted measure used to compare tariff regimes across countries and over time.[68] Full details of all variables included in the analysis can be found in the appendix.[69]

The independent variables to be included in the analysis can be separated into four general categories. The first group to be considered are the variables relating to democracy and represent the primary focus of this analysis. The variable *Franchise* is the proportion of the population with the right to vote in national elections. Whether or not a country had extended the vote to women is captured by the dummy variable *Female Vote.*[70] The variable *Polity* is the Polity score scaled to be between zero and one, and represents the "intensive" or "institutional" measure of democracy.

If the conclusion of the analysis of the interwar US public opinion survey is correct, then a positive relationship might be expected to exist between tariff rates and the granting of voting rights to women. Whereas tariff rates are expected to increase with this measure of the extent of democracy, the opposite effect might be expected for the "institutional"

---

[68] Francisco Rodriguez and Dani Rodrik, 'Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence', in Anonymous (ed.), *NBER Macroeconomics Annual 2000, Volume 15* (2001) 261-338.

[69] "Trade Openness" or total trade divided by GDP (or alternatively total imports divided by GDP) were also considered and did not result in the main conclusions being altered substantially. Although this is not an equivalent measure of relative trade protection it has been utilised in previous studies of the relationship between democracy and trade. This measure has however been subject to criticism. C. Blattman, M.A. Clemens and J.G. Williamson, 'Who Protected and Why? Tariffs the World Around 1870-1938.'

[70] The date of women's voting rights acquisition for the countries in the sample can be seen in Appendix table A8.

measure of democracy (*Polity*), in line with the majority of studies that link increasing democratisation to declining trade protection. As countries' governmental institutions become more democratic, it is suggested, the societal benefits of free trade induce the citizenry to push policy makers into reducing barriers to trade.[71] In addition, the extension of voting rights to previously disenfranchised men, particularly in labour abundant countries, may be associated with lower tariff rates, as previously disenfranchised men tended to be working class. As a measure of factor endowments, the log of the ratio of land area to population (log Land per capita) is used as a proxy for the abundance of land relative to labour. According to O'Rourke and Taylor increased democracy leads to higher tariffs in relatively land abundant countries, such as in the new world.[72] Indeed the US public opinion survey analysis in the previous section is consistent with this interpretation. In order to assess this proposal within a cross-country framework, the log Land per capita variable is standardised to have a mean of zero and a standard deviation of one. This variable is then interacted with the variables that capture the extent of the franchise. The interaction between the "extensive" and "intensive" measures of democracy may also be important, as the effect of the extent of the franchise may have depended on how institutionally "democratic" the political system was.

Next, although not the principal focus of this analysis, two additional determinants of tariff policy touched upon in the literature are also included as controls. The effect of having a Proportional Representation system, as opposed to a majoritarian electoral system, is argued to have been an influential factor. The direction of this relationship is, however, unclear. If PR systems are thought to magnify the power of minority groups and increase the level of compromise required to govern, then this may lead to higher average tariffs.

[71] Eichengreen and LeBlang, *Democracy and Globalization* 289-334.
[72] O'Rourke and Taylor, *Democracy and Protectionism*

Nevertheless, the opposite may also be true if PR systems lead to strong parties that do not need to use tariffs to attract voters from beyond their traditional support base.[73] In addition the effects of the electoral cycle on policy formation are represented by a dummy variable indicating whether or not an election was held in the previous year.

Finally, the effects of international factors are explored. Eichengreen and Irwin suggest that the gold standard contributed to higher tariffs during the period, as countries reverted to tariff policy as a way to influence their economies when the tools of monetary policy were unavailable to them.[74] To capture this effect, a dummy variable indicating gold standard membership is included in the analysis. Furthermore, much has been made about "beggar-thy-neighbour" policies as a key element of the slide into protectionism during the interwar years.[75] If tariff policy was formed in response to policies set by trading partners, then this may be observable when a variable indicating the tariff rate of the country's main trading partner in the previous year is included.[76]

CROSS-COUNTRY PANEL REGRESSION

The framework for empirical investigation of the determinants of tariff policy during the interwar years will take the form of Ordinary Least Squares panel regression, with the log of the average tariff rate as the dependent variable across all specifications. In order to control for unobserved heterogeneity that is likely to cause problems for the analysis, a fixed

[73] Farmers are an example of this. It might be expected that the need to pander to farmer's interests would be greater in a majority system as traditionally farmers have straddled the left/right political divide and may therefore have a decisive influence on elections in pluralistic electoral systems.
[74] Eichengreen and Irwin, *The Slide to Protectionism in the Great Depression: Who Succumbed and Why?* 871.
[75] Simmons, *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years, 1923-1939* p.203. Somewhat surprisingly, although highlighting its importance, Simmons finds little evidence for a "beggar thy neighbour" effect.
[76] Averages of tariff rates from a country's two and three main trading partners were also considered. The results were not substantively different and the tariff rate of a county's principal trading partner was chosen for reasons of parsimony.

effects approach is undertaken. As such, dummy variables to control for unobserved heterogeneity associated with time-invariant country characteristics, as well as effects that are specific to particular years will be employed.

The results of the regression analysis can be seen in table 4. The first column examines the effect of the variable *Female Vote* in isolation, while also controlling for unobserved heterogeneity at the country level. The coefficient on *Female Vote* implies that the women's voting rights are associated with a 100[*exp*(0.468) -1] = 60% higher tariff rates, all else held constant.[77] As an illustration, if the average (unweighted) tariff rate for the sample in 1920 is taken as a reference point, then the extension of the franchise to women implies tariff rates would rise from 8.4% to 13.4%. Clearly, this is a large effect.

Column 2 adds the "intensive" measure of democracy in the form of the Polity score. The coefficient is negative and significant, indicating a negative relationship between "institutional" democracy and average tariff rates. This is what is predicted by the majority of studies exploring the link between democracy and trade; that more open and transparent political institutions foster trade openness. Most importantly the coefficient on the female vote variable remains positive and significant; indicating that extending the vote to women and increasing the openness of democratic institutions influenced tariffs in different directions. Specifically this suggests that a one standard deviation increase in Polity score lowers the tariff rate by 100[*exp* (0.314*-1.10) = 29%. Columns 3, 4, and 5 introduce the variable capturing the proportion of the population entitled to vote, (log) *Franchise*. Column 3 includes only country fixed effects, column 4 shows a pooled OLS model while column 5 includes both country and year fixed effects, and is as such the most restrictive model. The inclusion of the franchise variable, alongside the dummy variable indicating whether or not

[77] An alternative set of results whereby Female Vote equals one from the first election in which women were entitled to vote is given in the appendix. The results are very similar to those presented here.

Table 4: AVERAGE TARIFF RATE & VOTING RIGHTS (OLS with fixed effects. Dependent Variable: Natural log of average tariff rate)

Variable	Model I	Model II	Model III	Model IV	Model V	Model VI	Model VII	Model VIII	Model IX	Model X	Model XI
Female Vote	0.468***	0.557***	0.526**	0.431*	0.167	-0.649***	0.797	0.217*	0.294**	0.287**	0.443***
	(0.143)	(0.147)	(0.192)	(0.224)	(0.152)	(0.188)	(0.524)	(0.120)	(0.132)	(0.114)	(0.158)
Polity		-1.096**	-1.556***	-0.802***	-0.725**	-0.750**	-2.930**	-0.899***	-0.921***	-0.985***	-1.155***
		(0.424)	(0.335)	(0.285)	(0.283)	(0.283)	(1.111)	(0.238)	(0.242)	(0.226)	(0.282)
Log Franchise			0.115	-0.152	-0.674***	-0.694***	-1.063***	-0.614***	-0.784***	-0.702***	-0.576
			(0.255)	(0.149)	(0.234)	(0.238)	(0.288)	(0.200)	(0.245)	(0.242)	(0.345)
*Female Vote*Log Franchise*						0.244***					
						(0.0768)					
*Female Vote*Polity*							-0.895				
							(0.678)				
*Log Franchise*Polity*							0.761*				
							(0.375)				
Log GDP per capita								-0.184	-0.263	-0.447	0.322
								(0.343)	(0.360)	(0.356)	(0.286)
Log Land per capita								4.901***	4.586***	4.592***	0.383
								(0.794)	(0.801)	(0.757)	(0.981)
*Log Franchise*Log Land p.c.*								-0.0112*	-0.0132**	-0.0124**	-0.0115
								(0.00590)	(0.00629)	(0.00532)	(0.00957)
PR									0.465***	0.525***	0.430***
									(0.0944)	(0.126)	(0.126)
Election Last Year									0.0146		
									(0.0192)		
Log tariff main trade partner (lagged)										-0.114	0.435***
										(0.121)	(0.121)
On Gold Standard										0.138	0.160*
										(0.0906)	(0.0892)
Constant	-2.383***	-1.671***	-1.755*	-1.299**	-0.0814	-0.0399	0.956	0.978	1.817	2.671	-1.523
	(0.0731)	(0.284)	(0.979)	(0.492)	(0.760)	(0.756)	(0.847)	(2.577)	(2.677)	(2.683)	(2.234)
Country Fixed Effects	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Year Fixed Effects	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO
Observations	578	577	531	531	531	531	531	520	502	487	487
R-squared	0.030	0.159	0.249	0.107	0.589	0.595	0.599	0.700	0.701	0.700	0.467
AIC	797.445	715.608	586.298	1117.310	306.293	299.999	297.127	140.878	102.787	69.946	312.328
BIC	801.805	724.323	599.122	1134.409	404.612	402.593	403.996	251.478	212.470	183.029	345.834
Number of id	30	30	30		30	30	30	30	30	30	30

Robust standard errors clustered by country in parentheses *** significant at the 1% level ** significant at the 5% level * significant at the 10% level

the vote had been given to women, will help to separate the two different aspects of the franchise; male and female. As extensions to the male franchise were generally to those who previously failed to meet property and literacy requirements, i.e. ordinary workers, the extension of voting rights to these individuals may have a different effect than that of granting voting rights to women, who were restricted from voting based on gender above all else. The inclusion of the variable measuring the extent of the franchise does indeed produce interesting results. In columns 3-4, both the *Polity* variable and the *Female Vote* dummy variable have the same signs as in the previous regressions and remain statistically significant. Taking column 5, the most restrictive model, the franchise variable however is negative and statistically significant, indicating that holding all else constant, a 10% increase in the proportion of the population entitled to vote is associated with a 7% decrease in the tariff rate. This effect is consistent with the view that men gaining the vote were more likely to be ordinary workers, or from lower down the income distribution, and would therefore have been more inclined to support lower tariffs due to the disproportionate impact of tariffs on their real wages. Of most significance is that the effects of granting voting rights to women and extending the vote to male workers appear to run in opposite directions.

The three variables capturing "democracy" in the intensive (*Polity*) and extensive dimensions (*Female Vote* and *Franchise*) as well as the controls for unobserved heterogeneity with respect to both country and years, together form the baseline regression in column 5. Column 6 considers the interaction effect between *Female Vote* and *Franchise*. As the franchise variable naturally increases when women are given the vote, it is important to consider the effects of increasing the franchise both when women can and can't vote. Firstly, the independent effect of an increase in the franchise when Female Vote = 0, *or when women cannot vote*, is negative, indicating that extensions of the male franchise were associated with lower tariffs. Secondly, the positive interaction term indicates that the effect

of increasing voting rights, *when women are entitled to vote*, is less negative than when women cannot vote. Although it is difficult to untangle the separate effects of the extension of voting rights to men and women completely, the positive interaction term is consistent with male and female voters having different trade policy preferences.[78]

Next it is important to attempt to estimate the net effect of increases in the franchise based on the model in column 6. Using the *Clarify* package the effect when the franchise variable changes from its mean value when women cannot vote, to its mean value when women can vote (while the interaction effect also changes) is simulated. This exercise suggests that such a change in voting rights would have the effect of lowering tariffs by approximately 30%. This suggests that the negative effects of the male franchise on tariff rates dominates the positive effects of women voters. However it is important to note that due to female enfranchisement, tariffs were higher than they would otherwise have been, with a simulation based on an increase in the male franchise from its minimum value to the mean value, indicating that such a change in the franchise would have reduced tariffs by 52%.

Furthermore as the effect of increasing the franchise, whether to women or to previously disenfranchised men, may depend on the level of institutional democracy captured by the Polity score, the interactions between these variables are included in column 7 of table 3. Both variables capturing the extent of the franchise retain their previous signs, although the Female Vote variable is no longer statistically significant. The positive interaction effect between *Polity* and *Franchise* suggests that the degree of institutional

[78] Regressions using observations when only men were able to vote and when both men and women were able to vote were also separately undertaken. The results produced were very similar to those of the regression including the interaction between female vote and franchise.

openness may have moderated the negative effect of increases in the extent of the franchise on tariff rates.

Column 8 includes variables intended to examine factor-endowments political economy models of tariff policy formation. The log of land per capita (standardised), representing a proxy for the relative endowments of land and labour, is interacted with the extent of the franchise variable, while also controlling for differences in GDP per capita. The interaction term is negative and significant indicating that increases in the franchise are associated with lower tariffs in countries with higher land/labour ratios (ln(Land /pop.)>0). However the independent effect of Land per capita is positive and highly significant signifying that if *Franchise* equalled zero, countries with above average endowments of land per capita would have higher tariffs. Equivalently, with an average level of land per capita (Log Land per capita = 0) the effect of increasing the franchise is negative. The argument that in countries in which labour is relatively scarce, extending the franchise would lead to an increase in tariffs is therefore not supported by the analysis. The political economy of tariff policy is likely to be more complex than the two-factor Heckscher-Ohlin framework employed here can convincingly account for.

Columns 9 and 10 consider a number of the other determinants suggested in the literature to have an effect on tariff policy. Although the main purpose of this analysis is the examination of different aspects of democracy, these additional factors are included as important controls, as well as being potentially interesting in their own right. The variables capturing characteristics of the political system are examined in column 9. These are related to electoral politics: specifically whether a country had a proportional representation electoral system and the part played by the electoral cycle in influencing tariff rates. The coefficient on the *PR* dummy variable is positive and significant, suggesting that the idea that a PR system may have led to political compromises, with minority interests favouring

the protection of domestic production from foreign competition, may indeed be valid. Indeed the coefficient suggests a large effect, with PR systems associated with 59% higher tariffs. The effect of the electoral cycle is embodied in the variable indicating whether or not an election was held in the previous year, with the positive coefficient indicating that tariffs were likely to increase in the year following an election. This effect is not statistically significant however.

Finally, column 10 introduces two factors thought to have been influential in determining tariff rates, independent of any effects of increasing democracy. The argument of Eichengreen & Irwin, that membership of the gold standard led countries to resort to the use of tariffs as a policy instrument, is captured by the dummy variable *On Gold Standard* indicating membership of the gold standard.[79] The effect is positive, as Eichengreen & Irwin propose, although it is not statistically significant at any conventional level.

The tariff policies of trading partners are also thought to have played an important role in the setting of a country's own tariff rates. This "beggar-thy-neighbour" policy is represented by including the tariff rate of the country's main trading partner in the previous year. If tariff policy was influenced by the policies of trading partners then a positive coefficient is expected. However a negative and insignificant effect is observed in column 10. A plausible explanation for this result is that the inclusion of fixed effects for specific years is already largely controlling for this effect in that the retaliatory changes to tariffs were affecting all countries to some extent over this period. If the time fixed effects are dropped, as is the case in column 11, then a positive and significant coefficient on the tariff rate of a country's main trading partner in the previous year is observed. Specifically this suggests that 10% increase in the tariff rate of a country's main trading partner is expected

[79] Eichengreen and Irwin, *The Slide to Protectionism in the Great Depression: Who Succumbed and Why?* 871.

to increase the home country's tariff rate by approximately 4% the following year. Clearly, the retaliatory nature of tariff policy was an important contributor to the overall increase in tariff rates over the period.

Most important of all, the signs of the coefficients on the political variables that are the principal focus of this analysis, *Female Vote*, *Franchise* and *Polity*, are consistent across the various specifications, while remaining statistically significant in almost all cases. Even after controlling for many other determinants of trade policy, the opposite effects of the two measures of the extent of democracy are evident, lending support to the idea that extending the franchise to women may have had a different impact to that of increased voting rights for working class men. Indeed it would appear that tariff rates would have been considerably lower had the franchise only been extended to men. Also clear is that more democratic political institutions, as measured by the Polity score, are associated with lower tariffs. This adds an interesting element to the debate over the relationship between democracy and trade policy during the interwar years, which may perhaps extend to the relationship in other periods also. Future research could examine whether such a relationship existed prior to the First World War, when a small number of countries had extended the vote to women, or perhaps to the analysis of support for tariff policies in the United States, in which a number of states granted female suffrage towards the end of the 19th century.

2.4 CONCLUDING REMARKS

The extensions of voting rights that occurred after the First World War represented a dramatic change in the political landscape. In many countries the right to vote was no longer the exclusive right of property holding or literate men as it had been for most of the 'long' 19th century. Workers now had a political voice that fully represented their share of the population. Women, too, acquired a political voice in a number of countries. Indeed, in

terms of numbers of votes, the extension of the franchise to women represented a greater change than any that had come about previously. The effect of this surge in the size of the electorate could not have failed to alter the political environment. Policies that received support from the electorate of the 19th century could no longer be assured of the same support from the enlarged electorate of the post- World War I years. The rise of the Labour Party and the beginnings of the welfare state in Britain cannot be understood without reference to the new working-class voter. But what of the effect of the impact of the millions of new women voters? Modern survey evidence suggests that women and men do not have identical preferences when it comes to economic policies. Differences in attitudes to trade protection in particular have been highlighted, with numerous studies showing women to have more protectionist attitudes than men. If this is true today it is quite conceivable that this gap also existed in the interwar years. Although widely held at the time, the notion that women only cared about the price of consumer goods and would therefore naturally favour free trade, has been found to be unconvincing. In fact, the survey evidence available for the period suggests the opposite conclusion: that women were more protectionist that men, as they appear to be today. If this is indeed the case, then where women had the means to express their preferences at the ballot box, they may have influenced the political economy of trade policy formation. Evidence presented in this chapter detects such an effect. Even after controlling for many other determining factors, the impact of the granting of votes to women comes through strongly in the cross-country analyses. Although the extension of the franchise to previously disenfranchised working-class men appears to have had a negative effect on tariffs, where women were able to vote tariffs tended to be higher. Uncovering this effect suggests an important factor that conceivably contributed to higher levels of trade protection during the interwar years. The reason why women appear to have been more protectionist than men however is not revealed in this analysis. It is likely that the gender gap in trade

policy preferences is due to differences that are not controlled for in conventional survey analysis, such as differences in risk aversion between men and women. A full exploration of these explanations is reserved for future research.

Chapter III THE INTERWAR GOLD STANDARD AND THE EXTENSION OF THE FRANCHISE

3.1 INTRODUCTION

As the previous chapter illustrated, the set of economic policy options available to governments is constrained by what is politically feasible. In democracies, economic policies pursued by governments are ultimately subject to the scrutiny of the electorate. If a policy is seen to be unpopular by a significant portion of the public, politicians are likely to suffer electoral punishment. Faced with this implicit threat, policy makers are under pressure to pursue economic policies that are supported by their electorate or face the electoral consequences. For this reason no economic decision taken by governments can be viewed as being based purely on the prescriptions of economic theory. Put differently, every economic policy choice has a political dimension. This conflict between economic policies and political realities, it has been argued, had a significant part to play in the economic instability of the interwar period. Prior to 1914, when voting rights were limited in most countries, economic policies did not require the support of large sections of the population. By the 1920s however voting rights had been extended dramatically, resulting in a drastically changed political landscape. No longer could policies deemed undesirable by large sections of the population be imposed without electoral consequences. As a result, the range of feasible economic policies became constrained by the limits of political support. In this chapter I argue that this changed political environment played a part in the timing of exit decisions from, and the ultimate collapse of, the interwar gold standard system. I assess how changes in voting rights for both men and women created a new political environment that was less compatible with the policies required for the successful maintenance of the gold standard than that of the classical gold standard era. Many other factors, both economic and political, will also be assessed in the analysis and their relative importance to

understanding the demise of the interwar gold standard, considered. However establishing the relationship between democracy and the gold standard will remain the principal aim. The analysis will proceed as follows: The next section briefly will outline the operation of the classical and interwar gold standards and discusses how changes in voting rights altered the political environment in which the system operated. Various theories linking democracy and the gold standard are also discussed and an overview of the existing literature provided. Section 3 presents the empirical analysis of public opinion survey and cross-country data, before the final section outlines some general conclusions arising from the analysis.

3.2 BACKGROUND

THE CLASSICAL AND INTERWAR GOLD STANDARDS

The classical gold standard of the late nineteenth and early twentieth centuries was brought to an abrupt end by the outbreak of the Great War in 1914. During its existence it had been considered the backbone of the international financial system which bestowed a "good housekeeping seal of approval" on its adherents, particularly those on the periphery of the world economy.[80] For the system to operate successfully, gold standard members were expected to adhere to the "rules of the game" and prioritise external equilibrium over internal concerns. When a country experienced balance of payments difficulties which threatened to undermine the convertibility of currency, the rules of the game dictated that policymakers would take steps to maintain the gold reserves and the exchange rate, through the manipulation of discount rates and the pursuit of fiscal austerity. Any concerns regarding the possible impact of these policies on domestic economic conditions were secondary.

[80] M.D. Bordo and H. Rockoff, 'The Gold Standard as a Good Housekeeping Seal of Approval', *Journal of Economic History*, Vol. 56 (No. 2, 1996) 389-428.

A key part of the successful operation of the system then was the credibility of policymakers in claiming to maintain this ordering of priorities.[81] When a country suffered exchange rate pressures, capital would flow towards that country in anticipation of the capital gains that would be realized once the policy makers intervened to stabilize the currency. These capital flows would themselves result in a strengthening of the currency and would reduce the extent of adjustment required to restore external equilibrium. Thus, due to the faith that investors had in government intervention, the system was to a significant extent self-stabilizing. During the operation of the classical gold standard this credibility was never particularly in doubt. Despite the fact that participating countries did not always strictly adhere to the so-called "rules of the game" the system remained highly credible.[82] Policy makers knew that the system required an unwavering commitment to maintaining external balance. To prioritise any other policy goals would be to threaten the entire system and the stability and prosperity that were considered to accompany gold standard membership.

Other policy goals, such as maintaining low unemployment, were seen as subordinate to the policies required for the maintenance of gold convertibility. During the 19th Century unemployment was largely seen as a social and not an economic problem.[83] Moreover, intervention was not deemed to be required as any adjustment to disequilibrium in the labour market could be accommodated by the reduction of wages. Therefore external and internal policy objectives were rarely seen to be at odds. In addition, even if efforts to correct external imbalances had a damaging effect on unemployment, the political voice of groups most adversely affected by these policies was particularly under-represented. Voting

[81] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* Ch.2
[82] M.D. Bordo and R. MacDonald, 'The Inter-War Gold Exchange Standard: Credibility and Monetary Independence', *Journal of International Money and Finance*, Vol. 22 (No. 1, 2003)1-32.
[83] B. Eichengreen and T. Hatton, 'Interwar Unemployment in International Perspective: An Overview', in B. Eichengreen and T. Hatton (ed.), *Interwar Unemployment in International Perspective* (Dordrecht, 1988)1-50.

rights were restricted along economic, educational and gender lines in most countries. This led to a relative over-representation of the interests of creditors and the owners of capital in parliament at the expense of those representing workers and debtors. Consequently, placing priority on external balance over and above internal balance posed relatively little electoral risk.

That is not to say that policy makers were entirely oblivious to these concerns. The increasing organisation of labour during the late 19th and early 20th centuries had begun to exert some influence on policymakers and brought about a realisation of the domestic costs of austerity and raising interest rates. Despite this, there was little doubt that governments would place concerns regarding the domestic economy above the achievement of external balance.[84] The old political environment, although already beginning to unravel during the first decade of the twentieth century, would be torn apart by the cataclysm of the First World War.

THE IMPACT OF THE FIRST WORLD WAR ON DOMESTIC POLITICS

The First World War was a war of mass mobilization with millions of men taking up arms across the world. The four year struggle resulted in the destruction of the old order of continental Europe and the rise to prominence of the United States, and to a lesser extent Japan, as world powers. Britain, its hegemonic power being increasingly undermined since the late 19th Century, was economically hobbled. However, it was not just the balance between nations that had changed utterly. The balance within nations had changed also. Returning troops, who had been told they were fighting in the name of their country, now demanded a greater say in how their countries were governed. The growing organization of labour into trade unions in the decades before the war meant that the concerns of workers

[84] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* Ch.2

became more difficult to overlook. With the fear of revolution sweeping across Europe following the Bolshevik success in Russia in 1917, the extension of the franchise to the masses was seen as a way to reduce this growing threat.[85] Many of the remaining economic restrictions on the franchise were relaxed or abolished altogether in many nations, while voting rights were extended to women in a number of counties, shortly after the war. This led to a massive increase in the number eligible to vote compared to the late 19th Century (fig. 1). While the post-war increases in the franchise are evident, the fact that different countries followed different paths in extending the franchise is also clear.

This change to the political landscape had important consequences for the credibility of the commitment to the gold standard once the system was re-established, a goal that post-war policy makers were determined to achieve.[86] Commitment to the rules of the gold standard was no longer as credible as it once was. Merely being a member of the gold standard during the interwar period was no longer sufficient to obtain a seal of approval from financial markets, as it had been during its classical antecedent. Investors began to scrutinize national accounts to a greater extent than before the war.[87] The political costs of policies implemented to maintain gold convertibility might now be too great for policy makers to bear. A new business environment also prevailed, one in which the free flexibility of wages to adjust to labour market disequilibrium was far from guaranteed.[88] As such policies enacted to maintain the exchange rate would have real consequences in the form of unemployment. This, coupled with the political power of newly enfranchised workers,

[85] D. Acemoglu and J.A. Robinson, 'Why did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective', *The Quarterly Journal of Economics,* Vol. 115 (No. 4, 2000) pp. 1167-1199.
[86] P. Temin, *Lessons from the Great Depression* (Cambridge, 1989) p.33
[87] Obstfeld and Taylor, *Credibility and the Gold Standard: 1870-1913 Versus 1925-1931* 241-75.
[88] C.D. Romer, 'The Nation in Depression', *The Journal of Economic Perspectives,* Vol. 7 (No. 2, 1993)pp. 19-39.

would lead financiers to doubt whether governments would intervene to maintain parity. As a result the flows of capital that helped to stabilize the classical gold standard did not occur, and the burden of adjustment required to attain external stability was increased, now resting solely on the shoulders of policy makers. This further increased the scepticism of financial markets that governments would take the necessary steps to defend their exchange rate. The result was an international monetary system that was far more fragile and unstable than its pre-war predecessor.[89]

The potential for political uncertainty to undermine the credibility of government policy is well illustrated by the experience of South Africa during the interwar period. As a commonwealth country, South Africa might have been expected to follow Britain off gold in 1931. The ruling government remained committed to Gold however, deciding to follow the advice of the central bank. Nonetheless, there was considerable opposition to this policy, particularly from farmers and exporters. With the announcement that a prominent politician, Tielman Roos, intended to form a coalition and challenge the government on its policy of maintaining the gold standard, capital flight began. Within five days the government was compelled to instruct the central bank to cease redeeming notes for gold. In the last days of 1932, South Africa had been forced from the gold standard.[90] It was the interaction between politics and financial markets that had ultimately been responsible.

---

[89] The opposite argument regarding the link between democracy and the credibility of the pre-WWI financial system is made in M. Flandreau and F. Zumer, *Development Centre Studies the Making of Global Finance 1880-1913* (2004) p.57. They argue that investors preferred democracies as they felt that a democracy would be less likely to default. The authors find a link between greater franchise extension and lower interest rate spreads and a lower probability of default during the classical gold standard period. However the post-war franchise extensions were of a much greater magnitude and enfranchised different groups than were entitled to vote in the 19th century. That investors preferred extremely limited democracy to autocracy should not therefore be seen as being in contradiction with this theory.

[90] R. Leslie, 'South Africa and the Gold Standard', *The Economic Journal*, Vol. 43 (No. 169, 1933) pp. 88-92.

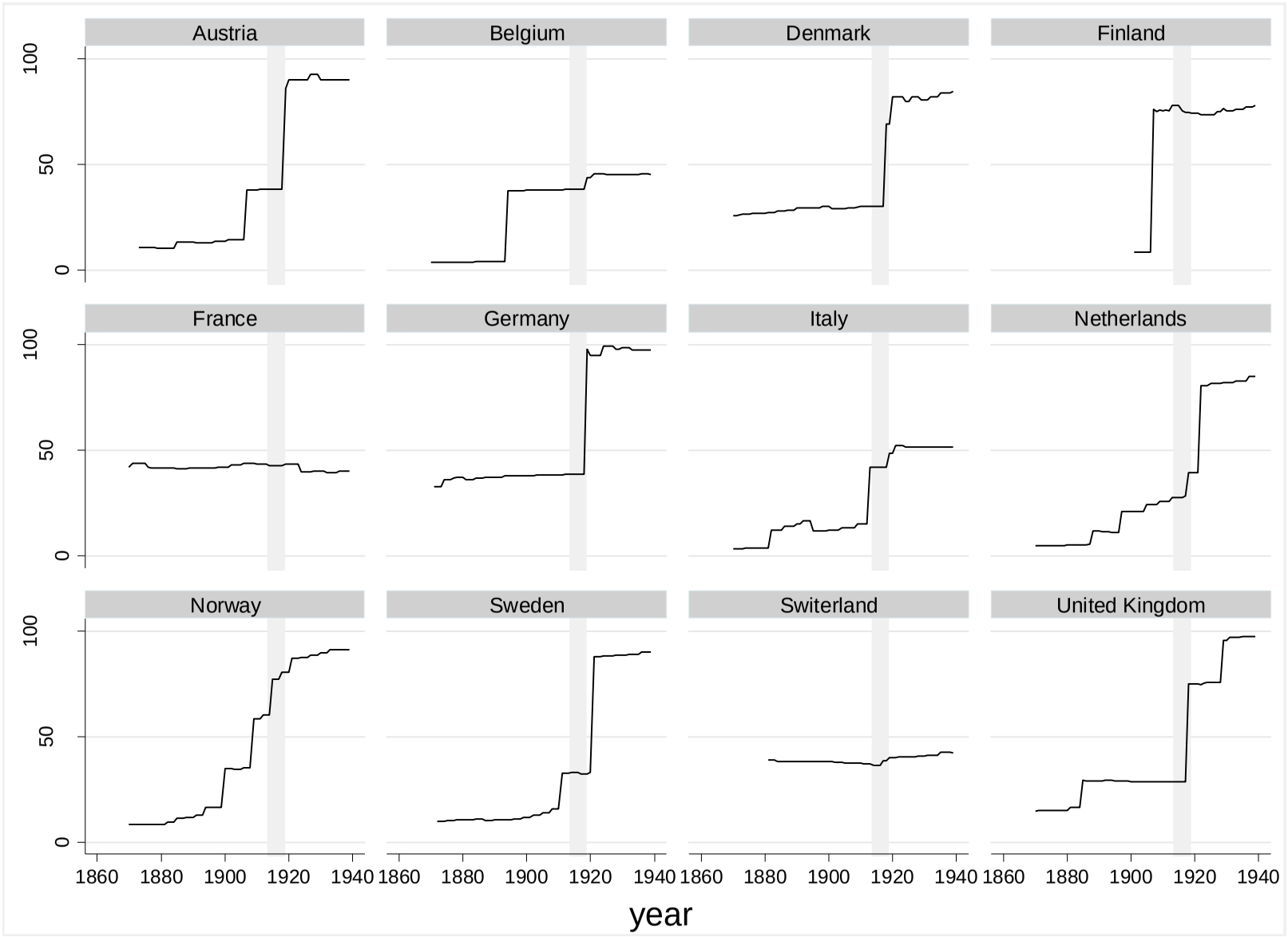


fig. 1. Extension of the Franchise 1870-1939 (% of pop. over 20 with right to vote) Years of First World War are Shaded Source: Flora (1983)

That is not to say that adherence to the gold standard was determined by domestic political factors alone. Many additional explanations for the contrasting success of the classical gold standard and the failure of the interwar gold standard have been put forward. These include the absence of a post-war international hegemon, problems associated with the gold exchange system and the breakdown in international cooperation during the interwar years.[91] In a sense all of these factors can be seen as being interrelated. Any one of these individual problems might have been overcome had the others not existed. Nevertheless it is the direct political economy effects of the extension of the voting franchise on the stability of the interwar gold standard that will be the principal focus of this chapter. The objective of this analysis is to isolate a connection between a higher level of franchise extension and a shorter adherence to, or swifter exit from, the interwar gold standard. In addition, what part the introduction of female suffrage may have played will be explored. While studying the effects of the extension of the franchise is the priority of this analysis, a number of other potentially important political and economic determinants of the decision to leave the interwar gold standard will also be assessed.

DEMOCRACY AND THE GOLD STANDARD

That political factors played a part in the collapse of the interwar gold standard is something that has been recognised in a number of previous studies. Eichengreen attributes the breakdown of the interwar monetary system to two root causes; a lack of credibility and the inability to achieve international cooperation.[92] The change in the political environment brought about by the enfranchisement and organisation of the masses reduced the credibility

[91] C.P. Kindleberger, *The World in Depression 1929-1939* (Berkeley, 1976) Ch. 14, R. Triffin, 'National Central Banking and the International Economy', *The Review of Economic Studies*, Vol. 14 (No. 2, 1946)pp. 53-75., Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* pp. 4-12

[92] ibid.

of governments' commitment to maintaining gold parities, resulting in a system that was vulnerable to speculative attack. Nonetheless, this reduction in credibility could have been countered had international cooperation between central banks been possible, as it had been during the classical gold standard. The Barings crisis of 1890 provides such an example. The financial crisis threatened Britain's ability to defend its gold parity and confidence was only restored following a substantial loan from the central banks of France and Russia.[93] The favour was returned by Britain on a number of occasions in the following decades. International cooperation was therefore a key element in the ability of the system to absorb shocks. In the interwar years however the issue of war reparations and disagreements over the underlying causes of international imbalances meant that the required cooperation proved impossible to achieve. Had the full reserves of the international system been available to defend a weak currency country's parity, then credibility might have been restored and convertibility crises averted. Without a first line of defence in terms of international cooperation, the system became increasingly vulnerable to the vicissitudes and pressures of domestic politics.

A similar argument regarding the link between increased democratisation and credibility is put forward by Simmons.[94] In her probit analysis of the probability of being on gold during the interwar years, a democracy dummy variable is introduced to test the hypothesis that democratic countries were less able to withstand the domestic economic costs of maintaining the gold standard. As non-democratic countries do not face the same political constraints and pressures that are faced in a democracy it is suggested that democracies would be less likely to be on gold than non-democracies. This argument is

[93] K.J. Mitchener and M.D. Weidenmier, 'The Baring Crisis and the Great Latin American Meltdown of the 1890s', *The Journal of Economic History*, Vol. 68 (No. 02, 2008) 462.
[94] Simmons, *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years, 1923-1939* Ch. 4

supported by her analysis. The results also indicate that other political conditions, such as the degree of independence of the Central Bank, increased the probability of maintaining gold parity. Economic conditions also mattered. Smaller economies, net debtors and those with a larger share of world trade, were all found to be less likely to be on gold. Political factors, in conjunction with economic conditions, influenced the probability of gold standard adherence.

More recently, attempts have been made to include political aspects into models that explain the duration of adherence to the interwar gold standard or the probability of exit from the system. Wolf & Yousef found the opposite effect of democracy to that of Simmons: that more democratic countries, as measured by Polity scores, actually remained longer on gold.[95] Government instability and political unrest, as quantified by the level of cabinet turnover and the incidence of riots, strikes and demonstrations respectively, reduced the duration on the gold standard. Economic variables found to reduce the duration on gold included weaker GDP growth, higher bond yield spreads and terms of trade shocks, while creditor countries and those with a previous experience of high inflation were more likely to have longer durations on gold.

Wandschneider employed a similar empirical approach to explain the timing of exit from the interwar gold standard.[96] Her analysis revealed that democracies, as classified by a dummy variable indicating whether a country was democratic or not, were likely to leave the gold standard system earlier. As in the previous studies, creditor nations were found to remain longer on gold, as were countries with a prior experience of hyperinflation. Poorer nations, in terms of GDP per capita, and those that experienced banking crises were more

[95] H. C. Wolf and T. M. Yousef, 'Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard', in K. H. O'Rourke and T. J. Hatton (ed.), *The New Comparative Economic History: Essays in Honour of Jeffrey G. Williamson* (Cambridge, 2007) 241-65.
[96] K. Wandschneider, 'The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?', *The Journal of Economic History,* Vol. 68 (No. 01, 2008) 151.

likely to leave the regime. Of particular interest is the finding that countries exited the system with varying 'survival' probabilities. In particular, Britain exited the system in 1931 when its 'survival' probability was still very high, while the United States exited when their 'survival' probability was low. As such, it is argued that Britain was a "fair weather friend" when it came to the gold standard. Wandschneider also suggests that the timing of these exits may be attributed to political forces, indicating that the exit of both the Britain and the United States only occurred after newly elected governments had been brought to power. This presents the possibility that the effect of democratic pressures to favour domestic balance may have varied according to the electoral cycle.

Nikolaus Wolf also attempts to explain the timing of exit from the interwar gold standard by utilising duration analysis.[97] In this study, monthly data rather than annual data are examined. Although monthly data allow the tracking of the time path of explanatory variables more closely than annual data, the availability of data of this frequency is limited. Consequently the sample is constrained to just eight countries. Of the political variables considered, Polity score measures of democracy support the view that more democratic countries left the system earlier. Again, countries with greater central bank independence were found to remain on gold for a longer duration. The latter result is consistent with the view that countries with central bank independence were more credible in their commitment to maintaining gold parity as they were better insulated from the political pressure to use monetary policy to address domestic economic problems. Of the economic variables considered, lower levels of deflation and higher levels of bank deposits are associated with a longer adherence to gold, while countries which entered the system at pre-war parities were more likely to exit the system. Of particular relevance is the suggestion that Poland

[97] N. Wolf, 'Scylla and Charybdis. Explaining Europe's Exit from Gold, January 1928–December 1936', *Explorations in Economic History,* Vol. 45 (No. 4, 2008) 383-401.

may have remained longer on gold than other countries with similar characteristics due to the fact it was ruled by an authoritarian regime.

The existing literature suggests many factors that help to explain the different lengths of time spent on the interwar gold standard, as well as those that contributed to the timing of exit decisions. However there are some important issues which these studies do not address. Firstly, as outlined in the previous chapter, the use of Polity scores or a democracy dummy variable does not necessarily capture the effect of the changes to the political environment and the rebalancing of political power that occurred after the First World War. Polity scores are predominantly an "institutional" measure of democracy - that is the degree of openness and contestability of the political institutions - that does not adequately take into account the extent of voting rights. This failing of Polity scores as an appropriate measure of democracy has been identified previously.[98] Similar criticisms have also been made with regard to the failure of the index to capture the extension of voting rights to women.[99] Although a country may have strong democratic institutions and be classed as "democratic" the extent of the franchise may still be limited. For example, France during the interwar period earns a perfect 10 Polity score for democracy despite the fact that voting rights were only extended to about 40% of the adult population.[100] The political pressure to prioritise domestic concerns is likely to increase as voting rights are extended to those sections of society most sensitive to these issues, such as those without property, the uneducated or perhaps women.[101] Countries with the most extensive voting rights then could be expected

[98] Munck and Verkuilen, *Conceptualizing and Measuring Democracy* 5-34., Moon, Birdsall, et al., *Voting Counts: Participation in the Measurement of Democracy* 3-32.
[99] Paxton, *Women's Suffrage in the Measurement of Democracy: Problems of Operationalization* 92-111.
[100] P. Flora, J. Alber, et al., *State, Economy, and Society in Western Europe 1815–1975: A Data Handbook in two Volumes. Vol. 1: The Growth of Mass Democracies and Welfare States.* (1983)
[101] The effect of the extension of the franchise to women will be further discussed in the next sub-section.

to experience more electoral pressure to reflate their economies and reduce unemployment. They may also in turn have suffered from a lower level of credibility in their commitment to gold which would make maintaining gold parity even harder to achieve, for the reasons already outlined.[102] Similarly, using a democracy dummy variable alone may not fully capture the variation in political landscapes and the composition of the electorate between countries and across time. For this reason, in addition to standard measures of institutional democracy, a measure of the level of franchise extension is warranted for inclusion in the analysis. This will take the form of a variable indicating the proportion of the population with the right to vote.

Although some economic or educational restrictions on voting rights remained during the interwar years in some countries, the majority of the variation in the degree of franchise extension derives from whether or not a country had extended the vote to women following the First World War. As changes in the franchise due to the granting of women's voting rights were unprecedented in magnitude, they had the potential to alter the political environment and ultimately to influence policy decisions, including gold standard adherence. But why might granting women the right to vote influence the ability to maintain the gold standard? If extending voting rights to women only resulted in a doubling of the electorate and the distribution of preferences remained the same then this change should have no effect on the overall policy preferences of the electorate.[103] For the women's vote to have an influence on policy it must therefore have represented a change in the overall distribution of preferences within the electorate. Did women have more to gain from leaving the gold standard or were they more likely to oppose policies that depressed the domestic

[102] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* Ch.2
[103] T.S. Aidt, J. Dutta and E. Loukoianova, 'Democracy Comes to Europe: Franchise Extension and Fiscal Outcomes 1830–1938', *European Economic Review,* Vol. 50 (No. 2, 2006) 249-83.

economy and raised unemployment? As the link between women's voting rights and the gold standard has not previously been explored, a more detailed examination is warranted. The next sub-section attempts to outline some potential reasons why the granting of voting rights to women may have influenced the political decision to exit the interwar gold standard.

THE GENDER GAP AND THE GOLD STANDARD

The idea that women have different policy preferences and voting patterns to men is one that has been around for some time.[104] The "gender gap", as it is referred to in the political science literature, has been explored from various viewpoints. Differences in attitudes towards policies relating to the use of domestic and foreign force, "compassion issues" and trade have all been identified.[105] As the analysis of the previous chapter showed, the link between female voting rights and protectionism can also be made. Although the specific link between the extension of voting rights to women and the demise of the interwar gold standard has not been examined, the identification of the gender gap has led to a number of studies assessing its impact on other government policies at different points in history.[106]

Specifically, the effect of franchise extension on government expenditure and overall fiscal policy is an area that has been most widely explored. Analysis of this link has utilised

---

[104] K.A. Frankovich, 'Sex and Politics. New Alignments, Old Issues', *PS: Political Science and Politics*, Vol. 15 (No. 3, 1982) 439-48.

[105] R.Y. Shapiro and H. Mahajan, 'Gender Differences in Policy Preferences: A Summary of Trends from the 1960s to the 1980s', *The Public Opinion Quarterly*, Vol. 50 (No. 1, 1986) pp. 42-61., K. Andersen, 'Gender and Public Opinion', in B. Norander and C. Wilcox (ed.), *Understanding Public Opinion* (Washington D.C., 1997), E. Gidengil, 'Economic Man—Social Woman?', *Comparative Political Studies*, Vol. 28 (No. 3, 1995) 384-408.

[106] B.A. Abrams and R.F. Settle, 'Women's Suffrage and the Growth of the Welfare State', *Public Choice*, Vol. 100 (No. 3/4, 1999) pp. 289-300., T.A. Husted and L.W. Kenny, 'The Effect of the Expansion of the Voting Franchise on the Size of Government', *Journal of Political Economy*, Vol. 105 (No. 1, 1997) pp. 54-82., Mayda and Rodrik, *Why are some People (and Countries) More Protectionist than Others?*1393-430., O'Rourke and Sinnott, *What Determines Attitudes Towards Protection? some Cross-Country Evidence.*157-206.

both historical macroeconomic data and survey data from recent years. Two studies of most relevance to the period under examination in this chapter are Lott and Kenny and Aidt *et al.*[107] In the former, data from United States state government expenditures and revenues, as well as voting index scores for federal House and Senate members over the period 1870-1940, are explored. As different states granted female voting rights at different points between 1869 and the ratification of the 19th Amendment to the constitution in 1920, it is possible to examine the effect this had on the size and scope of government across states. The authors find that extending the right to vote to women led to an increase in the level of state expenditures and revenues while also producing a more liberal Congress. This effect was immediate but also continued to grow over time as more and more women took advantage of their newly gained voting privileges. In the latter study, analysis of a panel of electoral and government expenditure data from 12 European countries over the period 1830-1938 reveals that the onset of female suffrage had a positive effect on overall government expenditures through increased spending on health, education and welfare. According to their results, female enfranchisement is associated with a 16% increase in spending on collective goods and transfers. A number of other studies using recent data have confirmed the existence of a preference among female voters for greater government intervention.[108]

Why might these different female preferences for policies have influenced the ability of governments to maintain the gold standard during the interwar years? The first reason

[107] J. Lott Jr. and L. Kenny, 'Did Women's Suffrage Change the Size and Scope of Government?', *Journal of Political Economy,* Vol. 107 (No. 6, 1999) pp. 1163-1198., Aidt, Dutta, et al., *Democracy Comes to Europe: Franchise Extension and Fiscal Outcomes 1830–1938* 249-83.

[108] M. Schlesinger and C. Heldman, 'Gender Gap Or Gender Gaps? New Perspectives on Support for Government Action and Policies', *Journal of Politics,* Vol. 63 (No. 1, 2001) 59-92., P. Funk and C. Gathmann, 'What Women Want: Women Suffrage, Gender Gaps in Voter Preferences and Government Expenditures', *Mimeo,* Stanford University (2007)

that differences in female voting preferences may have had an effect, stems from the findings of previous studies; that women voters held a greater preference for government social policies and that the extension of the franchise contributed to a rise in the level of government spending. If women voters were more likely to support greater government spending then the case could be made that in countries which had granted female voting rights, the pressure to resist the fiscal retrenchment and deflation prescribed by adjustment under the gold standard would be greater in these countries also. Once more, it is important to note that this scenario did not necessarily have to play out in practice. If financial markets considered women voters to be more likely to resist required cuts to government spending, then this may have been enough to undermine credibility in the government's commitment to the gold standard and would therefore in itself have increased the likelihood of exit.

A further possible explanation as to why female enfranchisement may have been related to the downfall of the interwar gold standard involves different attitudes of men and women towards unemployment and inflation. If women voters are relatively more sensitive than male voters to concerns over unemployment than to inflation, then this preference may have had an impact on policy choices that had a bearing on adherence to the gold standard. If maintaining the gold standard required measures that would likely have increased unemployment then policy makers may have behaved differently in countries in which women were denied the vote, to those in which female populations had political voice.

More modern data can also shed some light on whether a 'gender gap' between attitudes towards inflation and unemployment exists. A study by Jayadev examined survey data from 1996 and revealed that women and lower income individuals were less inflation averse.[109] A study by Braunstein and Heintz has also shown how monetary policy can be

[109] A. Jayadev, 'The Class Content of Preferences Towards Anti-Inflation and Anti-Unemployment Politics', Review of International Applied Economics, Vol. 22 (No. 2, 2008)

gender specific in that female employment suffers more from policies intended to control inflation than male employment, at least in the short run.[110]

A final explanation as to why women may have had different voting patterns to men relates to relative poverty and vulnerability to unemployment. During the interwar years, as is still the case today, poverty affects women more acutely than men.[111] Women were also considered to have suffered relatively more than men when it came to unemployment. This effect was often an indirect one. According to the Pilgrims' Trust, a charitable organisation founded in 1930:

> "in most unemployed families the parents, and particularly the wives, bore the burden of want and in many instances were literally starving themselves in order to feed and clothe the children reasonably well".[112]

As such, if women are poorer as a group than men, then different voting patterns should be expected. If the relative costs of gold standard adherence are greater for those at the lower end of the income distribution and if women felt the pain of unemployment more keenly, then women, as a whole, may have had less cause to support the unemployment generating policies associated with macroeconomic adjustment under the gold standard. To determine whether women's preferences differed from those of men, an examination of public opinion surveys during the interwar years can be conducted. A number of hypotheses relating to the policy preferences of different sections of the population will be tested using data from interwar US Gallup polls later in the chapter.

---

[110] E. Braunstein and J. Heintz, 'Gender Bias and Central Bank Policy', *International Review of Applied Economics,* Vol. 22 (No. 2, 2008)173-86.
[111] P.M. Thane, 'What Difference did the Vote make? Women in Public and Private Life in Britain since 1918', *Historical Research,* Vol. 76 (No. 192, 2003) 268-85.
[112] W. Temple, *Men without Work: A Report made to the Pilgrim Trust* (Great Britain, 1938). p.112

CONTEMPORARY VIEWS

But what of the contemporary views of the effects that the extension of voting rights to women would have on the political landscape? In Britain the effects were seen by many at the time as being uncertain.[113] Despite this, there were others who had stronger opinions of the impact of the women's vote. In a memorandum from the Conservative party's principal agent to the party leader Austen Chamberlain in 1921 the fear that women were more interested in domestic issues than external concerns is expressed:

> "The woman's vote is having a narrowing effect on politics, making them more parochial, and is at the moment, reducing them to bread and butter politics and the cost of living... their votes will probably be given on purely home questions... while Imperial and foreign issues will leave them cold."[114]

If women were viewed as more sensitive to domestic than external concerns then this may have called into question their support for the gold standard and its associated policies.

An additional fear among Conservatives during the 1920s was the view that granting the vote to women under 30 in 1928 would increase the Labour vote. Indeed, a media campaign by Lord Rothermere, the owner of the Daily Mail, was initiated to prevent the granting of voting rights to women in 1928. These fears were perhaps well founded. In the election of the following year, with the number of voters increased by six million, the Labour Party vote increased by 3 million while the Conservatives increased their vote by only 600,000, while the percentage turnout remained the same.[115] If the theory is to be believed that left-wing parties put more emphasis on employment and income distribution than parties on the right that place a greater priority on price stability, then maintaining the gold standard

[113] P.M. Thane, *What Difference did the Vote make? Women in Public and Private Life in Britain since 1918* 268-85.
[114] Quoted in D. Jarvis, 'Mrs. Maggs and Betty: The Conservative Appeal to Women Voters in the 1920s', *Twentieth Century British History,* Vol. 5 (No. 2, 1994) 129-52. p.138
[115] P.M. Thane, *What Difference did the Vote make? Women in Public and Private Life in Britain since 1918* 268-85.

can be seen as more in keeping with the goals of the political right.[116] This suggests that if granting voting rights to young women increased the support for Left-wing parties then this may also have undermined political support for the gold standard regime.

Probably the most common argument against the enfranchisement of women was that women were intellectually incapable of making important policy decisions. This attitude is exemplified by the comments made by a delegate at the 1927 Conservative party conference. Although the motion to extend the franchise to women over 21 was ultimately passed, it faced considerable opposition:

> "Young women have not attained a sufficient political education to enable them to see clearly the points affecting, say, the gold standard, invisible exports, and many matters on which one ought to have a concrete, conclusive mind before voting at an election between an individualist and a socialist".[117]

The picture of an emotional, erratic and capricious female voter unsettled many among the conservative establishment who felt granting the vote to women would at best introduce uncertainty and volatility to the political climate.

Although similar arguments were used against the extension of the franchise to women in the United States, the situation there also had an additional dimension. During the latter stages of the 19th Century the suffrage movement came to be associated with the free-silver movement of William Jennings Bryan. The movement advocated the adoption of a bi-metal system instead of a gold only standard to alleviate the deflation and recession of the early 1890s. The Democratic Party, under Bryan's leadership, contested two presidential elections in 1896 and 1900 in which the nature of the monetary system was a key issue. Ultimately the pro-gold Republicans were triumphant and the free-silver cause never again rose to such prominence. However it was believed by many that women voters, in the few

[116] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151.
[117] The Manchester Guardian, *Tory Conference at Cardiff*, October 7 edn (1927)

states in which women had achieved the vote, had shown their preference for the silver platform. In one of the most influential anti-suffrage works of the period, *Woman and the Republic*, Helen Kendrick Johnson noted that women's suffrage had been associated with

> "Free-Silver and Populism of the most extravagant type".[118]

Women were also prominent in their involvement with the populist People's Party, which was opposed to the gold standard system.[119] The populists and free-silver movement eventually joined forces for the 1896 presidential campaign. Despite losing twice to the Republican candidate McKinley, the fact that Bryan's Democrats carried most of the enfranchised states was not lost on contemporary commentators:

> "Free-silver men in 1896 were just as zealous, just as enthused, and just as confident as the suffragists are now. They were perfectly certain that they had a panacea and equally certain that the country would decide in its favour. Indeed they did succeed in carrying most of the states that are suffrage states today".[120]

Indeed after the defeat of Bryan in 1896 he was welcomed enthusiastically by women delegates in Denver, Colorado:

> "The women tried to welcome you to the White House. When a few more stars have been added to the Equal Suffrage banner, the women will welcome you to the White House".[121]

If this view persisted, that women may have been relatively less inclined to support the gold standard, then policy makers' commitment to the gold standard may have been weakened by the enfranchisement of women in all US states in 1920.

Although direct electoral evidence of different preferences among women voters during the interwar years is rare, a small number of examples exist. In South Africa the vote

---

[118] H.K. Johnson, *Woman and the Republic* (New York, 1897)p. 102
[119] C. Postel, *The Populist Vision* (Oxford, 2009) Ch.3
[120] The New York Times, *The Suffrage Panacea*, December 3 edn (1912)
[121] Johnson, *Woman and the Republic* p.314

was extend to white women in 1930. Despite the fact that ballots were secret, for the first by-election in which women were entitled to vote, men and women's votes were counted separately. The party which supported the policy of leaving the gold standard, The South African Party, won the by-election but when the votes were counted men and women were found to have voted differently. Men voted five-to-four in favour of the South African Party candidate while women voted nine-to-one. The reporting journalist was quick to offer an explanation:

> "It is tempting to write off the women's vote, certainly at the first election after enfranchisement, as a replica of the men's vote. But it may be doubted if this would be correct... It may be that in times of economic stress women are more likely to go against the Government in power than are men." [122]

In Germany too there is evidence that men and women voted differently. In the election of 1928 men and women used different colour ballots in Berlin.[123] The results can be seen in table 1.[124] Although these results do not point directly towards different attitudes relating to the gold standard, they do help to repudiate the claim that men and women could be seen as having parallel preferences and that the extension of the franchise to women would have had no effect on the political landscape. That women made up 53% of the electorate in Berlin in 1928, a similar proportion of the electorate as in Britain in 1929, only increases the impact that the women's vote would have had.

[122] The Manchester Guardian, *A Key Election in South Africa*, July 14 edn (1932)
[123] The Times, *Women's Vote in Berlin: An Election Analysis*, June 11 edn (1928)
[124] A detailed analysis of the voting patterns of men and women in Weimar Germany can be found in chapter IV.

Table 1

BERLIN ELECTIONS 1928

	Men			Women		
	Votes	**% Men**	**% Total**	**Votes**	**% Women**	**% Total**
Communist	324,437	27.70	13.08	286,880	21.90	11.56
Socialist	382,447	32.66	15.41	433,749	33.11	17.48
Nationalist	181,440	15.49	7.31	252,692	19.29	10.18
Centre	30,431	2.60	1.23	51,868	3.96	2.09
Democrats	90,243	7.71	3.64	100,277	7.65	4.04
People's Party	72,326	6.18	2.92	85,540	6.53	3.45
Others	89,803	7.67	3.62	99,005	7.56	3.99
Total Votes	1,171,127	100	47.20	1,310,011	100	52.80

Source: The Times, June 11th 1928

EXPECTED RELATIONSHIPS

Having outlined the various theories linking the extent of the franchise and the gold standard, as well as discussing the potential for the addition of women voters to alter the political environment, it is helpful at this point to summarise the expected relationships between gold standard adherence and our variables of interest that will be tested in the cross-country empirical analysis later in the chapter. These relationships are given in table 2.

Firstly, if the hypothesis that increases in the franchise resulted in a shift of the median voter in the electorate towards one that was more likely to favour internal balance than external balance – and therefore undermining policy makers' commitment to the gold standard - then a negative relationship between the extent of the franchise and the gold standard is expected. Similarly if women are believed to be relatively less inclined to prioritise gold standard related policies for any of the reasons outlined previously, then female voting rights are expected to have had a negative effect on gold standard adherence. Finally the relationship between "institutional" democracy (as measured by the polity score) and the gold standard is also expected to be negative - if democracies are believed to be

subject to political constraints that more autocratic systems are not. However conflicting findings in the literature suggest that the relationship between the openness of political institutions and gold standard adherence may not be so straightforward. Understanding these particular relationships will be the focus of the empirical analysis that follows.

Table 2

Expected Relationships Between Democracy Variables and Gold Standard Adherence

Variable	Expected Direction of Effect on Gold Standard Adherence
Franchise	negative
Polity	negative
Female Vote	negative

FURTHER POLITICAL ARGUMENTS

Beyond the direct effects of democracy, an additional issue that is worthy of exploration is the effect of different political systems in determining adherence to the gold standard. Although differences between political systems have been recognised as an important factor shaping economic policy choices, the impact of the degree of proportionality of the electoral system on the ability to maintain the interwar gold standard has not been tested.[125] Eichengreen and Eichengreen & Simmons suggest that proportional systems contributed to a difficulty of forging a consensus regarding tackling budget deficits in the 1920s.[126] The failure to reach agreement as to the distributional burden of adjustment resulted in the monetisation of deficits and the consequent inflation that this action ensured.

[125] M. Bordo, 'Growing Up to Financial Stability', *Economics – the Open-Access, Open Assessment E-Journal, Kiel Institute for the World Economy,* Vol. 2 (No. 12, 2008) 1-17.
[126] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* pp.25-26, B. Eichengreen and B. Simmons, 'International Economics and Domestic Politics: Notes from the 1920s', in C. Feinstein (ed.), *Banking, Currency and Finance in Europe between the Wars* (Oxford, 1995) 131-49.

The difficulty in forming consensus policies among fractionalised parliaments common to proportional electoral systems decreased a country's ability to react quickly and decisively to a crisis. As such we could expect that those countries with proportional representation systems might be less likely to undertake decisive changes in economic policy, such as abandoning the gold standard. Conversely, if proportional systems resulted in unstable governments being unable to implement the policies necessary to maintain the exchange rate, then countries with proportional representation systems might be expected to be forced off gold more quickly than those with non-proportional systems. The expected direction of the effect of this variable cannot therefore be determined *a priori*.

Also, if adherence to the gold standard was influenced by political factors, it is conceivable that the timing of exit decisions may have been related to the electoral cycle. Newly elected governments were more likely to have a greater disposition to undertake decisive decisions, as their mandate to govern was at its zenith. Governments elected less recently may have been expected to have less of an appetite for dramatic policy decisions as re-election loomed closer on their horizons. Also, if elections bring about a change in government, then the new government may have campaigned on the basis of abandoning the gold standard and prioritising the recovery of the domestic economy, increasing the likelihood that bold changes in policy may follow the holding of elections. For these reasons, a variable that captures the position in the electoral cycle may help to explain the timing of exit decisions.

3.3 Empirical Analysis

Interwar US Gallup Polls

Before turning to the cross-country analysis of the relationship between democracy and the gold standard, differences in individual preferences towards policies related to the

gold standard are examined. The 1930s saw the birth of a new organisation dedicated to accurately capturing the opinions of the general public in the United States. In 1935, The American institute of Public Opinion was founded by George Gallup and published its first public opinion survey results in October of the same year. The Gallup Organization, as the institute would later be called, rose to prominence in 1936 after correctly predicting that Franklin D. Roosevelt would comfortably win the presidential election that year, despite the predictions of a rival less scientifically implemented survey by the *Literary Digest* magazine that the Republican Candidate, Alf Landon, would win.[127] Between 1935 and the end of the decade the organisation conducted a series of opinion polls covering a multitude of issues. The results of many of these series have been digitised and allow for a statistical analysis of interwar public opinion in the US.[128] Of particular interest to this study are the questions relating to policies associated with successful gold standard adherence. Although by the mid-1930s the United States had already left the interwar gold standard, the hypothesis that support for policies consistent with the gold standard system differed among different sections of the voting population can be examined.

The first question to be analysed is from the Gallup Poll of November 1936. It asks "Should Congress renew the President's power to regulate the amount of gold in the dollar?" In January 1934 congress passed the Gold Reserve Act, allowing the president to fix the dollar price of gold. This president Roosevelt swiftly did, changing the dollar price of gold for international payments from the previous gold standard value of $20.67 to $35 per ounce.[129] Although the answers to this survey question may not directly reflect a judgement of the president's decision to leave the gold standard, an analysis of the determinants of how

[127] G.H. Gallup, *The Gallup Poll: Public Opinion* (Wilmington, Delaware, 1972) p.39
[128] Interwar Gallup Survey data available in downloadable format from The Roper Center for Public Opinion Research http://www.ropercenter.uconn.edu/ (accessed October 2011)
[129] Bordo, M. D., Goldin, C. D., White, E.N., *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century* (Chicago, 1997) p.29

respondents answered can illuminate the differences in opinion between various sections of the population over the issue, with a "yes" answer suggesting a stronger preference for the abandonment of fixed exchange rates.[130] The potential to uncover differences in policy preferences between men and women is especially relevant. The results of the probit analysis can be seen in table 3.

The choice of variables included in the regressions is of course constrained by the survey questions. However a number of important variables can be included. The dependent variable is equal to one if the respondent answered yes to the question about renewing the President's power to regulate the amount of gold in the dollar, and zero if the answer was no. The independent variables vary according to the model and include dummy variables for gender, age, occupation and whether the respondent lived in an urban, small-town or farming area. All regressions also include a set of dummy variables indicating the state in which the respondent lived. How the respondent voted in the previous presidential election is likely to have a strong influence on their preferences for current policies. For this reason, a dummy variable indicating whether or not the respondent voted for President Roosevelt in the previous election is also considered. Details of all variables are given in the appendix. The regressions produce some interesting results, with the marginal effects shown in table 3.

Model III (a) includes only the female respondent variable and the state controls, with a negative and insignificant marginal effect of being female. Models III (b) –(f) indicate that, as expected, those respondents who voted for President Roosevelt in the previous election were more likely to support Congress renewing the President's power to regulate the amount of gold in the dollar. Interestingly the female variable changes sign once

[130] The New Deal acts to regulate the faced constitutional challenges in the Supreme Court over the powers of government so a "no" answer may reflect an opposition to the policy based on constitutional grounds. J.P. Dawson, 'The Gold Clause Decisions', *Michigan Law Review*, Vol. 33 (No. 5, 1935) 647-684.

Table 3

PROBIT MARGINAL EFFECTS

Gallup Poll, November 1936

"Should Congress renew the President's power to regulate the amount of gold in the dollar?"

Dependent Variable = "Yes"

Variable	Model III (a)	Model III (b)	Model III (c)	Model III (d)	Model III (e)	Model III (f)
Female	-0.00575	0.0305	0.0328	0.0578*	0.0594*	*Women Only*
	(0.0283)	(0.0298)	(0.0339)	(0.0345)	(0.0346)	
Voted FDR in previous election		0.370***	0.364***	0.394***	0.393***	0.428***
		(0.0221)	(0.0225)	(0.0236)	(0.0237)	(0.0500)
Occupation: Business			-0.142***	-0.143***	-0.143***	-0.401***
			(0.0545)	(0.0551)	(0.0553)	(0.0672)
Occupation: Skilled			0.0188	0.0101	0.00498	0.00468
			(0.0437)	(0.0444)	(0.0470)	(0.116)
Occupation: Unskilled			0.0475	0.0294	0.0251	0.145
			(0.0518)	(0.0527)	(0.0529)	(0.159)
Occupation: Unemployed			0.0628	0.0506	0.0523	0.257*
			(0.0665)	(0.0682)	(0.0684)	(0.151)
Occupation: None or Other			-0.0118	-0.0654	-0.0725	-0.0647
			(0.0508)	(0.0523)	(0.0525)	(0.109)
Age 17-20				0.192***	0.195***	0.103
				(0.0498)	(0.0507)	(0.116)
Age 21-24				0.00467	0.00697	-0.0642
				(0.0638)	(0.0642)	(0.134)
Age 25-34				-0.00130	-0.00265	-0.115
				(0.0418)	(0.0426)	(0.0839)
Age 35-44				0.0246	0.0236	-0.0563
				(0.0409)	(0.0415)	(0.0849)
Age 45-54				0.0362	0.0320	-0.112
				(0.0419)	(0.0421)	(0.0885)
Farm Area					-0.00713	-0.0563
					(0.0456)	(0.120)
Small Town Area					-0.0985*	-0.120
					(0.0597)	(0.136)
Number of Observations	1,971	1,971	1,971	1,971	1,971	453

Robust standard errors in parentheses
Marginal effects at means of independent variables
All regressions include a set of dummy variables for (US) state effects

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

voting preference is accounted for suggesting that support for President Roosevelt may have differed by gender.

Model III (c) introduces occupational dummy variables. The occupational class "Professional" is the reference category in this instance. The model shows that those in the occupational class "Business" were 14 percentage points less likely to support the policy relative to "Professionals". All other occupational categories were found to have a higher probability of responding "yes" relative to the "Professional" occupation category, although all but the "Business" category were statistically insignificant. As the majority of women belonged to the "None or Other" occupational category it is worthwhile estimating the combined effect of this occupation and gender. As before, simulations using the *Clarify* package for *Stata* based on model III (c) suggest that women in this category were 2 percentage points more likely to answer yes to this question relative to men in other occupations. However the effect is not statistically significant.

Different age group dummy variables are included in Model III (d). The results suggest that the reference category, those aged 55 and over, were relatively opposed to the policy. Also interesting is that those in the youngest age group (17-20) are 19 percentage points more likely to support the policy, a result that is statistically significant. That these results appear consistent with a life-cycle model of saving is not surprising; older people with higher savings would see the gold value of their savings decrease upon devaluation. The young on the other hand, with relatively fewer assets, have less to lose. Perhaps most importantly for this analysis is that the effect of being female becomes statistically significant once the age of the respondent is controlled for. The marginal effect indicates that women were 6 percentage points more likely to support the president's power to regulate the value of the dollar in terms of gold.

Model III (e) includes dummy variables relating to the type of settlement where the respondent lived. The omitted reference category is "Urban". Those living on farms and those in small towns would be less likely to support the policy relative to urban inhabitants, although only the latter effect is statistically significant. Again the effect of the "Female" variable is positive and significant. Finally Model III (f) includes only female respondents. The results suggest that the effects of the control variables such as occupation are similar for women as they are for the population overall.

The results of this survey analysis suggest that gender, occupation and age may have been important determinants of attitudes towards policies related to the maintenance of the gold standard. The results also suggest that gender may have been a good predictor of voting preference in the Presidential election of 1936. To further investigate this, table 4 gives the results of probit regression models with past voting preference as the dependent variable. These suggest that women were as much as 12 percentage points less likely to vote for President Roosevelt in the last election. This supports the argument of the previous chapter; that women were more likely to favour the Republican candidate in the interwar period. Perhaps not surprisingly, those in unskilled occupations and the unemployed were most likely to have voted for President Roosevelt while more surprisingly, the youngest voters were less likely to vote for Roosevelt than the over 55s. That urban voters were more likely to vote for Roosevelt is also evident. The combined effect for female and the "None or Other" occupational group is, based on Model IV(d) and calculated using the same simulation technique as before, suggests women in this category were 10 percentage points less likely to have voted for President Roosevelt.

Another issue related to the popularity of gold standard measures was the internal adjustment in the form of wage deflation that was required for the system to operate successfully. The popularity of wage adjustment is likely to differ across sections of the population. To

uncover these differences an analysis of the popularity of minimum wage legislation is undertaken. Question 5 of the October/November Gallup poll in 1937 asks "Should Congress pass a bill to provide for minimum wages and maximum hours?" The results of this analysis can be seen in table 5. Once more, voting for President Roosevelt in the previous election was a strong predictor of support for minimum wage legislation. So too was occupation, with support lowest in the "Professional" category. It is interesting to note that those in the "Unemployed" category were among the most likely to favour the legislation. Considering that one of the principal arguments against minimum wage legislation is that it leads to unemployment, this could be seen as a somewhat surprising result. Perhaps not so surprising is the finding that farmers and small-town inhabitants were relatively more opposed to minimum wage legislation than urban inhabitants, which would have had a higher proportion of wage earners. The marginal effect of age is negative and statistically significant indicating that support for minimum wage legislation decreased with age. This may be due to the fact that younger, less experienced workers may have benefited more from a minimum wage. The most revealing finding however is that women were about 6 percentage points more likely to express a preference for minimum wage legislation, a result that is highly significant across all specifications. The combined effect, based on Model V (e), of women and the "None or Other" occupation – the occupation to which most women belong – indicates that women in this occupational group were 24 percentage points more likely to support a bill for minimum wages and maximum hours. As wage adjustment was crucial to the successful operation of the gold standard, the granting of voting rights to women after the First World War could have shifted the distribution of policy preferences among the voting population towards policies at odds with the gold standard. This change in preferences may have contributed to a weakening of the commitment among policy makers to stay on gold.

Table 4

PROBIT MARGINAL EFFECTS

Gallup Poll, November 1936

Voted for President Roosevelt in Previous Election?

Dependent Variable = "Yes"

Variable	Model IV (a)	Model IV (b)	Model IV (c)	Model IV (d)	Model IV (e)
Female	-0.111***	-0.0182	-0.121***	-0.121***	*Women Only*
	(0.0230)	(0.0273)	(0.0313)	(0.0314)	
Occupation: Business		0.0271	0.0196	0.0188	0.282
		(0.0495)	(0.0495)	(0.0496)	(0.223)
Occupation: Skilled		0.0445	0.0681*	0.0813**	0.164
		(0.0377)	(0.0379)	(0.0403)	(0.114)
Occupation: Unskilled		0.164***	0.208***	0.208***	0.385***
		(0.0406)	(0.0380)	(0.0381)	(0.101)
Occupation: Unemployed		0.228***	0.251***	0.248***	0.469***
		(0.0468)	(0.0420)	(0.0424)	(0.0813)
Occupation: None or Other		-0.115***	0.0949**	0.0927**	0.187*
		(0.0423)	(0.0460)	(0.0464)	(0.101)
Age 21-24			-0.145***	-0.151***	-0.177*
			(0.0522)	(0.0526)	(0.0982)
Age 25-34			0.0675**	0.0577*	0.0442
			(0.0337)	(0.0345)	(0.0697)
Age 35-44			0.0816**	0.0746**	0.0873
			(0.0325)	(0.0329)	(0.0682)
Age 45-54			0.00719	0.00196	-0.136**
			(0.0335)	(0.0336)	(0.0673)
Farm Area				-0.0604	0.122
				(0.0380)	(0.0980)
Small Town Area				-0.113**	-0.0476
				(0.0536)	(0.128)
Number of Observations	2,720	2,720	2,467	2,467	637

Robust standard errors in parentheses
Marginal effects at means of independent variables
All regressions include a set of dummy variables for (US) state effects

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table 5

PROBIT MARGINAL EFFECTS

Gallup Poll, October/November 1937

"Should Congress pass a bill to provide for minimum wages and maximum hours?"

Dependent Variable = "Yes"

Variable	Model V (a)	Model V (b)	Model V (c)	Model V (d)	Model V (e)	Model V (f)
Female	0.0505***	0.0694***	0.0708***	0.0651***	0.0573***	*Women Only*
	(0.0192)	(0.0192)	(0.0193)	(0.0194)	(0.0195)	
Voted FDR in previous election		0.209***	0.192***	0.207***	0.207***	0.187***
		(0.0182)	(0.0183)	(0.0186)	(0.0186)	(0.0296)
Occupation: Business			0.0267	0.0411	0.0415	0.0939*
			(0.0362)	(0.0356)	(0.0356)	(0.0494)
Occupation: Skilled			0.120***	0.116***	0.115***	0.0730
			(0.0304)	(0.0306)	(0.0306)	(0.0484)
Occupation: Unskilled			0.209***	0.209***	0.208***	0.179***
			(0.0273)	(0.0273)	(0.0273)	(0.0424)
Occupation: Unemployed			0.201***	0.214***	0.213***	0.194***
			(0.0364)	(0.0331)	(0.0328)	(0.0436)
Occupation: None or Other			0.0456	0.0648**	0.191***	0.191***
			(0.0331)	(0.0326)	(0.0357)	(0.0488)
Age				-0.00351***	-0.00369***	-0.00346***
				(0.000651)	(0.000661)	(0.00115)
Farm Area					-0.231***	-0.228***
					(0.0460)	(0.0809)
Small Town Area					-0.0185	-0.114**
					(0.0306)	(0.0552)
Number of Observations	2,632	2,632	2,632	2,632	2,632	875

Robust standard errors in parentheses
Marginal effects at means of independent variables
All regressions include a set of dummy variables for (US) state effects

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Taken together, the results of the analyses of the survey questions point to a number of conclusions. Firstly, attitudes to minimum wages and government currency policy in the US during the 1930s differed between sections of the population. The evidence suggests that class and occupation were good predictors of attitudes towards wages and the manipulation of the value of the dollar in terms of gold. "Blue-collar" occupation categories were more likely to favour the increased rigidity of wages through the setting of minimum wages. The existence of a farm/urban divide among policy preferences is also supported. There is also some evidence that women had different attitudes to men. The results point to a greater appetite for minimum wages among women, a policy inconsistent with the successful operation of a gold standard system. The finding that women may have also been more likely to support the President's revaluation of the dollar in terms of gold is also notable. If these results can be seen as a general reflection of the way different sections of the population in other countries differed with regards to economic policies, then the enfranchisement of the working classes and women in many countries after the First World War, may have resulted in a shift in the preferences of the median voter towards those that were inconsistent with the gold standard. It should not be surprising then that the granting of full voting rights to British women in 1928, an act that extended the vote to young women without the previously stipulated property requirement, may have had a significant impact on the political environment of interwar Britain and even perhaps even contributed to the decision to exit the gold standard in 1931.

CROSS-COUNTRY DATA DESCRIPTION

Having examined differences in preferences at the individual level using survey-level data, the cross-country evidence of the link between voting rights and gold standard adherence is now explored. The data consist of a panel of 23 countries between the years 1919 and 1936. Due to data availability these countries are in the majority European, but observations are

also included from North and South America as well as from Africa and Asia. A full list of countries is included in the appendix. The dependent variable differs with the form of the model that is being estimated. In the probit model, the dependent variable indicates gold standard membership while in the two duration analyses the dependent variable identifies the year of departure from, and year of entry into the gold standard, respectively. Considerable debate surrounds the correct dating of adherence to gold and in particular the decision to leave gold.[131] In this analysis membership of the gold standard is based on the classification of Wandschneider with additional countries classified as by Eichengreen.[132] A country is counted as leaving the gold standard *de facto* if convertibility is suspended or if exchange controls are imposed, even if *de jure* adherence to the gold standard is still in place.

POLITICAL VARIABLES

The particular political circumstances faced by countries during the interwar years are expected to have influenced a country's ability, or willingness, to implement economic policies consistent with the maintenance of the gold standard system. For this reason a number of political variables are included in the analysis to capture the influence of varying levels of democratisation as well as different political systems and electoral pressures. As the effect of political factors will likely be conditional on how democratic the political systems of a country are, the Polity score measuring the level of democracy in a particular year is included as an important control. A variable capturing the number of government crises is also included in the analysis. It is expected that governments experiencing a large

[131] Wolf and Yousef, *Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard* 241-65.
[132] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151., Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* pp.188-89

number of crises would be more unstable and have a weak political position, factors likely to make achieving and maintaining gold standard membership more difficult. In a similar manner the number of cabinet changes might be seen as indicative of an unstable political system, and may be negatively related to maintaining gold standard membership. Equally however this weakness may hinder policy makers' ability to take a decisive policy move, such as would be needed to end gold standard membership. In addition, the number of strikes experienced each year is also included in the analysis. If industrial unrest was more severe it would likely increase the pressure on policy makers to prioritise domestic economic conditions.[133] As such greater strike activity might be expected to be associated with a lower likelihood of maintaining the gold standard.

The new political variables to be introduced to the analysis are the proportion of the population with the right to vote, the type of electoral system and dummy variables indicating whether an election took place in the previous year and two years previously, respectively.[134] The variable indicating the proportion of the population with the right to vote is intended to capture a key argument of this chapter: that a more extended franchise undermined the credibility of a government's commitment to external balance and therefore reduced the likelihood of gold standard adherence. A dummy variable indicating whether or not a country had granted voting rights to women is also considered to assess whether the impact of changes in voting rights on policy depended on who was enfranchised.[135] To test

[133] Wolf and Yousef, *Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard* 241-65.
[134] Due to the annual nature of the data and the coding of years on the gold standard, a dummy variable indicating if an election took place in the current year could not be introduced. As an election may have taken place before or after the decision to abandon gold was taken, the sequencing of events could not be determined using annual data. Including lagged election variables ensures that the order of events can be determined.
[135] Although a significant proportion of the change in the extent of the franchise was due to the granting of voting rights to women, the correlation between the two variables is not perfect (0.70).

whether the type of electoral system was an important factor, a dummy variable indicating whether or not a country had a proportional representation electoral system is also included.[136] Finally the dummy variables indicating whether an election was held in the recent past are intended to capture any significant electoral cycle influence on the decision to maintain the gold regime.

ECONOMIC VARIABLES

The economic control variables included in the fixed effects probit analysis of gold standard membership are (log) GDP per capita, a GDP weighted measure of the number of countries on gold, exports as a share of GDP, a variable indicating if a country's main trading partner is still on gold and a dummy variable indicating a year in which a banking panic occurred. Contemporaneous measures of economic performance are omitted due to the strong potential for endogeneity associated with these variables.[137] The level of GDP per capita is included however and is intended to capture a wealth effect that led to earlier adoption as suggested by Meissner with regard to the classical gold standard.[138] Higher income per capita is also likely to coincide with other favourable conditions such as a strong financial system and well developed institutions.[139] Due to the potential endogeneity of (log) GDP per capita, the lagged value of this variable is included.

The number of countries on gold can be considered an important control in the model in that it captures the network effects of being a member of the gold system. As the number of countries on gold increases, the benefits of membership are expected to also increase. As

[136] Whether a country had a PR system or not was generally consistent over time. Therefore identification using a country fixed effects approach is based on the small number of cases where the electoral system changed over time.
[137] GDP growth rates, as a measure of economic performance, were included in initial specification but were not found to be statistically significant.
[138] Meissner, *A New World Order: Explaining the International Diffusion of the Gold Standard, 1870–1913* 385-406.
[139] Michael D. Bordo and Marc Flandreau, 'Core, Periphery, Exchange Rate Regimes, and Globalization', in Anonymous (ed.), *Globalization in Historical Perspective* (2003)417-72.

the number of countries fall, so too do the network benefits of staying in the system. The relative importance of the countries on gold is weighted by the countries' economic size in terms of GDP. The variable indicating whether or not a country's principal trading partner was still on gold is also expected to capture this network effect, albeit in the sense of specific trade patterns. These positive network effects are thought to have decreased when countries left gold, not just through trade, but also because this weakened the dominance of the gold standard mentality and consequently the economic stigma of abandoning the system. The inclusion of a variable representing exports as a proportion of GDP, is intended to capture the theory that countries which were major traders had an incentive to maintain the gold standard, as membership was seen as a method to eliminate exchange rate risk and promote trade flows. However those countries which were major exporters may also have seen a greater benefit to abandoning gold and implementing a currency devaluation, which would have lowered the relative price of their exports in foreign markets.[140] The expected sign of the coefficient on this variable is therefore not determined *a priori*.[141]

Finally banking panics are expected to decrease the probability that a country remains on the gold standard as crises of this nature induced capital flight and reduced the ability of central banks to defend exchange rates.[142] No time invariant variables are included in this analysis as this would be inconsistent with a fixed effects approach.[143] A full description of the variables and their sources can be found in the appendix.

The empirical investigation into the determinants of interwar gold standard adherence will consist of three parts. The first part will examine the overall probability of

[140] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151.
[141] Imports as a proportion of GDP and Exports – Imports as a proportion of GDP were included in regressions not reported here. Neither measure of trade was found to be statistically significant.
[142] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression pp.18-19*
[143] Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, Ch. 10

being on gold between the years 1919 and 1936, the entire operational lifetime of the interwar system, using a fixed effects probit approach. The second will examine the determinants of the timing of the decision to leave gold after 1928 using survival analysis. The third part will examine whether the same factors that explain the timing of exit decisions can help to explain the timing of decisions to join the gold standard system during the 1920s, once more utilising a survival analysis framework.

The fixed effects probit model allows the probability of being on gold to be explored while controlling for unobserved heterogeneity. Simmons conducted an analysis of the probability of being on the gold standard using a probit binary choice model but country specific or year fixed effects were not taken into account.[144] The first part of this analysis therefore will mimic the binary choice approach undertaken by Simmons but will undertake a fixed effects probit model rather than a pooled probit model.[145] The inclusion of country and year fixed effects in this analysis is intended to avoid the problems associated with the presence of unobserved heterogeneity that is overlooked by simply adopting a pooled binary choice model for panel data sets.[146] The inclusion of additional variables relating to the extent of the franchise, political system and the electoral cycle also capture potentially important determinants omitted from this analysis.

The use of survival analysis is closely related to the approaches of Holger Wolf & Tarik Yousef, Kirsten Wandschneider and Nikolaus Wolf in their investigations into the

[144] Simmons, *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years, 1923-1939* Ch.4

[145] The inclusion of fixed effects in non-linear model has been indicated to give rise to the incidental paramaters problem. However, William Greene suggests that this is not problematic given the time period dimension of the panel data explored here. W. Greene, 'The Behaviour of the Maximum Likelihood Estimator of Limited Dependent Variable Models in the Presence of Fixed Effects', *Econometrics Journal,* Vol. 7 (No. 1, 2004) 98-119. A fixed effects Logit model was also employed yielding very similar results.

[146] J. Wooldridge, *Econometric Analysis of Cross Section and Panel Data* (Cambridge, 2002) Ch.10

timing of exit from the interwar standard.[147] This approach also resembles that of Kris Meissner in explaining the timing of entry into the classical gold standard.[148] Survival models estimate the time-conditional probability, or hazard rate, of a transition from one state to another as a function of cross-sectional and time series variation in a number of explanatory variables. In this case the transition is from being on the gold standard to having left the system for the first element of the analysis, and from being off gold initially to joining the gold standard system in the second part. The advantage of survival analysis over a simple probit specification is that it takes into account the recent history leading up to the event.[149] Following Jenkins, a discrete time approximation of the Weibull parameterisation of the hazard rate is assumed.[150] This is achieved by including the natural log of the survival time *t* per country as a regressor. If the coefficient on this variable is significant and greater than one then the increasing hazard parameterisation is deemed correct. The model is then estimated by maximum likelihood using a complementary log-log form of the hazard function, which is equivalent to the continuous time proportional hazard model. According to Wolf, this increasing hazard parameterisation is appropriate as it captures the theory that the probability of exit increases with the time already spent on gold.[151] Again, these analyses will also improve upon previous investigations in important areas, by including variables relating to the extent of the franchise, the political system and the electoral cycle.

---

[147] Wolf and Yousef, *Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard* 241-65., Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151., Wolf, *Scylla and Charybdis. Explaining Europe's Exit from Gold, January 1928–December 1936* 383-401.

[148] C.M. Meissner, 'A New World Order: Explaining the International Diffusion of the Gold Standard, 1870–1913', *Journal of International Economics,* Vol. 66 (No. 2, 2005) 385-406.

[149] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151.

[150] S.P. Jenkins, 'Easy Estimation Methods for Discrete-Time Duration Models', *Oxford Bulletin of Economics and Statistics,* Vol. 57 (No. 1, 1995) 129-36.

[151] Wolf, *Scylla and Charybdis. Explaining Europe's Exit from Gold, January 1928–December 1936* 383-401.

CROSS-COUNTRY REGRESSION ANALYSIS

FIXED EFFECTS PROBIT ANALYSIS

The starting point for the analysis is the examination of the overall probability of being on the gold standard for 23 countries between the years 1919 and 1936.[152] The marginal effects relating to nine different specifications of the fixed effects probit model can be seen in Table 6. Model VI (a) isolates the effect of different levels of franchise extension while controlling for the degree of economic development, as measured by the log of GDP per capita in the previous year, as well as country fixed effects. Model VI (b) includes year fixed effects dummy variables to further control for unobserved heterogeneity. The variable capturing "intensive" democracy (Polity score) and the number of countries on gold, are added in model VI (c). As these variables are thought to be key controls, model VI (c) and model VI (d) give the baseline specification excluding year fixed effects and including year fixed effects respectively. The marginal effects indicate that higher levels of GDP per capita increased the probability of a country being on the gold standard. So too did the number and economic importance of countries still on gold. In model VI (c) both these variables are highly significant and indicate that the level of development and the existence of network effects made adherence to the gold standard less difficult. When year fixed effects are included in model VI (d) however the countries on gold variable must be dropped (as it only varies across time and not between countries) and the GDP per capita variable loses statistical significance. With regard to the variables that are the principal focus of the analysis – those capturing democracy - the higher the level of franchise extension the lower the probability that a country was on gold during the sample. This result is significant even after controlling for the level of democratic competitiveness as captured by the polity variable, which is positive but not statistically significant in model (d). This suggests that

[152] The year 1936 is not included as all countries had left gold by the end of this year.

Table 6

TABLE 1: FIXED EFFECTS PROBIT MARGINAL EFFECTS (Dependent Variable: "On the Gold Standard")

VarVIable	Model VI (a)	Model VI (b)	Model VI (c)	Model VI (d)	Model VI (e)	Model VI (f)	Model VI (g)	Model VI (h)	Model VI (VI)
Log GDP per capita (lagged)	2.569***	1.276	2.131***	1.264	0.930	1.483	1.382	1.366	1.854
	(0.520)	(1.120)	(0.723)	(1.183)	(1.097)	(1.273)	(1.322)	(1.146)	(1.401)
Log Franchise	-0.683*	-1.019*	-0.595	-1.131**	-1.057*	-1.231**	-2.409***	-1.546***	-3.152***
	(0.395)	(0.576)	(0.433)	(0.551)	(0.620)	(0.559)	(0.740)	(0.569)	(0.756)
Polity			0.308	1.027*	1.150	1.283**	1.754*	1.086	2.215**
			(0.775)	(0.624)	(0.793)	(0.518)	(0.945)	(0.703)	(0.925)
Countries on Gold			1.787***						
			(0.335)						
Log Exports/GDP					0.168				
					(0.289)				
Main Trading Partner					-0.315				
					(0.233)				
Banking Panic					0.107				
					(0.149)				
Strikes						0.0732			
						(0.125)			
Government Crises						-0.192**			-0.294***
						(0.0828)			(0.0869)
Cabinet Changes						0.00397			
						(0.0675)			
Proportional Representation							-3.246***		-5.651***
							(1.171)		(1.407)
Election Last Year							-0.307***		-0.397***
							(0.104)		(0.122)
Election 2 Years Ago							-0.246***		-0.341***
							(0.0923)		(0.110)
Female Vote							0.541	2.181***	5.724***
							(0.613)	(0.517)	(1.128)
*Franchise*Female Vote*								-0.511***	-1.645***
								(0.138)	(0.348)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	NO	YES	YES	YES	YES	YES	YES
Pseudo R-squared	0.274	0.631	0.565	0.640	0.641	0.655	0.655	0.651	0.697
AIC	331.923	200.483	204.334	198.364	200.046	197.871	187.886	197.770	171.792
BIC	339.521	265.068	219.531	266.748	279.312	277.652	262.681	273.751	250.328
Number of Observations	330	330	330	330	322	330	311	330	311

Marginal effects at means of independent variables * indicates significance at 10% ** indicates significance at 5% *** indicates significance at 1%

the inclusion of a measure of franchise extension is an important addition. The degree of democratic openness and competitiveness, as captured by the polity score, seems to be associated with a higher likelihood of gold standard membership while the extent of the franchise is associated with the opposite effect. Clearly, how democracy is defined and indeed which aspect of democracy is being considered, has important implications for the ability or willingness to maintain gold standard membership.

Model VI (e) extends the baseline model to include some potentially important economic control variables. The ratio of exports to GDP variable has a positive coefficient, perhaps indicating that the prospect of trade stability was more appealing to export reliant countries than the policy of devaluation, but the coefficient is not statistically significant. The coefficients on the variables signifying whether or not a country's main trading partner had left the gold standard and the banking crisis variable are also not statistically significant.

Model VI (f) introduces some of the domestic political factors that may have influenced a country's willingness or ability to adhere to the gold standard. The number of strikes, government crises and cabinet changes taken from the Bank's CNTS data set are also included.[153] The government crises variable has the predicted sign and is statistically significant. A greater incidence of government crises reduced the probability of being on gold. The number of strikes and cabinet changes are not found to be statistically significant however.

The variables representing the electoral system and the timing of elections are included in Model VI (g). The results indicate that proportional representation electoral systems, were less likely to be on gold, all else being equal. This lends some support to the

[153] A.S. Banks, *Cross-National Time-Series Data Archive*, http://www.databanksinternational.com (Jerusalem, Israel, 2011)

idea that governments in countries with proportional representation systems were more unstable

and were therefore less able to take decisive action to maintain the system once gold standard membership became threatened. However this result could also be interpreted as PR systems being associated with more decisiveness when leaving the system. An exact explanation for the result is therefore unclear. The model also includes a variable indicating whether or not women had the right to vote: the coefficient is positive but not statistically significant.[154] Interestingly, after controlling for these political variables in models VI (f) and model (g), the polity score variable is positive and statistically significant. This could be seen as evidence against the view that countries with more democratic institutions found it more difficult to adhere to the gold standard, echoing a similar finding in Wolf and Youseff.[155] Despite this however the coefficient on the franchise variable remains negative and statistically significant. Both of the dummy variables indicating that an election was held in the previous year and two years previously are negative and statistically significant, suggesting that a country was less likely to be on gold if an election had been held in the recent past. The magnitude of the effect is slightly greater if an election was held in the previous year, as might be expected.[156] Thus there is some evidence that the timing of gold standard entry and exit decisions, may have been influenced by electoral cycle considerations.

---

[154] An alternative set of results whereby Female Vote equals one from the first election in which women were entitled to vote is given in the appendix. This definition of the *Female Vote* variable however yields insignificant coefficients.

[155] Wolf and Yousef, *Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard* 241-65.

[156] Variables indicating when elections were held three and four years earlier were also included in regressions not reported here. These results suggest a fading effect of the influence of recent elections over time, although neither was statistically significant. A variable indicating the length of time since an election took place was found to be insignificant also, as was an interaction effect between the franchise variable and the dummy variable indicating an election had taken place in the previous year.

Model VI (h) extends the baseline model VI (d) to include an interaction term between the franchise variable and the female vote dummy. As the franchise variable naturally increases when women are given the vote, it is important to consider the effects of increasing the franchise both when women can and can't vote. The interaction term is negative and highly significant indicating that when women were already entitled to vote, the effect of increasing the franchise had an even greater negative effect on the probability of being gold than when women could not vote.

The final model (Model VI (i)) combines the baseline model with the various other political and economic variables that were found to be statistically significant in the previous specifications.[157] Reassuringly, all of the variables found to be significant in the individual regressions remain statistically significant in the combined model, further strengthening the results.

Following the analysis of the probit models it is also important to assess the magnitude of the effects of the variables in the various models, with a particular focus on the variables capturing democracy. To do this, changes in predicted probabilities are calculated using the *Clarify* package in *STATA.*[158] Using the specification in model VI (d) and holding all other variables at their mean values, indicates that an increase in the franchise from its mean by one standard deviation reduces the probability of being on gold by 35 percentage points (standard error =0.08). Holding the franchise at its mean value, an increase in the scaled polity score variable from its mean to its maximum value (approximately a one standard deviation increase) increases the probability of being on gold by 23 percentage points (standard error =0.13). The net effect of both increases occurring together reduces the

[157] A specification with all variables included on the right-hand side yields similar results.
[158] M. Tomz, J. Wittenberg and G. King, 'CLARIFY: Software for Interpreting and Presenting Statistical Results', *Journal of Statistical Software,* Vol. 8 (No. 1, 2003) 1-30.

probability of being on gold by 27 percentage points (standard error =0.13). Clearly changes in the franchise have large effects.

In an attempt to further separate the effects of the female vote from the male franchise, and to perhaps better understand the relative importance of these two aspects of franchise extension, changes in predicted probabilities are calculated, this time taking into account the franchise variable, the female vote dummy and the interaction term between them. The regression model used to calculate these probabilities is based on model (h) in table 6. Firstly, to approximate the impact of changes to the male franchise, the effect of a change in the predicted probability of being on the gold standard when the franchise changes from its minimum value to its mean value when women could not note (approximately an increase in those entitled to vote from 5% to 25%) with the Female Vote variable and the interaction term set to zero, and all other variables set to their means. This simulates a change from a very restricted to a more widespread male franchise. The results indicate that such a change in the franchise reduces the probability of being on gold by 13% (standard error =0.12). In order to examine the effect of the female vote on the probability of being on the gold standard, we allow the franchise variable to change from its pre-female suffrage mean value (25%) to its maximum post-female suffrage value (68%). Simultaneously the effect of the female vote variable changing from zero to one (and the interaction effect going from zero to its maximum value) is also assessed. All other variables are set to their mean values. In this way the effect of the granting of universal female suffrage can be approximated. Such a change reduces the probability of being on the gold standard by 86%, a very large effect. Overall, there is evidence that extensions of the franchise to both genders reduced the probability of being on the gold standard and that effects of giving women the vote appear to have been substantial.

The results of the fixed effects probit analysis suggests that a number of economic and political variables influenced the probability of being on the gold standard. Of most significance however is that in all specifications, the baseline results are largely consistent. Even after controlling for several different explanatory factors and unobserved heterogeneity, the extent of voting rights variable is in all cases negative and significant, indicating that more extended voting rights were associated with a lower probability of being on the gold standard during the interwar years. The inclusion of the variables capturing the extent of the franchise therefore represents an improvement over previous analyses that use measures of democracy that fail to take into account the level of franchise extension. The finding that the effect of the extent of the franchise and the Polity measure of democratic openness and competitiveness may have run in different directions with respect to gold standard adherence, is of particular importance. In addition, a number of the political control variables produce interesting results. That proportional representation electoral systems were associated with a lower likelihood of being on gold, and that the electoral cycle may have influenced decisions regarding gold standard adherence, reinforces the idea that gold standard membership was a political and not just an economic decision.

DURATION ANALYSIS OF LEAVING THE GOLD STANDARD, 1928-1936

So far the analysis has examined the overall probability of being on the gold standard during the interwar period. The fixed effects probit analysis indicates that many of the factors thought to have influenced gold standard adherence indeed did so. Most notably, a broader franchise is associated with a lower probability of being on the gold standard while more democratic institutions, as measured by the polity score, are associated with a higher probability of being on gold. A more specific question regarding the timing of exit decisions from the gold system can however be addressed using a duration analysis approach. In addition, unlike in the previous fixed effects probit approach, time invariant variables are

now included allowing for an assessment of a number of additional variables. These include dummy variables for whether a country was on average a net creditor over the period or had a prior history of high inflation. The variables relating to intensive and extensive measures of democracy remain however the principal focus of the analysis.

The variable indicating creditor status is expected to be important as heavily indebted countries had much less room for manoeuvre when a crisis hit.[159] In both Wandschneider and Wolf & Yousef, creditor countries were found to have lasted longer on the interwar gold standard than debtor nations.[160] The experience of high inflation during the 1920s in many countries also had an enduring legacy. A number of countries had suffered high or even hyperinflation in the years of free floating exchange rates immediately following the First World War. When prices were finally stabilised and convertibility reestablished, the view that the gold standard was synonymous with price stability became entrenched in the minds of many policy makers and indeed among sections of the general public. In countries where high inflation had occured, the fear persisted that leaving gold would result in a return to inflation.[161] As a result, a history of high inflation is expected to have reduced the likelihood of leaving the gold standard.

The results of the duration analysis of the decision to leave gold can be seen in table 7. As the number of countries on the interwar gold standard peaked in 1928, the decison to exit gold between 1928 and the end of the system in 1936 is viewed over this specific time period. Therefore all countries begin on gold, leave once, and never re-enter the sample.

[159] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* p.68
[160] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151., Wolf and Yousef, *Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard* 241-65.
[161] H.J. Voth, 'Inflationary Expectations during Germany's Great Slump', *Economics Working Papers, Department of Economics and Business, Universitat Pompeu Fabra.*, No. 333, 1998)

This simplifies the analysis as only one event is considered.[162] In all specifications the coefficient on the baseline hazard rate has a value greater than one and is statistically significant. This confirms the increasing hazard rate assumption discussed earlier.

Model VII (a) represents the baseline model, now including whether a country was a net creditor over the period as an important control. The lagged value of (log) GDP per capita, has a positive sign but is not statistically significant. Being a net creditor over the period is is associated with staying longer on gold as predicted, an effect that is highly significant. Creditor nations were more likely to remain on gold, all else being equal. Interestingly, higher Polity scores are assoicated with a higher likelihood of leaving the gold standard. This result, the opposite to the effect uncovered in the analysis of being on the gold standard overall in the previous section, suggests that the effect of the openness of the political system may be different when examining the decision to leave the gold standard. Again, after controling for the openness and competitivenees of democratic institutions and creditor/debtor status, there is evidence that a more extended franchise increased the likelihood of leaving gold. That the effect of the franchise is consistent across the survival analysis and the analysis of the overall likelihood of being on gold while the Polity measure of democracy is not, highlights the importance of including the franchise variable in the analysis.

Model VII (b) adds potentially important economic control variables to the baseline model, namely exports as a proportion of GDP and dummy variables indicating whether a country experiened a banking panic or had a history of high inflation. None of these variables are statistically significant. After controlling for these economic variables however the polity and creditor variables remain statistically significant.

[162] S.P. Jenkins, 'Survival Analysis', *Mimeo,* (2005)

Table 7

SURVIVAL ANALYSIS RESULTS
Dependent Variable: "Leaving the Gold Standard"

Variable	Model VII (a)	Model VII (b)	Model VII (c)	Model VII (d)	Model VII (e)	Model VII (f)
Log GDP per capita (lagged)	0.386	-1.129	0.556	0.0129	-0.193	-0.546
	(0.917)	(1.189)	(0.935)	(0.857)	(0.936)	(0.807)
Log Franchise	0.301	1.176	0.182	0.916*	-1.107	-1.515
	(0.393)	(0.766)	(0.420)	(0.537)	(0.984)	(1.196)
Polity	3.360**	4.140**	3.697***	4.589**	5.211**	7.197**
	(1.307)	(1.858)	(1.407)	(1.922)	(2.197)	(3.114)
Creditor	-3.351***	-3.636***	-4.143***	-4.463***	-4.431***	-6.071***
	(0.860)	(1.013)	(0.883)	(1.298)	(1.597)	(2.313)
Log Exports/GDP		-0.467				
		(0.486)				
High Inflation		0.211				
		(0.633)				
Banking Panic		0.0199				
		(0.585)				
Strikes			1.309**			2.035*
			(0.532)			(1.049)
Government Crises			-0.0536			
			(0.152)			
Cabinet Changes			0.179			
			(0.278)			
Proportional Representation				-0.935		
				(0.642)		
Election Last Year				1.231**		1.283**
				(0.515)		(0.578)
Election 2 Years Ago				0.102		
				(0.641)		
Female Vote				-1.110	-7.811**	-8.759**
				(0.714)	(3.626)	(4.317)
*Franchise*Female Vote*					1.970*	2.131*
					(1.101)	(1.227)
Constant	-9.953	-2.730	-11.50	-9.634	-1.598	0.297
	(7.177)	(6.279)	(7.274)	(6.661)	(6.659)	(6.277)
(log) Time	2.602***	3.156**	2.833***	3.196***	3.081***	3.890***
	(0.865)	(1.365)	(0.937)	(1.048)	(0.985)	(1.374)
Pseudo R-squared	0.264	0.334	0.317	0.358	0.295	0.416
AIC	88.44776	83.10421	88.89134	86.64216	89.20037	80.63604
BIC	103.896	105.6025	112.0637	112.3893	109.7981	106.3831
Number of Observations	97	90	97	97	97	97

Robust standard errors in parentheses

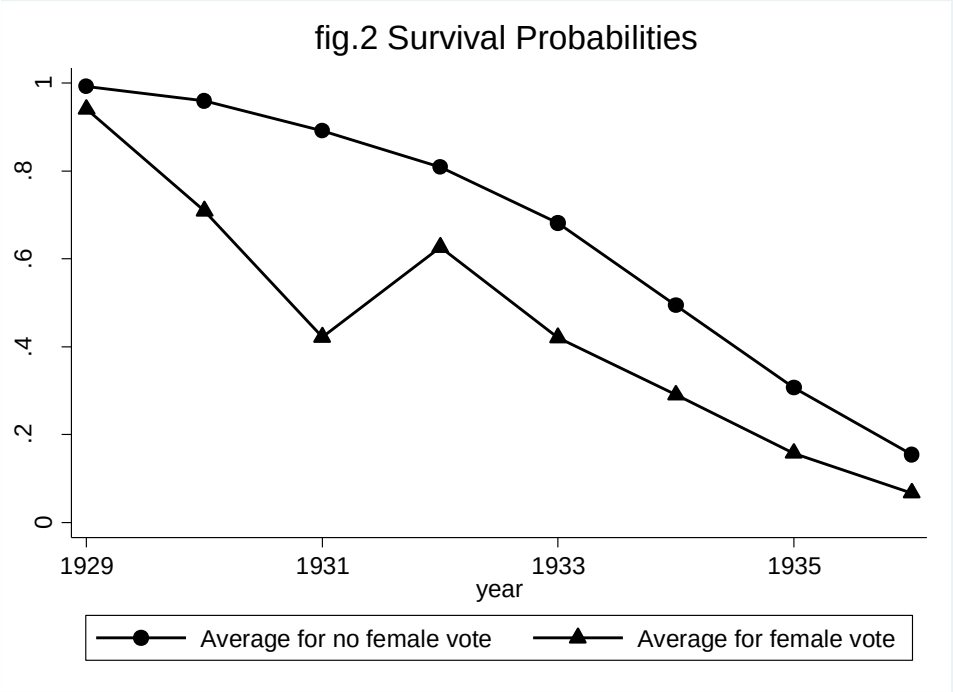
*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

The variables capturing domestic political conditions are included in Model VII (c). The level of strike activity has a positive effect on the likelihood of leaving gold, indicating that domestic industrial disputes may have made staying on the gold standard a more difficult policy to maintain. In addition, the government crises variable is negative but not statistically significant.

The electoral cycle dummy variables included in Model VII (d) have an interesting interpretation. Those countries which held an election in the previous year were more likely to leave the gold standard system. Countries in which elections were held two years previously were also more likely to leave, although this effect was not significant. These results point to the importance of the electoral cycle in determining the timing of exit decisions from the interwar gold standard. The decision to leave the system was more likely to happen in the year following an election. The effect of the electoral system on the decision to leave the gold standard is not statistically significant. Model (d) also contains the variable indicating whether women had been granted equal voting rights. The coefficient is negative but not statistically significant. However the coefficient on the franchise variable is now statistically significant. A one standard deviation increase in (log) franchise results in a exp(0.513*0.916)-1 = 60% "higher risk" of leaving the gold standard while a one standard deviation increase in the adjusted polity score increased the risk of leaving by (exp(0.331*4.589) – 1) = 357%, ceterus paribus. These are large effects and clearly highlight the role of political aspects in the breakdown of the interwar gold standard.

Model VII (e) adds the interaction between the franchise variable and the female vote to the baseline specification. The interaction term is positive and significant indicating that when women were entitled to vote the effect of increasing the franchise had a more positive effect on the likelihood of leaving gold. In order to examine the effect of the female vote more closely, the 'survival' probabilities of each country are first calculated using the

baseline model. Then the average 'survival' probability is calculated for each year for countries that had and had not granted voting rights to women respectively. The results can be seen in fig. 2. This shows that the average 'survival' probability for countries that had granted women the vote is always below that of countries that had not extended the right to vote to women. This suggests that the granting of voting rights to women corresponds to a lower probability of remaing on the gold standard. Finally, Model VII (f) includes all the variables found to be significant in the previous specifications. The conclusions based on the previous regressions remain unaltered.



DURATION ANALYSIS OF JOINING THE GOLD STANDARD, 1919-1928

Having established a number of factors that appear to have influenced the likelihood of being on the gold standard overall during the sample period, as well as examining those that influenced the timing of exit decisions after 1928, it is worth investigating if these same factors worked in the opposite direction when it came to the decision to return to the gold standard after the First World War. The question is therefore whether or not the timing of a

return to gold was conditioned by the different political and economic characteristics of individual countries. To examine these factors duration analysis is again utilised, this time treating the "event" as the return to the gold standard. The sample begins in 1919, when only the United States was a member of the system and ends in 1928, by which time all countries in the sample had joined. The same parameterisation of the hazard rate is assumed and the explanatory variables are the same as those considered in the previous duration analysis. The results of the various specifications of this model can be seen in table 8. Overall the results of this analysis are less conclusive than that of the decision to leave the gold standard. This suggests that a different set of factors was responsible for determining the timing of entry decisions. A possible explanation for this is that many of the determinants found to be significant in the exit model may only be binding in times of crisis. The sensitivity of electorates to deflationary policies is likely much greater when unemployment is already high. The Great Depression was an economic crisis the like of which had never been experienced before and placed a huge amount of pressure on policy makers and political institutions. In the absence of an economic crisis, political constraints may not have played such an important role.

The analysis does provide some results worthy of report however. In general, countries with higher GDP per capita were likely to join the gold standard earlier. This is consistent with the finding of Meissner, that higher income countries adopted the classical gold standard earlier during the 19th Century.[163] A history of high inflation also appears to have hastened a return to gold. With gold standard membership offering the promise of price stability, countries that had experienced the trauma of high or hyper-inflation during the early 1920s were keen to restore gold convertibility.[164] As with the decision to leave the gold

[163] Meissner, *A New World Order: Explaining the International Diffusion of the Gold Standard, 1870–1913* 385-406.
[164] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* Ch.5

Table 8

SURVIVAL ANALYSIS RESULTS
Dependent Variable: "Joining the Gold Standard"

Variable	Model VIII (a)	Model VIII (b)	Model VIII (c)	Model VIII (d)	Model VIII (e)	Model VIII (f)
Log GDP per capita (lagged)	1.441*	2.376*	2.540	2.660	2.415*	1.994
	(0.817)	(1.436)	(1.590)	(1.684)	(1.417)	(1.455)
Log Franchise	0.488	-0.133	-0.398	-0.595	-0.961	-0.263
	(1.038)	(1.298)	(1.072)	(1.843)	(1.537)	(1.085)
Polity	-0.148	0.862	-0.0610	-0.410	-0.514	0.632
	(1.256)	(2.264)	(1.330)	(1.739)	(1.646)	(1.639)
Creditor	0.595	0.696	2.742**	1.484*	1.848**	2.027**
	(0.536)	(1.032)	(1.294)	(0.806)	(0.802)	(0.930)
High Inflation		4.672***	8.863***	4.555***	4.430***	6.793***
		(1.181)	(2.835)	(1.446)	(1.552)	(1.457)
Log Exports/GDP		-0.195				
		(0.621)				
Banking Panic		-0.0673				
		(0.894)				
Strikes			-0.388			
			(0.532)			
Government Crises			-1.012**			-0.651***
			(0.450)			(0.200)
Cabinet Changes			0.809			
			(0.501)			
Proportional Representation				-0.110		
				(0.577)		
Election Last Year				-0.137		
				(0.538)		
Election 2 Years Ago				-0.970		
				(0.699)		
Female Vote				0.923	-16.36	
				(1.651)	(27.75)	
*Franchise*Female Vote*					4.495	
					(7.169)	
Constant	-23.37***	-35.07***	-38.48***	-34.90**	-32.87**	-32.72**
	(8.031)	(13.07)	(14.28)	(15.46)	(13.76)	(13.56)
(log) Time	4.921***	7.531***	9.418***	7.668***	8.011***	8.447***
	(1.201)	(1.543)	(2.635)	(1.777)	(1.646)	(1.913)
Pseudo R-squared	0.381	0.510	0.596	0.522	0.533	0.570
AIC	77.973	67.745	63.084	69.877	67.768	61.798
BIC	94.943	92.832	91.367	99.278	93.223	84.424
Number of Observations	125	120	125	107	125	125

Robust standard errors in parentheses

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

standard in the 1930s, government crises may also have influenced the decision to adopt gold in the 1920s. Overall these results indicate that economic considerations, such as creditor status and experience of high inflation, were perhaps more important than domestic political factors in determining the resurrection of the gold standard after the First World War.

DRAWING TOGETHER THE ANALYSES

The three strands of the analysis explore the different economic and political factors that determined the overall probability of being a gold standard member during the operational life of the system, as well as the timing of the decision to re-establish and subsequently abandon the gold monetary system. It remains however to weave these strands together to attain a better understanding of why some countries acted differently to others and why the interwar system failed to endure as long as its classical counterpart. Bringing together the results of all three models, there appears to be a number of elements that are key to determining adherence to gold during the interwar years. More economically developed countries entered the system earlier, stayed longer and left later. Richer countries had more room to manoeuvre when it came to implementing policy under the gold standard. Similarly, creditors had more to gain from the maintenance of the system. The analysis shows that whether a country was a creditor or a debtor had a significant influence on a country's ability and willingness to maintain membership. A history of high inflation also seems to have influenced the choice of exchange rate regime, with countries that had seen the devastating effects of high inflation more eager to re-join the gold standard in the 1920s. Furthermore, the inclusion of not previously tested political variables provides some useful insights. The findings support the theory that the degree of proportionality of the electoral system may have influenced adherence to the gold standard. By examining the timing of elections,

further information can be gleaned as to the interplay of economic policies and political considerations. Countries were more likely to be on gold if an election had taken place in the previous two years. The principal aim of this analysis is however to explore the link between the extension of voting rights and adherence to gold, something that has been highlighted as one of the major differences between the political environment of the interwar period and that of the classical gold standard. Indeed, this analysis does uncover such a link. The inclusion of the variable capturing the extent of the franchise has shown the importance of this variable to the political economy of the period. Countries in which a greater proportion of the population had the right to vote were less likely to be on gold during the interwar years. Moreover, there is also some evidence that a higher level of franchise extension may have increased the likelihood of abandoning the gold standard at an earlier date. The fact that this measure of democracy is found to be consistent across the different analyses, while the Polity score measure of democracy is found to be inconsistent, highlights both the importance of considering the effect of changes in voting rights as well as the failure of the Polity measure of democracy to capture the effects of changing voting rights. The results therefore highlight the important difference between the extent of democracy in terms of voting rights and the degree of openness of democratic institutions. In addition the impact of the extension of the franchise to women is assessed through the inclusion of a dummy variable and its interaction with the franchise variable. The evidence suggests that the granting of voting rights to women may be an important aspect in understanding the failure of the interwar gold standard.

3.4 CONCLUDING REMARKS

Throughout the 1920s policy makers harkened back to the perceived success of the classical gold standard and were eager to return to the macroeconomic stability that they attributed to

it. The post-war inflation which a number of countries experienced highlighted in policy makers' eyes the dangers of free floating exchange rates. The discipline of the gold standard was the only way to bring calm and balance to the interwar world economy, they believed. However the world in which the classical gold standard appeared to flourish had changed dramatically. The First World War hastened many of the changes in political and economic power that had begun to take place towards the end of the 19th Century. Increased democracy and the organisation of labour had introduced constraints on policy makers that had not existed before. Voting rights had been extended to the working classes and to women in many countries, creating a shift in the political landscape that contributed to a reprioritisation of government policies. No longer would the credibility of governments commitments to the prescriptions of the gold standard system be beyond question. Ultimately, when these prescriptions clashed with the demands of the domestic economy the breakdown of the gold standard system would result. However, the political landscape was different in every country. This analysis has shown that the level of franchise extension – including whether or not the vote had been extended to women – was likely to have had an effect on the ability, or willingness, of policy makers to maintain the gold standard during the interwar period. Furthermore, that the age, social class and gender composition of the electorate was important in determining attitudes towards policies consistent with the gold standard is revealed by interwar public opinion surveys. This represents further evidence that the changes in the franchise that occurred after the First World War are crucial to understanding the failure of the interwar gold standard.

CHAPTER IV WOMEN VOTERS AND PARTY PREFERENCE IN WEIMAR GERMANY

4.1 INTRODUCTION

On the 12th of November 1918, one day after the last shots of the Great War were fired, the revolutionary Council of People's Deputies issued a decree granting all German women over the age of twenty the right to vote on an equal footing to men. A section of this decree also allowed, but did not make compulsory, the separate counting of the votes of men and women. Despite the extra effort and expense of separating ballots by gender many districts did indeed do so, resulting in a unique record of women's voting in the nascent democracy that emerged following the Great War. The fact that women were now active participants in the political sphere could not be ignored by the political parties, as they jostled for support from this new constituency that outnumbered men in terms of those eligible to vote.[165] Nonetheless a clear picture of how women behaved as political actors was difficult for party strategists to establish and indeed remains somewhat elusive to this day. This chapter explores the differences between how men and women voted in Weimar Germany, with a specific focus on the national elections of 1928 and 1930. These years' election results provide the most complete record of women's voting across Germany and therefore represent the best opportunity to gain an insight into the voting prefernces of women in Weimar Germany. Following the approach of King *et al* election results are combined with census data to make ecological inferences about the particular nature of women voters, with regard to key electoral factors such as class and religion.[166] Although these data have been examined previously, either at the level of descriptive statistics or employed in rudimentary

[165] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal* pp. 289-310.
[166] G. King, O. Rosen, M. Tanner, et al., 'Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler', *The Journal of Economic History,* Vol. 68 (No. 04, 2008) 951.

ecological regressions, the combination of these data with census information and the use of improved methods of ecological inference represent a novel approach to the examination of differences between the voting behaviour of men and women in Weimar Germany.[167]

4.2 BACKGROUND

WOMEN IN WEIMAR GERMANY

The economic and social environment into which Germany's newly enfranchised women took their first electoral steps was one of uncertainty, instability and rapid change. It was also a society that was demographically unbalanced. The losses of the First World War had ensured that that there were 2 million more women than men in the new republic. Indeed much of the excess in the female population was made up by the economically important 25-40 age group, in which the female population exceeded that of the male by 1¼ million. This shortfall in the male population had a pronounced impact on the marriage rate. 68% of adult males in 1925 were married compared with only 60% of women. The same census showed that there were almost 3 million widows. These two factors together contributed to a marked increase in the number of independent households. While the population increased by 12.8% between 1910 and 1933, the number of households increased by 39%. The demographic shock of the war left a great many women who wished to marry unable to do so, as well as leaving an increased number of households without a male head. This situation ensured that many women, who would otherwise have stayed in the home, were forced to seek paid employment.[168]

[167] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal*pp. 289-310., W.P. Shively, 'Party Identification, Party Choice, and Voting Stability: The Weimar Case', *The American Political Science Review*, Vol. 66 (No. 4, 1972)pp. 1203-1225.
[168] T. Mason, 'Women in Germany, 1925–1940: Family, Welfare and Work. Part I', *History Workshop Journal*, Vol. 1 (No. 1, 1976) 74-113.

The devastation of the war also distorted the relative sizes of the male and female electorate, with women voters outnumbering men by over 2 million in 1925.[169] Initial enthusiasm following the extension of suffrage to women ensured that the turnout of male voters was most likely only slightly greater than that of female voters in the election of 1919. However, during the course of the 1920's the number of women turning out to vote began to decline before beginning to recover again in the troubled years of the early 1930s. Despite this lower turnout, the evidence suggests that due to the greater number of women in the electorate, the number of women's votes was greater than that of men's throughout the Weimar years.[170] These newly enfranchised women therefore represented an important constituency to be courted.

The granting of women's voting rights came as something of a surprise in 1918, being the product of revolution and not of the relatively weak pre-war German suffrage movement.[171] The various political parties, most of which had opposed female suffrage before the war, had to react quickly to this new political milieu. Little was known about how women would vote, and indeed to what extent they would vote as a distinct constituency. Relatively weak efforts were made however to target women as a group directly, with most parties tending to address their electoral materials according to traditional class divisions. Still, it is estimated that between 10% and 25% of election materials of all parties were aimed directly at women as a voting group.[172] The traditional view of women as the guardians of society's virtue still dominated the campaigns of the 1920s and early 1930s, particularly for the parties of the centre and right of the political spectrum. The long held

[169] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal*pp. 289-310.
[170] In areas were men and women's votes were counted separately from 1928 the number of votes cast by women exceeded those cast by men.
[171] J. Sneeringer, *Winning Women's Votes: Propaganda and Politics in Weimar Germany* (2002) p.4
[172] ibid. p.7

definition of the female sphere of "*Kinder, Küche, Kirche*" (*Children, Kitchen, Church*) prevailed and was utilised by both the Zentrum and DNVP parties in a hope to exploit women's perceived religiosity.[173] National Socialist attempts to attract female voters were almost non-existent in election propaganda in 1928 and 1930. Only the parties of the left, the Social Democrats (SPD) and the Communists (KPD) took a more progressive view on women's issues. The SPD actively courted women's votes with women, and working women in particular, being given significant representation as social equals to men in many posters and pamphlets. The Communists too expressed the view of a more equal role for women, though they argued that this emancipation would only come through the establishment of a fully communist system. Women on occasion also became the target of their revolutionary vitriol for passively allowing the continuation of the capitalist system. The appeal to women in a 1930 Women's Day KPD pamphlet calling on women to stop being "weak, defenceless and dumb" was unlikely to have converted many women to the communist cause.[174] As the 1920's became the 1930's however the tone of election propaganda from all parties drifted towards a focus on women's maternal and cultural duties as the economic situation worsened and the polarisation of Weimar politics became more pronounced. The renewed focus on the importance of women's traditional roles was further intensified by the alarm caused by a significant decline in the birth-rate during the period.[175] As such the new economic and political freedoms extended to women in the years after the war were muted by the continued dominance of the traditional German patriarchal society, something that is strongly reflected in the election materials targeting women during this period.

---

[173] An explanation of the party acronyms as well as a more detailed background to the 1928 and 1930 elections can be found in the appendix.
[174] ibid. p.213
[175] R.J. Evans, 'German Women and the Triumph of Hitler', *The Journal of Modern History,* Vol. 48 (No. 1, On Demand Supplement, 1976) pp.123-175.

The question of "Who Voted for Hitler" has been repeatedly addressed with regard to the socio-economic determinants of the Nazi vote overall, but the unique opportunity provided by the separate voting provision to examine the voting preferences of women has been less extensively explored.[176] That is not to say that it has been ignored. The first attempt to systematically explore the role played by women in Weimar politics was made by Gabriele Bremme in her 1956 study examining women's voting patterns for the Reich level elections up to 1930.[177] Voting figures for the elections post-1930 have subsequently been explored by Shively and Boak, although these data only cover a relatively limited geographic area as separated voting was no longer collated at the Reich level.[178]

Richard Evans explored the peculiarity of why an increasing number of women seemed to have voted for Hitler, particularly after 1930, given the regressive Nazi viewpoint on the role of women in the state.[179] Citing women's voting behaviour in a number of cities and various qualitative sources, he identifies a number of reasons for a lesser appetite among women voters for the Nazis in the elections before 1932; most significantly the special appeal of religion to women. That the Nazis were generally not favoured by either the Catholic or Protestant Churches during this period is seen to have significantly reduced their appeal among women voters and acted as a bulwark against declining support for the Zentrum/BVP and DNVP towards the end of the 1920s. The effects of the depression also hit men and women in different ways. Evans suggests that women in the workforce were hit

---

[176] K. O'Lessker, 'Who Voted for Hitler? A New Look at the Class Basis of Naziism', *American Journal of Sociology*, Vol. 74 (No. 1, 1968) pp. 63-69., C. Stögbauer, 'The Radicalisation of the German Electorate: Swinging to the Right and the Left in the Twilight of the Weimar Republic', *European Review of Economic History*, Vol. 5 (No. 02, 2001)251., R.F. Hamilton, *Who Voted for Hitler?* (1982), King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.

[177] G. Bremme, *Die Politische Rolle Der Frau in Deutschland* (Gottingen, 1956)

[178] Shively, *Party Identification, Party Choice, and Voting Stability: The Weimar Case* pp. 1203-1225., Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal* pp. 289-310.

[179] Evans, *German Women and the Triumph of Hitler* pp. 123-175.

particularly hard when the crisis struck, as they tended to be younger and in less productive occupations. So too were there likely to be differences in the way that women of different social classes voted, with the suggestion that women higher up the social scale would be less likely to support the Nazis than those further down. This view is echoed by Childers who suggests that white-collar women, who made up about a third of the white-collar workforce, would be particularly dissuaded by the Nazi pledge to eliminate their economic opportunities outside of the home.[180]

Renate Bridenthal argues along a somewhat different line, viewing the Nazi's female vote as being driven largely by a growing rejection of the established Weimar system and its parties.[181] Women were increasingly accused of displacing men's jobs when unemployment intensified while also being attacked for neglecting their traditional roles. This assault on the changing role of women in society, it is suggested, drove women to seek refuge in the ostensible security of the Nazi vision, a vision that was nothing more than a radicalised version of the one supported by all parties apart from those of the left.

W. P. Shively, using a simple ecological regression approach, investigates the loyalty of women voters in Weimar Germany in the areas in which men's and women's votes were counted separately in 1924 and 1928.[182] Women, as a group who had relatively less experience of voting, might be expected to show a lower level of party loyalty from one election to the next. His regression uses the proportion of the vote going to a particular party in the previous election, as well as controls for religion and population, to predict the vote share for both men and women voters and in doing so makes inferences about voter loyalty.

---

[180] T. Childers, *The Nazi Voter: The Social Foundations of Fascism in Germany, 1919-1933* (1983) p.241

[181] R. Bridenthal, 'Beyond Kinder, Küche, Kirche: Weimar Women at Work', *Central European History,* Vol. 6 (No. 2, 1973) pp. 148-166.

[182] Shively, *Party Identification, Party Choice, and Voting Stability: The Weimar Case* pp. 1203-1225.

His results suggest that women in fact were no less loyal voters and may indeed have shown a higher degree of party loyalty. It is further suggested that this greater loyalty among women voters was likely due to women being particularly isolated from the flow of new political information. One criticism of this approach, acknowledged by the author, is that it suffers from the well-known Ecological Fallacy and that therefore the results may be biased. The approach based on Gary King *et al* utilised in my analysis represents a means of circumventing this problem.[183]

A more recent analysis of women's voting patterns in areas of Weimar Germany in which votes were separated by gender is undertaken by Helen Boak.[184] She attributes the growth in the women's vote for the Nazis as being in part due to the increased respectability that the party attained following its electoral successes of the early 1930s, with the party attracting votes from new voters as well as defections from other parties. Examining summary statistics of women's voting patterns in selected districts Boak also identifies the pull of the confessional parties that was seemingly strong among women. In fact the DNVP and the Zentrum/BVP are identified as the only parties that it could be said had benefited from female enfranchisement. Another common finding of the literature is also highlighted in her research; that women were almost universally less inclined to vote for the Communist party. Whether this was due to the fact that women were inherently more socially conservative than men or that women were less likely to be workers (let alone industrial workers) is unclear.

In general, most studies agree that women displayed different voting patterns to men in that they were less likely to vote for both the Nazi and Communist parties in 1928 and 1930. The propensity for women voters to be disproportionately influenced by the pull of

[183] King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.
[184] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal* pp.289-310.

the more religious parties, such as the conservative Catholic Zentrum Party (and their Bavarian spin-off, the BVP) as well as the conservative Protestant DNVP is also suggested. The proportion of women turning out to vote was also found to be lower than that of men during the 1920s, but this gap was diminishing from 1930 onwards. However it is noted that the Nazi party in particular was attracting more and more women voters as the 1930s wore on.[185] The most common explanation given for these voting preferences is that women were generally more religious and socially conservative than men.[186] The Nazi appeal to women after 1930 is also attributed to a concerted effort on behalf of the Nazi leadership to attract women voters combined with a marked shift towards a less violent Nazi message.[187] The goal of this chapter is to explore the various theories of women's voting and complement and expand upon the previous literature by employing the most up-to-date statistical techniques. An exploration of how women voted differently to men in terms of social class and religion represents a particularly novel contribution of the analysis.

4.3 EMPIRICAL ANALYSIS

DATA DESCRIPTION

Before any specific questions relating to the voting preferences of women in Weimar Germany can be pursued, a description of the data to be explored is required. These data consists of election results for 79 voting districts of Weimar Germany for the Reichstag elections of 1928 and 1930.[188].The geographical distribution of the districts included in the

[185] ibid.
[186] Evans, *German Women and the Triumph of Hitler* pp. 123-175.
[187] Jill Stephenson, 'National Socialism and Women before 1933', in Peter Stachura (ed.), *The Nazi Machtergreifung* (London, 1983) 33-48.
[188] Although separate voting information is available for over 400 areas (mainly at the *Kreise* level but also including some *Gemeinde* level observations), census data could only be matched to less than half of these districts. The sample was further reduced by only considering districts which separated votes for both elections and by excluding districts where the population increased by more than 20% (or declined by more than 10%). This

sample is shown in fig.1. Although there is some clustering of districts in the data, there are observations from a number of different areas throughout Germany. In each electoral district, the number of votes cast for each party, as well as the total votes cast and the number entitled to vote, is tabulated. The unique characteristic of these voting statistics is that in these particular districts, the votes of male and female voters were counted separately. These figures are then combined with census data giving information on employment for the year 1933 with data on religious orientation taken from the 1925 census so as to give a picture of the votes cast and the socio-economic composition of each district. The census results, by electoral district, are obtained from the dataset created by Jürgen Falter and Dirk Hänisch.[189] In order to compare data on workforce composition with voting population we must assume that class distribution among those groups not represented by the workforce data, such as housewives, follow roughly the same class distribution as the workforce. The class profile of each district is therefore assumed to be the same for both men and women. Although men and women had different occupations, once non-working women, defined by their husband's occupation are included the class profiles of men and women become more similar. Based on a more detailed breakdown of the population of 52 German cities in table A1 in the

was a necessary precaution as there was some shifting of electoral boundaries between 1928 and 1933. The same analysis was carried out on various samples for which these restrictions were relaxed however and the results are broadly consistent with those derived from the reduced data. Where data on the number entitled to vote or invalid votes were not separated, the average split between men and women for the entire sample was used to compute these figures for men and women respectively. Data for the elections of 1928 were kindly provided by Prof. Jürgen Falter while election results for 1930 were transcribed from Statistik des Deutschen Reichs (1932).

[189] J.W. Falter and D. Hänisch, *Election and Social Data of the Districts and Municipalities of the German Empire from 1920 to 1933. ZA8013 Data File Version 1.0.0, Doi:10.4232/1.8013*, www.gesis.org 1990 (accessed 2012)

fig 1.

Electoral districts in separated voting sample
(Approximate Outline of Weimar Germany in red)

appendix, including dependent housewives, this assumption appears reasonable.[190] The incorporation of data on occupations by gender in each district in future research will help to test the sensitivity of the results to this assumption.

Additionally, although data on unemployment rates are available for some districts from December 1930, complementary data on employment by occupation is unfortunately unavailable for these periods. The census information, although perhaps not ideal, represents the best available data for the period.[191] The approach is closely related to that taken by King

[190] Adjusting the overall workforce distribution using the data on the occupation distributions of men and women contained in table A1, a simplified model of ecological inference is undertaken examining the voting patterns of men, working women and housewives. The results, shown in the appendix, suggest that non-voting among the self-employed was high among working men and women but was highest among self-employed housewives.

[191] The lack of any better data on employment category is also acknowledged by King et al (2008). Data for unemployment is available for some Kreise from December 1930 however. The average changes in employment in these districts in 1930, as well as the composition of the unemployed in 1933, were then applied to the districts without 1930

et al, which examined voting pattern across Germany as a whole, but differs in the number of districts under analysis, as only a subset of the total number of electoral districts counted men and women's votes separately.[192]

As a first pass at the data, some descriptive statistics are helpful. Because the analysis is undertaken only on a subset of the population, the overall representativeness of the sample must be examined. The overall national results of the 1928 and 1930 Reichstag elections are given in table 1. In order to simplify the analysis, the parties are organised according to ideology ranging from the Communists (KPD) to the Nazi Party (NSDAP). The votes for all other parties, apart from those named, are grouped together under the category "Rest". The final group represents non-voters. This is by no means the only way to group the parties and it is indeed a slightly different approach to that undertaken by King *et al* (2008). This particular grouping of parties was chosen due to the relevance of these parties, and indeed of non-voters, to the debate on women's voting preferences.[193]

The national results show the dramatic rise in support for the Nazi party between 1928 and 1930 in particular, but also the strong performance of the Communists and the decline in the numbers voting for the DNVP. Slight declines were also registered for the SPD and Zentrum (including the BVP, referred to simply as "Zentrum" from hereon in). Also evident is the increase in voter turnout. Table 2 shows the results of the combined votes of men and women using the sample consisting of gender separated voting returns that will be used in the forthcoming analysis. These data are arranged in the same manner as for the

unemployment data to give a rough approximation of rates of unemployment in 1930 for all districts in the sample. The estimation using these data did not produce results that would contradict the conclusions reached from using the 1933 data in the analysis.

[192] King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951. The approach undertaken here does not divide the data into areas of high, medium and low unemployment due to the relatively small data set.

[193] A grouping of parties identical to that employed in King et al was also undertaken with the substantive conclusions remaining unchanged.

national results so the two can be easily compared. This comparison highlights an important aspect of the gender separated voting data. Although the national and sample vote shares of the NSDAP, SPD and non-voters are broadly similar, the vote share of the KPD is overrepresented in the sample while the vote shares of the Zentrum and, to a lesser extent the DNVP, are underrepresented. This difference is most likely due to the fact that urban areas were more inclined to separate ballots by gender across the two elections, resulting in a sample in which urban areas are overrepresented. The inconsistencies between the national and sample vote shares are therefore what might be expected from an urban biased sample, due to the relative differences in support for parties in rural and urban areas. This discrepancy highlights the point that some care must be taken when making inferences about the entire population from this limited sample. Nonetheless, although the vote shares of some parties are over or underrepresented in relation to the national sample, changes between elections are similar and the sample does a reasonable job of approximating the national results.

The sample is then separated into votes cast by men and those by women with the votes by party given in tables 3 and 4. These voting figures indicate that support for the Nazis and the Communists was greater among men than among women, and that women's votes for the DNVP and the Zentrum exceeded those of men's. This is true for both the 1928 and 1930 elections and is consistent with the findings of the majority of the literature.[194] Also of significance is the change in party support among men and women between the two elections. Whereas the Nazi vote among men exceeded that of women in both elections, the increase in the women's vote for the Nazis was greater in percentage terms. The Nazi vote increased more than seven-fold for women but only six-fold for men. This catch up effect

[194] inter alia Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal* pp. 289-310.

Table 1.

Reichstag Election Results at the National Level

	1928 (Votes)	1928 (%)	1930 (Votes)	1930 (%)	Change	% Change
KPD	3264800	7.92	4592100	10.69	2.77	35
SPD	9152900	22.20	8577700	19.97	-2.23	-10
Zentrum/BVP	4657800	11.30	5187000	12.07	0.78	7
DNVP	4381600	10.63	2458200	5.72	-4.91	-46
Nazi	810100	1.97	6409600	14.92	12.96	659
Non-Voters	10471500	25.40	7996800	18.62	-6.79	-27
Rest	8486000	20.58	7736300	18.01	-2.58	-17
Sum	41224700	100	42957700	100	0	

Source: Mackie and Rose (1991)

Table 2.

Reichstag Election Results for Separated Sample (All Votes)

	1928 (Votes)	1928 (%)	1930 (Votes)	1930 (%)	Change	% Change
KPD	518615	13.26	661724	16.18	2.91	22
SPD	987327	25.25	930426	22.74	-2.50	-10
Zentrum/BVP	222867	5.70	251755	6.15	0.46	8
DNVP	325339	8.32	216594	5.29	-3.02	-36
Nazi	71987	1.84	560364	13.70	11.86	644
Non-Voters	966871	24.72	784402	19.17	-5.55	-22
Rest	817831	20.91	685647	16.76	-4.15	-20
Sum	3910837	100	4090912	100	0	

Source: See text

Table 3.

Reichstag Election Results for Separated Sample (Men's Votes)

	1928 (Votes)	1928 (%)	1930 (Votes)	1930 (%)	Change	% Change
KPD	286551	16.26	363656	19.60	3.34	21
SPD	486141	27.58	442071	23.82	-3.76	-14
Zentrum/BVP	84440	4.79	92447	4.98	0.19	4
DNVP	136307	7.73	84384	4.55	-3.19	-41
Nazi	40613	2.30	284555	15.33	13.03	565
Non-Voters	338404	19.20	284139	15.31	-3.89	-20
Rest	390046	22.13	304456	16.41	-5.72	-26
Sum	1762502	100	1855708	100	0	

Source: See text

Table 4.

Reichstag Election Results for Separated Sample (Women's Votes)

	1928 (Votes)	1928 (%)	1930 (Votes)	1930 (%)	Change	% Change
KPD	231047	10.80	298068	13.34	2.54	24
SPD	498979	23.31	488355	21.85	-1.47	-6
Zentrum/BVP	135650	6.34	159308	7.13	0.79	12
DNVP	188260	8.80	132210	5.91	-2.88	-33
Nazi	31108	1.45	275809	12.34	10.89	749
Non-Voters	629610	29.42	500263	22.38	-7.04	-24
Rest	425621	19.89	381191	17.05	-2.83	-14
Sum	2140275	100	2235204	100	0	

Source: See text

has been noted by Shively, a phenomena that continued up to the last elections of Weimar Germany in which women are believed to have cast as many votes for the Nazis as men.[195]

The linking of census data to the electoral results allows a finer grained analysis of both the factors influencing voter's party choice and of differences between the preferences of men and women. The data from the 1925 census allow for the examination of one of the main electoral cleavages held to be important in determining votes for the Nazi party: religion. Catholicism, has for a number of reasons, long been considered a factor in restraining the Nazi vote.[196] Thus the differences between Catholic and Protestant regions is an important distinction to make, even more important when one considers the disproportionate influence that religion is suggested to have wielded over women.[197]

Class division, in this case proxied by occupation, is another fundamental consideration when assessing the economic motives for voting. Class, or group-based, voting theory is indeed one of the principal explanations of voting outcomes in Weimar Germany proposed in the literature.[198] For these reasons, information on occupation structure is also included in the data set. Firstly, the total number of people in the workforce is divided between five occupational groups (that are considered as proxies of class groupings); the Unemployed, Domestic workers (including agricultural labourers and peasant workers), Blue-Collar workers, White-Collar workers and the Self- Employed.

---

[195] Shively, *Party Identification, Party Choice, and Voting Stability: The Weimar Case* pp. 1203-1225.
[196] C. Brown, 'The Nazi Vote: A National Ecological Study', *The American Political Science Review,* Vol. 76 (No. 2, 1982) pp. 285-302.
[197] In addition to dividing the sample by religion, an alternative division by agricultural v. urban was also undertaken. The results of this analysis can be found in the appendix and do not contradict the main findings of the analysis based on the data divided by religion.
[198] King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951., Hamilton, *Who Voted for Hitler?*, S.M. Lipset, *Political Man: The Social Bases of Politics* (1960) Ch. V

These categories are created in the same manner as in the King *et al* study of unseparated voting for Germany as a whole so that the results can be easily compared.[199]

METHODOLOGY

The methodological framework that will be employed in the analysis of these electoral and socio-economic data is one that has emerged as one of the principal means of analysing data at this aggregated level. The method of Ecological Inference involves making inferences about individual level behaviour when only information at the aggregate level is available. In this instance, it amounts to filling in the cells marked with a question mark in table 5. The information that is available is given in the margins of the table. The bottom row indicates the proportions of people who vote for each of the party groups and the right-most column gives the proportion of people in each class group. The proportion of blue-collar people who voted for the Communists, for example, is not observed however and must be inferred. Previous attempts to estimate missing information of this sort have tended to follow two different approaches. The first is the deterministic approach which uses information from the margins to establish upper and lower bounds on the individual entries. Such an approach, pioneered by Duncan and Davis, was used by Hamilton in his estimation of Nazi support by social class.[200] The advantage of the deterministic approaches is that it establishes, with certainty, upper and lower bounds for the proportions of interest. If, for example, in a particular district it is known that there are 1000 unemployed people and 500 people voted for the Nazis, then the number of unemployed people that voted for the Nazis lies somewhere

[199] King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.
[200] O.D. Duncan and B. Davis, 'An Alternative to Ecological Correlation', *American Sociological Review,* Vol. 18 (No. 6, 1953) pp. 665-666., Hamilton, *Who Voted for Hitler?*

Table 5.

THE ECOLOGICAL INFERENCE PROBLEM
1930 Full Sample (All Votes)

	Communist	SPD	Zentrum/BVP	DNVP	Nazi	Non-Voters	Rest	Sum
Self-employed	?	?	?	?	?	?	?	0.134
Blue Collar	?	?	?	?	?	?	?	0.285
White Collar	?	?	?	?	?	?	?	0.231
Domestic	?	?	?	?	?	?	?	0.080
Unemployed	?	?	?	?	?	?	?	0.269
Sum	0.162	0.227	0.062	0.053	0.137	0.192	0.168	1.000

between 0 and 500. The drawback of this approach is that in many cases the bounds will be too wide to make useful inferences. The second approach involves statistical methods, using the correlation between the observed aggregate proportions to infer the missing information. This method has been widely used in the social sciences since it was first introduced by Goodman and was the method employed by Childers in his analysis of the Weimar elections.[201] If a high Nazi vote is positively correlated with the fraction of blue-collar workers then the inference could be made that blue-collar people gave their support to the Nazis. While this sort of correlation could potentially indicate such a relationship, this conclusion may well be erroneous. If in fact it is the case that white-collar workers in predominantly blue collar districts tended to vote more for the Nazis then the aggregate correlation between blue-collar areas and high Nazi vote may be grossly misleading.[202] This problem of reaching false conclusions about individual behaviour from the analysis of aggregated data is well recognised and is often referred to as the Ecological Fallacy.[203]

The two approaches outlined above were the main methods employed to make ecological inferences until King introduced a way of combining the two approaches into a single, more satisfactory approach.[204] As the two methods, deterministic and statistical, do not in fact contradict each other, information obtained from both approaches can be used to make more accurate inferences about the proportions of interest. Essentially King's

---

[201] L.A. Goodman, 'Ecological Regressions and Behavior of Individuals', *American Sociological Review,* Vol. 18 (1953)663-4., L.A. Goodman, 'Some Alternatives to Ecological Correlation', *American Journal of Sociology,* Vol. 64 (No. 6, 1959) pp. 610-625., T. Childers, 'The Social Bases of the National Socialist Vote', *Journal of Contemporary History,* Vol. 11 (No. 4, Special Issue: Theories of Fascism, 1976) pp. 17-42., Childers, *The Nazi Voter: The Social Foundations of Fascism in Germany, 1919-1933*

[202] King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.

[203] D. A. Freedman, 'Ecological Inference', in Editors-in-Chief: Neil J. Smelser and Paul B. Baltes (ed.), *International Encyclopedia of the Social & Behavioral Sciences* (Oxford, 2001) 4027-30.

[204] G. King, *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data* (1997)

Ecological Inference method uses the deterministic information to limit the sample space and then employs regression techniques to extract the required information from within these bounds.[205] King's method has been widely accepted and has been employed in many academic applications.[206] Although King's method was originally designed for the 2x2 case (i.e. two parties and two class groups), it has subsequently been extended to the RxC (i.e. multiple classes and parties) case used in the analysis of voting in Weimar Germany.[207] It is this Multinomial-Dirichlet hierarchical model that is employed in this chapter. A more detailed description of the method of ecological inference can be found in part II of the Appendix.

ECOLOGICAL INFERENCE

To recognise one of the most important differences between regions associated with voting preference the sample is divided into two religious groups; Catholic and Protestant.[208] A region was considered "Protestant" if over 50% of the population gave this as their religion in the 1925 census otherwise the region was considered "Catholic".[209] These two regions will be analysed separately, in recognition of the importance of religion in voter preferences.

---

[205] For the eiRxC model employed in this analysis, the aggregate proportions of interest are weighted by the number of voters in each district. See Zelig: Everyone's Statistical Software, Core User's Manual, http://r.iq.harvard.edu/docs/zelig.pdf, pp.170-173; eiRxC R documentation http://r.iq.harvard.edu/src/contrib/Zelig/demo/ei.RxC.R

[206] K. Imai and G. King, 'Did Illegal Overseas Absentee Ballots Decide the 2000 U.S. Presidential Election?', *Perspectives on Politics*, Vol. 2 (No. 3, 2004) pp. 537-549.

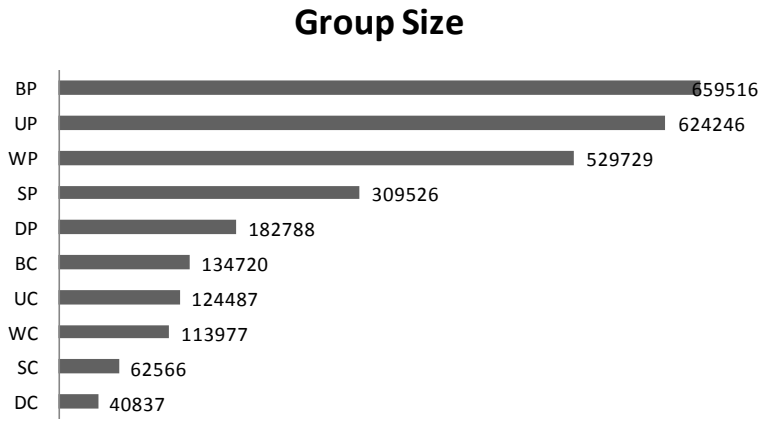
[207] G. King, M.A. Tanner, et al., *Ecological Inference: New Methodological Strategies* (2004), King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.

[208] This is similar to the approach taken by King *et al* (2008). However the classification of unemployment into high, middle and low regions was not possible in this case due to the smaller sample of areas available for analysis. As such the sample is only divided by religion.

[209] Defining a region's religion by this simple majority criteria means that "Protestant" groups are of disproportionate size in the sample, relative to national figures. According to the 1925 census 64% of the population were Protestant and 32% Catholic. For the sample as a whole the split was 67% and 23% respectively. However the sum of the group sizes deemed "Protestant" in the analysis represent 83% of the total sample population. This

As a first step, the importance of class in determining voting patterns is explored. Within the two regions defined by religion the number of people in each of the five occupational groups (Domestic, Blue-Collar, White-Collar, Self Employed and Unemployed) is calculated, generating a total of ten groups. The relative size of each of these groups is shown in fig. 2. As the analysis will generate estimates of vote shares for each class group, it is important to visualise the size of these groups. For example if the Nazi party were to achieve 10% of the votes of the Blue-Collar group in Protestant areas (group sample pop. of 659,516) then this would naturally be of greater importance to the overall vote share than if they were to receive 10% of the domestic group in Catholic areas (group sample pop. of 40,837).

fig. 2



*Source: See text. Note: 1st letter of the acronym refers to Class (**B**lue-Collar, **W**hite Collar, **S**elf-Employed **D**omestic & **U**nemployed) and 2nd to Religious composition (Majority **P**rotestant & majority **C**atholic). So for*

discrepancy highlights the importance of examining Protestant and Catholic areas separately.

An important aspect of the analysis of King *et al* is that support for any party can be decomposed into national swings for or against that party, and variation around those swings across social groupings. These two sources of variation are observed to be almost always unrelated. In order to ascertain where parties received disproportionate support, over and above any general swing towards a party, the overall (in this case the sample average) vote share is subtracted from the vote share calculated using the method of ecological inference. In this way what is unusual about the voting figures is separated from what might be expected from the general swing. As such the method combines the two main strands of the Nazi voting literature; that the Nazi party was a "catch-all" party and that their appeal varied according to class or other social group.

The results of the King *et al* analysis of the 1928 election indicated that disproportionate support for the Nazis was not marked, with perhaps only the Self-Employed in Protestant areas showing a disproportionate preference for the party.[210] This pattern becomes more distinct for the 1930 election with the Nazis making gains among Self-Employed Protestants in particular. For the DNVP the disproportionate support among Protestants was clear, particularly among the Domestic group but also among the White-Collar and Blue-Collar groups. This was evident in 1928 but already beginning to fade by the election of 1930 as the party began a period of decline, with disproportionate support only arising from White-Collar and Blue-Collar groups in Protestant areas. What is also apparent is that support for the Communists was drawn mainly from the Blue-collar group and the Unemployed in both 1928 and 1930. Support for the SPD and Zentrum (grouped together in King's analysis) remained fairly consistent in both elections. Notably the Domestic occupational group voted disproportionately for the SPD/Zentrum in Catholic areas, a result that is consistent for all elections from 1930.

[210] ibid.

King *et al* observe a similar pattern of support for the Nazis among the Self-Employed first in 1928 before becoming more pronounced in later elections.[211] From 1932 onwards disproportionate support is also coming from the Domestic group in Protestant areas. They conclude that support for the Nazis was disproportionately driven by the votes of the Self-Employed and Domestic occupations. These groups are grouped together under the term "working poor"; those who arguably were not in direct threat of unemployment but were nonetheless adversely affected by the economic collapse. The authors also observe that the same level of support among the Domestic group is not evident in Catholic areas. This is considered to be evidence in support of the theory that the Zentrum party wielded substantial influence over this group in Catholic regions.

Having outlined the overall patterns of voting described by King *et al* a first step is to compare the corresponding results from pooling men and women's votes in the districts where the separately counted votes and the census data were available for the elections of 1928 and 1930.[212] This offers a test of the representativeness of the sample and a check against the results of their analysis. The conclusion of King *et al* that the Nazi party garnered disproportionate support from the Self-Employed in Protestant areas is supported by the results shown in the appendix.[213] In contrast to the King *et al* analysis – although consistent with the theory proposed by Hamilton - White-Collar voters also appear to give disproportionate support to the Nazi party, particularly in 1930.[214] The results for the other parties are generally consistent with the findings of King *et al*.[215] The disproportionate support for the Communists among the Unemployed and the Blue-Collar groups is clear for

[211] ibid.
[212] ibid.
[213] ibid.
[214] Hamilton, *Who Voted for Hitler?*
[215] King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.

both elections, as is the ability of the Zentrum to attract votes from Catholic regions. Significantly, the strong support for the Zentrum party among Domestic workers in Catholic regions can also be discerned. Probably where the results diverge most from the findings in King *et al* is for the DNVP where the initial support among Domestic workers is less clear to see, as is any disproportionate support among Blue-Collar Protestants. However the party's ability to gain disproportionate White-Collar support in Protestant areas, in both 1928 and 1930, is clear. Overall the sample performs well in replicating the results of King *et al* for Germany as a whole, albeit with a small number of exceptions.[216] This is reassuring for the analysis of the voting patterns of men and women that follows.

VOTES OF MEN AND WOMEN

The main goal of this chapter is to gain an insight into how men and women voted differently in the 1928 and 1930 elections. To this end the method of Ecological Inference is employed using the votes of men and women separately. The results of the analysis are presented in four tables showing the predicted vote shares among the ten groups defined by occupation and religion, for each of the five named parties as well as for non-voters in 1928 and 1930.[217] Each entry in the tables gives the estimated vote share after subtracting the share of the vote for the sample as a whole – or the equivalent of the general swing. As an example of how to interpret the results, consider those depicted in table 8 for men's votes for the Nazi party in 1930. The fourth row of the first column (in bold) gives the point estimate (alongside the 90% confidence interval) of the vote share among the Self-Employed in Protestant areas.[218] This figure indicates that the total proportion of this group that gave their vote to the Nazis

[216] ibid.
[217] Graphs of the estimated vote shares are also presented in the appendix.
[218] Confidence intervals and standard errors are calculated using bootstrapping with 200 replications.

Table 6

Estimated Disproportionate Vote Shares of Men 1928

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Unemployed*	0.0	-0.6	0.8	0.9	0.0	1.9
	Blue-Collar	0.1	-0.2	0.7	0.4	-0.3	1.2
	White-Collar	2.4	0.9	4.4	6.2	2.0	12.0
	Self Employed	5.8	3.5	8.8	5.4	0.2	15.7
	Domestic	10.9	5.7	18.1	1.3	-0.4	4.2
SPD	*Unemployed*	6.3	-10.3	24.5	-4.5	-22.6	28.6
	Blue-Collar	26.7	13.3	41.5	7.1	-20.0	33.5
	White-Collar	-5.8	-20.0	13.0	-9.5	-22.4	11.9
	Self Employed	-13.6	-21.7	4.0	-21.6	-23.6	-18.2
	Domestic	-17.7	-22.1	-7.1	-19.9	-23.9	-7.8
ZEN	*Unemployed*	-4.1	-4.4	-3.7	9.8	-2.5	27.2
	Blue-Collar	-3.7	-4.3	-3.0	5.0	-2.9	18.5
	White-Collar	-2.7	-3.3	-2.0	23.7	3.5	43.7
	Self Employed	-1.8	-2.6	-0.9	9.2	-3.1	46.2
	Domestic	-0.8	-2.0	0.8	60.6	21.0	82.4
KPD	*Unemployed*	22.4	8.1	35.7	12.1	-3.2	27.5
	Blue-Collar	2.3	-8.6	14.1	-2.8	-8.7	4.2
	White-Collar	-10.3	-11.7	-8.0	-10.1	-11.6	-7.4
	Self Employed	-10.2	-11.4	-8.6	-10.1	-11.8	-7.0
	Domestic	-10.1	-11.5	-7.4	-10.4	-11.7	-8.4
DNVP	*Unemployed*	-5.6	-6.6	-4.4	-4.6	-6.1	-3.3
	Blue-Collar	-6.3	-7.0	-5.2	-4.5	-6.0	-2.7
	White-Collar	12.1	6.5	19.0	-1.9	-4.8	1.4
	Self Employed	-0.3	-2.4	2.1	-3.0	-6.1	0.3
	Domestic	2.5	-1.6	8.8	-3.5	-6.4	0.3
None	*Unemployed*	-9.4	-21.4	3.7	-4.3	-21.8	26.6
	Blue-Collar	-21.4	-22.9	-19.1	-2.4	-18.0	24.8
	White-Collar	1.2	-13.1	18.2	-1.8	-22.6	46.0
	Self Employed	-3.6	-16.8	27.3	29.6	-11.7	61.6
	Domestic	14.9	-9.1	29.1	-14.6	-22.8	5.8

Source: See text

Table 7

Estimated Disproportionate Vote Shares of Women 1928

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Unemployed*	-0.2	-0.6	0.3	0.6	-0.5	1.7
	Blue-Collar	0.2	-0.2	0.6	0.5	-0.4	1.2
	White-Collar	2.5	1.4	4.1	2.3	0.0	5.8
	Self Employed	4.4	1.5	8.0	0.8	-0.7	4.5
	Domestic	1.7	-0.6	8.1	0.2	-1.0	2.5
SPD	*Unemployed*	3.9	-14.2	24.4	-12.2	-24.2	17.6
	Blue-Collar	18.6	6.4	31.5	-0.6	-23.0	20.6
	White-Collar	-5.6	-20.6	13.8	-20.1	-24.1	-9.6
	Self Employed	-20.7	-23.3	-13.9	-23.4	-24.4	-21.7
	Domestic	-23.4	-24.4	-21.5	-23.2	-24.5	-20.4
ZEN	*Unemployed*	-4.1	-4.5	-3.5	6.9	-3.7	31.1
	Blue-Collar	-3.4	-4.2	-2.0	19.1	4.4	39.4
	White-Collar	-1.7	-2.5	-0.4	50.9	17.9	78.4
	Self Employed	-1.3	-3.3	1.0	1.2	-4.2	22.6
	Domestic	-2.4	-4.6	3.7	73.0	24.3	87.8
KPD	*Unemployed*	10.6	-1.5	21.6	-4.6	-11.3	6.1
	Blue-Collar	-3.5	-10.2	5.5	-5.9	-10.5	-1.9
	White-Collar	-9.0	-11.0	-5.6	-10.7	-12.0	-8.7
	Self Employed	-10.4	-11.6	-8.9	-11.4	-12.3	-9.9
	Domestic	-11.7	-12.4	-10.3	-11.4	-12.4	-9.9
DNVP	*Unemployed*	-5.7	-6.9	-3.8	-5.3	-6.8	-3.9
	Blue-Collar	-6.4	-7.0	-5.8	-5.0	-6.5	-3.8
	White-Collar	19.8	12.0	26.9	-3.8	-6.3	-0.9
	Self Employed	1.8	-4.1	10.7	-5.7	-7.0	-3.4
	Domestic	-2.6	-7.0	12.5	-5.8	-7.3	-2.9
None	*Unemployed*	5.4	-19.0	30.3	27.5	-13.0	63.4
	Blue-Collar	-12.1	-21.8	0.4	-1.4	-19.2	38.3
	White-Collar	-17.0	-23.2	-1.9	-5.5	-23.2	35.7
	Self Employed	22.5	-2.1	53.8	54.9	24.9	67.1
	Domestic	53.5	11.5	67.4	-16.0	-23.6	15.0

Source: See text

Table 8

Estimated Disproportionate Vote Shares of Men 1930

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
	Unemployed	-3.0	-11.9	11.3	-4.7	-10.6	6.1
	Blue-Collar	-6.5	-10.3	-1.2	-9.3	-11.9	-4.8
Nazi	*White-Collar*	13.0	-2.0	28.2	26.2	12.8	38.9
	Self Employed	**45.7**	24.2	61.7	5.0	-8.2	27.9
	Domestic	-7.8	-13.0	4.5	-8.9	-12.2	-3.5
	Unemployed	8.6	-8.9	28.5	-6.3	-19.4	18.9
	Blue-Collar	18.6	6.7	32.4	4.1	-16.1	24.2
SPD	*White-Collar*	0.7	-15.8	17.4	-12.8	-20.4	2.6
	Self Employed	-14.6	-20.7	1.5	-19.4	-20.6	-18.1
	Domestic	-18.7	-22.2	-10.6	-17.5	-21.3	-6.6
	Unemployed	-4.6	-5.0	-4.1	11.0	-3.0	27.9
	Blue-Collar	-3.9	-4.6	-2.7	5.4	-3.4	20.5
ZEN	*White-Collar*	-2.8	-3.7	-1.7	20.4	5.5	36.8
	Self Employed	-3.3	-4.2	-2.0	12.7	-2.2	61.4
	Domestic	-3.1	-5.5	0.7	55.2	12.5	80.8
	Unemployed	26.8	9.0	44.3	16.9	-1.2	39.8
	Blue-Collar	2.6	-10.9	15.8	8.8	-4.8	17.9
KPD	*White-Collar*	-12.7	-14.5	-8.8	-13.6	-14.7	-11.5
	Self Employed	-14.3	-15.0	-13.4	-13.4	-14.5	-11.7
	Domestic	-14.5	-15.6	-12.6	-12.7	-14.7	-9.1
	Unemployed	-3.3	-4.0	-2.4	-2.2	-3.2	-1.0
	Blue-Collar	-3.3	-3.8	-2.6	-2.4	-3.5	-1.2
DNVP	*White-Collar*	6.0	1.4	10.6	-2.3	-3.1	-1.2
	Self Employed	-0.1	-2.4	4.1	-1.8	-2.6	-0.8
	Domestic	0.2	-4.6	9.1	-0.9	-3.2	1.6
	Unemployed	-16.1	-18.0	-12.9	-9.7	-16.7	5.0
	Blue-Collar	-14.0	-17.4	-7.1	-4.6	-15.4	16.3
None	*White-Collar*	-8.0	-17.8	8.8	-10.2	-17.2	9.7
	Self Employed	-7.6	-15.8	9.7	25.1	-11.1	45.1
	Domestic	53.1	13.1	76.4	-6.7	-17.0	20.1

Source: See text

Table 9

Estimated Disproportionate Vote Shares of Women 1930

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Unemployed*	-3.5	-11.3	8.2	-7.4	-10.6	-0.1
	Blue-Collar	-7.1	-10.7	-2.3	-10.8	-12.0	-9.1
	White-Collar	16.2	0.4	29.2	10.2	-2.1	20.1
	Self Employed	23.4	3.1	44.2	-2.4	-11.3	19.8
	Domestic	-12.3	-13.1	-10.7	-11.2	-12.7	-8.2
SPD	*Unemployed*	11.0	-4.8	29.0	-6.1	-20.4	17.1
	Blue-Collar	14.3	2.3	25.2	-2.9	-19.9	14.9
	White-Collar	-2.2	-16.8	16.4	-18.4	-21.1	-10.3
	Self Employed	-18.8	-21.4	-12.0	-20.1	-21.4	-18.2
	Domestic	-21.7	-22.3	-20.7	-20.3	-21.8	-17.1
ZEN	*Unemployed*	-4.1	-4.8	-3.3	18.7	-1.8	47.2
	Blue-Collar	-3.2	-4.4	-0.9	16.6	-0.1	37.3
	White-Collar	-1.6	-3.1	0.4	42.8	15.1	61.9
	Self Employed	-2.5	-4.3	0.1	15.7	-2.3	74.2
	Domestic	-4.7	-5.6	-2.5	68.6	23.8	85.9
KPD	*Unemployed*	16.9	5.4	29.0	2.6	-10.0	17.2
	Blue-Collar	-5.0	-12.7	5.7	-4.4	-12.6	4.5
	White-Collar	-13.0	-14.5	-10.9	-13.9	-14.8	-12.4
	Self Employed	-14.2	-14.9	-13.2	-13.7	-14.7	-12.0
	Domestic	-15.3	-15.7	-14.6	-14.1	-15.1	-12.1
DNVP	*Unemployed*	-2.9	-3.8	-1.5	-2.1	-2.8	-1.4
	Blue-Collar	-3.3	-3.9	-2.6	-2.7	-3.5	-2.0
	White-Collar	12.6	7.0	18.4	-2.7	-3.4	-1.7
	Self Employed	0.8	-2.8	7.0	-2.2	-3.3	-1.1
	Domestic	-3.4	-4.7	-0.5	-2.9	-4.1	-0.9
None	*Unemployed*	-12.7	-17.8	-2.4	-0.3	-15.6	22.1
	Blue-Collar	-5.5	-14.0	5.4	9.1	-11.0	35.4
	White-Collar	-15.2	-18.2	-5.5	-8.3	-17.8	26.1
	Self Employed	17.0	-7.7	46.0	32.2	-14.1	62.2
	Domestic	71.7	61.9	77.0	-8.1	-17.8	30.0

Source: See text

was (0.46 + 0.14 – the sample average or swing) = 60%. This implies that this group disproportionately supported the Nazis by 46 percentage points. As a comparison table 9 gives the results of the same analysis using data on women's votes instead of men's. The point estimate in this case for Self-Employed Protestant group is (0.23 + 0.14 – the sample average or swing) = 37%.

The results of the comparison of the differences between men and women's votes are presented in table 10 and table 11. The tables show the difference between the point estimates of the vote shares of men and women by party and class-group in both Protestant and Catholic districts. As the male vote share is subtracted from the female vote share, a negative figure indicates that women gave less support to a party than men and a positive figure indicates that women gave more support. 90% confidence intervals for the differences in the proportions are also given and statistically significant differences are italicised and in bold.[219] Firstly, if we take for example the Nazi vote in the election of 1930 shown in table 11, it is clear that among many of the groups the differences between the sexes was very close to zero, as they were in most groups in 1928. However one result that does stand out is that self-employed women in Protestant districts were less inclined to support the Nazis in 1930 than Self- Employed men. In fact the point estimates indicates a 22 percentage point gender gap between men and women of this social group, a result that is statistically significant. What this result suggests is that the observed relationship between the Self-Employed and a higher Nazi vote in Protestant areas, as implied by the results based on the combined voting data and those of King *et al,* is being driven more by the votes of men. What then might account for such a gender gap within this group? A clue as to what self-

[219] The large-sample, unknown-distribution, different variances Confidence Interval for difference of proportions.

Table 10.

Difference Between Vote Shares of Men and Women in 1928

		Protestant			*Catholic*		
		Difference (W-M)	*90% CI*		*Difference (W-M)*	*90% CI*	
Nazi	*Unemployed*	-0.2	3.7	-4.1	-0.3	7.4	-8.0
	Blue-Collar	0.0	4.1	-4.1	0.1	7.3	-7.1
	White-Collar	0.1	6.2	-5.9	-4.0	7.6	-15.5
	Self Employed	-1.4	6.1	-9.0	-4.6	5.8	-15.1
	Domesic	***-9.2***	-1.2	-17.2	-1.1	6.6	-8.8
SPD	*Unemployed*	-2.4	11.2	-16.0	-7.7	10.4	-25.8
	Blue-Collar	-8.1	6.6	-22.8	-7.6	14.2	-29.4
	White-Collar	0.2	11.9	-11.5	-10.6	4.1	-25.2
	Self Employed	-7.2	0.8	-15.2	-1.8	6.1	-9.7
	Domesic	-5.6	0.5	-11.8	-3.3	5.8	-12.4
ZEN	*Unemployed*	0.1	3.8	-3.7	-3.0	13.9	-19.8
	Blue-Collar	0.4	4.7	-3.9	14.1	32.3	-4.2
	White-Collar	1.1	6.5	-4.4	***27.2***	50.3	4.1
	Self Employed	0.5	6.4	-5.3	-8.1	6.9	-23.1
	Domesic	-1.6	4.3	-7.5	12.4	33.8	-9.1
KPD	*Unemployed*	-11.7	1.7	-25.1	-16.7	1.1	-34.4
	Blue-Collar	-5.8	4.0	-15.6	-3.1	10.7	-16.9
	White-Collar	1.3	6.8	-4.2	-0.6	7.5	-8.7
	Self Employed	-0.2	4.8	-5.2	-1.3	6.3	-8.9
	Domesic	-1.6	2.9	-6.0	-1.0	6.3	-8.3
DNVP	*Unemployed*	-0.1	4.6	-4.8	-0.7	8.0	-9.4
	Blue-Collar	-0.1	3.9	-4.2	-0.5	8.5	-9.5
	White-Collar	7.7	20.3	-5.0	-1.9	9.1	-12.9
	Self Employed	2.1	10.6	-6.3	-2.8	6.7	-12.2
	Domesic	-5.1	3.0	-13.2	-2.3	6.8	-11.4
None	*Unemployed*	***14.8***	27.0	2.6	***31.7***	53.8	9.7
	Blue-Collar	***9.4***	17.2	1.5	1.0	21.4	-19.3
	White-Collar	***-18.2***	-7.5	-28.9	-3.7	16.0	-23.5
	Self Employed	***26.1***	39.6	12.7	***25.3***	47.2	3.3
	Domesic	***38.6***	52.0	25.2	-1.3	12.8	-15.5

Source: See text

Table 11.

Difference Between Vote Shares of Men and Women in 1930

		Protestant			*Catholic*		
		Difference (W-M)	*90% CI*		*Difference (W-M)*	*90% CI*	
Nazi	*Unemployed*	-0.6	8.5	-9.6	-2.7	10.2	-15.6
	Blue-Collar	-0.5	6.9	-8.0	-1.5	7.5	-10.6
	White-Collar	3.2	16.5	-10.1	-16.0	6.2	-38.3
	Self Employed	***-22.2***	-7.9	-36.6	-7.3	9.9	-24.5
	Domesic	-4.5	1.0	-10.0	-2.3	6.8	-11.4
SPD	*Unemployed*	2.4	16.2	-11.5	0.2	18.3	-17.8
	Blue-Collar	-4.3	10.1	-18.7	-7.0	13.4	-27.5
	White-Collar	-2.9	9.4	-15.1	-5.6	6.9	-18.0
	Self Employed	-4.2	2.9	-11.2	-0.6	7.7	-8.9
	Domesic	-3.0	1.6	-7.7	-2.8	6.5	-12.1
ZEN	*Unemployed*	0.5	4.4	-3.4	7.7	27.4	-12.0
	Blue-Collar	0.7	5.4	-4.0	11.2	29.3	-6.9
	White-Collar	1.2	7.0	-4.6	22.4	45.3	-0.5
	Self Employed	0.8	6.0	-4.5	2.9	22.5	-16.6
	Domesic	-1.6	2.8	-5.9	13.4	35.8	-9.0
KPD	*Unemployed*	-9.9	4.4	-24.2	-14.2	6.7	-35.2
	Blue-Collar	-7.5	2.9	-18.0	-13.2	5.3	-31.7
	White-Collar	-0.3	5.0	-5.6	-0.4	7.1	-7.8
	Self Employed	0.1	4.1	-4.0	-0.3	7.5	-8.0
	Domesic	-0.8	2.5	-4.2	-1.4	6.6	-9.4
DNVP	*Unemployed*	0.5	4.8	-3.8	0.1	8.5	-8.4
	Blue-Collar	0.0	4.1	-4.2	-0.3	7.6	-8.3
	White-Collar	6.7	17.0	-3.7	-0.4	7.7	-8.4
	Self Employed	0.9	7.7	-5.9	-0.4	8.2	-9.1
	Domesic	-3.6	2.0	-9.1	-2.0	6.8	-10.7
None	*Unemployed*	3.4	9.7	-2.9	9.4	26.2	-7.4
	Blue-Collar	8.4	17.0	-0.1	13.7	33.3	-6.0
	White-Collar	-7.2	0.5	-15.0	1.9	16.4	-12.6
	Self Employed	***24.6***	36.7	12.6	7.0	31.2	-17.1
	Domesic	***18.5***	29.7	7.4	-1.4	14.2	-17.0

Source: See text

employed women did with their vote in 1930 can be seen in the second-to-last row of table 11. The gap between the proportion of Self-Employed men and women in Protestant areas who did not vote is 25%, indicating that a higher Nazi vote among Self-Employed Protestant men is mirrored by a lower turnout among women of the same group. A similar gender gap in non-voting is also apparent among the other Protestant group in which men appear to give greater support to the Nazis, namely the Domestic group. Also of interest is a comparison between the gender gap in non-voting in 1928. While the gender gap between men and women narrows across all Protestant groups between 1928 and 1930, the gap decreases the least among the Self-Employed group. In fact the gap remains remarkably consistent, indicating that the increase in women's participation in 1930 was driven largely by increases in voting among social groups other than the Self-Employed.

In Catholic areas, support for the Nazi party is greater among men than among women across all social groups in 1930; however these results are not statistically significant.[220] The groups in which men appear to give the greater disproportionate support to the Nazis are the White-Collar and Self-Employed groups. An examination of the last rows of table 11 reveals that although there are some differences between Catholic men and women non-voters in 1930 in these groups, the picture is perhaps less stark than for the Protestant groups identified above. However a more convincing explanation is offered by the differences between men and women's votes for the Zentrum party in 1930. The lower Nazi vote among women in these groups can also be explained by a higher Zentrum vote among women in Catholic areas. This lends support to the argument that the influence of the Catholic Church created a significant pull among women voters away from the Nazis. These results are particularly pronounced in the election of 1930 but can also be seen in 1928. For the DNVP there appear only minor differences between how men and women

[220] This may be due to the smaller size of the Catholic sample.

voted in both elections, perhaps with the exception of a tendency for women in White-Collar Protestant groups to favour the DNVP more than men.

Differences between men and women's votes for the Communists are also evident. From the combined vote analysis, disproportionate support for the Communists appears to be coming from among the Blue-Collar and the Unemployed groups in both Catholic and Protestant areas in both 1928 and 1930. However as before, the separated voting analysis reveals that this difference is being driven mainly by the votes of men. The same groups that appear to be driving the vote for the Communists are also the groups where the men's vote for the Communists is greater than the women's vote. What this implies is that Blue-Collar and Unemployed women are not voting the same way as men.

Once again an indication of the likely voting behaviour of women in these groups is suggested by the composition of non-voters. Women in the Unemployed and Blue-Collar groups are more likely to be non-voters than men particularly in 1928 but also, to a lesser extent, in 1930. The same argument can also be made with respect to the Unemployed and Blue-Collar groups in Catholic areas. Although women are more likely to be non-voters than men in Catholic Blue-collar and Unemployed groups they are also more likely to be supporters of the Zentrum party than men, especially in 1930. Once more this highlights the apparent disproportionate influence of Catholicism, in the form of support for the Zentrum party, on the voting preferences of women. Clearly, Catholic women's continued support for the Zentrum party contributed to a lower overall vote for the extremist parties in 1930 than might otherwise have been the case.

Overall the analysis suggests a possible explanation for the different voting patterns observed. In Protestant areas, Self-Employed women appear to have abstained from voting while Self-Employed men gave disproportionate support to the Nazis. In addition it would appear that the Nazi vote among women from this socio-economic group was also lower due

to a greater women's vote for the Zentrum party in Catholic areas. This makes for an interesting interpretation of the King et al findings that the votes of the Self-Employed were key to the electoral success of the Nazi party.[221] The results presented here suggest that turnout among Self-Employed women in Protestant areas did not increase significantly, even while overall turnout among women was increasing. Meanwhile Self-Employed men were beginning to position themselves as the group that most favoured the Nazis. If Self-Employed women began voting in greater numbers in later elections, particularly in Protestant areas, their votes might have been expected to have gone disproportionately to the Nazi party. As such this particular relationship between class and female turnout may help to explain why the gender gap in support for the Nazis appears to have narrowed in the elections of 1932 and 1933, the elections that ultimately brought the Nazis to power.

VOTER TRANSITIONS

The final part of the analysis is to examine voter transitions between the elections of 1928 and 1930 to uncover voter loyalty to particular parties, once more following the method of King *et al*.[222] This is of particular interest as it has been suggested that women could potentially have been less loyal in their voting preferences than men due to their relative inexperience with the democratic process.[223] To examine voter loyalty between elections a final exercise in ecological inference is performed, this time with the vote share for each party in 1928 tabulated against the vote share in 1930. This is undertaken separately for Protestant and Catholic regions. Again, the danger of ecological fallacy means it is only possible to speak in general terms about the patterns that emerge. Table 12 shows the voter

[221] ibid.
[222] ibid.
[223] Shively, *Party Identification, Party Choice, and Voting Stability: The Weimar Case* pp. 1203-1225.

Table 12.

Voter Transitions
Men & Women

1928 Vote
Protestant Precincts

1930 Vote	Nazis	SPD	Zentrum	Communists	DNVP	No vote	Rest
Nazis	**0.83**	0.06	0.05	0.02	0.20	0.26	0.21
SPD	0.03	**0.86**	0.04	0.01	0.04	0.02	0.05
Zentrum	0.02	0.01	**0.70**	0.01	0.04	0.02	0.02
Communists	0.02	0.02	0.06	**0.92**	0.06	0.06	0.05
DNVP	0.02	0.01	0.04	0.01	**0.45**	0.02	0.03
No vote	0.03	0.01	0.04	0.01	0.11	**0.55**	0.15
Rest	0.04	0.03	0.07	0.02	0.10	0.07	**0.49**

Catholic precincts

1930 Vote	Nazis	SPD	Zentrum	Communists	DNVP	No vote	Rest
Nazis	**0.67**	0.05	0.03	0.03	0.21	0.13	0.19
SPD	0.05	**0.67**	0.02	0.04	0.11	0.03	0.08
Zentrum	0.07	0.05	**0.82**	0.04	0.16	0.09	0.14
Communists	0.04	0.11	0.03	**0.80**	0.15	0.04	0.15
DNVP	0.04	0.02	0.02	0.02	**0.11**	0.02	0.06
No vote	0.05	0.03	0.03	0.02	0.12	**0.59**	0.11
Rest	0.07	0.06	0.05	0.05	0.14	0.09	**0.25**

Source: See Text

transitions for all voters. Entries on the diagonal (in bold) show the proportion of those voting for a particular party in 1928, that voted again for the same party in 1930. For example, the number in the first row, first column in table 12 gives the proportion of people who voted for the Nazis in Protestant districts in 1928, that voted again for the Nazis in 1930 (83%). The off diagonal entries give the proportion of the votes of those voting for a party in 1928 that went to another party in 1930. For reasons of visual clarity standard errors are not shown, however all of the results cited below are statistically significant. As an example consider this time the first row, second to last column in the top panel of table 12.

Table 13.

Voter Transitions
Women

	1928 Vote						
	Protestant Precincts						
1930 Vote	Nazis	SPD	Zentrum	Communists	DNVP	No vote	Rest
Nazis	**0.84**	0.04	0.05	0.02	0.22	0.17	0.23
SPD	0.03	**0.88**	0.04	0.01	0.04	0.02	0.05
Zentrum	0.02	0.01	**0.74**	0.01	0.03	0.01	0.02
Communists	0.02	0.02	0.04	**0.91**	0.04	0.06	0.04
DNVP	0.02	0.01	0.04	0.01	**0.50**	0.02	0.03
No vote	0.03	0.01	0.03	0.01	0.07	**0.64**	0.11
Rest	0.04	0.03	0.06	0.02	0.09	0.08	**0.51**
	Catholic precincts						
1930 Vote	Nazis	SPD	Zentrum	Communists	DNVP	No vote	Rest
Nazis	**0.62**	0.04	0.02	0.03	0.23	0.07	0.23
SPD	0.06	**0.72**	0.01	0.04	0.12	0.03	0.10
Zentrum	0.06	0.04	**0.88**	0.04	0.15	0.09	0.16
Communists	0.05	0.10	0.02	**0.78**	0.13	0.04	0.13
DNVP	0.06	0.02	0.01	0.03	**0.11**	0.02	0.07
No vote	0.07	0.02	0.02	0.03	0.13	**0.65**	0.10
Rest	0.08	0.06	0.03	0.05	0.14	0.09	**0.21**

Source: See Text

This gives the proportion of people who did not vote in 1928, but voted for the Nazis in Protestant districts in 1930 (26%). Thus reading down this column tells us that only 55% of non-voters in Protestant districts in 1928 also did not vote in 1930, with the Nazis being the principal beneficiary of this increase in voter turnout. Overall, the parties which had the greatest levels of voter loyalty were the KPD, the SPD and the Nazis, with loyalty of well over 80% for these parties in Protestant regions. Loyalty was lower for all these parties in

Catholic regions.[224] However the loyalty of Zentrum voters was greater in Catholic districts than in Protestant areas as might be expected. The DNVP show the lowest loyalty figures, consistent with their disappointing electoral performances in 1930. The growth in Nazi support is due to a high loyalty among their own voters from 1928 and to the support they were able to win from other parties (such as the liberal parties included in the "Rest" category) as well as from those who did not vote in 1928.

To examine differences between loyalty among men and women voters the ecological inference procedure is undertaken using men and women votes separately. The estimates of voter loyalty for men (table 14) are subtracted from the corresponding loyalty figures among women (table 13) to give tables 15 and 16 (Protestant and Catholic districts respectively), highlighting the differences between men and women's party loyalty. As the men's transitions (table 14) are subtracted from those of women's (table 13), a positive number on the diagonal indicates that women were more loyal while a negative number shows greater loyalty among men. 90% confidence intervals for the difference in proportions are given with statistically significant differences italicised and in bold. Tables 15 and 16 reveal some interesting results. Male voters were more loyal to the Nazis, especially in Catholic districts, than women voters. Indeed men's loyalty to the Nazi party was ten percentage points higher than women's in Catholic areas, although the result is not statistically significant. Women voters also appear less loyal to the Communists than men in both areas. Conversely, women voters were more loyal when it came to other parties. This is the case for the far-right DNVP in Protestant districts and the Zentrum party in both Protestant and Catholic districts, with the Zentrum party having a greater loyalty among women of between nine and fifteen percentage points. It would appear that the DNVP's

[224] Lower loyalty among Nazi and Communist voters in Catholic areas was also indicated by King et al between the 1930 and July 1932 elections. King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951.

Table 14.

Voter Transitions
Men

	1928 Vote						
Protestant Precincts							
1930 Vote	Nazis	SPD	Zentrum	Communists	DNVP	No vote	Rest
Nazis	**0.84**	0.08	0.07	0.03	0.13	0.41	0.20
SPD	0.03	**0.83**	0.06	0.01	0.05	0.02	0.04
Zentrum	0.02	0.01	**0.60**	0.01	0.04	0.02	0.02
Communists	0.02	0.02	0.08	**0.92**	0.07	0.09	0.05
DNVP	0.02	0.01	0.06	0.01	**0.40**	0.03	0.03
No vote	0.03	0.01	0.05	0.01	0.18	**0.35**	0.22
Rest	0.04	0.04	0.09	0.02	0.11	0.08	**0.44**
Catholic precincts							
1930 Vote	Nazis	SPD	Zentrum	Communists	DNVP	No vote	Rest
Nazis	**0.73**	0.06	0.05	0.02	0.21	0.20	0.19
SPD	0.04	**0.66**	0.02	0.03	0.10	0.03	0.07
Zentrum	0.05	0.04	**0.79**	0.02	0.17	0.06	0.11
Communists	0.03	0.14	0.03	**0.87**	0.16	0.05	0.15
DNVP	0.03	0.02	0.02	0.02	**0.12**	0.02	0.06
No vote	0.05	0.02	0.02	0.02	0.09	**0.54**	0.12
Rest	0.06	0.06	0.05	0.03	0.14	0.09	**0.30**

Source: See Text

dramatic decline in the election of 1930 would have been far worse had it not been for the loyalty of their female supporters in Protestant areas, as was the relative stability of the Zentrum mainly thanks to the loyalty of its female support, as has been suggested previously.[225] Perhaps most noteworthy of all is the indication that women who did not vote in 1928 were more likely to remain non-voters than men. Women were also less inclined to go from being a non-voter in 1928 to a Nazi voter in 1930 than men were. This finding is consistent with the conclusion of the previous analysis; that Self-Employed

[225] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal* pp.289-310.

Table 15.

Voter Transitions
Difference Between Men & Women (Women - Men)
(Positive Value indicates Women more loyal)

1928 Vote
Protestant Precincts

1930 Vote	Nazis	SPD	Zentrum	Comm.	DNVP	No vote	Rest
Nazis	-0.01	-0.04	-0.02	-0.01	0.09	***-0.24***	***0.03***
90% CI	0.10 -0.11	0.03 -0.11	0.05 -0.09	0.04 -0.05	0.20 -0.02	-0.11 -0.37	0.15 -0.09
SPD	0.00	0.05	-0.02	0.00	-0.02	0.00	0.01
90% CI	0.05 -0.05	0.16 -0.05	0.05 -0.08	0.03 -0.03	0.05 -0.08	0.04 -0.04	0.08 -0.05
Zentrum	0.00	0.00	***0.15***	0.00	-0.01	-0.01	0.00
90% CI	0.05 -0.04	0.03 -0.03	0.28 0.01	0.03 -0.02	0.05 -0.07	0.03 -0.04	0.05 -0.04
Communists	0.00	-0.01	-0.04	-0.01	-0.03	-0.03	0.00
90% CI	0.04 -0.04	0.03 -0.05	0.03 -0.11	0.07 -0.09	0.04 -0.10	0.05 -0.11	0.06 -0.06
DNVP	0.00	0.00	-0.02	0.00	0.10	-0.01	0.00
90% CI	0.04 -0.04	0.03 -0.03	0.04 -0.09	0.03 -0.03	0.25 -0.04	0.03 -0.05	0.05 -0.05
No vote	0.00	0.00	-0.02	0.01	***-0.11***	***0.29***	***-0.12***
90% CI	0.05 -0.05	0.03 -0.03	0.04 -0.08	0.04 -0.03	-0.02 -0.21	0.43 0.15	-0.01 -0.23
Rest	0.00	-0.01	-0.03	0.00	-0.02	0.00	0.07
90% CI	0.06 -0.06	0.05 -0.06	0.05 -0.10	0.05 -0.04	0.06 -0.11	0.08 -0.09	0.22 -0.07

Source: See Text

women did not support the Nazis as Self-Employed men did, but rather remained non-voters in 1930. Overall the assertion that women were less loyal voters than men due to their inexperience with voting cannot be upheld. Women demonstrated a greater loyalty than men when it came to the established parties while displaying a lower level of loyalty to the extremist parties.

Table 16.

Voter Transitions
Difference Between Men & Women (Women - Men)
(Positive Value indicates Women more loyal)

1928 Vote
Catholic Precincts

1930 Vote	Nazis	SPD	Zentrum	Comm.	DNVP	No vote	Rest
Nazis	-0.10	-0.01	-0.03	0.01	0.01	-0.13	0.04
90% CI	0.12 -0.33	0.09 -0.12	0.06 -0.12	0.09 -0.07	0.21 -0.19	0.04 -0.29	0.23 -0.16
SPD	0.01	0.05	-0.01	0.02	0.02	0.00	0.03
90% CI	0.12 -0.09	0.28 -0.17	0.06 -0.07	0.11 -0.07	0.17 -0.14	0.08 -0.08	0.16 -0.11
Zentrum	0.02	0.00	0.09	0.02	-0.03	0.03	0.05
90% CI	0.13 -0.10	0.09 -0.09	0.27 -0.09	0.10 -0.07	0.15 -0.21	0.16 -0.10	0.21 -0.12
Communists	0.02	-0.04	-0.02	-0.09	-0.03	-0.01	-0.02
90% CI	0.11 -0.08	0.12 -0.20	0.06 -0.09	0.10 -0.27	0.14 -0.20	0.09 -0.11	0.15 -0.19
DNVP	0.02	0.00	-0.01	0.01	0.00	0.00	0.00
90% CI	0.12 -0.08	0.08 -0.07	0.06 -0.07	0.09 -0.06	0.15 -0.16	0.07 -0.08	0.12 -0.11
No vote	0.02	0.00	-0.01	0.01	0.03	0.11	-0.02
90% CI	0.13 -0.10	0.08 -0.07	0.06 -0.07	0.08 -0.06	0.18 -0.12	0.35 -0.12	0.13 -0.17
Rest	0.02	0.00	-0.02	0.02	0.00	0.00	-0.08
90% CI	0.14 -0.10	0.11 -0.12	0.08 -0.12	0.12 -0.08	0.16 -0.17	0.14 -0.14	0.13 -0.29

Source: See Text

ELECTIONS 1932-1933

While the analysis of the election results for 1928 and 1930 have suggested a pattern in voting that may have continued in subsequent elections, results separated by gender are unfortunately only available for a small number of districts for the last three Reichstag elections of the Weimar Republic. Ideally we would like to examine the voting patterns of men and women for the elections that ultimately brought the Nazis to power. Alas, such an

approach is not possible. Although the limited number of districts that separated votes makes it difficult to say with certainty which way the women of Weimar Germany as a whole voted in the elections of 1932 and 1933, the results from these districts are nonetheless suggestive.

A prominent question posed by an examination of the 1930 election is whether or not the gap between the votes of men and women for the NSDAP continued to narrow or not. Although in 1928 and 1930 the votes of women for the Nazis, both in terms of votes cast and as a proportion of women entitled to vote, were below the respective figures for men, two features are apparent. First, that the gap between men and women voting for the NSDAP decreased between 1928 and 1930 and second that the difference between turnout rates for men and women was also narrowing. The results of this chapter indicate that women non-voters came disproportionately from the same groups in which men favoured the NSDAP, particularly in Protestant areas. This suggests that as the turnout rate of women increased, a disproportionate number of these women would likely be members of class groups more inclined to support the NSDAP. In addition this increase should be most apparent in Protestant areas. This then may explain why the gap between men's and women's support for the NSDAP decreased in subsequent elections. It also suggests that that these new votes from women contributed to the overall rise in support for the Nazi party that occurred between 1930 and 1933. Table 17, reproduced from Boak who based the table on figures from Tingsten shows election results separated by gender for selected areas between 1930 and 1933.[226]

The gap between the proportion of votes cast by men and women for the Nazi party is clear for the election of 1930 in all districts. However by July 1932 the proportion of women voting for the Nazi party has overtaken that of men in some districts, particularly in

[226] ibid., H. Tingsten and V. Hammarling, *Political Behavior: Studies in Election Statistics* (1937) pp.52-57

Table 17.

The shares (%) of the total Men's and Women's votes cast for the NSDAP in selected areas in Reichstag elections, 1930-33.

	1930		1932 I		1932 II		1933	
	Men	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*
Bremen	12.9	11.1	29.9	30.9	20.8	20.9	30.8	34.4
Magdeburg	19.8	18.7	36.3	38.9	31.1	34.0	38.1	43.3
Leipzig	14.6	13.1	-	-	-	-	34.1	38.8
Wiesbaden	29.1	26.0	43.0	43.7	36.1	36.8	44.9	47.3
Bavaria	18.9	14.2	29.2	25.6	27.4	24.7	36.2	34.4
Augsburg	14.9	10.4	25.2	21.1	24.5	21.6	33.4	31.4
Regensburg	19.7	13.1	23.3	17.3	20.0	14.9	33.1	28.9
Ansbach	34.6	33.3	-	-	47.6	50.0	51.2	55.6
Dinkelsbühl	33.2	31.9	-	-	54.4	56.1	58.6	61.5
Ludwigshafen	17.4	14.0	-	-	28.6	27.7	34.5	34.9
Cologne	19.8	15.5	26.4	22.8	21.8	19.2	33.9	32.9
Konstanz	-	-	32.0	26.0	26.1	21.8	35.9	32.8

Source: See text

the Protestant cities of Bremen and Magdeburg. In Catholic cities, such as Cologne and Regensburg, the gap persisted but narrowed in percentage terms. For example the proportion of women voting for the Nazis in Cologne in July 1932 increased by 47% ((22.8-15.5)/15.5) since 1930 while the same figure for men is 33%. Even as the overall Nazi vote slipped back in November 1932 the gaps between men's and women's vote continued to narrow. By 1933 it is clear that only in Catholic areas were women less likely to support the Nazi party than men. Although it cannot be established with certainty whether this pattern applied throughout the country, the figures do suggest that any difference between men and women's support for the Nazi party was, at the very least, decreasing.

Of course what the figures in table 17 show are the proportions of votes cast that went to the Nazis and not the number of votes or the change in participation of men and women. Unfortunately the figures provided in Tingsten do not show this.[227] However figures

[227] ibid.

provided by Boak on the total number of votes cast and those cast for the Nazi party in Bavaria and Konstanz between 1930 and 1933 serve as an illustration and are given in table 18. The table shows that in general when turnout increased, the increase was relatively greater for women. It also shows that just as turnout was increasing faster among women, the increase in those voting for the NSDAP was greater among women also. For example when turnout increased by 14.2% for men and 19.4% for women in Bavaria between November 1932 and April 1933, the Nazi vote among men and women increased by 50.9% and 66.5% respectively. Changes in turnout in 1932 (turnout fell overall in the national election results) appears to also have been different for men and women, with the women's vote falling by more than that of men (or at least increasing at a slower rate). Interestingly where turnout fell in Bavaria between 1930 and 1932 the Nazi vote among women still increased more than among men. However in Konstanz the opposite is observed with a decline in the number of women voting associated with a decline in those voting for the Nazi party. In the areas where figures are available for the 1930 and 1933 elections, the Nazi vote approximately doubled between these years for men but almost tripled for women, while turnout increased by 13% and 16% for men and women respectively. Clearly the increase in Nazi vote was not just coming from new voters, whether they were women or men. Many voters were also defecting from other parties, especially from the "bourgeois" parties of the centre-right and right. Nonetheless the association of increased turnout among women, and an increase in votes for the Nazi party is difficult to dismiss. As Helen Boak states "the sex that showed the greater increase in participation (women) was also the one showing the greater swing to the Nazis".[228]

[228] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal* pp.289-310. p.296

Table 18.

Mobilization Rates in Men's and Women's Votes for the NSDAP
in Reichstag elections in Bavaria and Konstanz, 1930-1933

	Total votes Cast		% change		Votes for NSDAP		% change	
	Men	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*
Bavaria								
1930	131,528	143,939	-	-	24,919	20,462	-	-
1932 II	130,627	140,292	-0.7	-2.5	35,728	34,651	43.4	69.3
1933	149,121	167,572	14.2	19.4	53,911	57,688	50.9	66.5
Regensburg								
1930	19,067	22,495	-	-	3,728	2,918	-	-
1932 II	19,536	22,657	2.5	0.7	3,864	3,351	3.6	14.8
1933	21,504	25,716	10.1	13.5	7,072	7,378	83.0	120.2
Augsburg								
1930	44,691	50,893	-	-	6,630	5,277	-	-
1932 II	42,169	46,278	-5.6	-9.1	10,300	9,974	55.4	89.0
1933	50,585	58,448	20.0	26.3	16,844	18,259	63.5	83.1
Ansbach								
1930	5,255	6,171	-	-	1,811	2,047	-	-
1932 II	5,693	6,620	8.3	7.3	2,694	3,300	48.8	61.2
1933	6,139	7,331	7.8	10.7	3,127	4,062	16.1	23.1
Konstanz								
1932 I	9,013	10,484	-	-	2,852	2,706	-	-
1932 II	8,456	9,499	-6.2	-9.4	2,181	2,053	-23.5	-24.1
1933	9,660	11,180	14.2	17.7	3,442	3,645	57.8	77.5

Source: See text

WOMEN VOTERS 1932-1933

The limited separated voting data available for the elections of 1932 and 1933 suggest that the gender gap in terms of support for the Nazi party continued to narrow. Indeed Boak suggests that support for the Nazis was greater among women than men in Protestant areas

by 1933.[229] What might explain the increasing success of the Nazi party in attracting female support? One likely factor is that following the election of 1930, the Nazi leadership made a concerted effort to attract women voters.[230] In October 1931 the various women's organisations within the Nazi party were consolidated into the NS-Frauenschaft (National Socialist Women's Organisation) which set about propagating the Nazi message to women voters through local branch organisations. Gregor Strasser, the organisational leader of the NSDAP, became one of the main architects of this shift, realising that women would need to be actively targeted. Indeed many members of the NS-Frauenschaft became visibly involved in the campaigns of 1932 and 1933 in an attempt to win the support of women voters.[231] By 1932 the Nazi message had also evolved into one seen as being more likely to appeal to women. Nazi propaganda no longer focused on the struggle against the Weimar system in an overtly aggressive manner, but rather transformed "brutality into resolve, misogyny into brotherly concern, and anti-modernism into a noble fight against cultural enemies".[232] Women were appealed to as the last defence of social order and the German family. The NSDAP election poster shown in the appendix (fig. A1) appeals to German women to "save the German family" and embodies the Nazi message aimed at women. This kind of direct appeal to women was largely absent from Nazi election materials prior to 1932 and was likely to have appealed to conservative women in particular. Although there was nothing new about an appeal to women using the traditional "*Kinder, Küche, Kirche*" view of women's role in society - indeed the Nazi party was not the only party to stress this view - it was the first time however that Nazi propaganda heavily targeted women in this way.

[229] ibid.
[230] An extensive description of the campaigns of the various parties, and in particular the attempts to attract women voters, during the 1920s and 1930s can be found in the next chapter.
[231] Stephenson, *National Socialism and Women before 1933* 33-48.
[232] Sneeringer, *Winning Women's Votes: Propaganda and Politics in Weimar Germany* p.265

Women and men were to operate within separate spheres; and the woman's sphere was the home. Not surprisingly, this conservative view of women's roles invoked much criticism from their political opponents, highlighting that the Nazis wished to undo all the progress that had been made in the cause of women's rights in the Weimar republic.[233] The Nazis response was to use the idea of gender equality against the Weimar system itself. Equality under the Weimar system meant equality for men and women to stand in dole queues, to work for low pay and to suffer the vicissitudes of the free-market, they proclaimed.[234] Rescuing women from having to work and re-establishing their position within the domestic sphere would be an act of salvation, not persecution. The rights of women to work would be superseded by a more fundamental right: the right to motherhood. As Hitler expressed in 1932:

> "work honours woman as well as man, but the child truly ennobles the mother".[235]

In exchange for equality the Nazi vision also held out the promise of an exalted place for women in German society. Once women were restored to their "natural" domestic role, they would occupy an elevated place in society. The mother was a key component of the Nazi vision for the future of the German family, inhabiting a separate, though ostensibly equally important, position to that of men in the new social order. While this view of women's role in society is unlikely to have appealed to all women, it is likely to have resonated most among traditionally conservative sections of German society such as the "old middle class" or the group represented by the Self-Employed category in this analysis. As such, many

---

[233] Sneeringer, *Winning Women's Votes: Propaganda and Politics in Weimar Germany* Chapter 5
[234] ibid. p.232
[235] Adolf Hitler, 'Mein Programm: 2 April 1932', in Klaus A. Lankheit (ed.), *Hitler. Reden, Schriften, Anordnungen. Februar 1925 Bis Januar 1933. Band V: Von Der Reichspräsidentenwahl Bis Zur Machtergreifung. April 1932 – Januar 1933. Teil 1: April 1932 – September 1932* (München, 1996)

previous non-voting women within this group may have been particularly motivated by this appeal, offering a potential explanation for the increase in Nazi support among women in July 1932.

4.4 CONCLUDING REMARKS

Using techniques of ecological inference it has been possible to untangle some of the most important elements of the debate about how women voted during the final years of the Weimar Republic. It is wise to only speak in broad terms when methods of ecological inference are employed as the problem of the ecological fallacy can never be completely eliminated. While care must also be taken in coming to conclusions based on a small sample of districts such as examined here, the patterns uncovered by the analysis are nonetheless suggestive. Firstly, the evidence indicates that women were something of a moderating force in Weimar Politics who gave less support to the extreme right and extreme left, certainly prior to 1932. Religion, especially Catholicism, appears to have been an important factor in stifling the women's vote for the Nazis and Communists. Secondly, and most significantly, the analysis also suggests that the groups within which the Nazi party enjoyed disproportionate support among men, were also groups in which women were less likely to vote in 1928 and 1930. As such, support for the Nazis among the self-employed class appears to have been disproportionately a male phenomenon prior to 1932. As women's turnout increased in the subsequent elections of the 1930s, it is likely that previously non-voting women voted disproportionately for the Nazis, particularly in Protestant areas. As Helen Boak puts it:

> "it seems probable that the NSDAP drew its [female] support from those sections of society from which it attracted men's votes, from within the Protestant middle class".[236]

Indeed the separated voting evidence that does exist suggests that votes for the Nazi party from women had caught up with those of men in Protestant areas by July 1932 and may have even overtaken men in some areas. Although this cannot entirely explain the increase in the Nazi vote in these elections, it is probable that the increase in turnout among women benefited the Nazis. Examining the gender separated voting record for a larger sample of districts in 1932 and 1933 is therefore an important avenue for future research.

It is often assumed that the low levels of voter turnout observed in many countries today is the sign of an unhealthy political system. However the Weimar case shows that a high or increasing turnout rate may not be sign of vitality but rather of malaise. The radicalisation of women in Weimar Germany may have lagged behind that of men in the initial stages of the economic and political crisis but it would appear that women made up much, if not all, of the ground lost to men before the final demise of democracy.

[236] Boak, *"Our Last Hope"; Women's Votes for Hitler: A Reappraisal*. p.299

CHAPTER V CONCLUDING REMARKS

This thesis has addressed two of the most prominent and characteristic aspects of the interwar international economy; the break-up of the Gold Standard system and the rise of trade protectionism. I argue that extensions to the franchise are crucial to understanding both of these phenomena. Using evidence based on macro-level panel data analysis, micro-level public opinion survey evidence, as well as numerous qualitative sources, I construct an argument that stresses the importance of these changes in relation to economic policy decisions; changes that can help explain the unusual nature of the interwar international economy. In addition I have examined the gender separated voting record of Weimar Germany to gain an insight into the actual voting preferences of newly enfranchised women voters.

In the analysis of interwar trade policy, a number of economic and political factors are found to have been important determinants of tariff policy. Most importantly for this thesis, the extent of voting rights is found to be associated with tariff policy. The importance of new women voters is identified with regard to the politics of trade protection. Public opinion survey evidence from the interwar years, suggests that women were more likely to hold protectionist attitudes than men. This is in line with the gender gap regarding tariffs that is apparent from modern day survey evidence. Cross-country evidence is also uncovered of an effect of the granting of a political voice to women. Where women were entitled to vote tariffs were, on average, higher. The extensions of the franchise that occured after the First World War were therefore likely to have contributed to the increase in trade protection that was characteristic of the interwar period.

The extent of voting rights is also found to be associated with the maintenance of the interwar gold standard, with the extension of the franchise found to be negatively related to the probability of being on gold during the interwar years and positively related to the

probability of leaving the gold standard. Once more the importance of new women voters is assessed. The finding that women voters may have influenced the decision whether or not to stay on the gold standard is an interesting result of the analysis. This theory also finds further support in an examination of interwar public opinion surveys and an exploration of qualitative sources.

To further explore the preferences of women voters, evidence of how women actually behaved as political actors was explored in chapter IV. Using election results that were separated by gender from Weimar Germany in 1928 and 1930, inferences are made as to the proportions of different socio-economic groups that gave their votes to the main competing parties. A number of differnces between the voting patterns of men and women are uncovered. Perhaps the most important finding is that the greater Nazi vote among men in "Self-Employed" Protestant groups appears to have been driven by a greater number of women in these groups either not voting at all or, in Catholic areas, voting in greater numbers for the Zentrum party. Women were also found to have shown less loyalty than men in their support for some parties and were more loyal when it came to others.

Arguably the most significant contribution of this thesis is the identification and examination of the franchise dimension of democracy and its relationship to trade policy and the gold standard system. That changes in the voting rights of women may have affected these policy choices is a particularly important finding. In addition the exploration of the voting preferences of women in Weimar Germany by religion and social class represents a novel approach to the decades-old question: who voted for Hitler? The findings of this thesis also suggest a number of interesting avenues for future research. An assessment of how changes in voting rights before the First World War influenced economic policies constitutes one such opportunity. These changes could be analysed not just with regard to the male franchise but also playing close attention to the extension of voting rights to women that

occurred in a small number of countries. Another potentially interesting enterprise would be to extend the analysis of the gender separated voting record in Weimar Germany of chapter IV past the 1930 Reichstag election. Votes were separated by gender in some areas in the elections of 1932 and 1933 but were not collated at the Reich level, likely due to the adverse economic conditions at the time. Data for a handful of districts have been collected but it is likely that many more districts can be found in individual state archives. As the elections of 1932 and 1933 were the elections that ultimately brought the Nazis to power, an understanding of the role that the votes of women played in the collapse of democracy in Germany would be of unique historical and political significance.

APPENDICES

APPENDIX TO CHAPTER II

Table A1

ORDERED PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Three Outcomes: "Good Policy", "It Depends" or "Bad Policy"

Predicted Probability of "Good Policy"

Variable	Model I	Model II	Model III	Model IV
Female	0.0619***	0.0618***	0.0480*	0.0484*
	(0.0135)	(0.0134)	(0.0257)	(0.0261)
Age Over 40		-0.00803	-0.00722	-0.00215
		(0.0134)	(0.0140)	(0.0143)
Proprietor-Farm			0.0640**	0.0702**
			(0.0271)	(0.0273)
Proprietor-Other			0.0488*	0.0396
			(0.0270)	(0.0278)
Housekeeper			0.0704**	0.0693**
			(0.0306)	(0.0310)
Salaried-Executive			0.0444*	0.0410
			(0.0263)	(0.0268)
Salaried-Minor			-0.0427	-0.0468
			(0.0376)	(0.0382)
Wages-Factory			0.0772*	0.0819*
			(0.0437)	(0.0441)
Wages-Farm			0.169***	0.177***
			(0.0316)	(0.0317)
Wages-Other			0.0938***	0.0917***
			(0.0250)	(0.0256)
Retired			0.0579	0.0497
			(0.0387)	(0.0397)
Would vote FDR				-0.00827
				(0.0149)
Observations	4,346	4,346	4,346	4,184

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table A2

ORDERED PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Three Outcomes: "Good Policy", "It Depends" or "Bad Policy"

Predicted Probability of "It Depends"

Variable	Model I	Model II	Model III	Model IV
Female	-0.0174***	-0.0173***	-0.0136*	-0.0137*
	(0.00393)	(0.00393)	(0.00736)	(0.00750)
Age Over 40		0.00224	0.00203	0.000606
		(0.00374)	(0.00396)	(0.00404)
Proprietor-Farm			-0.0195**	-0.0216**
			(0.00897)	(0.00917)
Proprietor-Other			-0.0146*	-0.0117
			(0.00857)	(0.00865)
Housekeeper			-0.0204**	-0.0201**
			(0.00909)	(0.00924)
Salaried-Executive			-0.0132	-0.0121
			(0.00825)	(0.00832)
Salaried-Minor			0.0113	0.0123
			(0.00926)	(0.00927)
Wages-Factory			-0.0244	-0.0260*
			(0.0153)	(0.0157)
Wages-Farm			-0.0603***	-0.0635***
			(0.0140)	(0.0143)
Wages-Other			-0.0295***	-0.0288***
			(0.00882)	(0.00899)
Retired			-0.0177	-0.0151
			(0.0129)	(0.0129)
Would vote FDR				0.00232
				(0.00416)
Observations	4,346	4,346	4,346	4,184

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table A3

ORDERED PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Three Outcomes: "Good Policy", "It Depends" or "Bad Policy"

Predicted Probability of "Bad Policy"

Variable	Model I	Model II	Model III	Model IV
Female	-0.0446***	-0.0445***	-0.0344*	-0.0346*
	(0.00962)	(0.00962)	(0.0184)	(0.0187)
Age Over 40		0.00579	0.00519	0.00155
		(0.00968)	(0.0101)	(0.0103)
Proprietor-Farm			-0.0444**	-0.0486***
			(0.0182)	(0.0182)
Proprietor-Other			-0.0342*	-0.0279
			(0.0184)	(0.0192)
Housekeeper			-0.0500**	-0.0492**
			(0.0215)	(0.0218)
Salaried-Executive			-0.0312*	-0.0289
			(0.0181)	(0.0185)
Salaried-Minor			0.0314	0.0345
			(0.0283)	(0.0289)
Wages-Factory			-0.0528*	-0.0559**
			(0.0284)	(0.0285)
Wages-Farm			-0.109***	-0.113***
			(0.0179)	(0.0177)
Wages-Other			-0.0643***	-0.0629***
			(0.0163)	(0.0168)
Retired			-0.0401	-0.0346
			(0.0259)	(0.0268)
Would vote FDR				0.00595
				(0.0108)
Observations	4,346	4,346	4,346	4,184

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table A4

ORDERED PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Three Outcomes: "Good Policy", "It Depends" or "Bad Policy"

Predicted Probability of "Good Policy"

WOMEN ONLY

Variable	Model I	Model II	Model III
Age Over 40	-0.00193	-0.00532	-7.21e-05
	(0.0193)	(0.0198)	(0.0203)
Proprietor-Farm		0.186***	0.185***
		(0.0588)	(0.0591)
Proprietor-Other		-0.0805	-0.112
		(0.0845)	(0.0879)
Housekeeper		0.119**	0.117**
		(0.0480)	(0.0481)
Salaried-Executive		0.0776	0.0687
		(0.0495)	(0.0511)
Salaried-Minor		0.108	0.106
		(0.0888)	(0.0894)
Wages-Factory		0.0687	0.0700
		(0.201)	(0.200)
Wages-Farm		0.168***	0.188***
		(0.0628)	(0.0597)
Wages-Other		0.209***	0.220***
		(0.0296)	(0.0285)
Retired		0.0125	0.00888
		(0.106)	(0.106)
Would vote FDR			-0.00676
			(0.0207)
Observations	1,962	1,962	1,865

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table A5

ORDERED PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Three Outcomes: "Good Policy", "It Depends" or "Bad Policy"

Predicted Probability of "It Depends"

WOMEN ONLY

Variable	Model I	Model II	Model III
Age Over 40	0.000513	0.00144	1.96e-05
	(0.00511)	(0.00537)	(0.00553)
Proprietor-Farm		-0.0664**	-0.0663**
		(0.0272)	(0.0274)
Proprietor-Other		0.0192	0.0253
		(0.0176)	(0.0162)
Housekeeper		-0.0284***	-0.0281***
		(0.0101)	(0.0102)
Salaried-Executive		-0.0234	-0.0205
		(0.0166)	(0.0167)
Salaried-Minor		-0.0344	-0.0339
		(0.0328)	(0.0329)
Wages-Factory		-0.0207	-0.0212
		(0.0669)	(0.0667)
Wages-Farm		-0.0584**	-0.0674**
		(0.0276)	(0.0280)
Wages-Other		-0.0753***	-0.0804***
		(0.0145)	(0.0146)
Retired		-0.00345	-0.00245
		(0.0298)	(0.0297)
Would vote FDR			0.00184
			(0.00560)
Observations	1,962	1,962	1,865

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table A6

ORDERED PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Three Outcomes: "Good Policy", "It Depends" or "Bad Policy"

Predicted Probability of "Bad Policy"

WOMEN ONLY

Variable	Model I	Model II	Model III
Age Over 40	0.00142	0.00387	5.24e-05
	(0.0141)	(0.0144)	(0.0148)
Proprietor-Farm		-0.119***	-0.119***
		(0.0321)	(0.0323)
Proprietor-Other		0.0613	0.0864
		(0.0670)	(0.0719)
Housekeeper		-0.0904**	-0.0890**
		(0.0382)	(0.0381)
Salaried-Executive		-0.0541	-0.0482
		(0.0331)	(0.0345)
Salaried-Minor		-0.0734	-0.0724
		(0.0561)	(0.0566)
Wages-Factory		-0.0480	-0.0488
		(0.134)	(0.133)
Wages-Farm		-0.110***	-0.120***
		(0.0356)	(0.0323)
Wages-Other		-0.134***	-0.139***
		(0.0165)	(0.0156)
Retired		-0.00902	-0.00643
		(0.0758)	(0.0766)
Would vote FDR			0.00493
			(0.0151)
Observations	1,962	1,962	1,865

Robust standard errors in parentheses
Marginal effects at means of independent variables

*** indicates significance at 1%
** indicates significance at 5%
* indicates significance at 10%

Table A7

PROBIT MARGINAL EFFECTS

Fortune Magazine Poll, September 1939

"Do you believe that a high tariff to keep out foreign goods in competition with American goods is good policy or bad policy?"

Dependent Variable: "Good Policy" = 1

Occupation	(1) *Professional*	(2) *Proprietor-Farm*	(3) *Proprietor-Other*	(4) *Housekeeper*	(5) *Salaried-Executive*	(6) *Salaried-Minor*	(7) *Wages-Factory*	(8) *Wages-Farm*	(9) *Wages-Other*	(10) *Retired*
Female	0.121	0.196**	-0.245**	0.253	0.0575	0.214	0.0316	0.0465	0.220***	-0.109
	(0.0850)	(0.0871)	(0.101)	(0.354)	(0.0531)	(0.140)	(0.224)	(0.0878)	(0.0392)	(0.159)
Would vote FDR	-0.0462	-0.0915*	-0.0513	0.0124	-0.0345	-0.0475	-0.136	0.109*	0.0377	0.00619
	(0.0882)	(0.0549)	(0.0588)	(0.0233)	(0.0485)	(0.102)	(0.0948)	(0.0612)	(0.0408)	(0.105)
Age over 40	0.0307	0.0914*	-0.0262	0.00192	-0.0167	0.0434	-0.0741	-0.0808	0.0113	
	(0.0729)	(0.0523)	(0.0492)	(0.0226)	(0.0469)	(0.0805)	(0.0965)	(0.0736)	(0.0410)	
Observations	203	375	399	1,520	482	165	90	128	470	115

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table A8

WOMEN'S SUFFRAGE ACQUISITION

Country	Year	Country	Year	Country	Year
New Zealand	1893	Sweden	1919	Hungary	1945
Australia	1902	Canada	1920	Japan	1945
Finland	1906	United States	1920	Italy	1946
Norway	1913	Ireland	1922	Romania	1946
Denmark	1915	United Kingdom	1928	Argentina	1947
Austria	1918	South Africa	1930*	Belgium	1948
Germany	1918	Spain	1931	Greece	1952
Czechoslovakia	1919	Uruguay	1932	Switzerland	1971
The Netherlands	1919	Bulgaria	1945	Portugal	1974
Poland	1919	France	1945	Peru	1979**

* European women only. ** Equal voting rights in 1955 but literacy restrictions remained.
Sources: See text (Thesis appendix)

DATA DESCRIPTION AND SOURCES

Countries included in the analysis:

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, The Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Romania, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States and Uruguay.

DEPENDENT VARIABLES:

Customs revenue divided by the value of total imports (x 100). Data from Mitchell.[237] Data for alternative measures of trade openness (exports + imports/GDP and imports/GDP) taken from Eichengreen and Leblang.[238]

[237] B.R. Mitchell, *International Historical Statistics: Africa, Asia, and Oceania, 1750-2005* (London, 2007), B.R. Mitchell, *International Historical Statistics: Europe, 1750-2005. London: Palgrave MacMillan.* (London, 2007), B.R. Mitchell, *International Historical Statistics: The Americas, 1750-2005* (London, 2007)
[238] Eichengreen and LeBlang, *Democracy and Globalization* 289-334.

INDEPENDENT VARIABLES:

Franchise

Electorate/registered voters as a proportion of the population. Electoral data from Nohlen *et al*, Nohlen and Nohlen and Stöver.[239] Additional electoral data and population data from Banks *Cross National Time Series*.[240]

Female Vote

Dummy variable taking on a value of 1 if full voting rights had been extended to women based on Ramirez, Soysal and Shanahan.[241]

Polity

Polity IV scores scaled to be between zero and one. Data from Polity IV database.[242]

---

[239] D. Nohlen, F. Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific* (New York, 2001), D. Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean* (2005), D. Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America* (New York, 2005), Nohlen and Stöver, *Elections in Europe: A Data Handbook*

[240] Banks, *Cross-National Time-Series Data Archive*

[241] F.O. Ramirez, Y. Soysal and S. Shanahan, 'The Changing Logic of Political Citizenship: Cross-National Acquisition of Women's Suffrage Rights, 1890 to 1990', *American Sociological Review,* Vol. 62 (No. 5, 1997) pp. 735-745.

[242] Polity IV Database, *Regime Authority Characteristics and Transitions*, http://www.systemicpeace.org/inscr/inscr.htm edn (2009)

GDP per capita

GDP data from Maddison in 1990 International Geary-Khamis dollars.[243] Data on GDP of South Africa from Eichengreen and LeBlang.[244] Bulgarian data from Ivanov.[245]

Land per capita

Total land area divided by population. Data from Banks *Cross National Time Series.*[246]

Tariff of Main Trading Partner

Main trading partner(s) identified according to trade data from Mitchell.[247]

On Gold

Years of membership of interwar gold standard based on Wandschneider with additional data from Eichengreen.[248] No distinction made between *de jure* and *de facto* adherence, de facto abandonment considered sufficient.

PR

Dummy variable taking a value of one if a country had a proportional representation electoral system, zero otherwise. Based on the classifications found in Berg-Schlosser and

[243] A. Maddison, *Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD*, www.ggdc.net/MADDISON edn (2009)
[244] Eichengreen and LeBlang, *Democracy and Globalization* 289-334.
[245] M. Ivanov, The Gross Domestic Product of *Bulgaria 1870-1945, Ciela* (2012)
[246] Banks, *Cross-National Time-Series Data Archive*
[247] Mitchell, *International Historical Statistics: Africa, Asia, and Oceania, 1750-2005*, Mitchell, *International Historical Statistics: Europe, 1750-2005. London: Palgrave MacMillan.*, Mitchell, *International Historical Statistics: The Americas, 1750-2005*
[248] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151., Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* pp.188-89

Mitchell.[249] For countries not covered in their analysis, variables were constructed based on country specific sources. Although Japan's interwar electoral system falls somewhere between a PR system and a majoritarian system, it is classified as proportional.[250]

Election Last Year

Dummy variable taking a value of one if a general election was held in the previous year, zero otherwise. Data from Mackie and Rose, Nohlen, Krennerich and Thibaut (1999). Nohlen, Grotz and Hartmann (2001), Nohlen (2005) and Nohlen and Stöver (2010).[251]

[249] D. Berg-Schlosser and J. Mitchell, *Authoritarianism and Democracy in Europe, 1919-39: Comparative Analyses* (2002)
[250] G.W. Cox, 'Is the Single Nontransferable Vote Superproportional? Evidence from Japan and Taiwan', *American Journal of Political Science,* Vol. 40 (No. 3, 1996) pp. 740-755.
[251] T.T. Mackie and R. Rose, *The International Almanac of Electoral History*, Third edn (London, 1991), D. Nohlen, M. Krennerich, et al., *Elections in Africa: A Data Handbook* (Oxford, 1999), Nohlen, Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific*, Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean*, Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, Nohlen and Stöver, *Elections in Europe: A Data Handbook*

DESCRIPTIVE STATISTICS

TABLE A9: DESCRIPTIVE STATISTICS

OLS Fixed Effects Analysis

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
Log Tariff Rate	432	-2.037	0.663	-4.080	-0.680
Female Vote	480	0.510	0.500	0	1
Log Franchise	442	3.515	0.658	1.705	4.227
Polity	480	0.653	0.328	0	0.952
On Gold	480	0.375	0.485	0	1
Log GDP per capita	472	8.038	0.473	7.019	8.839
Proportional Representation	480	0.606	0.489	0	1
Log Land per capita	479	-0.0202	0.992	-1.412	2.376
Election Last Year	480	0.285	0.452	0	1
Log tariff main trade partner (lagged)	471	-1.988	0.542	-3.764	-1.154

Sources: See text

FORTUNE MAGAZINE SURVEY, SEPTEMBER 1939

All binary variables

Female = 1 if respondent was female, zero otherwise

Age Over 40 = 1 if respondent aged over 40 years old, zero otherwise.

Occupation Categories = 1 if respondent was placed in a particular occupation category, zero otherwise. Categories are: “Professional” (omitted category in analysis), “Proprietor - Farm”, “Proprietor - Other”, “Housekeeper”, “Salaried - Minor”, “Salaried - Executive” and “Wages-Factory”, “Wages-Farm”, “Wages-Other” and “Retired”.

Would Vote FDR = 1 if respondent indicated their intention to vote for Franklin Roosevelt in the next election, zero otherwise.

DESCRIPTIVE STATISTICS

TABLE A10: DESCRIPTIVE STATISTICS

Fortune Magazine Poll, September 1939

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
High Tariff a "Good Thing"	4,346	0.699	0.459	0	1
Female	5,146	0.498	0.500	0	1
Age Over 40	5,146	0.523	0.500	0	1
Professional	5,146	0.0418	0.200	0	1
Proprietor-Farm	5,146	0.0834	0.276	0	1
Proprietor-Other	5,146	0.0865	0.281	0	1
Housekeeper	5,146	0.413	0.492	0	1
Salaried-Executive	5,146	0.0340	0.181	0	1
Salaried-Minor	5,146	0.102	0.302	0	1
Wages-Factory	5,146	0.0200	0.140	0	1
Wages-Farm	5,146	0.0317	0.175	0	1
Wages-Other	5,146	0.110	0.313	0	1
Retired	5,146	0.0247	0.155	0	1
Would vote FDR	4,869	0.363	0.481	0	1

Source: See text

Table A11: AVERAGE TARIFF RATE & VOTING RIGHTS (OLS with fixed effects. Dependent Variable: Natural log of average tariff rate)
Alternative definition of Female Vote variable: Female Vote =1 from first election after enfranchisement

Variable	Model I	Model II	Model III	Model IV	Model V	Model VI	Model VII	Model VIII	Model IX	Model X	Model XI
Female Vote	0.465***	0.547***	0.528**	0.468**	0.122	-0.839***	0.127	0.159	0.176	0.218*	0.298
	(0.167)	(0.171)	(0.206)	(0.211)	(0.170)	(0.236)	(0.177)	(0.125)	(0.126)	(0.123)	(0.214)
Polity		-1.095**	-1.556***	-0.795**	-0.722**	-0.747**	-1.798	-0.895***	-0.910***	-0.982***	-1.144***
		(0.424)	(0.334)	(0.289)	(0.285)	(0.284)	(1.067)	(0.242)	(0.249)	(0.230)	(0.291)
Log Franchise			0.112	-0.181	-0.650***	-0.655***	-0.775***	-0.578***	-0.721***	-0.661***	-0.500
			(0.241)	(0.153)	(0.230)	(0.232)	(0.248)	(0.198)	(0.236)	(0.238)	(0.334)
*Female Vote*Log Franchise*						0.274***					
						(0.0970)					
*Female Vote*Polity*							-0.0623				
							(0.164)				
*Log Franchise*Polity*							0.318				
							(0.305)				
Log GDP per capita								-0.205	-0.277	-0.484	0.273
								(0.352)	(0.366)	(0.365)	(0.285)
Log Land per capita								4.850***	4.496***	4.542***	0.203
								(0.778)	(0.798)	(0.754)	(0.968)
*Log Franchise*Log Land p.c.*								-0.0108*	-0.0133*	-0.0124*	-0.0120
								(0.00621)	(0.00690)	(0.00626)	(0.00991)
PR									0.465***	0.535***	0.431***
									(0.0982)	(0.126)	(0.122)
Election Last Year									0.0125		
									(0.0192)		
Log tariff main trade partner (lagged)										-0.124	0.434***
										(0.119)	(0.121)
On Gold Standard										0.147	0.170*
										(0.0909)	(0.0894)
Constant	-2.374***	-1.657***	-1.738*	-1.211**	-0.145	-0.139	0.284	1.049	1.786	2.843	-1.323
	(0.0827)	(0.288)	(0.939)	(0.511)	(0.750)	(0.740)	(0.804)	(2.692)	(2.774)	(2.796)	(2.232)
Country Fixed Effects	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Year Fixed Effects	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO
Observations	578	577	531	531	531	531	531	520	502	487	487
R-squared	0.032	0.161	0.254	0.112	0.588	0.595	0.592	0.698	0.696	0.697	0.455
Number of id	30	30	30		30	30	30	30	30	30	30

Robust standard errors clustered by country in parentheses *** indicates significance at 1% ** indicates significance at 5% * indicates significance at 10%

APPENDIX TO CHAPTER III

ROBUSTNESS

One important issue that must be addressed is the potential for cross-sectional or spatial autocorrelation within the panel data. Values of the dependent variable indicating that a country was on the gold standard (or not) are potentially not independent. The fact that a country is on the gold standard at a certain point in time may have influenced the probability that its geographic neighbours were also on gold. The possibility of spatial links between countries is clear as many neighbouring countries had close economic ties. As such the network benefits of gold standard membership may not have only been dependent on the total number of member countries or the adherence of a countries main trading partners but also on physical proximity. It is also possible that this effect, if present, would have been inversely related to the distance between the countries. If such a spatial autocorrelation is present and not addressed then the standard independence of observations is violated with consequences for the standard errors of the coefficient estimates.

Testing and controlling for spatial correlation in panel data models is a relatively new enterprise that has attracted a lot of recent attention. Models that control for spatial dependence in OLS panel data models have been developed, but the exploration of spatial effects in panel data models with discrete dependent variables is still in its infancy.[252] To the best of my knowledge, no procedure to deal with spatial effect with discrete dependent variables has yet been outlined. As the dependent variable in the principal analysis of this chapter is discrete (gold standard member or not) this presents a significant problem. Nonetheless, as table A1 illustrates, the results of the OLS fixed effects (model (b)) estimation of the baseline specification for membership of the gold standard are quite

[252] Luc Anselin, JulieLe Gallo, et al., 'Spatial Panel Econometrics', in László Mátyás and Patrick Sevestre (ed.), *The Econometrics of Panel Data* (46 vols., 2008) 625-60.

consistent with those of the probit model (a). Although attempting to fit a linear model to this non-linear data is far from an ideal solution, something can possibly still be learned regarding spatial relationships in the data from the models estimated by OLS, and the approach is therefore worthwhile.

TABLE A1: CROSS-SECTIONAL AND SPATIAL CORRELATION

(Dependant variable: "on the gold standard" (binary))

Country and Year FE in all specifications

VARIABLES	Model I (a) FE Probit	Model I (b) FE OLS	Model I (c) FE OLS D-K	Model I (d) FE Spatial Lag (Contiguity)	Model I (e) FE Spatial Lag (Inverse Distance)	Model I (f) FE Spatial Lag (Inverse Distance)
Log GDP per capita (lagged)	3.443	0.397	0.397*	0.00628	0.00516	0.520
	(3.022)	(0.381)	(0.210)	(0.0116)	(0.0122)	(0.422)
Franchise	-3.388**	-0.614**	-0.614***	-0.0636***	-0.0709***	-0.744
	(1.375)	(0.257)	(0.201)	(0.0200)	(0.0233)	(0.558)
Femvote	0.654	0.0783	0.0783	-0.0939	-0.108	0.110
	(1.000)	(0.155)	(0.0729)	(0.0993)	(0.113)	(0.228)
Polity	2.756	0.408*	0.408***	0.409**	0.395*	0.317*
	(1.755)	(0.212)	(0.0843)	(0.199)	(0.211)	(0.175)
Constant	-24.17	-1.195	0	-0.0320	0.0205	-1.863
	(25.91)	(3.351)	(0)	(0.164)	(0.171)	(3.361)
Spatially Lagged Dependent Variable				0.0438	-0.000114	0.193**
				(0.0315)	(0.000146)	(0.0902)
Observations	330	330	330	374	374	306
R-squared		0.547				
Number of groups	22	22	22	22	22	18

Standard errors clustered by country in parentheses (except model (c); Driscoll-Kraay standard errors)
*** p<0.01, ** p<0.05, * p<0.1

Note: Data covers 1919-1936 , Poland ommitted due to problems with missing data.
For Model (f) year 1919 and Bulgaria, Hungary, Romania and Japan dropped to obtain balanced panel.
Driscoll-Kraay estimations consistent with various lag specifications.

As a first pass the general case of cross-sectional dependence is examined. This assumes no specific structure of the dependence (i.e. spatial) but rather is concerned with general cross-sectional dependence in panel data. If cross-sectional dependence is present then adjusting the standard errors using the Driscoll-Kraay method represents a possible

remedy.[253] The Driscoll-Kraay method produces heteroscedasticity consistent standard errors that are robust to general forms of cross-sectional and temporal dependence within a fixed effects OLS model. Before choosing the correct adjustment of standard errors to undertake however, it is important to test for the presence of cross-sectional dependence of the error terms in the panel data model. If disturbances are cross-sectionally dependent then the appropriate correction to apply is Driscoll-Kraay standard errors. If cross-sectional dependence is believed not to be an issue, then Rogers (clustered) standard errors, as employed in the principal analysis, are preferred.[254]

To test for cross-sectional dependence a Pesaran CD (cross-sectional dependence) test is performed based on the residuals of the FE OLS model in model (b) in table A1.[255] The null hypothesis of the Pesaran test is that residuals are not cross-sectionally dependent. The test statistic is -2.817 with a p-value of 0.01 indicating that we should reject the null at the 5% level of significance. Therefore the model is implemented with Driscoll-Kraay standard errors, as given in model (c) of table A1, to assess any effect this has on the standard errors of the coefficient estimates. This correction for general cross-sectional dependence increases the precision of many of the coefficient estimates and results in a further affirmation of the relationships uncovered by the principal analysis.

The preceding exercise revealed the possible presence of general cross-sectional dependence in the residuals of the fixed effects OLS model. However correcting for this dependence using Driscoll-Kraay standard errors did not alter any conclusions of the analysis. Additionally, it is possible to assign a structure to the cross-sectional dependence

[253] J.C. Driscoll and A.C. Kraay, 'Consistent Covariance Matrix Estimation with Spatially Dependent Panel Data', *Review of Economics and Statistics,* Vol. 80 (No. 4, 1998) 549-60.
[254] D. Hoechle, 'Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence', *Stata Journal,* Vol. 7 (No. 3, 2007) 281.
[255] M.H. Pesaran, 'General Diagnostic Tests for Cross Section Dependence in Panels', 2004)

by assuming that this relationship is spatial in nature. Models of the spatial relationship of cross-sectional dependence incorporate Tobler's law that "everything is related to everything else, but near things are more related than distant things".[256] As such the specific spatial relationship between observations needs to be modelled before the analysis can proceed. To do this, a contiguity matrix was constructed indicating whether or not a country shared a border with another country in the dataset. Of course this somewhat basic measure of spatial relationship only captures direct proximity and does not allow for effects to decrease with distance. To address this concern another matrix was constructed, this time based on the inverse distance between the observations (more precisely the distance between the capital cities based on co-ordinates of latitude and longitude). Once these spatial weight matrices have been calculated it is possible to incorporate a spatially lagged (weighted by contiguity or distance) dependent variable within the fixed effects OLS model to correct for this type of spatial dependence.[257]

The results of these models including a spatially lagged dependent variable are presented in models (d) and (e) of table A1. Model (d) weights the dependent variable of other panels (countries) by contiguity while model (e) uses weights based on the inverse distance between the countries. The spatially lagged dependent variable is insignificant in both models indicating that whether or not a country was on gold was not related to the membership of its neighbours. The statistical procedure required to calculate the spatial lag model however requires the panel to be balanced so in models (d) and (e) missing data are automatically converted to zeros. This could obviously compromise the results. In order to test this result, the spatial lag inverse distance model is estimated once more, but this time

[256] M.M. Fischer and J. Wang, *Spatial Data Analysis* (2011) p.22
[257] E.A.E. Shehata and S.K. Mickaiel, *"SPREGFEXT: Stata Module to Compute Spatial Panel Fixed Effects Regression: Lag and Durbin Models,"*, Statistical Software Components S457524 edn (2012)

for countries for which data is incomplete. The balanced data model is model (f). The results are consistent with the results of the other models but with the addition that the variable indicating franchise extension is no longer statistically significant. The spatially lagged dependent variable is positive and significant, indicating that whether or not a country was on gold was positively related to the membership of its neighbours. Overall it would appear that spatial relationships are an important factor in the model. Nonetheless the conclusions based on the results of the principal analysis are not overturned. The variable signifying the extent of the franchise has the same sign across all specifications and is statistically significant in all but one of the models. The other coefficients in the fixed effects probit baseline model remain stable across all models.

DATA DESCRIPTION AND SOURCES

INTERNATIONAL REGRESSION ANALYSIS

Countries included in the analysis:

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Denmark, Finland, France, Germany, Hungary, Italy, Japan, The Netherlands, New Zealand, Norway, Poland, Romania, South Africa, Sweden, Switzerland, United Kingdom and United States.

DEPENDENT VARIABLES

Years of membership of interwar gold standard based on Wandschneider with additional data from Eichengreen.[258] No distinction made between *de jure* and *de facto* adherence, de facto abandonment considered sufficient.

[258] Wandschneider, *The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?* 151., Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* pp.188-89

INDEPENDENT VARIABLES:

GDP per capita

GDP data from Maddison in 1990 International Geary-Khamis dollars.[259] Data on GDP of South Africa from Eichengreen and LeBlang.[260] Bulgarian data from Ivanov.[261]

Franchise

Electorate/registered voters as a proportion of the population. Electoral data from Nohlen *et al*, Nohlen and Nohlen and Stöver.[262] Additional electoral data and population data from Banks *Cross National Time Series*.[263]

Female Vote

Dummy variable taking on a value of 1 if full voting rights had been extended to women based on Ramirez, Soysal and Shanahan.[264]

Countries on Gold

Total combined GDP of countries on Gold in any given year as a proportion of total GDP of countries in the sample for the same year.

---

[259] Maddison, *Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD*
[260] Eichengreen and LeBlang, *Democracy and Globalization* 289-334.
[261] Ivanov, The Gross Domestic Product of *Bulgaria 1870-1945*
[262] Nohlen, Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific*, Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean*, Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, Nohlen and Stöver, *Elections in Europe: A Data Handbook*
[263] Banks, *Cross-National Time-Series Data Archive*
[264] Ramirez, Soysal, et al., *The Changing Logic of Political Citizenship: Cross-National Acquisition of Women's Suffrage Rights, 1890 to 1990* pp. 735-745.

Exports/GDP

Natural log of exports as a proportion of GDP. Data from Eichengreen and LeBlang.[265]

Main Trading Partner

Dummy variable taking a value of one if a country's main trading partner is on the gold standard, zero otherwise. Trade data from Mitchell.[266]

Banking Panic

Dummy variable taking a value of one if a country experienced a banking panic in, zero otherwise. Data from Bernanke and James.[267]

Govt. Crises

Number per year of rapidly developing situations that threaten to bring the downfall of the present regime - excluding situations of revolt aimed at such overthrow. Data from Banks *Cross National Time Series.*[268]

Strikes

Number per year of strikes of 1,000 or more industrial or service workers that involves more than one employer and that is aimed at national government policies or authority. Data from Banks *Cross National Time Series.*[269]

---

[265] Eichengreen and LeBlang, *Democracy and Globalization* 289-334.
[266] Mitchell, *International Historical Statistics: Africa, Asia, and Oceania, 1750-2005*, Mitchell, *International Historical Statistics: Europe, 1750-2005. London: Palgrave MacMillan.*, Mitchell, *International Historical Statistics: The Americas, 1750-2005*
[267] B. Bernanke and H. James, 'The Gold Standard, Deflation and Financial Crisis in the Great Depression: An International Comparison', in G. Hubbard (ed.), *Financial Markets and Financial Crisis* (Chicago, 1991) 33-68.
[268] Banks, *Cross-National Time-Series Data Archive*
[269] ibid.

Cabinet Changes

The number of times in a year that a new premier is named and/or 50% of the cabinet posts are assumed by new ministers. Data from Banks *Cross National Time Series.*[270]

Election Last Year

Dummy variable taking a value of one if a general election was held in the previous year, zero otherwise. Data from Mackie and Rose, Nohlen, Krennerich and Thibaut. Nohlen, Grotz and Hartmann, Nohlen and Nohlen and Stöver.[271]

Election 2 Years Ago

Dummy variable taking a value of one if a general election was held two years previously, zero otherwise. Data from Mackie and Rose, Nohlen, Krennerich and Thibaut. Nohlen, Grotz and Hartmann, Nohlen and Nohlen and Stöver.[272]

Polity

Polity IV scores scaled to be between zero and one. Data from Polity IV database.[273]

---

[270] ibid.
[271] Mackie and Rose, *The International Almanac of Electoral History*, Nohlen, Krennerich, et al., *Elections in Africa: A Data Handbook*, Nohlen, Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific*, Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean*, Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, Nohlen and Stöver, *Elections in Europe: A Data Handbook*
[272] Mackie and Rose, *The International Almanac of Electoral History*, Nohlen, Krennerich, et al., *Elections in Africa: A Data Handbook*, Nohlen, Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific*, Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean*, Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, Nohlen and Stöver, *Elections in Europe: A Data Handbook*
[273] Polity IV Database, *Regime Authority Characteristics and Transitions*

High Inflation

Dummy variable taking a value of one country had a history of high inflation during the 1920s, zero otherwise. Classification based on data from Eichengreen.[274] Supplementary data from Mitchell.[275]

Creditor

Dummy variable taking a value of one if a country was a net creditor throughout the gold standard period, zero otherwise. Data from Eichengreen and based on country specific histories.[276]

PR

Dummy variable taking a value of one if a country had a proportional representation electoral system, zero otherwise. Based on the classifications found in Berg-Schlosser and Mitchell.[277] For countries not covered in their analysis, variables were constructed based on country specific sources. Although Japan's interwar electoral system falls somewhere between a PR system and a majoritarian system, it is classified as proportional.[278]

[274] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* p.184
[275] Mitchell, *International Historical Statistics: Africa, Asia, and Oceania, 1750-2005*, Mitchell, *International Historical Statistics: Europe, 1750-2005. London: Palgrave MacMillan.*, Mitchell, *International Historical Statistics: The Americas, 1750-2005*
[276] Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression* p.248
[277] Berg-Schlosser and Mitchell, *Authoritarianism and Democracy in Europe, 1919-39: Comparative Analyses*
[278] Cox, *Is the Single Nontransferable Vote Superproportional? Evidence from Japan and Taiwan* pp. 740-755.

DESCRIPTIVE STATISTICS

TABLE A2: DESCRIPTIVE STATISTICS

Fixed Effects Probit Analysis

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
On Gold Standard	391	0.391	0.489	0	1
Strikes	391	0.184	0.523	0	3
Government Crises	391	0.517	1.010	0	6
Cabinet Changes	391	0.708	0.839	0	9
Log GDP per capita (lagged)	342	8.139	0.424	6.812	8.839
Proportional Representation	391	0.565	0.496	0	1
Banking Panic	391	0.0870	0.282	0	1
Countries on Gold	391	0.564	0.262	0.197	0.963
Main Trading Partner	391	0.473	0.500	0	1
Female Vote	391	0.547	0.498	0	1
Log Exports/GDP	348	-2.005	0.710	-4.116	-0.327
Polity	391	0.734	0.286	0	0.952
Election Last Year	368	0.337	0.473	0	1
Election 2 Years Ago	345	0.348	0.477	0	1
Log Franchise	377	3.586	0.577	1.569	4.221

Sources: See text

TABLE A3: DESCRIPTIVE STATISTICS

Survival Analysis: Leaving the Gold Standard

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
Year off Gold	207	0.111	0.315	0	1
Strikes	207	0.116	0.402	0	2
Government Crises	207	0.507	0.924	0	6
Cabinet Changes	207	0.676	0.742	0	5
Creditor	207	0.261	0.440	0	1
Log GDP per capita (lagged)	205	8.149	0.455	7.042	8.839
Proportional Representation	207	0.565	0.497	0	1
High Inflation	207	0.174	0.380	0	1
Banking Panic	207	0.116	0.321	0	1
Female Vote	207	0.599	0.491	0	1
Log Exports/GDP	197	-2.092	0.744	-4.116	-0.357
Polity	207	0.688	0.331	0	0.952
Election Last Year	207	0.309	0.463	0	1
Election 2 Years Ago	207	0.304	0.461	0	1
Log Franchise	201	3.660	0.522	1.705	4.224
(log) Time	99	0.968	0.673	0	2.079

Sources: See text

TABLE A4: DESCRIPTIVE STATISTICS

Survival Analysis: Joining the Gold Standard

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
Year on Gold	230	0.0957	0.295	0	1
Strikes	230	0.226	0.585	0	3
Government Crises	230	0.474	1.018	0	5
Cabinet Changes	230	0.717	0.883	0	9
Creditor	230	0.261	0.440	0	1
Log GDP per capita (lagged)	182	8.135	0.398	6.812	8.795
Proportional Representation	230	0.565	0.497	0	1
High Inflation	230	0.174	0.380	0	1
Banking Panic	230	0.0478	0.214	0	1
Female Vote	230	0.509	0.501	0	1
Log Exports/GDP	194	-1.923	0.676	-3.539	-0.327
Polity	230	0.765	0.248	0.0476	0.952
Election Last Year	207	0.343	0.476	0	1
Election 2 Years Ago	184	0.364	0.482	0	1
Log Franchise	221	3.533	0.611	1.569	4.159
(log) Time	150	1.216	0.654	0	2.197

Sources: See text

GALLUP POLL SURVEY ANALYSIS VARIABLES

Independent Variables: All binary variables except "Age"

Female = 1 if respondent was female, zero otherwise

Voted FDR in previous election = 1 if respondent indicated having voted for Franklin D. Roosevelt in previous election, zero otherwise.

Farm Area = 1 if respondent from farming area, zero otherwise.

Small town Area = 1 if respondent from small town area, zero otherwise.

Urban Area = 1 if respondent from urban area, zero otherwise.

Age = age of respondent in years, or by age grouping.

Occupation Categories = 1 if respondent was placed in a particular occupation category, zero otherwise. Categories are: “Professional”, “Business”, “Skilled”, “Unskilled”, “Unemployed” and “None or other”.

DESCRIPTIVE STATISTICS

TABLE A5: DESCRIPTIVE STATISTICS

Gallup Poll, November 1936

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
"Yes" to Renewing President's Power to Regulate Gold in the Dollar	1,971	0.475	0.500	0	1
Female	2,720	0.263	0.440	0	1
Farm Area	2,720	0.163	0.370	0	1
Small Town Area	2,720	0.0640	0.245	0	1
Urban Area	2,720	0.773	0.419	0	1
Occupation: Professional	2,720	0.0772	0.267	0	1
Occupation: Business	2,720	0.0761	0.265	0	1
Occupation: Skilled	2,720	0.401	0.490	0	1
Occupation: Unskilled	2,720	0.157	0.364	0	1
Occupation: Unemployed	2,720	0.0621	0.241	0	1
Occupation: None or Other	2,720	0.226	0.418	0	1
Age 17-20	2,720	0.0930	0.291	0	1
Age 21-24	2,720	0.0526	0.223	0	1
Age 25-34	2,720	0.238	0.426	0	1
Age 35-44	2,720	0.258	0.437	0	1
Age 45-54	2,720	0.215	0.411	0	1
Age 55 or Over	2,720	0.122	0.328	0	1
Voted FDR in previous election	2,720	0.497	0.500	0	1

Source: See text

TABLE A6: DESCRIPTIVE STATISTICS

Gallup Poll, October/November 1937

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
"Yes" to Congress Passing a Minimum Wage and Max Hours Bill	2,632	0.687	0.464	0	1
Female	2,970	0.347	0.476	0	1
Farm Area	2,970	0.199	0.399	0	1
Small Town Area	2,970	0.140	0.347	0	1
Urban Area	2,970	0.661	0.473	0	1
Occupation: Professional	2,970	0.0919	0.289	0	1
Occupation: Business	2,970	0.132	0.339	0	1
Occupation: Skilled	2,970	0.221	0.415	0	1
Occupation: Unskilled	2,970	0.254	0.435	0	1
Occupation: Unemployed	2,970	0.0273	0.163	0	1
Occupation: None or Other	2,970	0.274	0.446	0	1
Age	2,970	39.44	14.58	17	84
Voted FDR in previous election	2,970	0.490	0.500	0	1

Source: See text

RESULTS FOR ALTERNATIVE DEFINITION OF FEMALE VOTE VARIABLE: EQUALS ONE FROM FIRST ELECTION WHERE WOMEN WERE ENTITLED TO VOTE.

Table A7

FIXED EFFECTS MARGINAL EFFECTS

(Dependent Variable: "On the Gold Standard")

Alternative definition of Female Vote variable

Variable	Model I (g)	Model I (h)
Log GDP per capita (lagged)	1.408	1.361
	(1.332)	(1.198)
Log Franchise	-1.769	-1.016
	(1.242)	(0.789)
Polity	1.618*	1.028*
	(0.853)	(0.593)
Countries on Gold		
Log Exports/GDP		
Main Trading Partner		
Banking Panic		
Strikes		
Government Crises		
Cabinet Changes		
Proportional Representation	-3.196**	
	(1.507)	
Election Last Year	-0.303***	
	(0.102)	
Election 2 Years Ago	-0.256***	
	(0.0885)	
Female Vote	-0.239	-0.767
	(0.382)	(0.917)
*Franchise*Female Vote*		0.173
		(0.211)
Country FE	YES	YES
Year FE	YES	YES
Pseudo R-squared	0.652	0.642
AIC	189.147	201.853
BIC	263.943	277.835
Number of Observations	311	330

Marginal effects at means of independent variables
* indicates significance at 10%
** indicates significance at 5%
*** indicates significance at 1%

Table A8

SURVIVAL ANALYSIS RESULTS
Dependent Variable: "Leaving the Gold Standard"

Alternative definition of Female Vote variable

Variable	Model II (d)	Model II (e)
Log GDP per capita (lagged)	0.165	0.129
	(0.870)	(0.882)
Log Franchise	1.052*	1.945
	(0.609)	(1.609)
Polity	3.927**	4.219**
	(1.691)	(2.015)
Creditor	-4.012***	-4.131***
	(1.149)	(1.543)
High Inflation		
Log Exports/GDP		
Banking Panic		
Strikes		
Government Crises		
Cabinet Changes		
Proportional Representation	-0.965	
	(0.605)	
Election Last Year	1.223**	
	(0.520)	
Election 2 Years Ago	0.0775	
	(0.649)	
Female Vote	-0.751	5.795
	(0.880)	(5.747)
*Franchise*Female Vote*		-1.929
		(1.790)
Constant	-11.14*	-13.30**
	(6.460)	(6.561)
(log) Time	3.114***	2.710***
	(1.061)	(0.979)
Pseudo R-squared	0.344	0.284
AIC	88.084	90.334
BIC	113.831	110.931
Number of Observations	97	97

Robust standard errors in parentheses
* indicates significance at 10%
** indicates significance at 5%
*** indicates significance at 1%

Table A9

SURVIVAL ANALYSIS RESULTS
Dependent Variable: "Joining the Gold Standard"

Alternative definition of Female Vote variable

Variable	Model II (d)	Model II (e)
Log GDP per capita (lagged)	2.659	2.415*
	(1.684)	(1.417)
Log Franchise	-0.595	-0.961
	(1.842)	(1.537)
Polity	-0.410	-0.514
	(1.738)	(1.646)
Creditor	1.484*	1.848**
	(0.805)	(0.802)
High Inflation	4.555***	4.430***
	(1.446)	(1.552)
Log Exports/GDP		
Banking Panic		
Strikes		
Government Crises		
Cabinet Changes		
Proportional Representation	-0.110	
	(0.577)	
Election Last Year	-0.137	
	(0.538)	
Election 2 Years Ago	-0.970	
	(0.699)	
Female Vote	0.924	-16.36
	(1.650)	(27.75)
*Franchise*Female Vote*		4.494
		(7.169)
Constant	-34.90**	-32.87**
	(15.47)	(13.76)
(log) Time	7.667***	8.011***
	(1.778)	(1.646)
Pseudo R-squared	0.522	0.533
AIC	69.87634	67.76771
BIC	99.27746	93.22253
Number of Observations	107	125

Robust standard errors in parentheses
* indicates significance at 10%
** indicates significance at 5%
*** indicates significance at 1%

APPENDIX TO CHAPTER IV

PARTY ACRONYMS

KPD - *Kommunistische Partei Deutschlands* (Communist Party of Germany)

SPD - *Sozialdemokratische Partei Deutschlands* (Social Democratic Party of Germany)

Zentrum – *Deutsche Zentrumspartei* (German Centre Party)

BVP - *Bayerische Volkspartei* (Bavarian People's Party)

DNVP - *Deutschnationale Volkspartei* (German National People's Party)

NSDAP - *Nationalsozialistische Deutsche Arbeiterpartei* (National Socialist German Workers' Party).

OCCUPATION/CLASS STRUCTURE

Table A1

Workforce and Occupation in 52 Large Cities 1933

	% Workforce	% Including Housewives	% Men	% Women	% Housewives	% Women + Housewives
Self Employed	12.1	13.6	13.8	8.4	14.9	11.8
White-Collar	23.8	24.4	23.2	25.1	27.3	26.3
Blue-Collar	28.9	29.4	30.7	25.2	30.9	28.2
Domestic	7.1	4.1	0.6	20.8	0.1	9.9
Unemployed	28.1	28.4	31.7	20.6	26.8	23.9
Total	100	100	100	100	100	100

Source: Statistik des Deutsches Reichs, no. 457 Heft 4, p.9 (1936)

1932 NSDAP ELECTION POSTERS

fig. A1

"Women! Millions of men without work. Millions of children without a future. Save the German family. Vote for Adolf Hitler!"

Copywrite resticted image

Source: http://www.westfaelische-geschichte.de/med769

The image of the German mother standing with a resilient expression, while her husband sits forlorn, elevates the role of the mother and wife to one of saviour of the nation.

fig. A2

"German Women, Think of Your Children"

Copywrite resticted image

Source: http://www.bbc.co.uk/education/guides/zpknb9q/revision/2

Again, the appeal to traditional female roles is evident. Women must safeguard their children's future by voting for Hitler.

MODELS OF ECOLOGICAL INFERENCE

The intuition of King's method of ecological inference is perhaps best understood through an examination of the 2x2 model. Assume for simplicity that there are only two parties; Party 1 and Party 2, and two class groupings; Class A and Class B. So the table to be estimated by the method of ecological inference is as in table A1. For illustrative purposes table A2 gives the observed proportions for 20 randomly generated hypothetical districts (i). The observed quantities are T_i, the proportion of people that vote for Party 1 in district i and X_i, the proportion of people in Class A in district i. The proportions of interest are β_A^i and β_B^i: the proportions of people in Classes A and B that vote for Party 1.

Table A2: 2x2 Model

	Party 1	Party 2	
Class A	β_A^i	$1-\beta_A^i$	X_i
Class B	β_B^i	$1-\beta_B^i$	$1-X_i$
	T_i	$1-T_i$	

Table A3: Hypothetical Districts

District (i)	Votes Party 1 T	Class A X	District (i)	Votes Party 1 T	Class A X
1	0.78	0.07	11	0.17	0.37
2	0.05	0.37	12	0.18	0.65
3	0.82	0.79	13	0.99	0.76
4	0.42	0.12	14	0.33	0.71
5	0.28	0.71	15	0.23	0.72
6	0.17	0.38	16	0.67	0.92
7	0.92	0.53	17	0.13	0.33
8	0.13	0.86	18	0.11	0.96
9	0.15	0.81	19	0.30	0.10
10	0.66	0.42	20	0.95	0.87

Source: See text

The first step in King's method is to limit the sample space by constructing the deterministic bounds. Fig. A1 gives a scatter plot of the randomly generated data. Next, using the method of bounds, a "tomography" plot is constructed. Each line in the graph shows, for each district and without any assumptions, the possible values that each proportion of interest can take. To do this, Goodman's accounting identity (1) is used in order to solve each unknown quantity of interest in terms of the other (2). Each point in figure A1 is now represented by a line in figure A2 due to the information lost through aggregation.

$$T_i = X_i\beta_A^i + (1 - X_i)\beta_B^i \qquad (1)$$

$$\beta_B^i = \left(\frac{T_i}{1-X_i}\right) - \left(\frac{X_i}{1-X_i}\right)\beta_A^i \qquad (2)$$

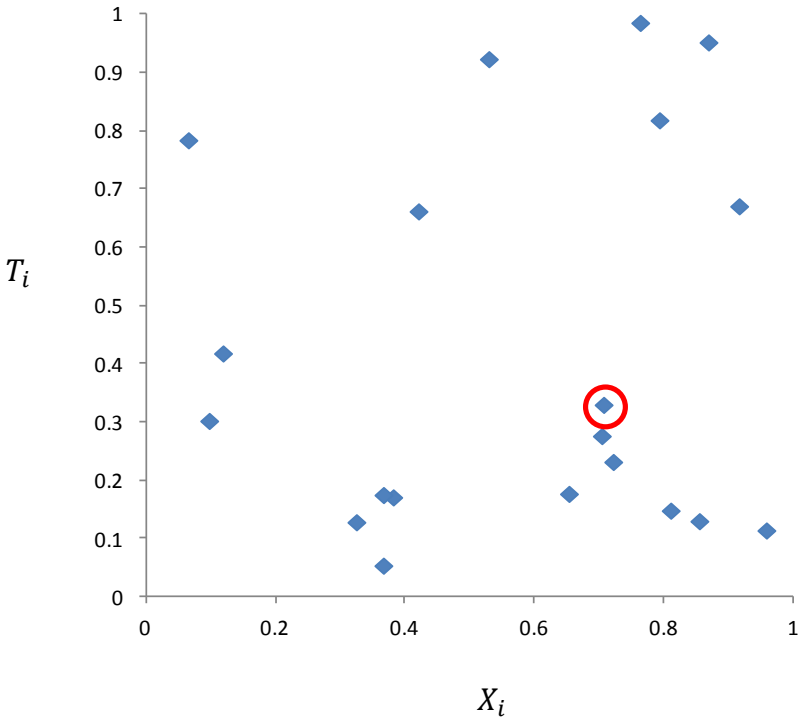
The resulting "tomography" plot (fig. A2) reveals important information. Firstly, we know with certainty that the proportions of interest for each district must lie between zero and one. Secondly, using the method of bounds, it is possible to further limit the potential values that the quantities of interest in each district can take. More precisely, the tomography plot reveals that the true values must lie somewhere on the district's tomography line, therefore eliminating with certainty the remainder of the unit square. For some districts this information will be highly informative but for others it may unfortunately reveal no information at all. Take as an example district 14 where $X_{14} = 0.71$ and $T_{14} = 0.33$. This district is circled in fig. A1. Substituting these figures into equation (2) yields $\beta_B^{14} = 1.13 - 2.42\beta_A^i$. This line is plotted as the bold line in fig. A2. What does this line show? It tells us, without any assumptions being made, that the true values of β_A^{14} and β_B^{14} must lie somewhere on this line, with all other possible values in the unit square eliminated. Specifically this line tells us that the actual value of β_A^{14} must lie somewhere in the range of 0.05 and 0.57. The size of the interval will depend on the slope of the line, with relatively steep slopes giving

more information on the possible values of β_A^i. In this example the possible values of β_B^{14} are the entire interval between 0 and 1.

The next step in King's method allows for the "borrowing of strength" from all of the available districts to reach an estimate of the proportions of interest in each district. This statistical approach requires some assumptions. Firstly the proportions of interest, for example β_{A1}^i - the proportion of people of Class A voting for Party 1in district *i* - are assumed to follow a truncated bivariate normal density. [279] Secondly, in order to form the likelihood function, no spatial autocorrelation is assumed. Although this assumption may be unreasonable in some cases, according to King *et al*, violations of this assumption do not induce much bias. Thirdly, the proportions of interest are assumed

fig. A3

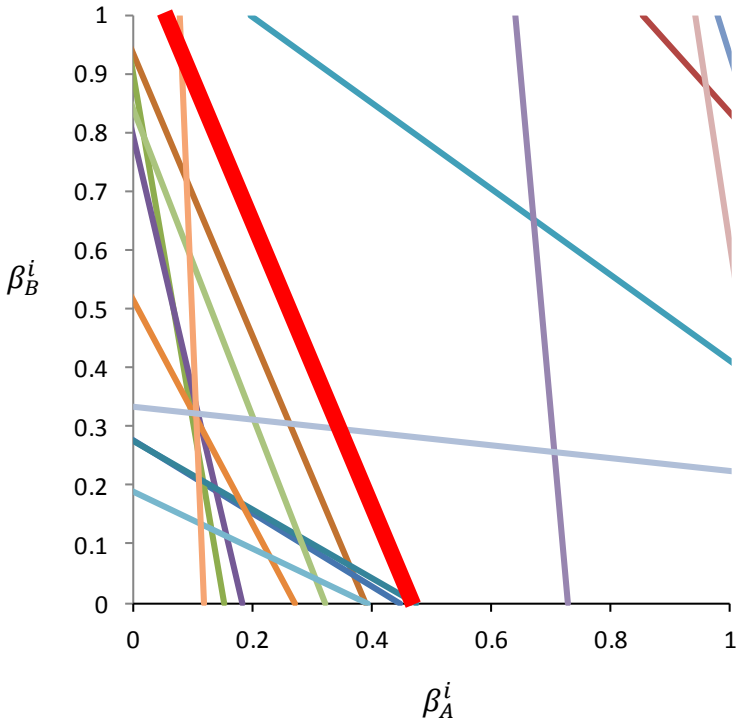
Scatter Plot



[279] In the 2 x 2 case once it is clear that it is only required to calculate β_{A1}^i and β_{B1}^i as $\beta_{A2}^i = 1 - \beta_{A1}^i$ and $\beta_{B2}^i = 1 - \beta_{B1}^i$.

fig. A4

Tomography Plot

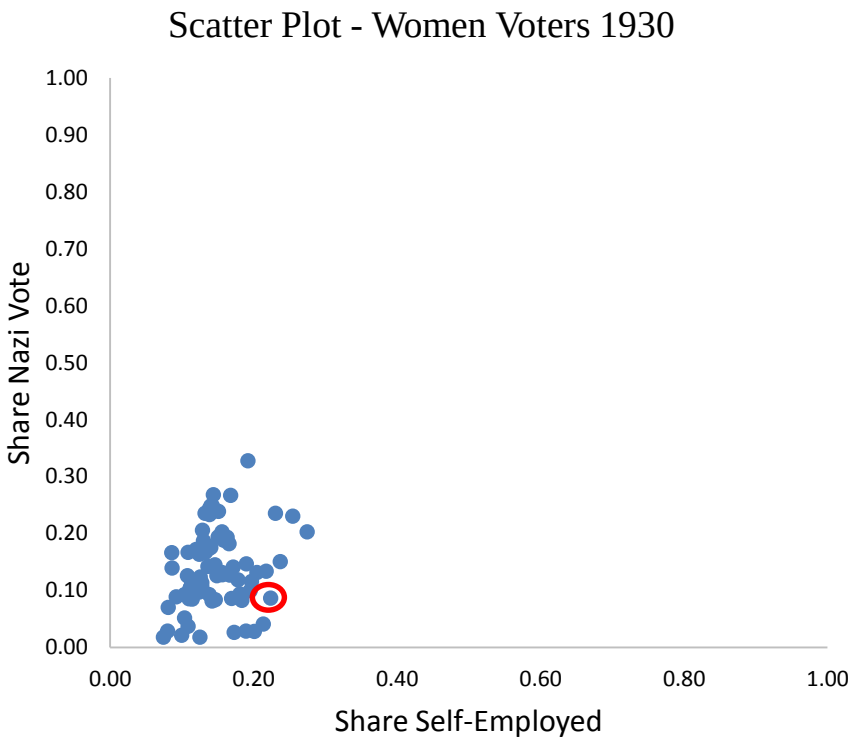


to be independent of the regressor; that β_A^i and β_B^i are independent of X_i. The model parameters are estimated using maximum likelihood while the global proportions of interest, B_A and B_B, are the means of the district level estimates weighted by population. Thus the King method limits the sampling space for the statistical analysis to within the deterministic bounds.

Next the method of bounds is applied to the real Weimar voting data. As an illustration the votes of women for the Nazi party in 1930 is examined. As tomography plots cannot be displayed for more than two quantities of interest simultaneously, the analysis will be constrained to the 2x2 model, dividing the population of each district into two parties (Voted Nazi, Did Not Vote Nazi) and two classes (Self-Employed and Not Self-

employed).[280] The scatter plot of the 79 districts considered in the analysis can be seen in fig.A5.

fig. A5

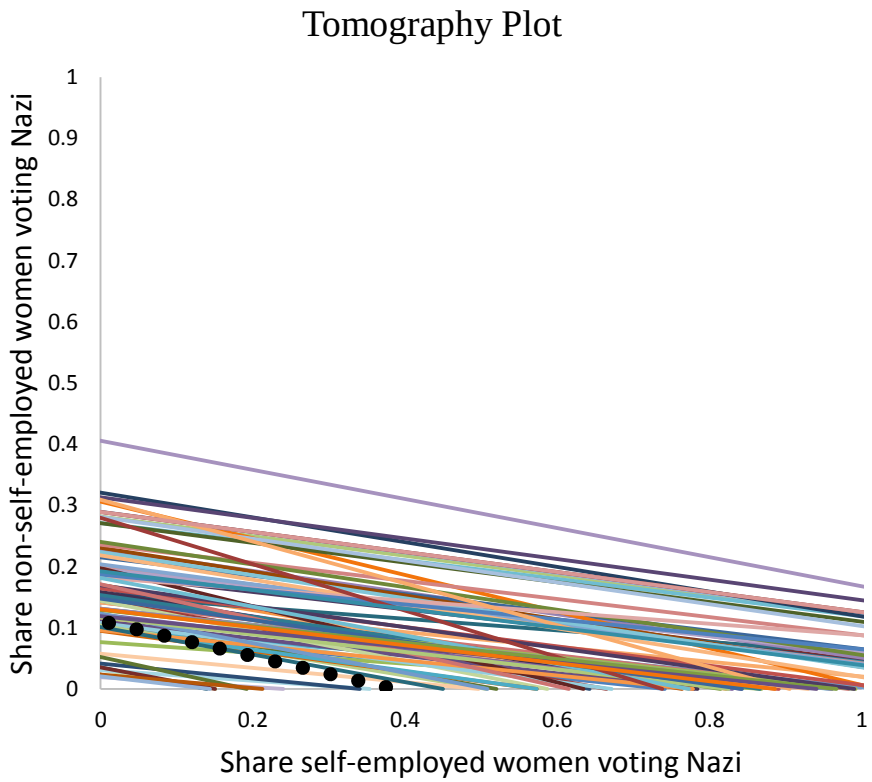


The corresponding tomography plot is given in fig. A6. If we take the district circled in fig. A5 where the Nazi vote share among women was 0.09 and 0.22 of the population were self-employed, this is represented by the dashed tomography line in fig. A6. What this line tells us is that the true proportions of interest must lie on this line. Specifically it tells us with certainty that the proportion of self-employed women voting for the Nazis must be between 0 and 39%. It also tells us that the proportion of non-self-employed women voting for the Nazis must be between 0 and 12%. Although these bounds are quite wide, this information

[280] See G. King and M. Roberts, *EI:A(nR) Program for Ecological Inference*, (2012) http://gking.harvard.edu/files/gking/files/ei.pdf

when combined with data from other districts (and in the RxC case with information on other classes and parties) allows us to make estimates of the true population quantities of interest.

fig. A6



The intuition for the RxC (*R* social classes and *C* parties) case is similar to that of the 2x2 case but the methodology is somewhat different. The model is a hierarchical multinomial-Dirichlet model estimated using Penalized non-linear least squares. Once more we begin with the observed proportions: $(T_{1i}, \dots, T_{C1})$, the fraction of people who vote for each of *C* parties and $(X_{1i}, \dots, X_{R1})$, the fraction of people in each of the *R* social classes.

The unobserved proportions, β_{rc}^{i} are the proportions of people in class *r* that vote for party *c*. For example this could be the proportion of white-collar people who vote for the Nazis.

The modelling begins a step earlier than in the 2x2 case. Let $T_i^{'} = (T_{1i}^{'}, \dots, T_{Ci}^{'})$ and assume that $T_i^{'}$ follows a multinomial distribution.

$$T_i^{'} \sim multinomial\ (\Theta_{1i}, \dots, \Theta_{Ci})$$

where

$$\Theta_{\mathrm{Ci}} = \sum_{\mathrm{r=1}}^{R} \beta_{rc}^{i}\, \mathrm{X_{ri}} \text{ for } c = 1, \dots, C \quad (4)$$

it is further assumed that the mean of β_{rc}^{i} is

$$\frac{\exp(\gamma_{rc})}{1 + \sum_{\mathrm{j=1}}^{C-1} \exp(\gamma_{rj})} \qquad (5)$$

for *r= 1*,...,*R*, *c* = 1,..., *C-1* and *i= 1*,..., *p*.

The quantities of interest, the beta terms, are functions of the parameter estimates γ_{rc} . The penalised non-linear least squares approach requires solving

$$\min_{\gamma} \left\{ \sum_{i=1}^{p} \sum_{c=1}^{C-1} \left(T_{ci} - m_c^i(\gamma)\right)^2 + \lambda \sum_{r=1}^{R} \sum_{c=1}^{C-1} \gamma_{rc}^2 \right\} \qquad (6)$$

where $m_c^i(\gamma) = E(T_{ci}|\gamma) = \sum_{r=1}^{R} X_{ri} E\left(\beta_{rc}^{i}|\gamma\right)$ are mean functions and $E\left(\beta_{rc}^{i}|\gamma\right)$ is given in (5). λ is a fixed constant penalty. Standard errors of the parameter estimates are obtained using bootstrapping with 200 replications (sampling with replacement) of size *p*.

More information on the models of ecological inference outlined above can be found in the various works of Gary King and other authors.[281]

[281] King, *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data*, G. King, O. Rosen and M.A. Tanner, 'Binomial-Beta Hierarchical Models for Ecological Inference', *Sociological Methods & Research*, Vol. 28 (No. 1, 1999) 61-90., King, Tanner, et al., *Ecological Inference: New Methodological Strategies*, King, Rosen, et al., *Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler* 951., O. Rosen, W. Jiang, G. King, et al., 'Bayesian and Frequentist Inference for Ecological Inference: The R× C Case', *Statistica Neerlandica*, Vol. 55 (No. 2, 2001) 134-56., M.C. Herron and J.S. Sekhon, 'Black Candidates and Black Voters: Assessing the Impact of Candidate Race on Uncounted Vote Rates', *Journal of Politics*, Vol. 67 (No. 1, 2005) 154-77., J. Wittenberg, F. Alimadhi, et al., 'Ei.RxC: Hierarchical Multinomial-Dirichlet Ecological Inference Modelfor R X C Tables', in K. Imai, G. King, et al. (ed.), *Zelig: Everyone's Statistical Software,Http://Gking.Harvard.Edu/Zelig* (2007), S. Lehmann, 'The German Elections in the 1870s: Why Germany Turned from Liberalism to Protectionism', *MPI Collective Goods Preprint*, No. 2009/34, 2009)

Table A4: Descriptive Statistics for 79 Districts Used in Ecological Inference

	Mean	*Median*	*Stan. Dev.*	*Min*	*Max*		*Mean*	*Median*	*Stan. Dev.*	*Min*	*Max*
1928 Election - All votes						***1930 Election - All Votes***					
Nazi	0.03	0.02	0.03	0.00	0.19	Nazi	0.15	0.14	0.07	0.02	0.33
SPD	0.25	0.24	0.12	0.03	0.50	SPD	0.22	0.22	0.12	0.03	0.48
Zentrum	0.08	0.01	0.12	0.00	0.52	Zentrum	0.09	0.01	0.13	0.00	0.53
KPD	0.10	0.08	0.08	0.00	0.39	KPD	0.14	0.12	0.09	0.01	0.42
DNVP	0.06	0.05	0.04	0.00	0.21	DNVP	0.04	0.03	0.03	0.00	0.15
None	0.24	0.24	0.09	0.10	0.71	None	0.18	0.15	0.11	0.06	0.79
Rest	0.24	0.26	0.09	0.02	0.39	Rest	0.18	0.20	0.06	0.02	0.29
1928 Election - Men						***1930 Election - Men***					
Nazi	0.03	0.02	0.03	0.00	0.19	Nazi	0.18	0.17	0.07	0.02	0.35
SPD	0.28	0.27	0.11	0.05	0.52	SPD	0.24	0.23	0.11	0.05	0.49
Zentrum	0.07	0.01	0.10	0.00	0.42	Zentrum	0.07	0.01	0.10	0.00	0.45
KPD	0.13	0.10	0.09	0.00	0.44	KPD	0.17	0.15	0.10	0.01	0.47
DNVP	0.06	0.05	0.04	0.01	0.20	DNVP	0.03	0.03	0.03	0.00	0.14
None	0.18	0.17	0.09	0.03	0.66	None	0.14	0.11	0.10	0.02	0.75
Rest	0.25	0.27	0.09	0.04	0.45	Rest	0.18	0.19	0.06	0.03	0.31
1928 Election - Women						***1930 Election - Women***					
Nazi	0.02	0.01	0.03	0.00	0.18	Nazi	0.14	0.13	0.07	0.02	0.33
SPD	0.22	0.21	0.12	0.01	0.48	SPD	0.21	0.21	0.12	0.01	0.47
Zentrum	0.10	0.01	0.14	0.00	0.59	Zentrum	0.10	0.02	0.15	0.00	0.60
KPD	0.08	0.07	0.07	0.00	0.34	KPD	0.11	0.09	0.08	0.00	0.38
DNVP	0.07	0.05	0.05	0.00	0.21	DNVP	0.04	0.03	0.04	0.00	0.16
None	0.29	0.28	0.11	0.12	0.75	None	0.22	0.19	0.12	0.06	0.82
Rest	0.22	0.26	0.09	0.01	0.35	Rest	0.18	0.20	0.07	0.02	0.29
Occupation/Class						***Religion***					
Self Employed	0.15	0.14	0.04	0.07	0.27	Catholic	0.26	0.05	0.36	0.00	0.98
White-Collar	0.18	0.18	0.07	0.05	0.35	Protestant	0.68	0.88	0.34	0.01	1.00
Blue-Collar	0.34	0.33	0.09	0.15	0.68	Other	0.06	0.04	0.05	0.00	0.19
Domestic	0.10	0.09	0.05	0.03	0.26						
Unemployed	0.23	0.22	0.08	0.07	0.50						

ESTIMATION USING DIFFERENT OCCUPATIONAL STRUCTURE FOR MEN AND WOMEN

This section tests the robustness of the results in the chapter by allowing the occupational (class) structure to differ for men and women. It also attempts to examine differences between the voting patterns of "self-employed" housewives (assigned to the occupation of their husband) and working women in the self-employed category. The results were obtained as follows: Firstly, using the overall occupational information in table A1 and information on the female proportion of the workforce in each district, the distribution of occupations in each district was recalculated for both men and women. The result is a set of occupational data that are likely to represent the differences in occupations by gender more closely. To simplify the analysis, men's occupations are then divided into two groups: the proportion self-employed versus all others, while the men's voting data is divided into three groups: Nazi votes, non-Nazi votes and non-voters. The division of the women's occupational and voting data is similar, but instead of two groups women's occupations are instead divided into three: working self-employed, housewives self-employed, and all others. Ecological inferences are then made using data for men and women separately with the results displayed in tables A5-A8. The results are largely in keeping with those of the analysis in the main body of the chapter. Non-voting is seemingly very high among the self-employed for both men and women in 1928 and 1930. The Protestant self-employed Nazi vote increases more for men than for women between 1928 and 1930 while non-voting declines more among self-employed men than for working self-employed women. However it is interesting to note that a large fall in non-voting appears to correspond with a large increase in the Nazi vote among self-employed housewives, suggesting that voting patterns among this group of women were perhaps more comparable to those of men.

Table A5

Estimated Vote Shares of Men 1928

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Self Employed*	**0.16**	0.09	0.22	**0.15**	0.07	0.22
	Not Self Employed	**0.01**	0.01	0.02	**0.02**	0.01	0.02
Voted Non-Nazi	*Self Employed*	**0.34**	0.15	0.59	**0.29**	0.09	0.64
	Not Self Employed	**0.90**	0.85	0.94	**0.81**	0.69	0.88
Non Vote	*Self Employed*	**0.50**	0.30	0.64	**0.57**	0.24	0.11
	Not Self Employed	**0.09**	0.05	0.13	**0.17**	0.11	0.29

Source: See text

Table A6

Estimated Vote Shares of Women 1928

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Working Self Employed*	**0.15**	0.09	0.22	**0.22**	0.17	0.28
	Housewife Self Employed	**0.13**	0.09	0.20	**0.06**	0.02	0.10
	Not Self Employed	**0.01**	0.01	0.01	**0.01**	0.01	0.02
Voted Non-Nazi	*Working Self Employed*	**0.24**	0.09	0.66	**0.12**	0.06	0.24
	Housewife Self Employed	**0.08**	0.05	0.15	**0.63**	0.13	0.94
	Not Self Employed	**0.80**	0.77	0.83	**0.67**	0.58	0.77
Non Vote	*Working Self Employed*	**0.61**	0.26	0.75	**0.66**	0.57	0.72
	Housewife Self Employed	**0.79**	0.73	0.84	**0.31**	0.04	0.76
	Not Self Employed	**0.19**	0.16	0.22	**0.32**	0.22	0.40

Source: See text

Table A7

Estimated Vote Shares of Men 1930

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Self Employed*	**0.56**	0.38	0.75	**0.55**	0.16	0.76
	Not Self Employed	**0.11**	0.08	0.15	**0.05**	0.02	0.12
Voted Non-Nazi	*Self Employed*	**0.09**	0.03	0.28	**0.16**	0.03	0.57
	Not Self Employed	**0.80**	0.77	0.83	**0.81**	0.73	0.87
Non Vote	*Self Employed*	**0.35**	0.19	0.54	**0.30**	0.19	0.40
	Not Self Employed	**0.08**	0.05	0.12	**0.13**	0.10	0.19

Source: See text

Table A8

Estimated Vote Shares of Women 1930

		Protestant			*Catholic*		
		Vote Share	*90% CI*		*Vote Share*	*90% CI*	
Nazi	*Working Self Employed*	**0.33**	0.17	0.61	**0.55**	0.29	0.75
	Housewife Self Employed	**0.67**	0.32	0.88	**0.18**	0.02	0.45
	Not Self Employed	**0.09**	0.06	0.12	**0.04**	0.02	0.07
Voted Non-Nazi	*Working Self Employed*	**0.10**	0.05	0.23	**0.09**	0.04	0.22
	Housewife Self Employed	**0.05**	0.02	0.11	**0.61**	0.13	0.94
	Not Self Employed	**0.74**	0.71	0.76	**0.72**	0.63	0.82
Non Vote	*Working Self Employed*	**0.56**	0.33	0.74	**0.36**	0.20	0.57
	Housewife Self Employed	**0.28**	0.10	0.61	**0.21**	0.04	0.47
	Not Self Employed	**0.17**	0.14	0.20	**0.24**	0.16	0.31

Source: See text

ECOLOGICAL INFERENCE RESULTS: VOTES OF MEN & WOMEN

fig. A7.

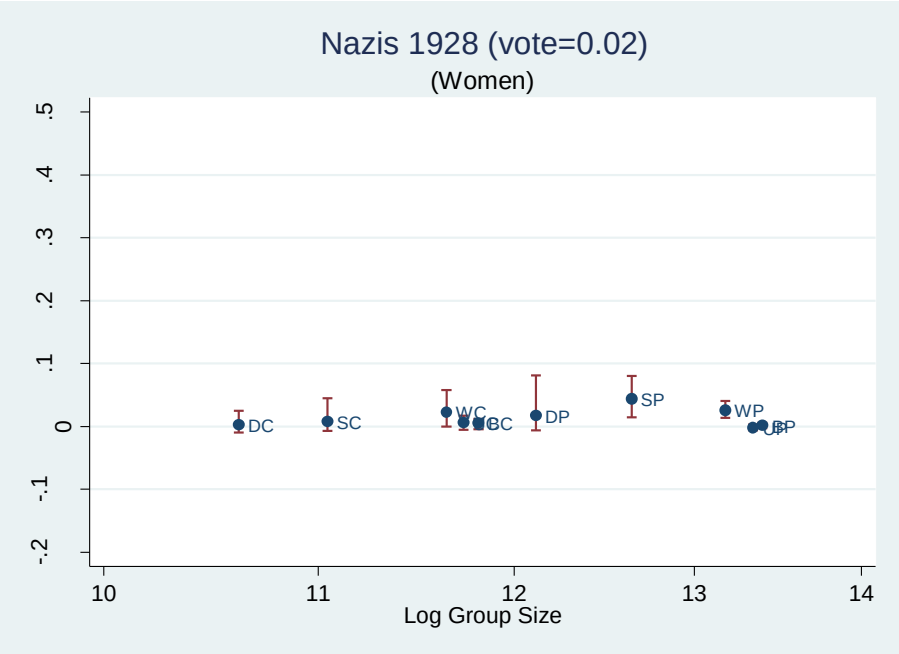
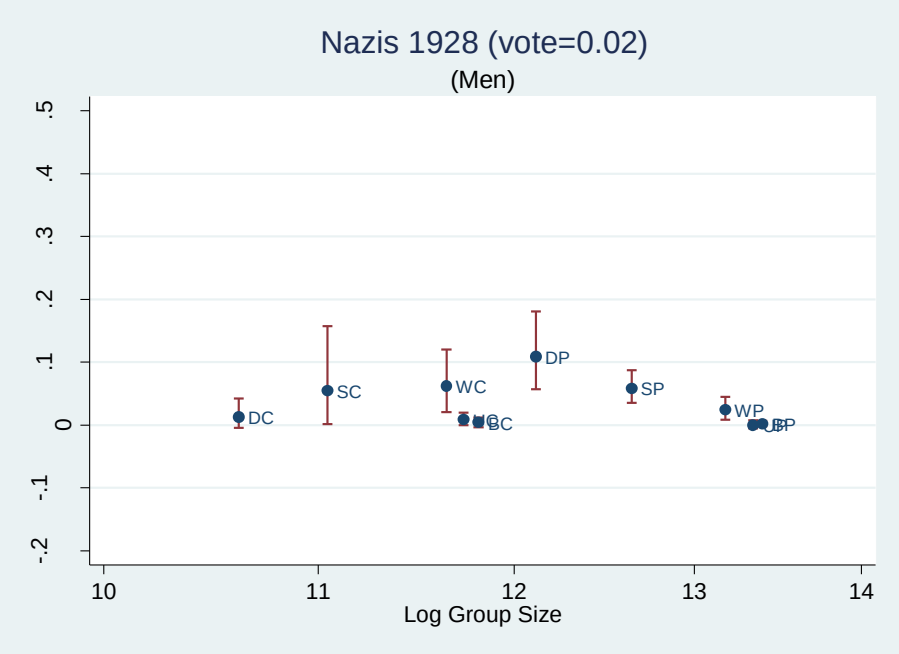


fig. A8.



Source: See Text

fig. A9.

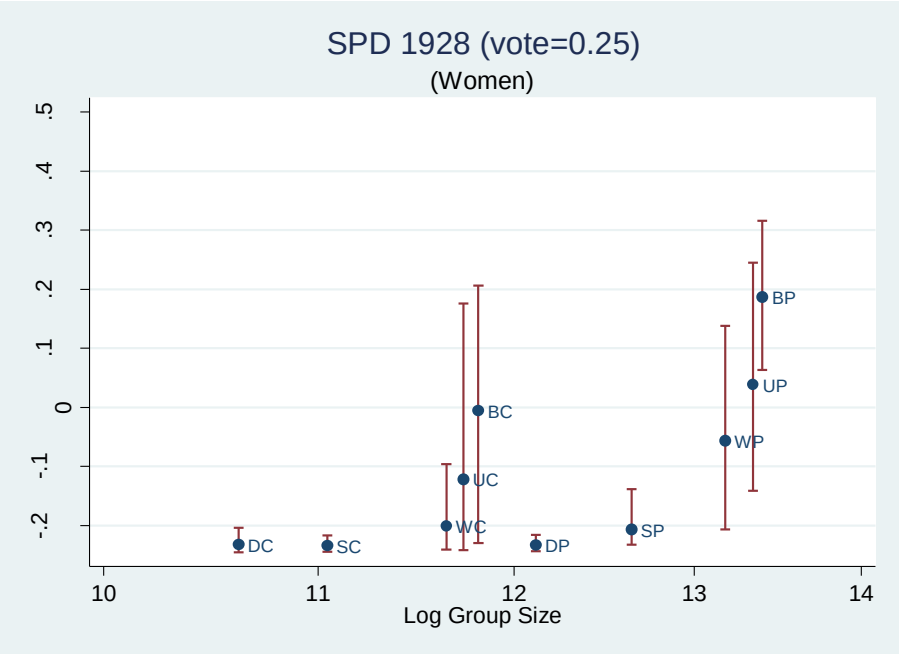
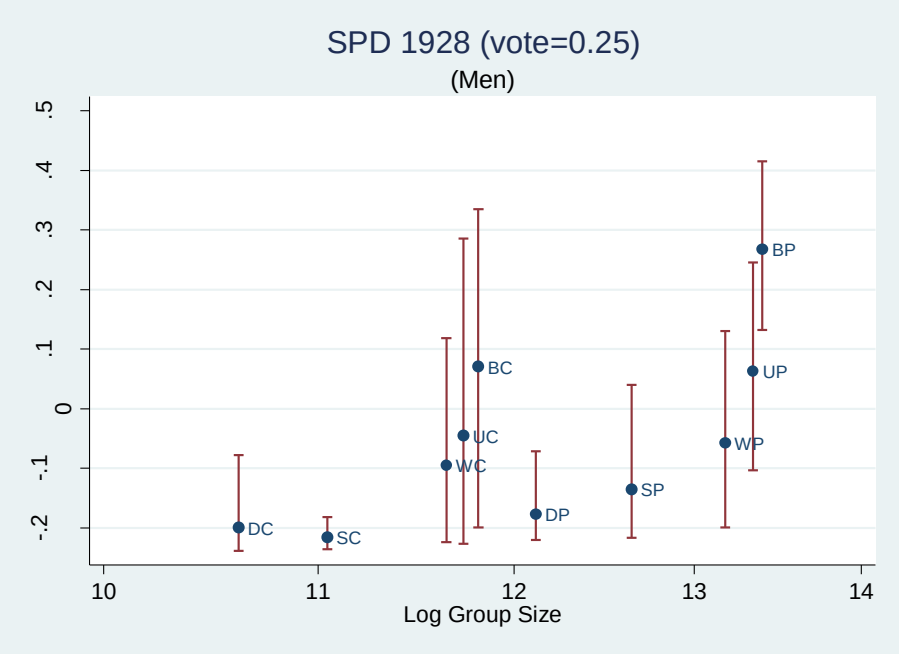


fig. A10.



Source: See Text

fig. A11.

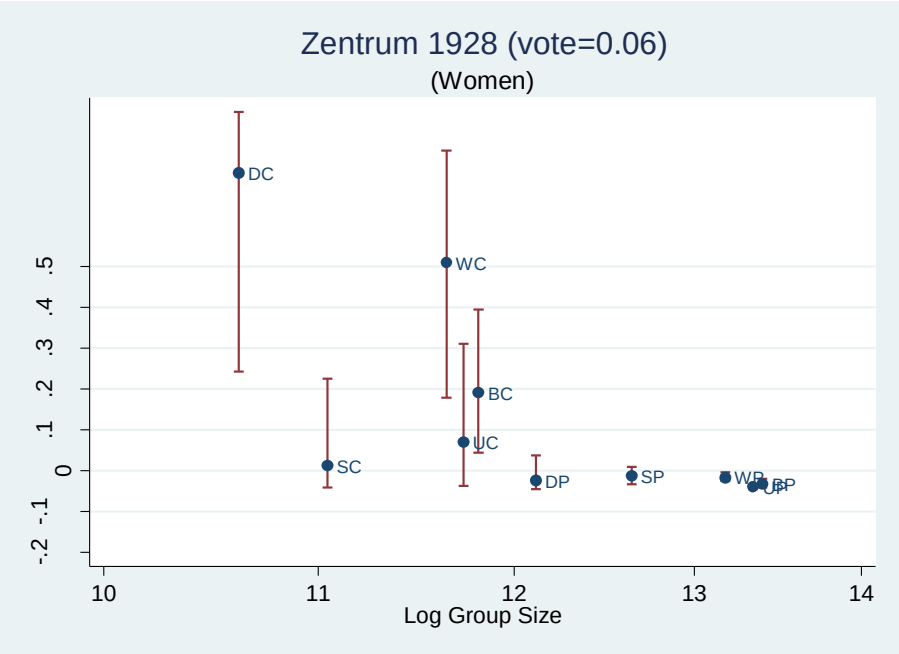
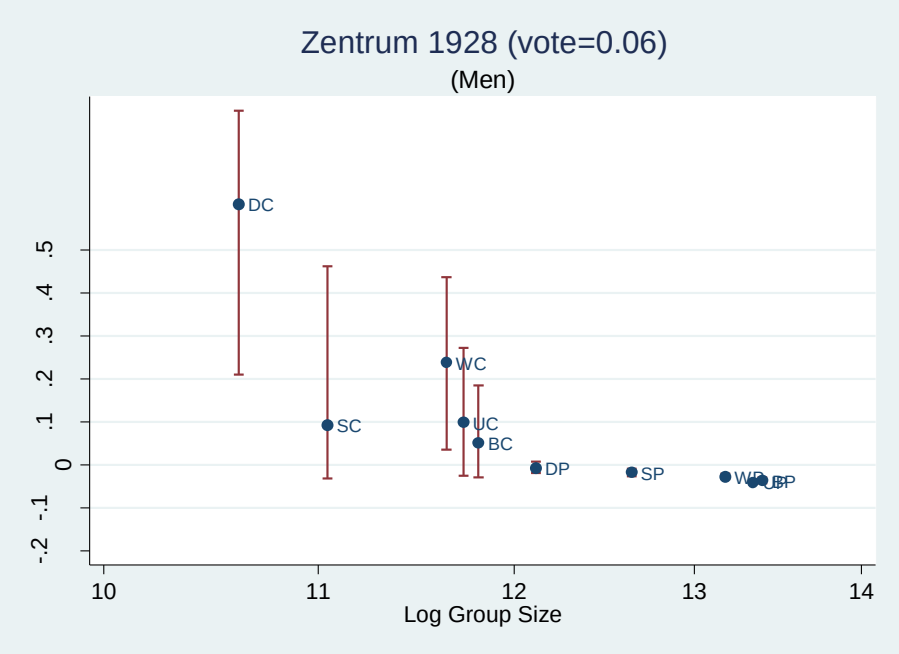


fig. A12.



Source: See Text

fig. A13.

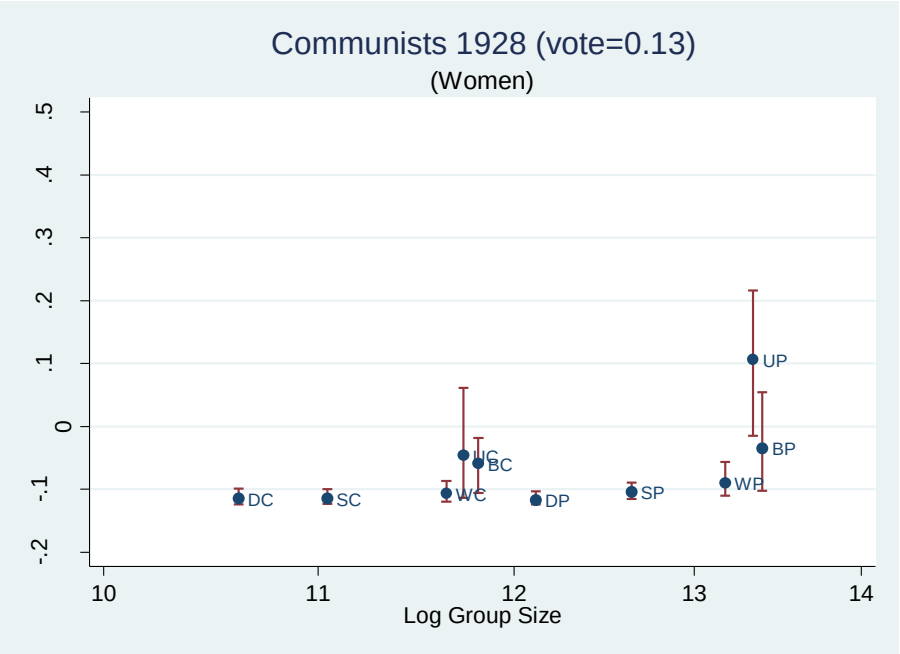
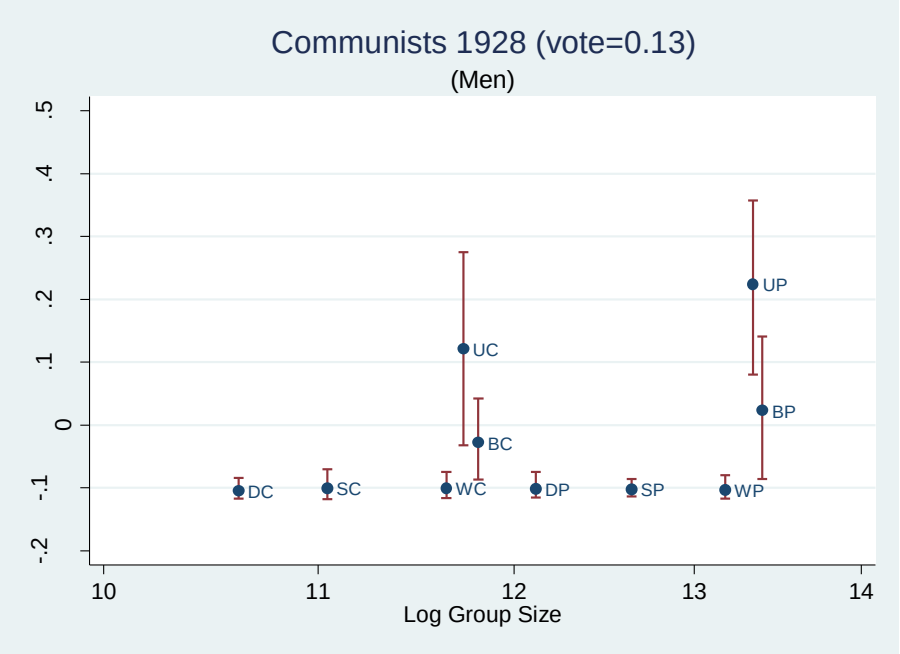


fig. A14.



Source: See Text

fig. A15.

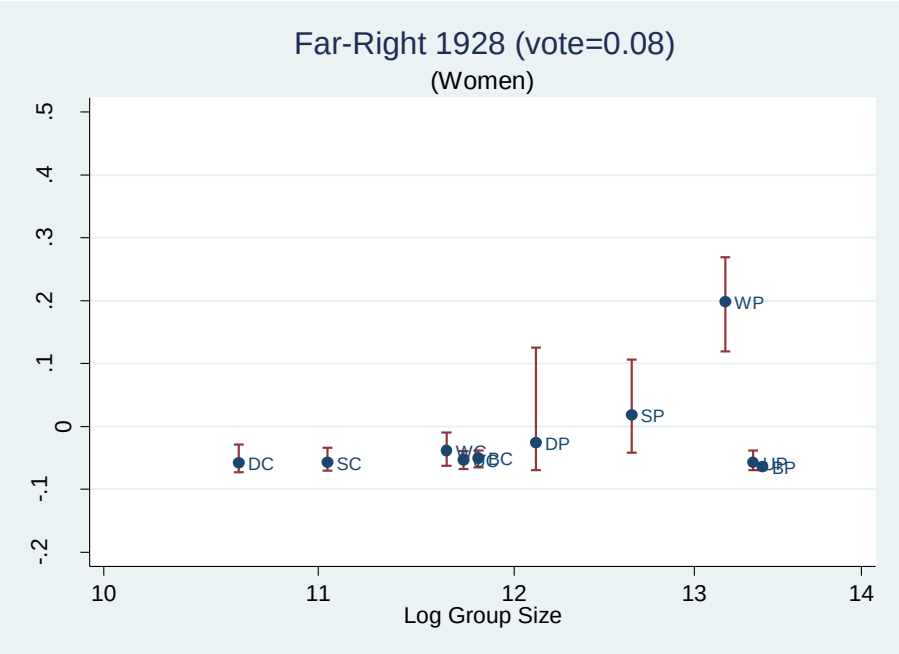
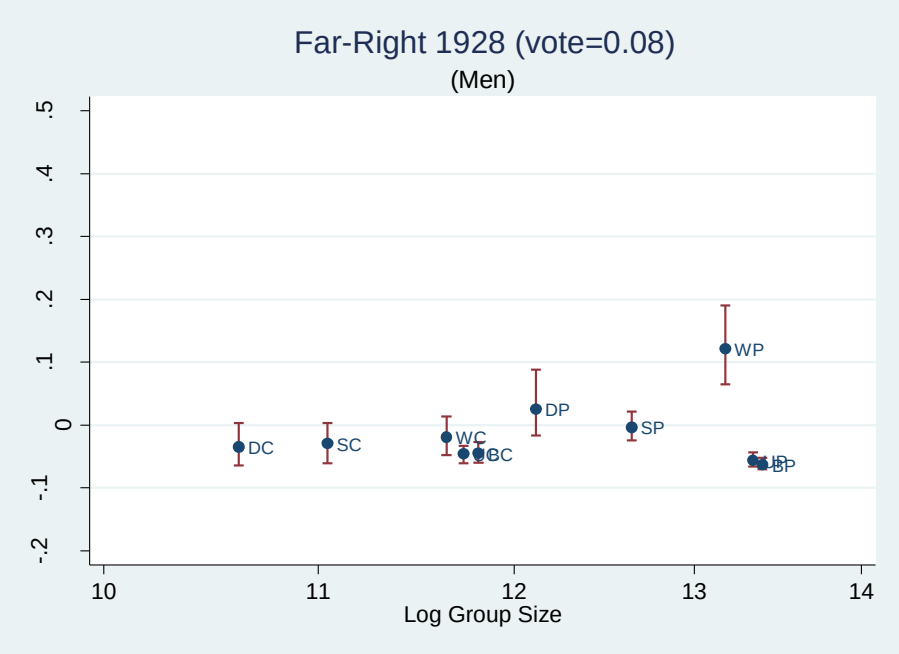


fig. A16.



Source: See Text

fig. A17.

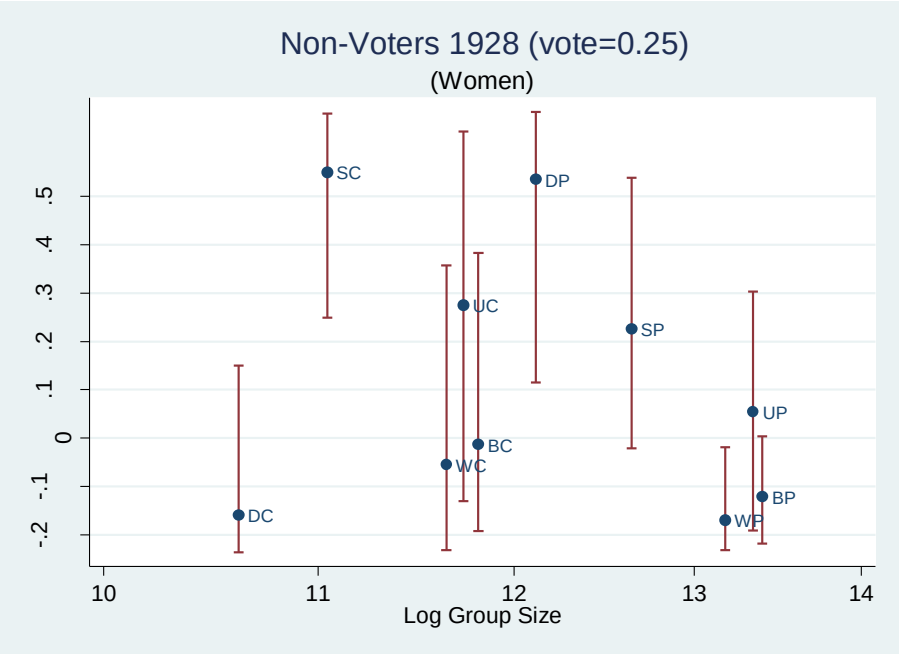
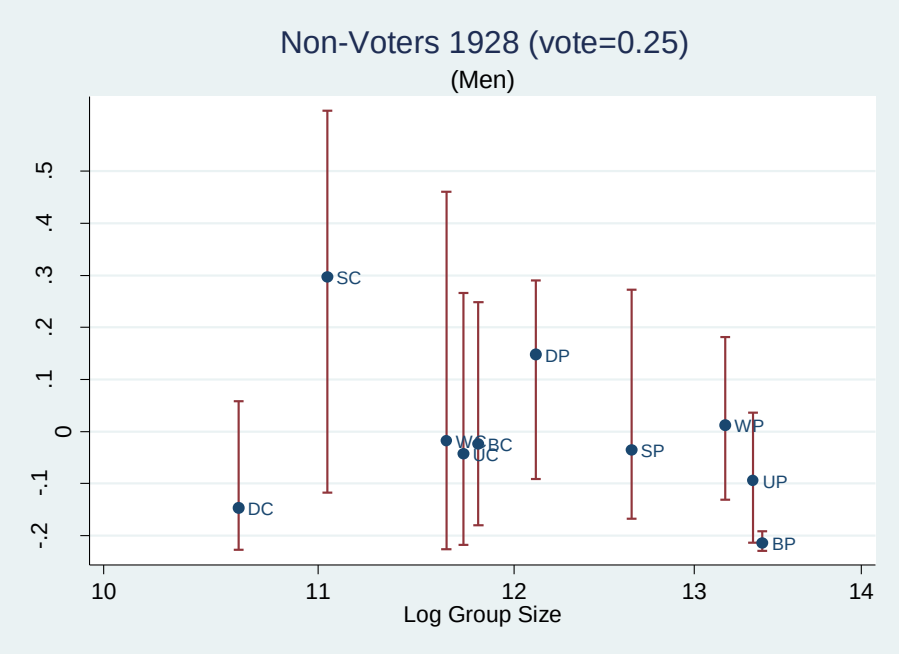


fig. A18.



Source: See Text

fig. A19.

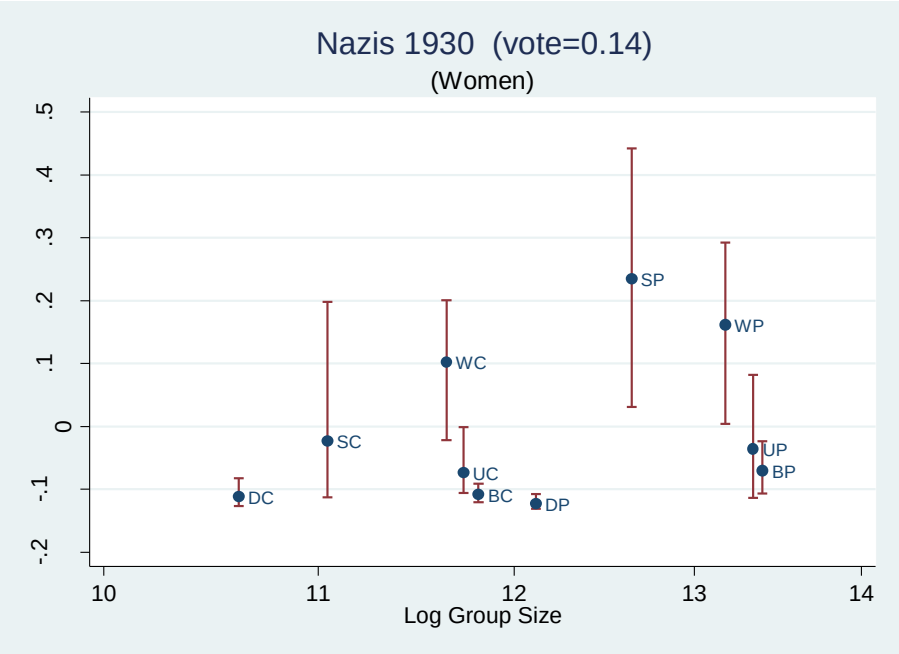
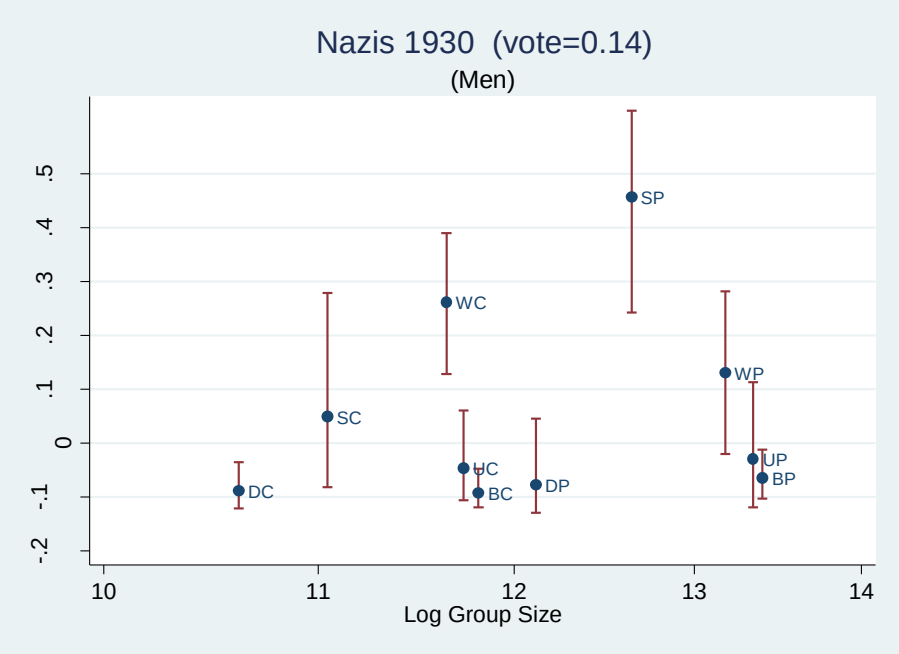


fig. A20.



Source: See Text

fig. A21.

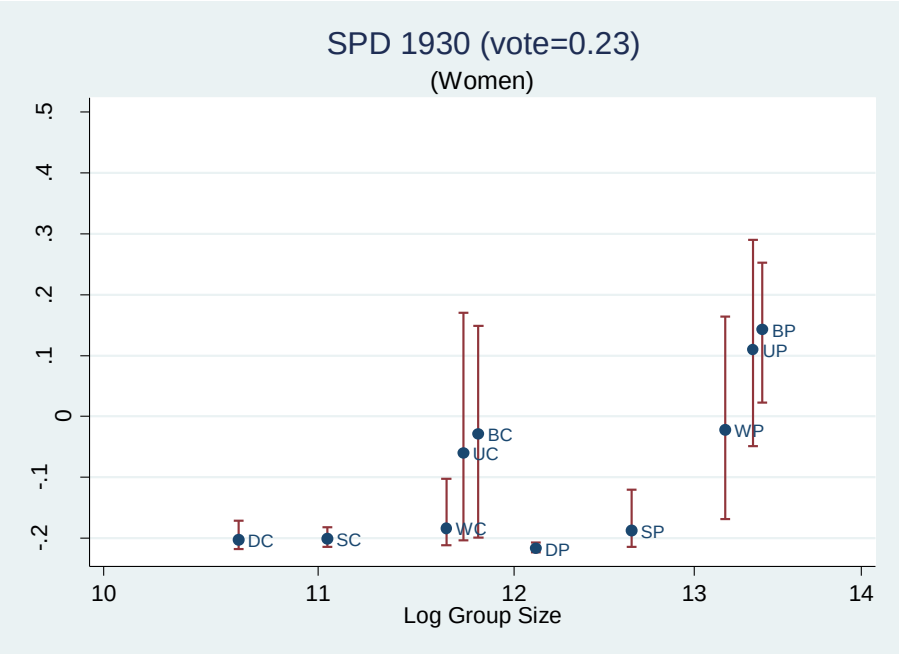
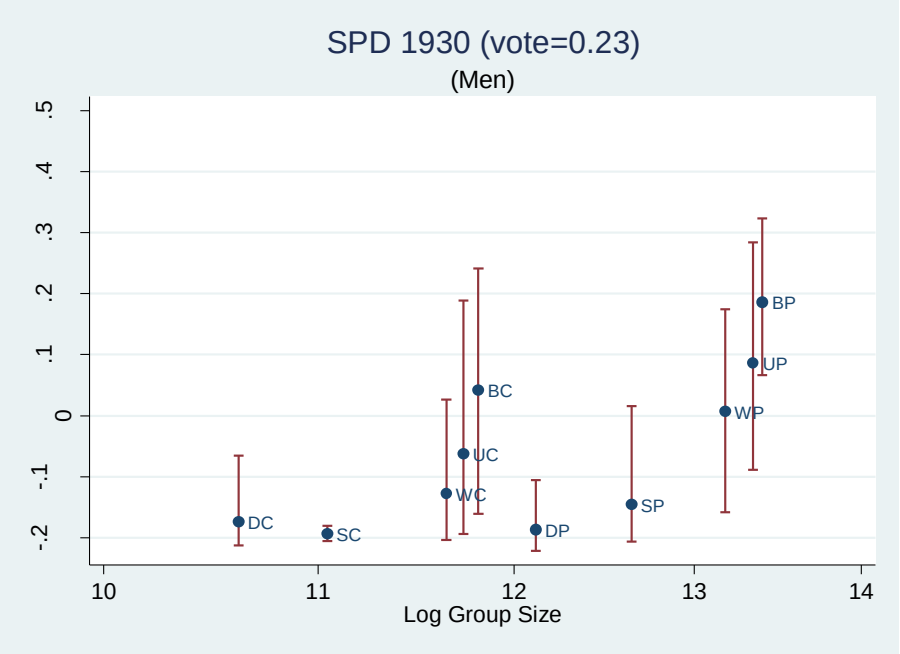


fig. A22.



Source: See Text

fig. A23.

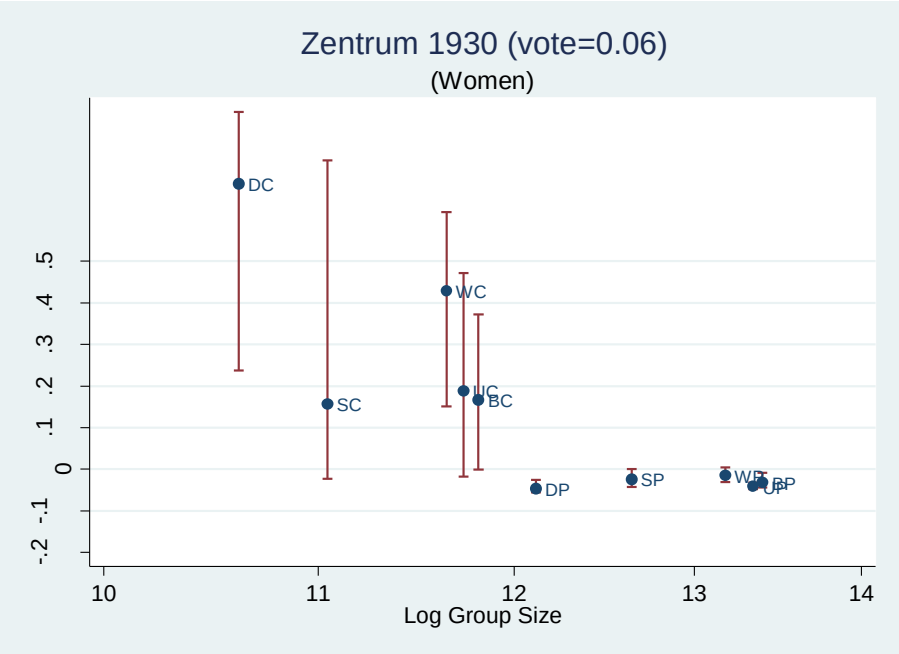
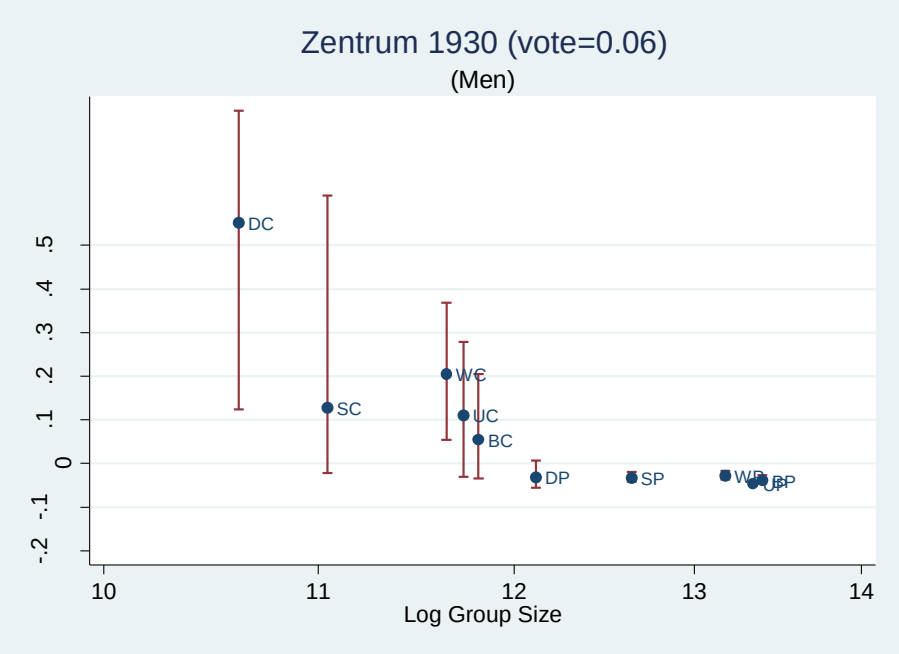


fig. A24.



Source: See Text

fig. A25.

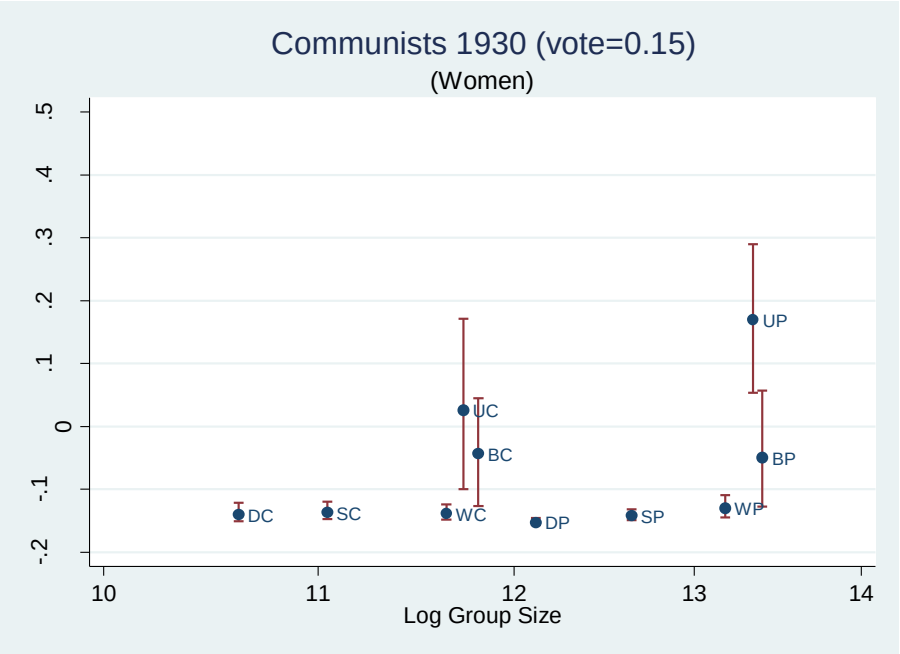
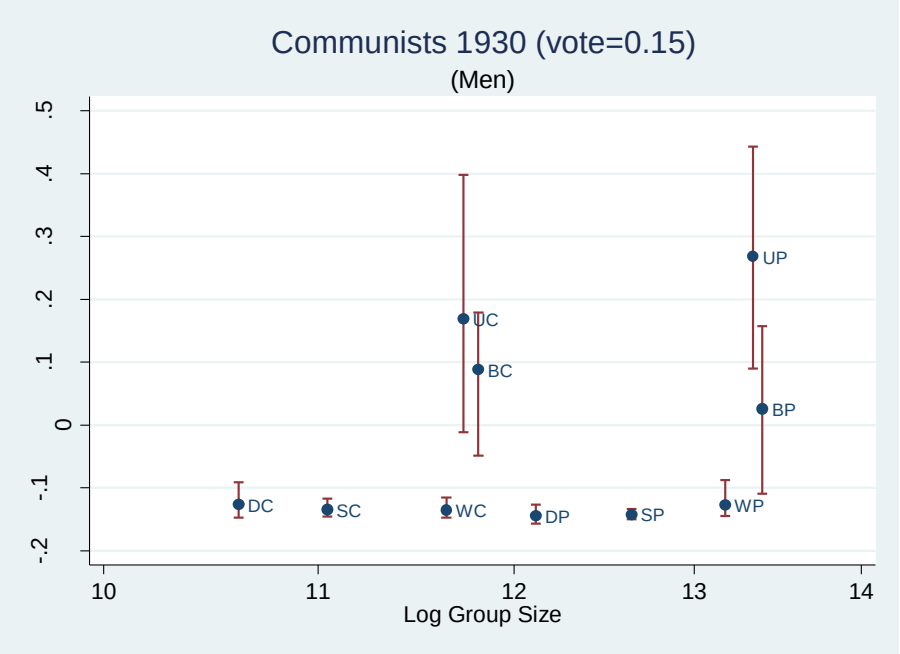


fig. A26.



Source: See Text

fig. A27.

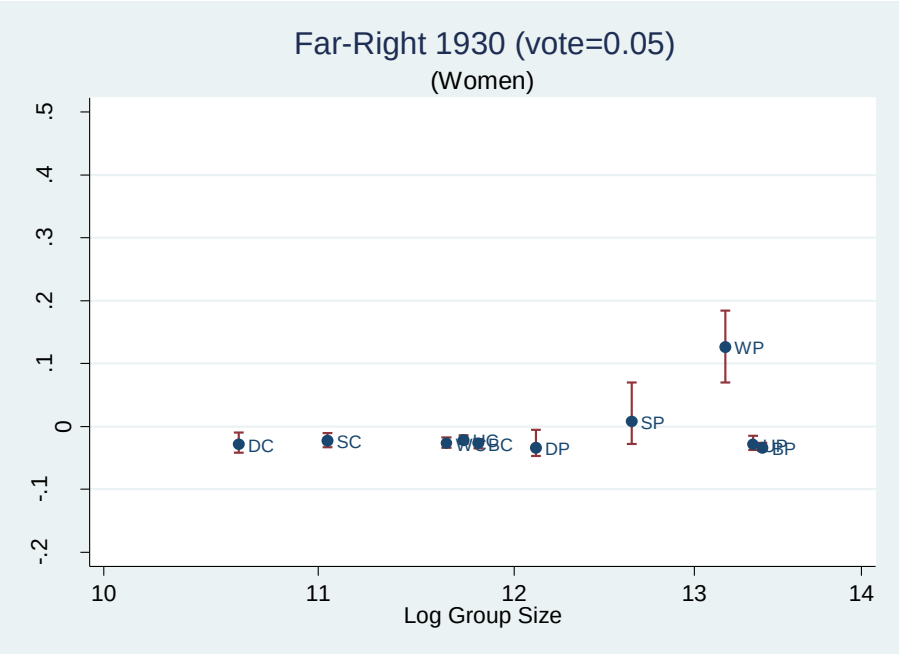
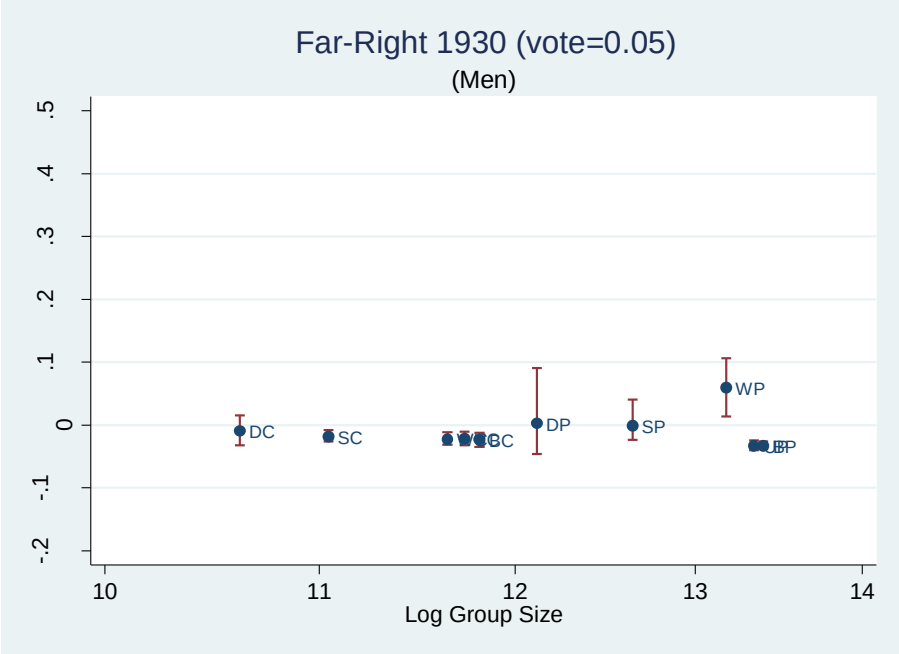


fig. A28



Source: See Text

fig A29.

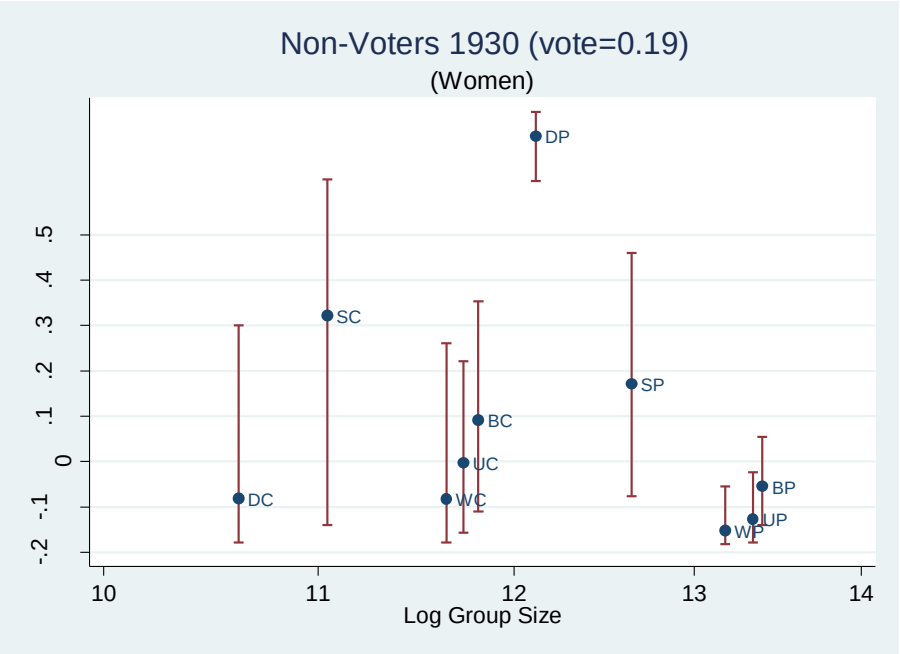
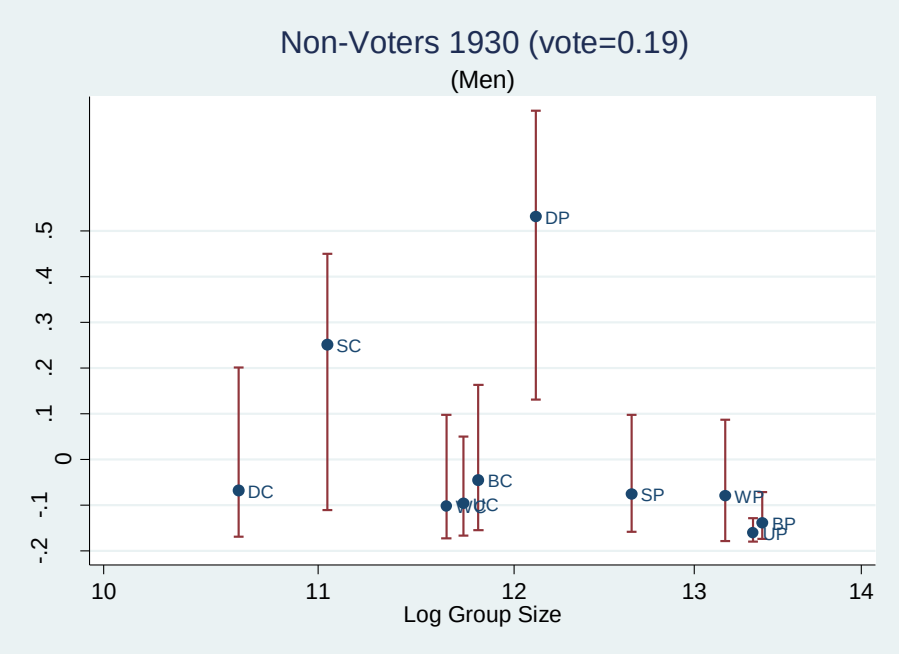
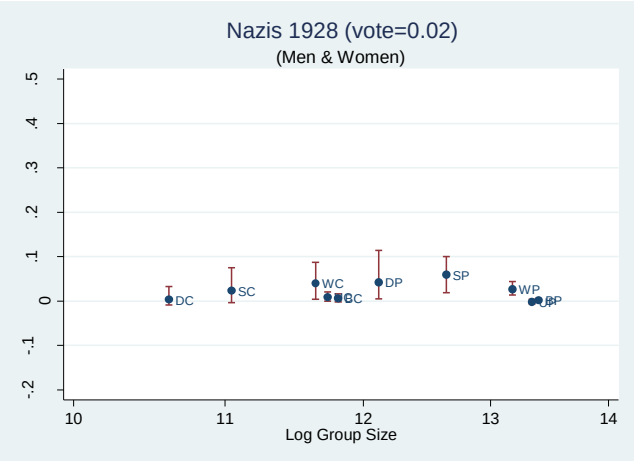


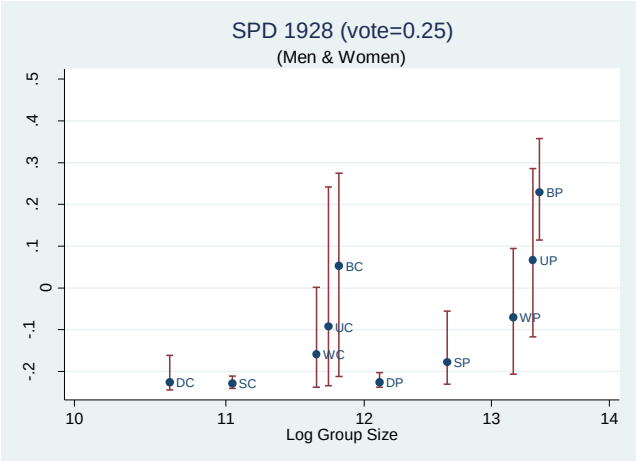
fig. A30.

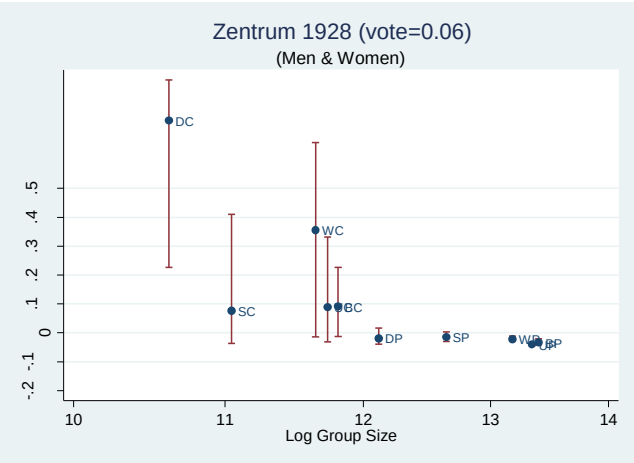


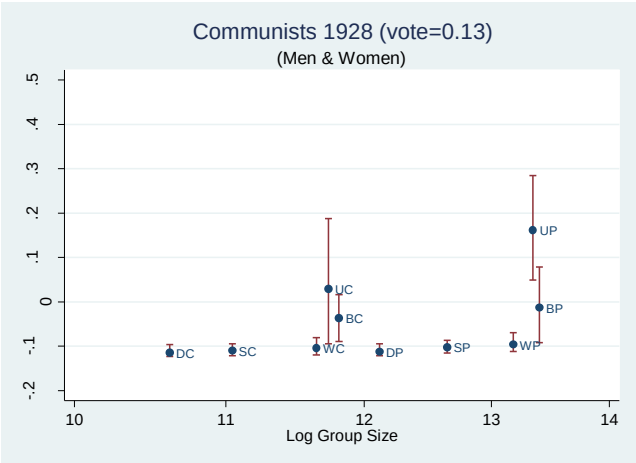
Source: See Text

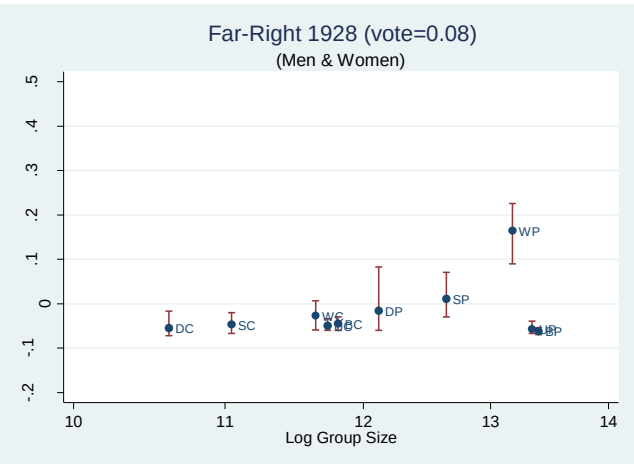
ECOLOGICAL INFERENCE RESULTS: POOLED VOTES OF MEN & WOMEN

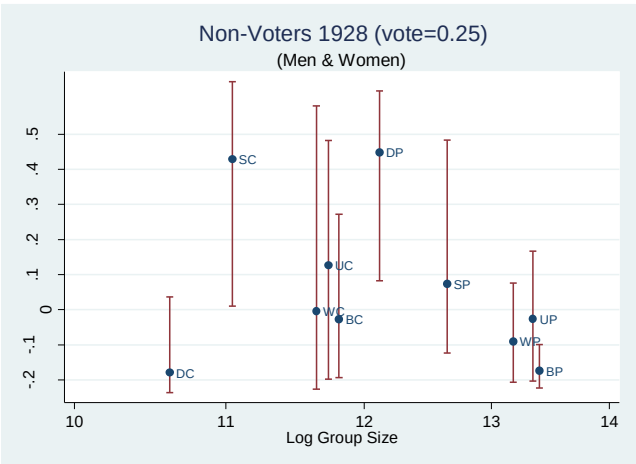




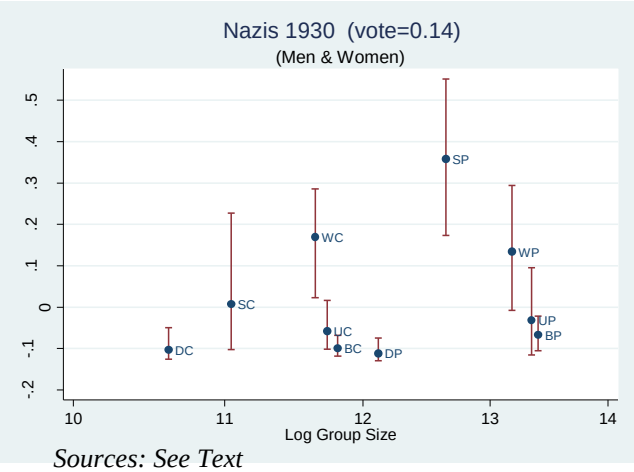


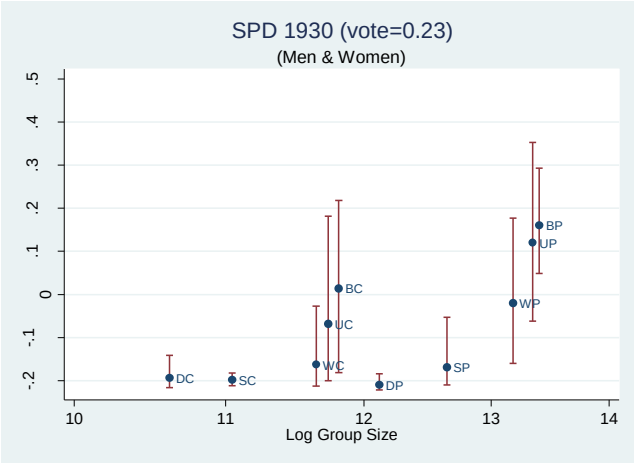




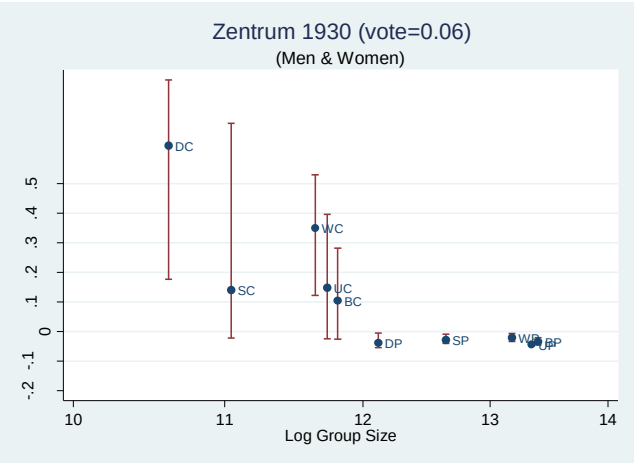


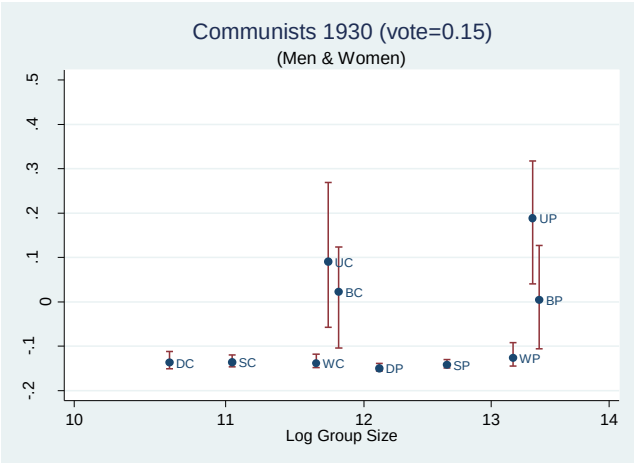
Source: See Text

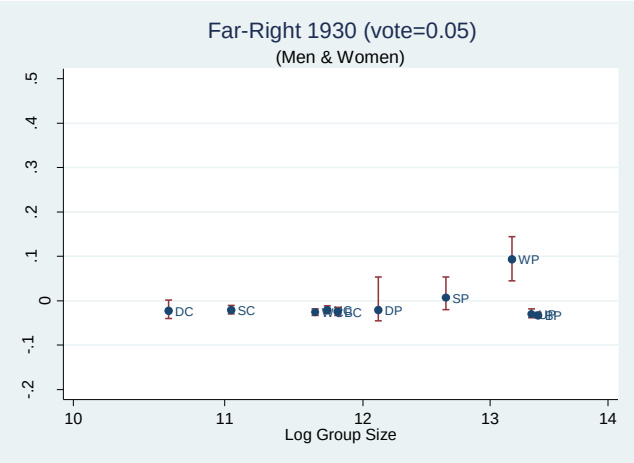


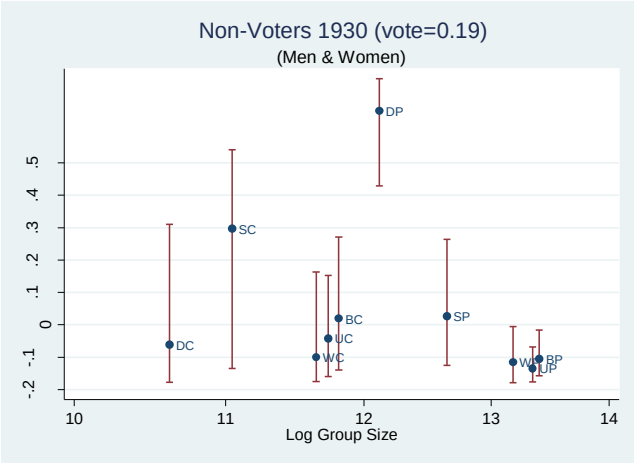


Sources: See Text





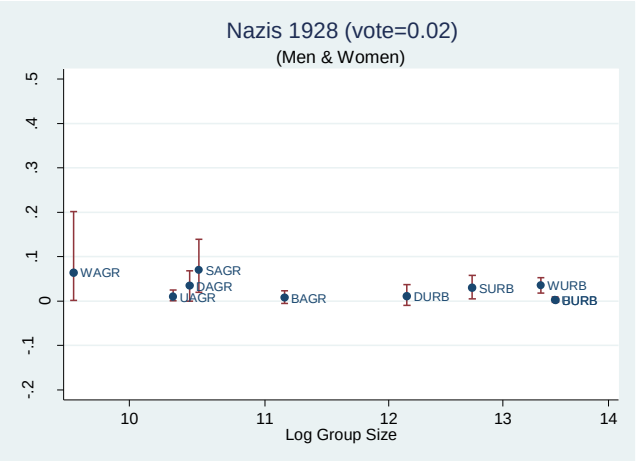


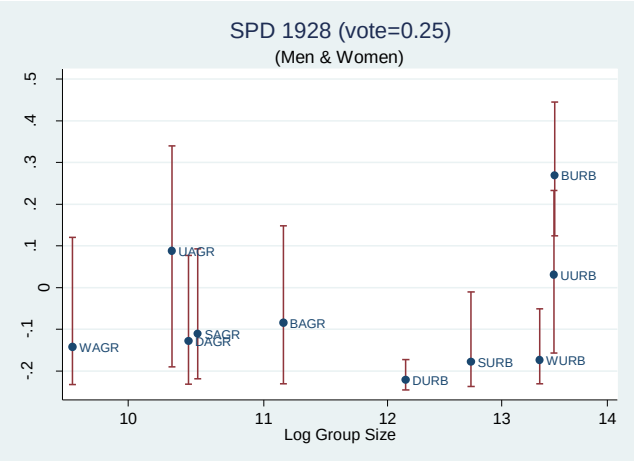


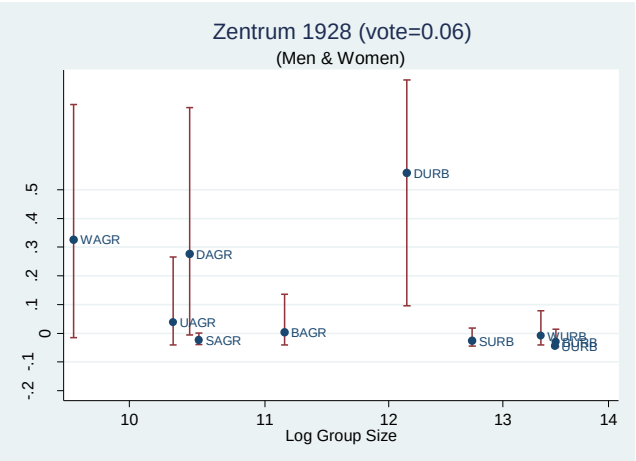
Source: See Text

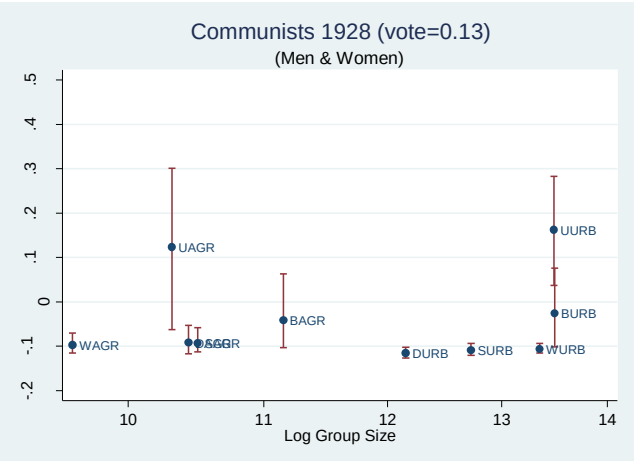
ALTERNATIVE DIVISION OF DATA: AGRICULTURAL V. URBAN AREAS

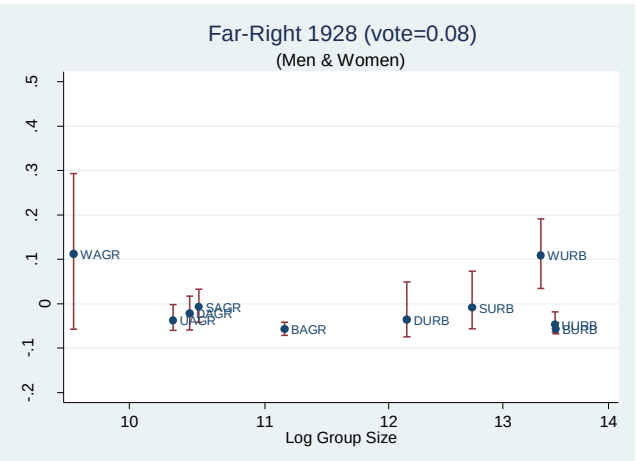
Agricultural area defined as any area in which more than 10% of the population was employed in agriculture according to 1933 census, otherwise urban.

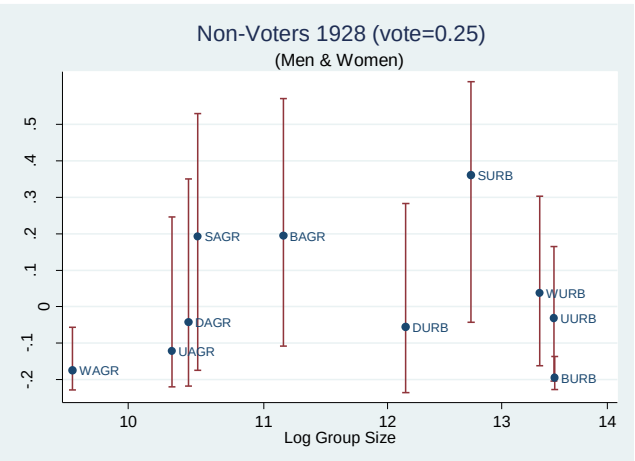




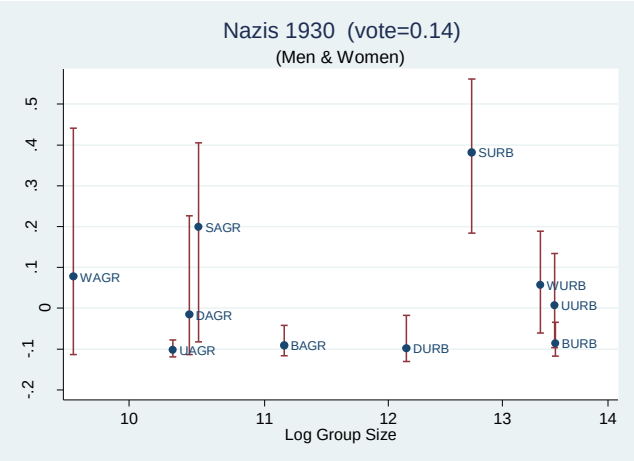


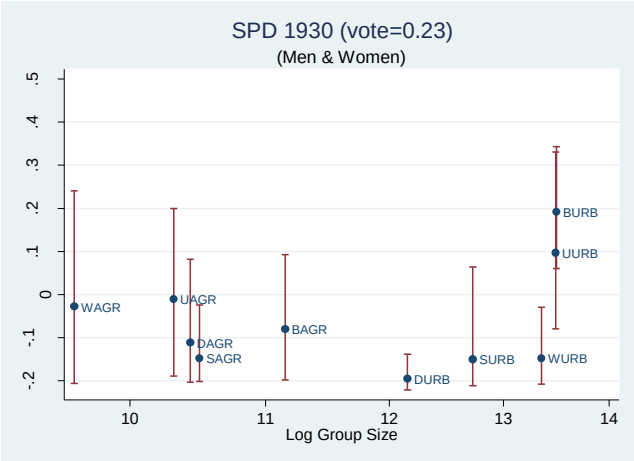


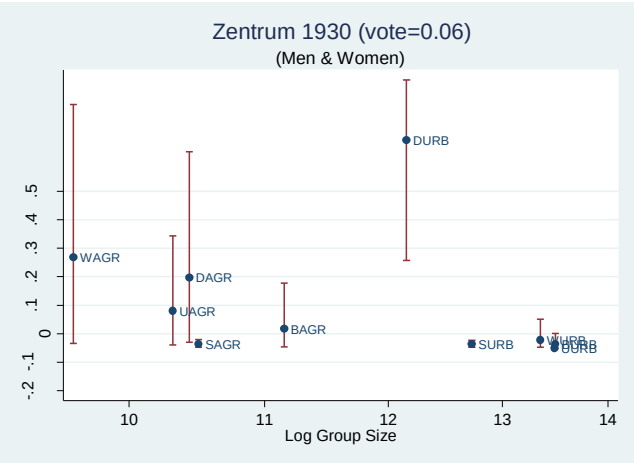


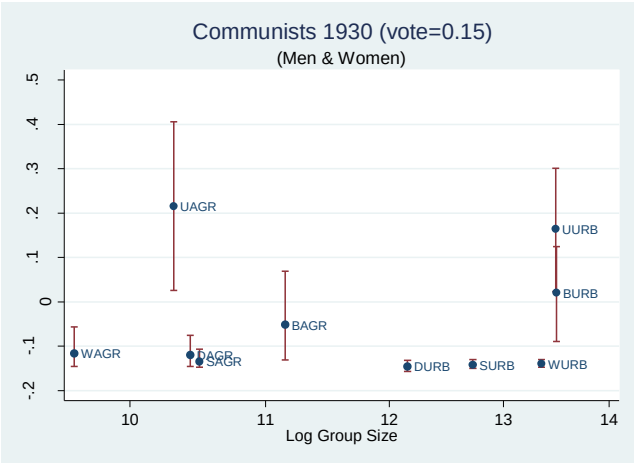


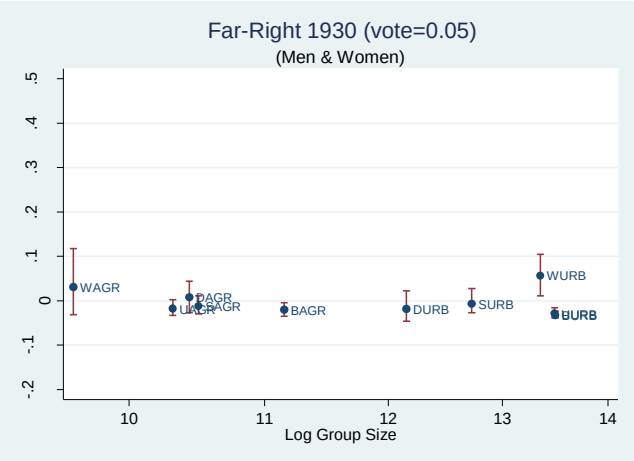
Source: See Text

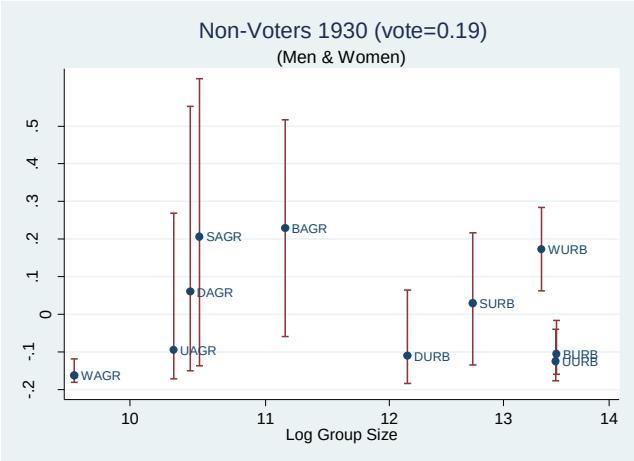




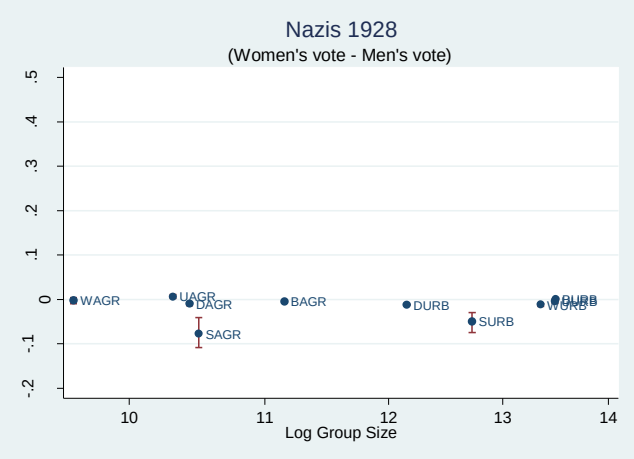


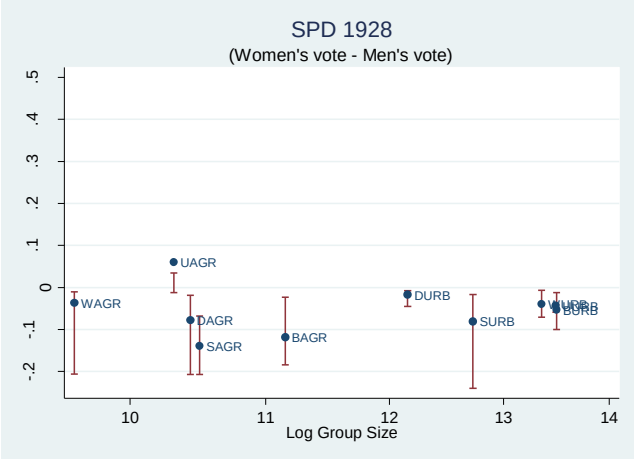


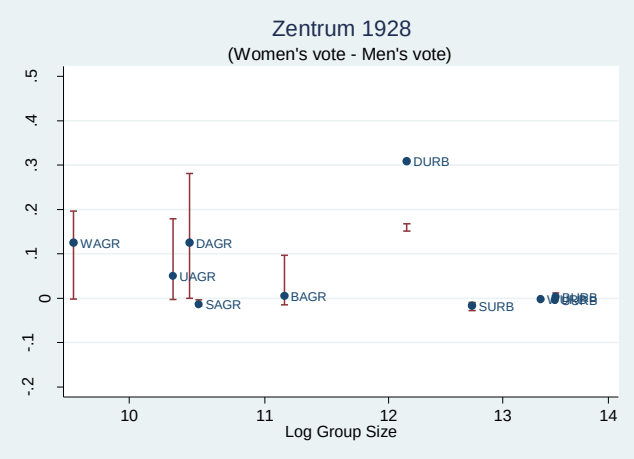


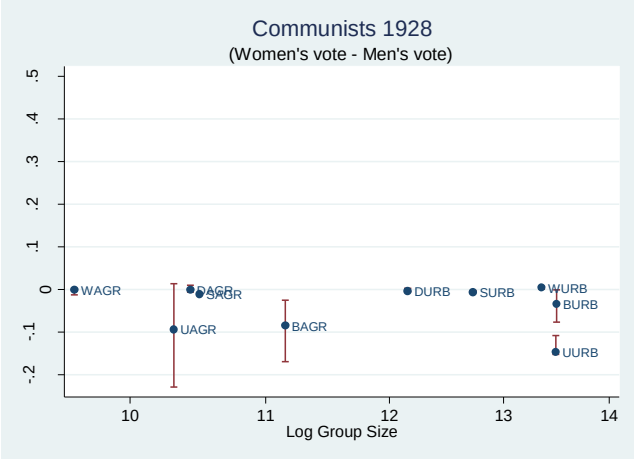


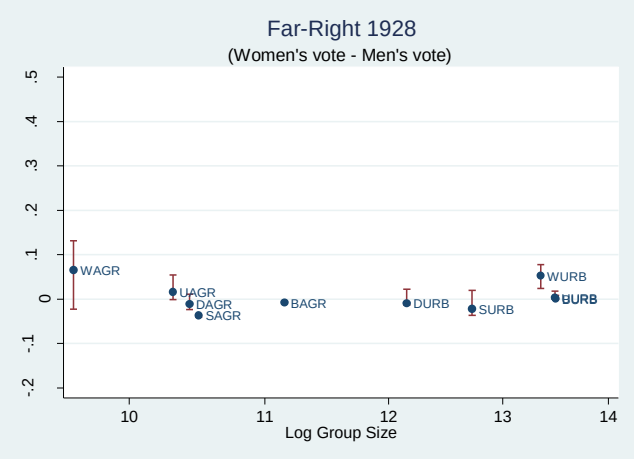
Source: See Text

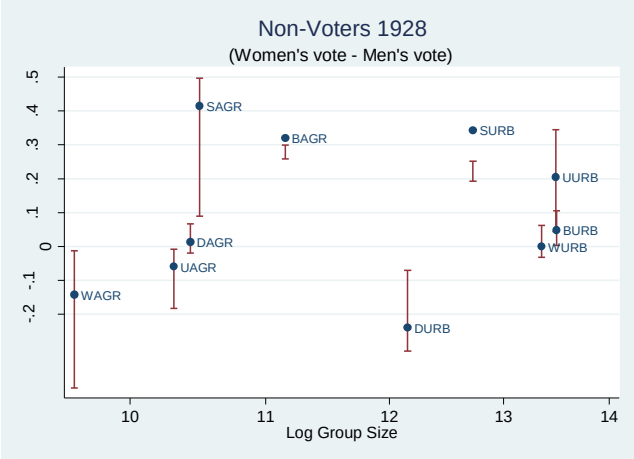




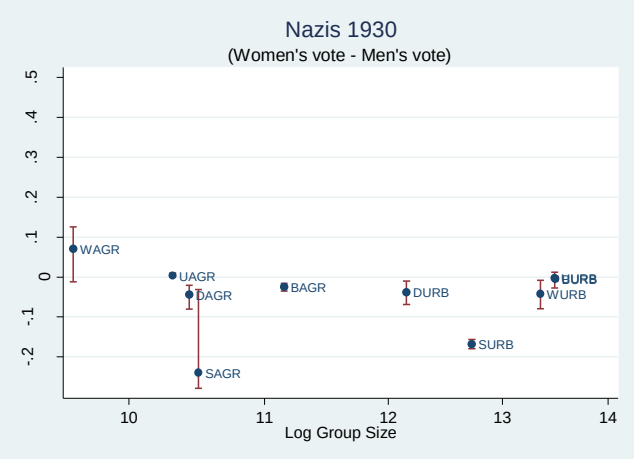


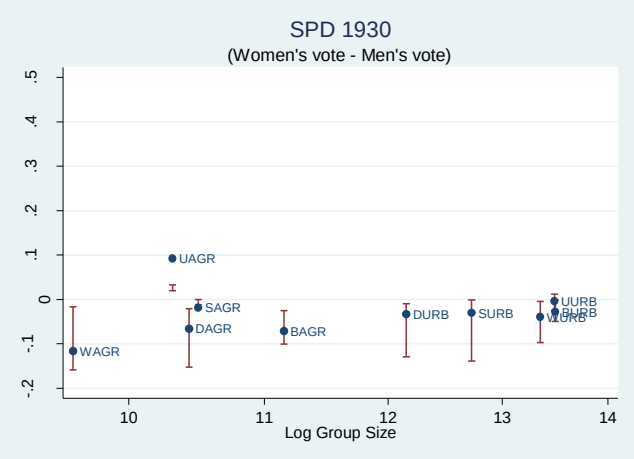


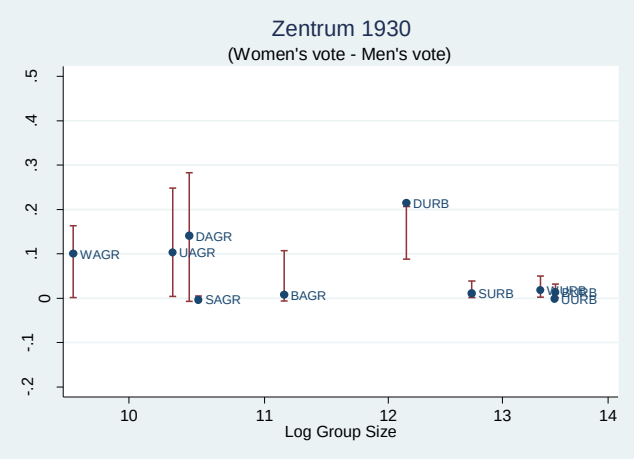


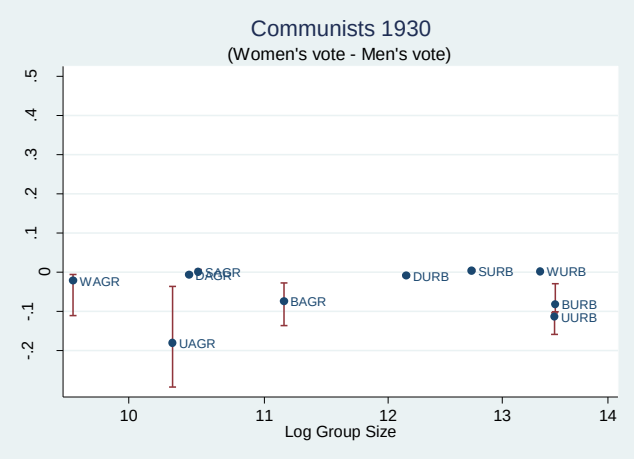


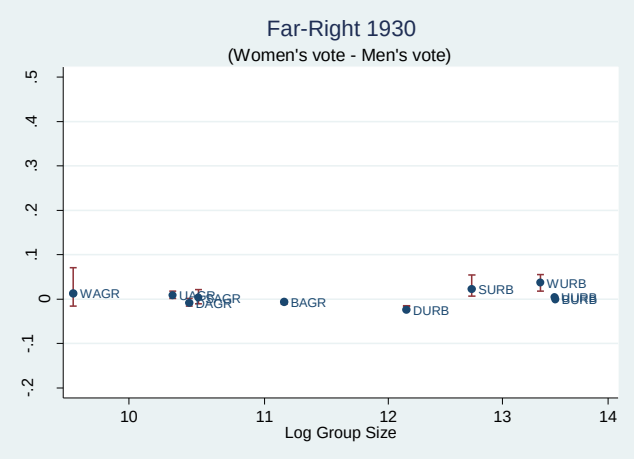
Source: See Text

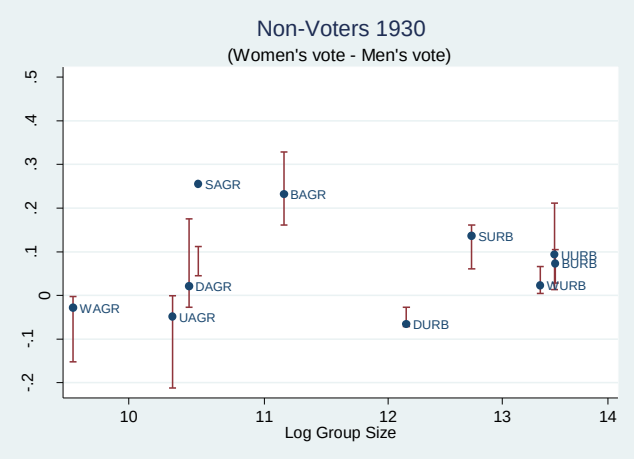












Source: See Text

BACKGROUND TO THE ELECTIONS OF 1928 AND 1930

The period between the elections of December 1924 and May 1928 was one of relative economic prosperity and political stability. The *Bürgerblock* coalitions of the bourgeois parties (comprising at different points the Zentrum, DNVP, DVP and DDP) that first formed a government in January 1925 lasted almost an entire parliamentary term, an unusually resilient sequence of associations by the standards of Weimar Germany. The SPD's cooperation on various policies allowed minority governments to function without the need to call new elections. When the last *Bürgerblock* coalition finally fell apart in 1928 over the issue of the *Schulgesetz*, the education law regarding religious education in schools, the political environment was one in which radicals appeared largely marginalised and democrats galvanised.[282] Currency stabilisation and the admission of Germany to the League of Nations in 1926 represented significant achievements for the Weimar system, and demonstrated what could be achieved through political compromise. Denied the oxygen of economic instability and international tensions, extremist elements receded. These relatively benign conditions were manifest in a voter turnout that was the lowest of any Weimar election.[283] Yet beneath the surface the old fault lines of class tension, resentment of Germany's treatment by the Allies and divisions over the future of German culture remained. In particular, much has been made of the destructive effects of the lingering memory of hyper-inflation on middle-class confidence in the Weimar system, an effect that would help to splinter the moderate right and allow room for more extremist ideology to incubate.[284] The political stability that the Weimar parties had managed to maintain was perilously fragile, only achieved through skilful manoeuvring and political compromise. Increasingly

[282] D. Bundestag, *Historical Exhibition Presented by the German Bundestag: Elections in the Weimar Republic March 2006.*, http://www.bundestag.de/ 2006 (accessed 2012)
[283] D. Nohlen and P. Stöver, *Elections in Europe: A Data Handbook* (Baden-Baden, 2010)
[284] E.D. Weitz, *Weimar Germany: Promise and Tragedy (New and Expanded Edition)* (2013) p. 145

these compromises were viewed as political defeats and not achievements, feeding resentment particularly within the conservative parties.[285] In addition the economic rationalisation that occurred during the 1920s caused upheaval within the industrial and services sectors, with the increasing numbers of women taking up the new post-rationalisation jobs becoming a potent symbol of ever encroaching modernity. For the moment however, these tensions would remain for the most part beneath the surface, with the 1928 election inducing parties and voters to take stock of the Weimar Republic over its ten-year existence.

For the Nazis, the period between the election of 1924 and that of 1928 was one of regeneration and centralisation of the party electoral apparatus. The inflationary crisis, the controversy over the French occupation of the Ruhr and the publicity gained from the failed Munich Beer Hall putsch had helped the party achieve 6.5% of the vote in the election of May 1924.[286] However this success proved ephemeral as the crisis subsided and the party's support crumbled to 3% by the next election in December. Reorganised and revitalised, the party campaign in 1928 used the opportunity of the ten-year anniversary of the formation of the republic to rail against it. The party's anti-system tirade was, as before, replete with overt anti-Semitic and anti-Marxist rhetoric, often linking the two in terms of a perceived Judeo-Bolshevik threat.[287] The party made the decision to focus attention on urban voters, attempting to attract working–class voters, a strategy that according to the analysis of the previous chapter, proved largely unsuccessful in winning disproportionate support among this group. Nonetheless the failure of this strategy was an important turning point for the

[285] E. Kolb, *The Weimar Republic* (2005) p.60
[286] The Nazi party was banned following the Munich Putsch but effectively conducted the 1924 elections under the National Socialist Freedom Party/Völkisch Bloc banner.
[287] B. Dusik, "'Adolf Hitler Entlarvt'", in B. Dusik (ed.), *Hitler. Sources 1924 - 1945* (Berlin, 1992)

Nazis. From this point on the party would target its appeals mainly at the middle-classes.[288] Women as a voting group were largely overlooked in the Nazi campaign, with the few materials directed at women that did emerge displaying a vision of women's roles and an approach to women's issues that were indistinct.[289] Essentially the party adopted a similar stance towards women to that of the conservative bourgeois parties, one that lamented the retreat of women from the domestic sphere and implicitly implicated women in the perceived crises of falling birth rates and the decline of the traditional German household. Despite however presenting similar appeals to women as the conservative DNVP – which as shown in the previous chapter enjoyed disproportionate support among women – the Nazi party still received more votes from men than from women. The extremist nature of the Nazi vision, as well as the violence that often accompanied it, appears to have had an extremely limited appeal under the conditions of 1928. With the Nazis gaining only 2.6% of the vote, and an even smaller share of women's votes, the party had become apparently, just another minority interest party with little support among the public at large.

Following the 1928 election the SPD formed a coalition with the Zentrum and Liberal parties but opted to withdraw from government in 1930 rather than preside over a reduction of unemployment relief, the cost of which increased dramatically following the onset of the economic depression. If the election of 1928 had seemingly endorsed the health of the Weimar political system, the deteriorating economic conditions threatened to seriously undermine its legitimacy in 1930. The apportionment of blame for the country's economic problems became central to the political discourse, with parties increasingly blaming the democratic system itself, even those that had previously been willing

[288] Childers, *The Nazi Voter: The Social Foundations of Fascism in Germany, 1919-1933* p.262
[289] Sneeringer, *Winning Women's Votes: Propaganda and Politics in Weimar Germany* p.135

participants. Many parties, from the centre to the right, also lamented the deterioration in the moral character of the nation, with the restoration of the family and traditional Christian values portrayed as the only saviour of the soul and vigour of the nation. Women, in their role as mothers and housewives, became central to this vision. The stereotype of the 'New Woman' of the 1920s, with her economically and sexually liberated lifestyle and apparent indifference to the plight of the nation, was increasingly seen by conservatives as both a symptom and a cause of the Germany's economic and cultural malaise. The election of 1928 had seen the lowest turnout of any in Weimar Germany, with women's turnout falling significantly behind that of men. The theme of "*kampf*" or "struggle" was prominent in the election of 1930; the struggle for the future economic, moral and cultural foundations of the country.[290] From amidst this struggle emerged the most remarkable aspect of the 1930 election; the establishment of the Nazi party as a major political force.

The Nazi breakthrough in the 1930 election was patently dramatic, although some increase in their support was anticipated given the party's growing strength in regional politics in the run up to the national elections.[291] The party went from a fringe party to the second most supported party behind the SPD, a rise that coincided with a dramatic increase in turnout and the precipitous decline in support for the liberal parties and the DNVP. The appointment of Joseph Goebbels as the head of the propaganda arm of the party in April 1930 had refined and focused the party's message in an energetic campaign.[292] The party simplified its platform, more succinctly expressing its attacks on the failures of the Weimar system and its parties, both left and right, while further rhetorical vitriol continued to be

[290] Sneeringer, *Winning Women's Votes: Propaganda and Politics in Weimar Germany* p.216
[291] Mommsen, Forster, et al., *The Rise and Fall of Weimar Democracy* p.316
[292] D. Muhlberger, *Hitler's Voice: The Volkischer Beobachter, 1920-1933* (2004) p.357

devoted to anti-Semitic and anti-Marxist denunciations.[293] Conspicuous in their absence were materials aimed directly at women; the party largely ignoring women among the various groups that were the targets of its propaganda such as workers, the middle-class, soldiers and the young. Despite the absence of materials directly aimed at women, the party's more general position that would later emerge on women's role in a future Nazi state was beginning to take shape. The ban on female candidates by the Nazi party was viewed by most rival parties as an outward confirmation of the party's clearly misogynist attitudes, leading to the assumption that women would not support a party that so openly threatened women's rights. The elevation of motherhood however began to crystallise, albeit with a more anti-Semitic and xenophobic racial character than would later be the case. The lionising of motherhood was part of a concerted effort on behalf of the party to shake-off its thuggish and "pagan" image of the 1920s in an attempt to gain respectability, a respectability that was crucial if it was to achieve its goal of wresting middle-class support from the hold of the bourgeois parties.[294] This tactic no doubt attracted some support from middle-class protestant women disaffected by what they saw as the failings of their traditional representatives. However the party's lack of direct appeals to women meant that the gender gap of the previous election persisted. The party's failure in 1930 to attract more women voters would ensure that the closure of the gender gap would become a priority for the Nazi party propaganda machine in subsequent elections. Nevertheless the party managed to increase its overall vote share from less than 3% to more than 18% in 1930, establishing itself for the first time as a major force in Weimar politics.

[293] J.K. Pollock Jr., 'The German Reichstag Elections of 1930', *The American Political Science Review*, Vol. 24 (No. 4, 1930) 989-95.
[294] Sneeringer, *Winning Women's Votes: Propaganda and Politics in Weimar Germany* p.174

THE EVOLUTION OF VOTING RIGHTS

Argentina

Date of Universal Male Suffrage: 1912

Date of Universal Female Suffrage: 1947

Description:

The Constitution of 1853 established the principle of universal male suffrage but excluded the immigrant population from voting. Suffrage provisions were amended in 1912, with the right to vote being extended to all native and naturalised men over the age of 18 using a secret ballot. Women were granted the right to vote in 1947 with women voting for the first time in the election of 1951.[295]

Australia

Date of Universal Male Suffrage: 1902

Date of Universal Female Suffrage: 1902

Description:

Following Confederation in 1901 universal suffrage was introduced for all British subjects with six months residency in Australia. However there were restrictions based on racial discrimination. Enrolment was made compulsory in 1911 and voting in 1924. At the state level, South Australia led the way in extending voting rights, initiating universal male franchise (21 and over) in 1856 and equal voting rights to women in 1895. Following a

[295] Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, S. Rowbotham, *Women in Movement: Feminism and Social Action*, Routledge, (1992) p.171

referendum in 1967, the constitution was amended to remove the restrictions on aboriginal voting.[296]

Austria

Date of Universal Male Suffrage: 1907

Date of Universal Female Suffrage: 1918

Description:

The voting reforms enacted under the Habsburg monarchy of 1907 eliminated all minimum tax requirements and established universal male franchise to all men over the age of 24. Following the end of the First World War the Constituent National Assembly extended the right to vote to all men and women aged 20 and over. The voting age was raised to 21 following a constitutional amendment in 1929.[297]

Belgium

Date of Universal Male Suffrage: 1892

Date of Universal Female Suffrage: 1948

Description:

Restrictions on suffrage based on tax requirements were established since the establishment of Belgian independence in 1830. In 1892 a constitutional amendment, restrictions on male franchise based on tax were removed and the vote was granted to all men over the age of 25. However multiple ballots still existed until 1919 when electoral reform removed multiple voting and lowered the voting age for men to 21. Interestingly the 1919 reforms also

[296] Nohlen, Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific*, Australian Electoral Commisson, *Australian Electoral History*, http://aec.gov.au/Elections/Australian_Electoral_History edn (2012)
[297] Nohlen and Stöver, *Elections in Europe: A Data Handbook*

included a provision whereby mothers and wives of soldiers killed in the First World War and women who had been tried for political reasons during the German occupation were entitled to vote. This ensured that the number of women entitled to vote decreased gradually over the course of the following decades. Universal suffrage was extended to include all women in 1948.[298]

Bulgaria

Date of Universal Male Suffrage: 1879 (*de jure*)

Date of Universal Female Suffrage: 1945

Description:

The 1879 constitution of the newly sovereign Bulgaria gave the vote to all men over the age of 21 without any explicit property, income or educational provisions. However specific restrictions were gradually introduced over the period 1882 and 1887 resulted in only 19.4% of the population being allowed to vote in 1887. Restrictions also served to guarantee a very low turnout rate during this period with only 22% of registered voters turning out to vote in 1887. This meant that only 4.3% of the population actually voted in the election of this year. The authoritarian government of 1937 granted voting rights to women who were married, divorced or widowed. Universal female suffrage was introduced in 1945 with all citizens over the age of 19 entitled to vote. The following year the age was lowered to 18.[299]

[298] ibid.
[299] ibid.

Canada

Date of Universal Male Suffrage: 1920

Date of Universal Female Suffrage: 1920

Description:

With the federation of the Dominion of Canada in 1867 voting rights were granted to white men over the age of 21 who met the required income and property conditions. These restrictions were amended over the decades following confederation but property requirements remained in place. The next significant change to the extent of the franchise came in 1917 with two war-time electoral acts: The Military Voters Act and the War-Time Elections Act. These acts granted the right to vote to all military personnel regardless of age, race or other requirements. Most significantly voting rights were granted to some 2,000 military nurses, known as the 'bluebirds', as well as to women who had close relatives in the Canadian military. Universal suffrage for men and women over the age of 21 was introduced under the Dominion Elections Act in 1920. Nonetheless, the franchise continued to be restricted along ethnic and racial lines. Canadians of Japanese ancestry were disenfranchised until 1948 while aboriginals were denied equal voting rights until 1960.[300]

Czechoslovakia

Date of Universal Male Suffrage: 1919

Date of Universal Female Suffrage: 1919

Description:

Upon the formation of the new state of Czechoslovakia following the collapse of the Austro-Hungarian Empire after the First World War, all citizens age 21 and over were entitled to

[300] Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean*, RW.ERROR - Unable to find reference:207

vote in lower house elections. Voting age for senate elections was set at 26. In 1946 the voting age was lowered to 18.[301]

Denmark

Date of Universal Male Suffrage: 1915

Date of Universal Female Suffrage: 1915

Description:

Suffrage during the first "Consultative Assemblies of the Estates" of 1830s and 1840s was greatly restricted. Only males over the age of 25 who met specific property requirements were entitled to vote such that only 3% of the population were enfranchised. The electoral law of 1848 stated that suffrage should be unrelated to class or taxation. Nonetheless many other restrictions were applied, including the restriction of voting to men over the age of 30, ensuring that only 6.2% of the population were entitled to vote. The constitutional amendment of 1915 increased the franchise considerably, with women over 30 now entitled to vote. The franchise was not yet universal however as those on poor relief were denied the right to vote. An additional constitutional amendment of 1920 lowered the voting age to 25 for both men and women. This was lowered again to 23 in 1953 and was further lowered in incremental steps until the voting age of 18 was established in 1978.[302]

Finland

Date of Universal Male Suffrage: 1906

Date of Universal Female Suffrage: 1906

Description:

[301] Nohlen and Stöver, *Elections in Europe: A Data Handbook*, Czechoslovakia, J. Hoetzel, et al., *The Constitution of the Czechoslovak Republic* (1920)
[302] Nohlen and Stöver, *Elections in Europe: A Data Handbook*

During the period between 1809 and 1917 Finland was a Grand Duchy of the Russian Empire but in many respects operated as a sovereign state, having its own National Assembly. Following the Russo-Japanese war of 1905 the Finish Social Democratic party took advantage of Russian weakness to push though considerable electoral reform. The old system of parliament of four estates; nobles, clergy, burghers and peasants was replaced with a single chamber assembly in 1906, with the right to vote extended to men and women over the age of 24 without any other requirements. Thus Finland became the first country in Europe to grant full and equal voting rights to women. Of additional importance was that women were also given the right to stand for election, making Finland the first country in the world to allow women members of parliament. More revolutionary still was the number of women who were elected in 1907. Some 19 women MPs were elected out of 200 seats, a proportion that Britain did not attain until 1997. The voting age was further lowered to 21 in 1944 and finally reached the current level of 18 in 1972.[303]

France

Date of Universal Male Suffrage: 1848

Date of Universal Female Suffrage: 1945

Description:

France has perhaps one of the longest and most volatile of electoral histories. Following the convening of the Estates General in 1789 and the third estates' formation of the National Assembly, the right to vote was given to all males over the age of 25 who paid direct taxes equivalent to three days' wages. The various constitutions produced during the 1790s repeatedly changed the age of voting, alternating between 21 and 25. Other requirements

[303] ibid., R. Cracknell, R. Groat and J. Marshall, 'Women in Parliament and Government', 2009)

regarding tax and residency were also altered. However between 1815 and 1830 the voting age was increased to 30 and higher tax requirements were introduced. After 1830 the voting age was again lowered to 25, however the franchise was still extremely limited with only 0.6% of the population entitled to vote in 1842. After the Revolution of 1848 the principle of universal male suffrage was reintroduced for all males over the age of 21. This remained largely in place until the beginning of the Fourth Republic in 1945 when women were given the right to vote. The next significant extension took place in 1974, when the voting age was lowered to 18.[304]

Germany

Date of Universal Male Suffrage: 1871

Date of Universal Female Suffrage: 1918

Description:

In the early 19th century a number of individual German states adopted constitutions that introduced parliaments with limited powers elected by restricted male suffrage. Following the establishment of the constitutional assembly of 1848 an election act was passed that, in principle, granted the right to vote to all men over the age of 25. In practice however restrictions on voting were maintained or reintroduced over the following decades. After unification in 1871, universal male suffrage was introduced at the national level. These suffrage arrangements continued until the November Revolution of 1918 established the principle of universal male and female suffrage for all citizens over the age of 20. The voting age was lowered to 18 in the Federal German Republic in 1970.[305]

[304] Nohlen and Stöver, *Elections in Europe: A Data Handbook*

[305] ibid., D. Ziblatt, 'Shaping Democratic Practice and the Causes of Electoral Fraud: The Case of Nineteenth-Century Germany', *American Political Science Review,* Vol. 103 (No. 1, 2009) 1-21.

Greece

Date of Universal Male Suffrage: 1864

Date of Universal Female Suffrage: 1952

Description:

The Greek Constitution and electoral law of 1844 established that the Greek parliament be elected by all male citizens over the age of 25, provided they owned property and met a small number of other conditions. The 1864 Constitution enshrined the principle of universal male suffrage and lowered the voting age to 21. These suffrage entitlements remained largely unchanged until the Constitution of 1952 was enacted which granted equal voting rights to women; the granting of equal political rights to women being a requisite of membership of the UN and NATO. The voting age was lowered to 20 in 1977 and again to 18 in 1981.[306]

Hungary

Date of Universal Male Suffrage: 1920

Date of Universal Female Suffrage: 1945

Description:

During the period of the Austro-Hungarian Empire the franchise was restricted to propertied males that were recorded in the census. As a result only approximately 6% of the population was entitled to vote by 1912. Following Hungarian independence in the aftermath of the First World War, the provisional government enacted a new electoral law that would give the vote to all male citizens over the age of 21 and to all female citizens over 24. However

[306] Nohlen and Stöver, *Elections in Europe: A Data Handbook*, D. Samiou, So Difficult to be Considered Citizens: The History of Women's Suffrage in Greece 1864-2001 in B.R. Ruiz and R. Rubio-Marin eds, *The Struggle for Female Suffrage in Europe: Voting to Become Citizens* (2012) pp.439-452

following the Communist seizure of power and the subsequent conflict these enactments were never introduced. For the election of 1920, all men and women aged 24 and over were entitled to vote, albeit subject to some residence restrictions. Eligibility was changed again for the 1922 elections with the voting age increased to 30 for women. Further changes took place in 1938, whereby the voting age for men was increased to 26, while residency requirements became more restrictive. Minimum requirements were also established regarding education. Following the end of the Second World War in 1945, universal and equal suffrage for men and women over the age of 20 was established. The voting age was further reduced to 18 in 1953.[307]

Ireland

Date of Universal Male Suffrage: 1918

Date of Universal Female Suffrage: 1922

Description:

Before independence, elections in Ireland were undertaken under the same franchise arrangements as in the rest of the United Kingdom. Upon independence of the 26-county Irish Free State in 1922, all men over the age of 21 and all women over 30 were entitled to vote. Later in the year the franchise was extended to women between the ages of 21 and 30, establishing universal adult suffrage. In 1972 the voting age was lowered to 18. The right to vote in Irish elections was granted to British citizens following a referendum in 1984 to match the corresponding right of Irish citizens to vote in British elections. From 1922, Northern Ireland's electoral provisions remained as for the rest of the United Kingdom.[308]

[307] Nohlen and Stöver, *Elections in Europe: A Data Handbook*
[308] ibid.

Italy

Date of Universal Male Suffrage: 1919

Date of Universal Female Suffrage: 1946

Description:

Upon unification in 1860/61 the right to elect members to the chamber of deputies was limited to literate men over the age of 25 who met certain tax requirements. As a result only 2% of the population was entitled to vote throughout the 1860s and 1870s. Electoral reform in 1882 lowered the voting age to 21 and lowered the tax requirement. However the literacy requirement remained, such that the proportion of the population entitled to vote only increased to 7%. The next significant change to the franchise came in 1912 when all literate men were granted the vote if they had completed military service. In addition, illiterate men were entitled to vote if they were over 30. The result of these changes increased the proportion entitled to vote to 23% in 1913. Following the First World War, universal male suffrage was established in 1919. All citizens over the age of 21, including women were given the right to vote in 1946. The voting age was reduced to 18 in 1975.[309]

Japan

Date of Universal Male Suffrage: 1925

Date of Universal Female Suffrage: 1945

Description:

Under the constitution of 1899 all men over 25 who met a tax qualification were entitled to vote in parliamentary elections. This tax qualification restricted the right to vote to 1% of the population. In the 1890s and 1900s the tax restriction was relaxed so that by 1919 around

[309] ibid.

5% of the population were enfranchised. In 1925 the tax restrictions were lifted and universal male suffrage was extended to all men over 25. Following the Japanese surrender in August 1945, the occupation administration of General MacArthur issued an order granting women the vote. Universal suffrage was then formalised within the US drafted constitution of 1947.[310]

The Netherlands

Date of Universal Male Suffrage: 1917

Date of Universal Female Suffrage: 1919

Description:

From the first direct elections in 1848 the right to vote was restricted to male Dutch citizens over the age of 23 who met a direct tax requirement, corresponding to about 2% of the population. Throughout the course of the second half of the nineteenth century, growing prosperity and a relaxation of the requirements (although the voting age was raised to 25) gradually increased the number of eligible voters so that by 1917, 71% of men could vote. In 1917 all restrictions (other than age) were lifted on male voting with the right to vote being given to women two years later in 1919. The voting age has been lowered successively during the twentieth century; from 25 to 23 in 1946, to 21 in 1967 and to 18 in 1972.[311]

[310] E.G. Griffin, 'The Universal Suffrage Issue in Japanese Politics, 1918-25', *The Journal of Asian Studies*, Vol. 31 (No. 2, 1972) 275-90., Y. Matsukawa and K. Tachi, 'Women's Suffrage and Gender Politics in Japan', in C. Daley and M. Nolan (ed.), *Suffrage and Beyond: International Feminist Perspectives* (1994)

[311] Nohlen and Stöver, *Elections in Europe: A Data Handbook*

New Zealand

Date of Universal Male Suffrage: 1893

Date of Universal Female Suffrage: 1893

Description:

In 1867 universal male suffrage was introduced in four Maori seats only. In 1879 the franchise was extended to all European men aged 21 and over. Despite gaining the right to vote in 1893, women were ineligible to stand as candidates for the House of Representatives until 1919, with the first woman Member of Parliament elected in 1933. Designated Maori seats exist to this day despite the fact that the restriction that only European and mixed-race candidates could stand for election in general or 'European' seats was lifted in 1967. Until 1975 only mixed-race voters were allowed to choose which seats they wished to vote in.[312]

Norway

Date of Universal Male Suffrage: 1898

Date of Universal Female Suffrage: 1913

Description:

Norway has a long record of elections for representative government since independence (although in a union with Sweden) from Denmark in 1814. Under the Constitution of 1814 men aged 25 or over were entitled to vote, although this was subject to a number of property and residency requirements. As a result of these constitutional provisions approximately 6% of the population were entitled to vote in 1820. The next significant increase in the franchise came in 1898 when universal male suffrage was introduced. Women first gained the vote in 1909 but restrictions based on property and income were applied. Universal and equal

[312] Nohlen, Grotz, et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific*, New Zealand Electoral Commission, *History of the Vote*, http://www.elections.org.nz/voting-system/history-vote edn (2013)

suffrage was achieved in 1913, with all men and women over the age of 25 entitled to vote. The voting age was lowered to 23 in 1921, to 21 in 1967 and to 20 in 1973. The current age of voting of 18 was established in 1978.[313]

Peru

Date of Universal Male Suffrage: 1979

Date of Universal Female Suffrage: 1979

Description:

The right to vote in elections in Peru was severely limited during the 19th century until the electoral law of 1896 granted the vote to all literate male Peruvian citizens over the age of 21 that paid taxes. All but the literacy requirement was dropped in 1931. Women were given the right to vote in 1955 while the literacy requirement remained. As such only 30% of the population was entitled to vote in the election to the Constituent Assembly of 1978. Universal suffrage was established through the 1979 Constitution, which also lowered the voting age to 18.[314]

Poland

Date of Universal Male Suffrage: 1919

Date of Universal Female Suffrage: 1919

Description:

With the formation of an independent Polish state after the First World War the first elections to the Polish parliament were conducted under universal suffrage for men and women over the age of 21. As Poland moved towards a more authoritarian system with the

[313] Nohlen and Stöver, *Elections in Europe: A Data Handbook*
[314] Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, L. Bethell, *Latin America: Politics and Society since 1930* (1998) p.38

enactment of the 1935 Constitution, suffrage provisions were also changed such that the voting age was increased to 24. Although of no effective political importance, the age of voting was formally lowered to 18 in 1952.[315]

Portugal

Date of Universal Male Suffrage: 1974

Date of Universal Female Suffrage: 1974

Description:

Portugal experienced a long and meandering passage to universal suffrage. The 1822 Constitution established the right to vote for all men aged 25 years or over. However some further restrictions were imposed; men who were not independent of their parents and members of religious orders were excluded, for example. In addition the voting age was set at 20 for married men, military officers, university graduates and the secular clergy. The Constitutional Charter of 1826 established income and property requirements which were amended a number of times during the 19th century such that around 10% of the population was entitled to vote by 1878. The electoral reforms of 1878 almost doubled the electorate, with a literacy requirement effectively replacing the income and property requirements. In 1895 the requirements were tightened, reducing the electorate to around 10% of the population. The voting age of 21 was also formalised. After the Republican Revolution of 1910, the right to vote was granted to all citizens who were heads of households or were literate. As with previous provisions women were not explicitly denied the vote but the term "citizen" was only to apply to men. In opposition to this, the leader of the Portuguese Women's Republican League, Carolina Beatriz Angelo, applied to be added to the electoral register in 1911. She claimed that as she was a household head and literate that she was

[315] Nohlen and Stöver, *Elections in Europe: A Data Handbook*

entitled to vote. As a result of a successful legal challenge, she became the first woman to exercise the right to vote in Portugal. In order to prevent more women from voting in future, the electoral provisions were changed again in 1913, with women being explicitly denied the vote. The enactment also limited the franchise to those who were literate, effectively reducing the electorate by almost half by 1915. Universal male suffrage was fleetingly introduced in 1918 following a *coup d'état* but literacy requirements were re-established in 1919. Literacy and other requirements remained throughout the 20th century with women with a secondary education being granted the vote in 1934 and those who were heads of households and tax-payers or literate entitled to vote from 1945. Universal suffrage for men and women was not established until the democratic transition of 1974 granted voting rights to all citizens over 18 years of years.[316]

Romania

Date of Universal Male Suffrage: 1918

Date of Universal Female Suffrage: 1946

Description:

The 1923 Constitution of the new Romanian state that emerged following the First World War granted the vote to all men over the age of 21, formalising a decree law of November 1918. A new Constitution enacted in 1938 and the Electoral Law of 1939 abolished equal voting and increased the voting age to 30. Following the end of the Second World War, new electoral provisions were enacted for the election of 1946 extending the vote to all women

[316] ibid., M.L. Amaral and T. Anjinho, Winning Women's Vote: female Suffrage in Portugal in Ruiz and Rubio-Marin eds, *The Struggle for Female Suffrage in Europe: Voting to Become Citizens* pp.475-490

over the age of 21. The voting age for both men and women was further lowered to 20 in January 1948 and again to 18 in April 1948 through the adoption of a new Constitution.[317]

South Africa

Date of Universal Male Suffrage: 1931 (Europeans), 1994 (Non-Europeans)

Date of Universal Female Suffrage: 1930 (Europeans), 1994 (Non-Europeans)

Description:

Following the establishment of the Union of South Africa in 1910 voting rights were determined by the individual states. Some states denied the vote to the native population altogether while others imposed property and literacy requirements that effectively denied any native male the vote. Some property requirements still ensured that some European men over the age of 21 could not vote. White women over 21 were granted the right to vote in 1930 without any restrictions. The following year all property and literacy restrictions were lifted for European males. The 1931 Act further reduced the proportion of non-Europeans entitled to vote in the Cape Province from 12% to 5%. In addition, only Europeans could be elected to parliament. Over the course of the following decades the political rights of the native population were increasingly segregated, consolidating the control of the European minority over political power. Universal suffrage for all men and women over the age 18 of was finally achieved in 1994.[318]

[317] Nohlen and Stöver, *Elections in Europe: A Data Handbook*, R. Cheschebec, The Achievement of Female Suffrage in Romania in Ruiz and Rubio-Marin eds, *The Struggle for Female Suffrage in Europe: Voting to Become Citizens* pp.357-372

[318] Nohlen, Krennerich, et al., *Elections in Africa: A Data Handbook*, I. Loveland, *By due Process of Law?: Racial Discrimination and the Right to Vote in South Africa, 1855-1960* (1999) Ch.4-6

Spain

Date of Universal Male Suffrage: 1868

Date of Universal Female Suffrage: 1931

Description:

Like in Portugal, Spain's franchise provisions were altered on many occasions throughout the 19th and early 20th centuries. Limited male suffrage was in place from the 1812 *Cortes* of Cadiz but did not become direct and universal for men until after the revolution of 1868 and the establishment of the First Republic. As a result approximately 27% of the population were enfranchised in 1873. However following the restoration of the monarchy the franchise was limited once more, reducing the electorate to about 5% of the population, before universal male suffrage was re-established in 1890. With the establishment of the Second Republic in 1931, suffrage was granted to both men and women over the age of 23. The current voting age of 18 was established by a decree in 1977 during the transition to democracy.[319]

Sweden

Date of Universal Male Suffrage: 1909

Date of Universal Female Suffrage: 1919

Description:

The first elections to the Swedish *Riksdag* of 1866 allowed both men and women to vote subject to a number of restrictions which ensured that only a small number of wealthy or

[319] Nohlen and Stöver, *Elections in Europe: A Data Handbook,* Aguado, A. Constructing Women's Citizenship: The Conquest of Suffrage and Women's Political Rights in Spain in Ruiz and Rubio-Marin eds, *The Struggle for Female Suffrage in Europe: Voting to Become Citizens* pp.289-393

widowed women could vote. As such, only between 6% and 10% of the population were enfranchised between 1872 and 1908. In 1909 universal suffrage for men was introduced, although multiple voting was still permitted. However those excluded from voting, for among other reasons being bankrupt or on poor relief, made up approximately 20% of the male population. The reforms of 1919 established universal suffrage for all men and women over the age of 23. The voting age was lowered to 21 in 1945, to 20 in 1965 and to 19 in 1969. The current voting age of 18 was established in 1975.[320]

Switzerland

Date of Universal Male Suffrage: 1848

Date of Universal Female Suffrage: 1971

Description:

Switzerland has a somewhat unusual history of electoral provision in that it was among one of the first countries to grant universal male suffrage at the national level but one of the last to grant enfranchise women. The first elections of the national parliament in 1848 were undertaken under universal male suffrage, with all men over the age of 20 entitled to vote. However a number of restrictions meant that approximately 10% of men were still denied the vote. The achievement of women's suffrage did not occur until 1971 with the voting age being lowered from 20 to the current 18 in 1991. The 1971 constitutional amendment granting women the right to vote (66% of the population supported the amendment) only

[320] Nohlen and Stöver, *Elections in Europe: A Data Handbook*, Wangnerud, L. How Women Gained Suffrage in Sweden: A Weave of Alliances in Ruiz and Rubio-Marin eds., *The Struggle for Female Suffrage in Europe: Voting to Become Citizens* pp.241-255

applied to national elections; the last Swiss Canton to extend the vote to women, *Appenzell Innerhoden*, did so in 1990.[321]

United Kingdom

Date of Universal Male Suffrage: 1918

Date of Universal Female Suffrage: 1928

Description:

Over the course of the 19th Century the proportion of the population entitled to vote was gradually extended through successive Reform Acts (1832, 1867 and 1884). Over this period property and other requirements were relaxed so that the majority of men were entitled to vote. The Representation of the People act of 1918 abolished all property and income requirements for men and those over the age of 21 were entitled to vote. Women over the age of 30 were also given the vote, although either they or their husband needed to meet a property requirement in order to qualify. The Equal franchise Act of 1928 introduced universal suffrage for both men and women over the age of 21. The age of voting was lowered to 18 in 1969.[322]

United States

Date of Universal Male Suffrage: c.1850

Date of Universal Female Suffrage: 1920

Description:

---

[321] Nohlen and Stöver, *Elections in Europe: A Data Handbook*, L.A. Banaszak, *Why Movements Succeed Or Fail: Opportunity, Culture, and the Struggle for Woman Suffrage* (1996) p.4

[322] Nohlen and Stöver, *Elections in Europe: A Data Handbook*, UK Parliament, *Women and the Vote*, http://www.parliament.uk/about/living-heritage/transformingsociety/electionsvoting/womenvote/ edn (2012)

From the Colonial period until the mid-nineteenth century most states established requirements relating to property, taxation or income that limited voting rights in the most part to upper-class white males. By 1850 the gradual relaxation of requirements meant that in most states universal male franchise had been largely achieved. Following the Civil War the right to vote was formally extended to black males. However this effectively came to an end in the South as Reconstruction was largely abandoned and Southern legislators instituted a number of obstacles designed to prevent Black voters from exercising their right to vote. The extension of voting rights to women was a gradual process, with Wyoming becoming the first state to enfranchise women in 1889. The 19th Amendment of 1920 extended voting rights to women in all states, women's voting having already been enacted in 27 states prior to this point. A campaign to remove state restrictions that effectively disenfranchised black voters reached its peak in the 1960s and 70s with many of the barriers to black voting being effectively removed. The 26th Amendment lowered the voting age to 18 in 1971.[323]

Uruguay

Date of Universal Male Suffrage: 1918

Date of Universal Female Suffrage: 1932

Description:

Throughout the 19th century voting rights were limited to literate men, which effectively excluded all but a small proportion of the population from voting. The 1918 Constitution introduced universal male suffrage for men over the age of 18. With the approval of the

[323] Nohlen, *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean*

parliament in 1932 and, formally, through the enactment of a new Constitution in 1934, women were given the right to vote on an equal footing with men.[324]

[324] Nohlen, *Elections in the Americas: A Data Handbook, Volume 2: South America*, A. Lavrin, *Women, Feminism, and Social Change in Argentina, Chile, and Uruguay: 1890-1940* (1998) Ch. 8

LIST OF ILLUSTRATIONS, FIGURES AND TABLES

CHAPTER II

CHAPTER III

CHAPTER IV

APPENDIX TO CHAPTER II

APPENDIX TO CHAPTER III

APPENDIX TO CHAPTER IV

BIBLIOGRAPHY

Abrams, B.A. and Settle, R.F., 'Women's Suffrage and the Growth of the Welfare State', *Public Choice,* Vol. 100 (No. 3/4, 1999), pp. 289-300.

Acemoglu, D. and Robinson, J.A., 'Why did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective', *The Quarterly Journal of Economics,* Vol. 115 (No. 4, 2000), pp. 1167-1199.

Aidt, T.S., Dutta, J., et al., 'Democracy Comes to Europe: Franchise Extension and Fiscal Outcomes 1830–1938', *European Economic Review,* Vol. 50 (No. 2, 2006), 249-83.

Andersen, K., 'Gender and Public Opinion', in B. Norander and C. Wilcox (ed.) *Understanding Public Opinion* (Washington D.C., 1997),

Anselin, L., Gallo, J., et al., 'Spatial Panel Econometrics', in L. Mátyás and P. Sevestre (ed.) *The Econometrics of Panel Data* (46vols., 2008), 625-60.

Australian Electoral Commission., *Australian Electoral History,* http://aec.gov.au/Elections/Australian_Electoral_History edn (2013).

Banaszak, L.A., *Why Movements Succeed Or Fail: Opportunity, Culture, and the Struggle for Woman Suffrage* (Princeton, 1996).

Banks, A.S., *Cross-National Time-Series Data Archive,* http://www.databanksinternational.com edn (2011vols., Jerusalem, Israel, 2011).

Barber, B.M. and Odean, T., "Boys will be boys: Gender, overconfidence, and common stock investment." *Quarterly Journal of Economics*, Vol.116, (No. 1, 2001), pp.261-292.

Berg-Schlosser, D. and Mitchell, J., *Authoritarianism and Democracy in Europe, 1919-39: Comparative Analyses* (Basingstoke, 2002).

Bernanke, B. and James, H., 'The Gold Standard, Deflation and Financial Crisis in the Great Depression: An International Comparison', in G. Hubbard (ed.) *Financial Markets and Financial Crisis* (Chicago, 1991), 33-68.

Bethell, L., *Latin America: Politics and Society since 1930* (Cambridge, 1998).

Bhagwhati, J., *In Defense of Globalization,* (Oxford, 2004)

Blattman, C., Clemens, M.A., et al., 'Who Protected and Why? Tariffs the World Around 1870-1938.', *Harvard Institute of Economic Research Discussion Paper no. 2010. Available at SSRN: Http://Ssrn.Com/abstract=431740 Or Http://Dx.Doi.Org/10.2139/Ssrn.431740,* 2003)

Blonigen, B.A., 'Revisiting the Evidence on Trade Policy Preferences', *Journal of International Economics,* Vol. 85 (No. 1, 2011), 129-35.

Boak, H., 'Mobilising Women for Hitler: The Female Nazi Voter', in A. MacElligott, T. Kirk, et al. (ed.) *Working Towards the Fuhrer: Essays in Honour of Sir Ian Kershaw* (Manchester, 2003),

Boak, H.L., '"Our Last Hope"; Women's Votes for Hitler: A Reappraisal', *German Studies Review*, Vol. 12 (No. 2, 1989), pp. 289-310.

Bordo, M., 'Growing Up to Financial Stability', *Economics – the Open-Access, Open Assessment E-Journal, Kiel Institute for the World Economy,* Vol. 2 (No. 12, 2008), 1-17.

Bordo, M. D., Goldin, C. D., White, E.N., *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century* (Chicago, Illinois., 1997).

Bordo, M.D. and Flandreau, M., 'Core, Periphery, Exchange Rate Regimes, and Globalization', in M.D. Bordo, A.M.Taylor and J.G. Williamson (ed.) *Globalization in Historical Perspective* (Chicago, 2003), 417-72.

Bordo, M.D. and MacDonald, R., 'The Inter-War Gold Exchange Standard: Credibility and Monetary Independence', *Journal of International Money and Finance*, Vol. 22 (No. 1, 2003), 1-32.

Bordo, M.D. and Rockoff, H., 'The Gold Standard as a Good Housekeeping Seal of Approval', *Journal of Economic History*, Vol. 56 (No. 2, 1996), 389-428.

Braunstein, E. and Heintz, J., 'Gender Bias and Central Bank Policy', *International Review of Applied Economics*, Vol. 22 (No. 2, 2008), 173-86.

Bremme, G., *Die Politische Rolle Der Frau in Deutschland* (Gottingen, 1956).

Bridenthal, R., 'Beyond Kinder, Küche, Kirche: Weimar Women at Work', *Central European History*, Vol. 6 (No. 2, 1973), pp. 148-166.

Brown, C., 'The Nazi Vote: A National Ecological Study', *The American Political Science Review*, Vol. 76 (No. 2, 1982), pp. 285-302.

Bundestag, D., *Historical Exhibition Presented by the German Bundestag: Elections in the Weimar Republic March 2006.*, http://www.bundestag.de/ edn (2012vols., 2006).

Burgoon, B.A. and Hiscox, M.J., 'The Mysterious Case of Female Protectionism: Gender Bias in Attitudes Toward International Trade', *Mimeo, Harvard*, (2004)

Childers, T., *The Nazi Voter: The Social Foundations of Fascism in Germany, 1919-1933* (Chapel Hill, 1983).

Childers, T., 'The Social Bases of the National Socialist Vote', *Journal of Contemporary History*, Vol. 11 (No. 4, Special Issue: Theories of Fascism, 1976), pp. 17-42.

Cox, G.W., 'Is the Single Nontransferable Vote Superproportional? Evidence from Japan and Taiwan', *American Journal of Political Science,* Vol. 40 (No. 3, 1996), pp. 740-755.

Cracknell, R., Groat, R., et al., 'Women in Parliament and Government' House of Commons Library SN01250, 2009) http://www.parliament.uk/business/publications/research/briefing-papers/SN01250/women-in-parliament-and-government

Croson, R. and Gneezy, U., "Gender differences in preferences." *Journal of Economic Literature*, Vol. 47, (No. 2, 2009)

Czechoslovakia, Hoetzel, J., et al., *The Constitution of the Czechoslovak Republic* (1920).

Dawson, J.P., 'The Gold Clause Decisions', *Michigan Law Review,* Vol. 33 (No. 5, 1935), 647-684.

Driscoll, J.C. and Kraay, A.C., 'Consistent Covariance Matrix Estimation with Spatially Dependent Panel Data', *Review of Economics and Statistics,* Vol. 80 (No. 4, 1998), 549-60.

Duncan, O.D. and Davis, B., 'An Alternative to Ecological Correlation', *American Sociological Review,* Vol. 18 (No. 6, 1953), pp. 665-666.

Dusik, B., "'Adolf Hitler Entlarvt'", in B. Dusik (ed.) *Hitler. Sources 1924 - 1945* (Berlin, 1992),

Eichengreen, B. and LeBlang, D., 'Democracy and Globalization', *Economics & Politics,* Vol. 20 (No. 3, 2008), 289-334.

Eichengreen, B. and Simmons, B., 'International Economics and Domestic Politics: Notes from the 1920s', in C. Feinstein (ed.) *Banking, Currency and Finance in Europe between the Wars* (Oxford, 1995), 131-49.

Eichengreen, B., *Golden Fetters: The Gold Standard and the Great Depression* (New York, 1992).

Eichengreen, B. and Hatton, T., 'Interwar Unemployment in International Perspective: An Overview', in B. Eichengreen and T. Hatton (ed.) *Interwar Unemployment in International Perspective* (Dordrecht, 1988), 1-50.

Eichengreen, B. and Irwin, D.A., 'The Slide to Protectionism in the Great Depression: Who Succumbed and Why?', *Journal of Economic History,* Vol. 70 (No. 4, 2010), 871.

Elvert, J., 'A Microcosm of Society Or the Key to a Majority in the Reichstag? the Centre Party in Germany', in W. Kaiser and H. Wohnout (ed.) *Political Catholicism in Europe 1918-1945* (London, 2004),

Estevadeordal, A., Frantz, B., et al., 'The Rise and Fall of World Trade, 1870–1939', *The Quarterly Journal of Economics*, Vol. 118 (No. 2, 2003), 359-407.

Evans, R.J., *The Coming of the Third Reich* (New York, 2004).

Evans, R.J., 'German Women and the Triumph of Hitler', *The Journal of Modern History*, Vol. 48 (No. 1, On Demand Supplement, 1976), pp. 123-175.

Falter, J.W. and Hänisch, D., *Election and Social Data of the Districts and Municipalities of the German Empire from 1920 to 1933. ZA8013 Data File Version 1.0.0, Doi:10.4232/1.8013*, www.gesis.org edn (2012., 1990).

Fischer, M.M. and Wang, J., *Spatial Data Analysis* (Dordrecht, 2011).

Fischer, S., 'Globalization and its Challenges', *The American Economic Review*, Vol. 93 (No. 2, Papers and Proceedings of the One Hundred Fifteenth Annual Meeting of the American Economic Association, Washington, DC, January 3-5, 2003, 2003), 1-30.

Flandreau, M. and Zumer, F., *Development Centre Studies the Making of Global Finance 1880-1913* (Paris, 2004).

Flora, P., Alber, J., et al., *State, Economy, and Society in Western Europe 1815–1975: A Data Handbook in two Volumes. Vol. 1: The Growth of Mass Democracies and Welfare States*, (Frankfurt, 1983).

Frankovich, K.A., 'Sex and Politics. New Alignments, Old Issues', *PS: Political Science and Politics*, Vol. 15 (No. 3, 1982), 439-48.

Freedman, D.A., 'Ecological Inference', in Editors-in-Chief: Neil J. Smelser and Paul B. Baltes (ed.) *International Encyclopaedia of the Social & Behavioral Sciences* (Oxford, 2001), 4027-30.

Friedman, T.L., *The Lexus and the Olive Tree* (New York, 2000).

Funk, P.; Gathmann, C.,' What Women Want: Women Suffrage, Gender Gaps in Voter Preferences and Government Expenditures', *Mimeo*, Stanford University (2007)

Gallup, G.H., *The Gallup Poll: Public Opinion* (Wilmington, Delaware, 1972).

Gidengil, E., 'Economic Man—Social Woman?', *Comparative Political Studies*, Vol. 28 (No. 3, 1995), 384-408.

Gidengil, E., *et al* 'Women to the Left?: Gender Differences in Political Beliefs and Policy Preferences' in M. Tremblay and L. J. Trimble eds. *Women in Electoral Politics in Canada*, (Oxford University Press, USA, 2003).

Goodman, L.A., 'Some Alternatives to Ecological Correlation', *American Journal of Sociology*, Vol. 64 (No. 6, 1959), pp. 610-625.

--- 'Ecological Regressions and Behavior of Individuals', *American Sociological Review,* Vol. 18 (1953), 663-4.

Greene, W., 'The Behaviour of the Maximum Likelihood Estimator of Limited Dependent Variable Models in the Presence of Fixed Effects', *Econometrics Journal,* Vol. 7 (No. 1, 2004), 98-119.

Griffin, E.G., 'The Universal Suffrage Issue in Japanese Politics, 1918-25', *The Journal of Asian Studies,* Vol. 31 (No. 2, 1972), 275-90.

Hall, H.K., Kao, C., et al., 'Women and Tariffs: Testing the Gender Gap Hypothesis in a Downs-Mayer Political-Economy Model', *Economic Inquiry,* Vol. 36 (No. 2, 1998), 320-32.

Hamilton, R.F., *Who Voted for Hitler?* (Princeton, 1982).

Harrison, B.H., *Separate Spheres: The Opposition to Women's Suffrage in Britain* (London, 1978).

Harsch, D., *German Social Democracy and the Rise of Nazism* (Chapel Hill, 1993).

Herron, M.C. and Sekhon, J.S., 'Black Candidates and Black Voters: Assessing the Impact of Candidate Race on Uncounted Vote Rates', *Journal of Politics,* Vol. 67 (No. 1, 2005), 154-77.

Hitler, A., 'Mein Programm: 2 April 1932', in K.A. Lankheit (ed.) *Hitler. Reden, Schriften, Anordnungen. Februar 1925 Bis Januar 1933. Band V: Von Der Reichspräsidentenwahl Bis Zur Machtergreifung. April 1932 – Januar 1933. Teil 1: April 1932 – September 1932* (München, 1996),

Hoechle, D., 'Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence', *Stata Journal,* Vol. 7 (No. 3, 2007), 281.

Hummels, D., 'Transportation Costs and International Trade in the Second Era of Globalization', *The Journal of Economic Perspectives,* Vol. 21 (No. 3, 2007), 131-54.

Huntington Smith, H., 'Weighing the Women's Vote', *The Outlook,* Vol. January 29 (1929), 126-9.

Husted, T.A. and Kenny, L.W., 'The Effect of the Expansion of the Voting Franchise on the Size of Government', *Journal of Political Economy,* Vol. 105 (No. 1, 1997), pp. 54-82.

Imai, K. and King, G., 'Did Illegal Overseas Absentee Ballots Decide the 2000 U.S. Presidential Election?', *Perspectives on Politics,* Vol. 2 (No. 3, 2004), pp. 537-549.

International Monetary Fund., *Globalization and the Crisis (2005-Present),* http://www.imf.org/external/about/histglob.htm edn (2014)

Irwin, D.A., 'The GATT in Historical Perspective', *The American Economic Review*, Vol. 85 (No. 2, 1995), 323-8.

--- 'The Political Economy of Free Trade: Voting in the British General Election of 1906', *Journal of Law and Economics,* Vol. 37 (No. 1, 1994), 75-108.

Ivanov, M., *The Gross Domestic Product of Bulgaria 1870-1945,* (Sofia, 2012).

James, H., *The End of Globalization: Lessons from the Great Depression* (Cambridge, 2002).

Jarvis, D., 'Mrs. Maggs and Betty: The Conservative Appeal to Women Voters in the 1920s', *Twentieth Century British History,* Vol. 5 (No. 2, 1994), 129-52.

Jayadev, A., 'The Class Content of Preferences Towards Anti-Inflation and Anti-Unemployment Politics', *International Review of Applied Economics,* Vol.22 (No. 2, 2008)

Jenkins, S.P., 'Survival Analysis', *Mimeo,* Institute or Social and Economic Research, University of Essex (2005)

Jenkins, S.P., 'Easy Estimation Methods for Discrete-Time Duration Models', *Oxford Bulletin of Economics and Statistics,* Vol. 57 (No. 1, 1995), 129-36.

Jianakoplos, N.A. and Bernasek, A., "Are women more risk averse?" *Economic inquiry*, Vol.36, (No.4, 1998), pp. 620-630.

Johnson, H.K., *Woman and the Republic* (New York, 1897).

Keynes, J.M., *The Economic Consequences of the Peace* (New York, 1920).

Kindleberger, C.P., *The World in Depression 1929-1939* (Berkeley, 1976).

King, G., Tanner, M.A., et al., *Ecological Inference: New Methodological Strategies* (Cambridge, 2004).

King, G., *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data* (Princeton, 1997).

King G., and Roberts M., *EI:A(nR) Program for Ecological Inference*, (2012) http://gking.harvard.edu/files/gking/files/ei.pdf

King, G., Rosen, O., et al., 'Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler', *The Journal of Economic History,* Vol. 68 (No. 04, 2008), 951.

King, G., Rosen, O., et al., 'Binomial-Beta Hierarchical Models for Ecological Inference', *Sociological Methods & Research,* Vol. 28 (No. 1, 1999), 61-90.

Kolb, E., *The Weimar Republic* (Oxford, 2005).

Kurlander, E., *The Price of Exclusion: Ethnicity, National Identity, and the Decline of German Liberalism, 1898-1933* (New York, 2006).

Lavrin, A., *Women, Feminism, and Social Change in Argentina, Chile, and Uruguay: 1890-1940* (Lincoln, 1998).

League of Nations and Condliffe, J.B., *World Economic Survey, 1931-32* (Geneva, 1932).

Lehmann, S., 'The German Elections in the 1870s: Why Germany Turned from Liberalism to Protectionism', *MPI Collective Goods Preprint,* No. 2009/34, 2009)

Leslie, R., 'South Africa and the Gold Standard', *The Economic Journal,* Vol. 43 (No. 169, 1933), pp. 88-92.

Lipset, S.M., *Political Man: The Social Bases of Politics* (New York, 1960).

Lopez-Cordova, J.E. and Meissner, C.M., *The Globalization of Trade and Democracy, 1870-2000* NBER w11117 (2005).

Lott, J., Jr. and Kenny, L., 'Did Women's Suffrage Change the Size and Scope of Government?', *Journal of Political Economy,* Vol. 107 (No. 6, 1999), pp. 1163-1198.

Loveland, I., *By due Process of Law?: Racial Discrimination and the Right to Vote in South Africa, 1855-1960* (Oxford, 1999).

Ludovici, A.M., 'Woman's Encroachment on Man's Domain', in A. Howard and S.R.A. Tarrant (ed.) *Redefining the New Woman, 1920-1963* (New York, 1997), 81-85.

Mackie, T.T. and Rose, R., *The International Almanac of Electoral History*, Third edn (London, 1991).

Maddison, A., *Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD,* www.ggdc.net/MADDISON edn (2009).

Magee, S.P., Brock, W.A., et al., *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium* (Cambridge, 1989).

Manchester Guardian., *The Women's Vote: Its Probable Influence*, December 6 edn (1923).

Mansfield, E.D. and Busch, M.L., 'The Political Economy of Nontariff Barriers: A Cross-National Analysis', *International Organization,* Vol. 49 (No. 04, 1995), 723.

Mason, T., 'Women in Germany, 1925–1940: Family, Welfare and Work. Part I', *History Workshop Journal,* Vol. 1 (No. 1, 1976), 74-113.

Matsukawa, Y. and Tachi, K., 'Women's Suffrage and Gender Politics in Japan', in C. Daley and M. Nolan (ed.) *Suffrage and Beyond: International Feminist Perspectives* (New York, 1994),

Mayda, A.M. and Rodrik, D., 'Why are some People (and Countries) More Protectionist than Others?', *European Economic Review*, Vol. 49 (No. 6, 2005), 1393-430.

Meissner, C.M., 'A New World Order: Explaining the International Diffusion of the Gold Standard, 1870–1913', *Journal of International Economics*, Vol. 66 (No. 2, 2005), 385-406.

Mitchell, B.R., *International Historical Statistics: Africa, Asia, and Oceania, 1750-2005* (London, 2007).

---*International Historical Statistics: Europe, 1750-2005. London: Palgrave MacMillan.* (London, 2007).

---*International Historical Statistics: The Americas, 1750-2005* (London, 2007).

Mitchener, K.J. and Weidenmier, M.D., 'The Baring Crisis and the Great Latin American Meltdown of the 1890s', *The Journal of Economic History*, Vol. 68 (No. 02, 2008), 462.

Mommsen, H., Forster, E., et al., *The Rise and Fall of Weimar Democracy* (Chapel Hill, 1996).

Moon, B., Birdsall, J., et al., 'Voting Counts: Participation in the Measurement of Democracy', *Studies in Comparative International Development (SCID)*, Vol. 41 (No. 2, 2006), 3-32.

Muhlberger, D., *Hitler's Voice: The Volkischer Beobachter, 1920-1933* (Bern, 2004).

Munck, G.L. and Verkuilen, J., 'Conceptualizing and Measuring Democracy', *Comparative Political Studies*, Vol. 35 (No. 1, 2002), 5-34.

New York Times., *Exposition for Women: Mrs. Hylan to Open Exhibition of Tariff's Effect on Prices*, September 21 edn (1924).

---*Plea for a Tariff to British Women*, November 23 edn (1923).

---*Calder has Tariff Show for Women: Argues with Aid of Exhibit that Higher Duties Don't Mean Higher Prices*, June 18 edn (1922).

New Zealand Electoral Commission., *History of the Vote*, http://www.elections.org.nz/voting-system/history-vote edn (2013vols., 2013).

Nohlen, D. and Stöver, P., *Elections in Europe: A Data Handbook* (Baden-Baden, 2010).

Nohlen, D., *Elections in the Americas: A Data Handbook, Volume 2: South America* (New York, 2005).

Nohlen, D., Grotz, F., et al., *Elections in Asia and the Pacific: A Data Handbook, Volume 2: Southeast Asia, East Asia and the Pacific* (New York, 2001).

Nohlen, D., Krennerich, M., et al., *Elections in Africa: A Data Handbook* (Oxford, 1999).

Nohlen, D., *Elections in the Americas A Data Handbook Volume 1: North America, Central America, and the Caribbean* (Oxford, 2005).

Norton, P., *The House of Commons 1911-49*, in Jones, C. ed., *A Short History of Parliament: England, Great Britain, the United Kingdom, Ireland & Scotland* (2012).

Obstfeld, M. and Taylor, A.M., 'Credibility and the Gold Standard: 1870-1913 Versus 1925-1931', *The Economic Journal*, Vol. 113 (No. 487, 2003), 241-75.

Obstfeld, M., Shambaugh, J.C., et al., 'The Trilemma in History: Tradeoffs among Exchange Rates, Monetary Policies, and Capital Mobility', *Review of Economics and Statistics*, Vol. 87 (No. 3, 2005), 423-38.

O'Lessker, K., 'Who Voted for Hitler? A New Look at the Class Basis of Naziism', *American Journal of Sociology*, Vol. 74 (No. 1, 1968), pp. 63-69.

O'Rourke, K.H. and Sinnott, R., 'What Determines Attitudes Towards Protection? Some Cross-Country Evidence.', in S.M. Collins and D. Rodrik (ed.) *Brookings Trade Forum 2001* (2001), 157-206.

O'Rourke, K.H. and Williamson, J.G., *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy* (Cambridge, 2001).

O'Rourke, K.H. and Taylor, A.M., 'Democracy and Protectionism' *Institute for International Integration Studies*, Discussion Paper no. 191 (2006).

Paxton, P., 'Women's Suffrage in the Measurement of Democracy: Problems of Operationalization', *Studies in Comparative International Development (SCID)*, Vol. 35 (No. 3, 2000), 92-111.

Pesaran, M.H., 'General Diagnostic Tests for Cross Section Dependence in Panels', *Forschungsinstitut zur Zukunft der Arbeit* Discussion Paper no. 1240, (2004)

Polanyi, K., *The Great Transformation: The Political and Economic Origins of our Time* (1944).

Polity IV Database., *Regime Authority Characteristics and Transitions*, http://www.systemicpeace.org/inscr/inscr.htm edn (2009).

Pollock, J.K., Jr., 'The German Reichstag Elections of 1930', *The American Political Science Review*, Vol. 24 (No. 4, 1930), 989-95.

Postel, C., *The Populist Vision* (Oxford, 2009).

Ramirez, F.O., Soysal, Y., et al., 'The Changing Logic of Political Citizenship: Cross-National Acquisition of Women's Suffrage Rights, 1890 to 1990', *American Sociological Review*, Vol. 62 (No. 5, 1997), pp. 735-745.

Rickard, S.J., 'A Non-Tariff Protectionist Bias in Majoritarian Politics: Government Subsidies and Electoral Institutions1', *International Studies Quarterly*, Vol. 56 (No. 4, 2012), 777-85.

Rigobon, R. and Rodrik, D., 'Rule of Law, Democracy, Openness, and Income', *Economics of Transition*, Vol. 13 (No. 3, 2005), 533-64.

Rowbotham, S. *Women in Movement: Feminism and Social Action*, (New York, 1992)

Rodriguez, F. and Rodrik, D., 'Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence', in Anonymous (ed.) *NBER Macroeconomics Annual 2000, Volume 15* (2001), 261-338.

Rodrik, D., 'The Political Economy of Trade Policy', in G. Grossman and K. Rogoff (ed.) *Handbook of International Economics*, Vol. III edn (1995), 1457-94.

Rodrik, D., *The Globalization Paradox: Democracy and the Future of the World Economy* (Oxford, 2011).

Rogowski, R., 'Trade and the Variety of Democratic Institutions', *International Organization*, Vol. 41 (No. 2, 1987), 203-23.

Romer, C.D., 'The Nation in Depression', *The Journal of Economic Perspectives*, Vol. 7 (No. 2, 1993), pp. 19-39.

Rosen, O., Jiang, W., et al., 'Bayesian and Frequentist Inference for Ecological Inference: The R× C Case', *Statistica Neerlandica*, Vol. 55 (No. 2, 2001), 134-56.

Ruiz, B.R. and Rubio-Marin, R., *The Struggle for Female Suffrage in Europe: Voting to Become Citizens* (Boston, 2012).

Rupp, L.J., 'Mother of the "Volk": The Image of Women in Nazi Ideology', *Signs*, Vol. 3 (No. 2, 1977), 362-79.

Scheve, K.F. and Slaughter, M.J., *Globalization and the Perceptions of American Workers* (Washington D.C., 2001).

Schlesinger, M. and Heldman, C., 'Gender Gap Or Gender Gaps? New Perspectives on Support for Government Action and Policies', *Journal of Politics*, Vol. 63 (No. 1, 2001), 59-92.

Schumann, D., *Political Violence in the Weimar Republic, 1918-1933: Fight for the Streets and Fear of Civil War* (New York, 2009).

Shapiro, R.Y. and Mahajan, H., 'Gender Differences in Policy Preferences: A Summary of Trends from the 1960s to the 1980s', *The Public Opinion Quarterly*, Vol. 50 (No. 1, 1986), pp. 42-61.

Shehata, E.A.E. and Mickaiel, S.K., *"SPREGFEXT: Stata Module to Compute Spatial Panel Fixed Effects Regression: Lag and Durbin Models,"*, Statistical Software Components S457524 edn (2012).

Shively, W.P., 'Party Identification, Party Choice, and Voting Stability: The Weimar Case', *The American Political Science Review,* Vol. 66 (No. 4, 1972), pp. 1203-1225.

Simmons, B., *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years, 1923-1939* (Princeton, 1994).

Sneeringer, J., *Winning Women's Votes: Propaganda and Politics in Weimar Germany* (Chapel Hill, 2002).

Stephenson, J., 'National Socialism and Women before 1933', in P. Stachura (ed.) *The Nazi Machtergreifung* (London, 1983), 33-48.

Stephenson, J., *Women in Nazi Society* (New York, 2013).

Stögbauer, C., 'The Radicalisation of the German Electorate: Swinging to the Right and the Left in the Twilight of the Weimar Republic', *European Review of Economic History,* Vol. 5 (No. 02, 2001), 251.

Storer, C., *A Short History of the Weimar Republic* (New York, 2013).

Temin, P., *Lessons from the Great Depression* (Cambridge, 1989).

Temple, W., *Men without Work: A Report made to the Pilgrim Trust* (Great Britain, 1938).

Thane, P.M., 'What Difference did the Vote make? Women in Public and Private Life in Britain since 1918', *Historical Research,* Vol. 76 (No. 192, 2003), 268-85.

The Manchester Guardian., *A Key Election in South Africa,* July 14 edn (1932).

---*Tory Conference at Cardiff,* October 7 edn (1927).

The New York Times., *The Suffrage Panacea,* December 3 edn (1912).

The Times., *Women's Vote in Berlin: An Election Analysis,* June 11 edn (1928).

Tingsten, H. and Hammarling, V., *Political Behavior: Studies in Election Statistics* (Totowa, 1937).

Tomz, M., Wittenberg, J., et al., 'CLARIFY: Software for Interpreting and Presenting Statistical Results', *Journal of Statistical Software,* Vol. 8 (No. 1, 2003), 1-30.

Trentmann, F., *Free Trade Nation: Commerce, Consumption, and Civil Society in Modern Britain* (Oxford, 2008).

Trentmann, F., 'Wealth Versus Welfare: The British Left between Free Trade and National Political Economy before the First World War', *Historical Research,* Vol. 70 (No. 171, 1997), 70-98.

Triffin, R., 'National Central Banking and the International Economy', *The Review of Economic Studies,* Vol. 14 (No. 2, 1946), pp. 53-75.

UK Parliament., *Women and the Vote*, http://www.parliament.uk/about/living-heritage/transformingsociety/electionsvoting/womenvote/ edn (2012).

---*Representation of the People Act 1918*, http://www.parliament.uk/about/living-heritage/transformingsociety/electionsvoting/womenvote/parliamentary-collections/representation-of-the-people-act-1918/ edn (2012)

Voth, H.J., 'Inflationary Expectations during Germany's Great Slump', *Economics Working Papers, Department of Economics and Business, Universitat Pompeu Fabra.* No. 333, (1998)

Walden, G.R., *Polling and Survey Research Methods, 1935-1979: An Annotated Bibliography* (Westport, 1996).

Wandschneider, K., 'The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?', *The Journal of Economic History,* Vol. 68 (No. 01, 2008), 151.

Washington Post., *Women and the Tariff,* May 18 edn (1923).

---*Tariff Easy Say Women: Will show Men with Vote*, June 11 edn (1922).

Weitz, E.D., *Weimar Germany: Promise and Tragedy (New and Expanded Edition)* (Princeton, 2013).

Wittenberg, J., Alimadhi, F., et al., 'Ei.RxC: Hierarchical Multinomial-Dirichlet Ecological Inference Model for R X C Tables', in K. Imai, G. King, et al. (ed.) *Zelig: Everyone's Statistical Software, http://Gking.Harvard.Edu/Zelig* (2007),

Wolf, H.C. and Yousef, T.M., 'Breaking the Fetters: Why did Countries Exit the Interwar Gold Standard', in K.H. O'Rourke and T.J. Hatton (ed.) *The New Comparative Economic History: Essays in Honour of Jeffrey G. Williamson* (Cambridge, 2007), 241-65.

Wolf, N., 'Scylla and Charybdis. Explaining Europe's Exit from Gold, January 1928–December 1936', *Explorations in Economic History,* Vol. 45 (No. 4, 2008), 383-401.

Wooldridge, J., *Econometric Analysis of Cross Section and Panel Data* (Cambridge, 2002).

World Trade Organization., *World Trade Organization Report on G-20 Trade Measures, Executive Summary*, www.wto.org edn (Geneva, 2012).

Yu, M., 'Trade Globalization and Political Liberalization: A Gravity Approach', *Available at SSRN: Http://Ssrn.Com/abstract=906280 Or Http://Dx.Doi.Org/10.2139/Ssrn.906280*, 2007)

Ziblatt, D., 'Shaping Democratic Practice and the Causes of Electoral Fraud: The Case of Nineteenth-Century Germany', *American Political Science Review*, Vol. 103 (No. 1, 2009), 1-21.

THE POLITICAL ECONOMY OF THE INTERWAR YEARS

SHORT ABSTRACT OF DPHIL THESIS

ALAN DE BROMHEAD
MANSFIELD COLLEGE
HILARY 2014

This thesis is a collection of essays on the political economy of the interwar years. It aims to address two of the most prominent and characteristic aspects of the interwar international economy; the break-up of the Gold Standard system and the rise of trade protectionism. I argue that extensions to the franchise are crucial to understanding both of these phenomena. Using evidence based on macro-level panel data analysis, micro-level public opinion surveys as well as numerous qualitative sources, I construct an argument that stresses the importance of these changes in voting rights to economic policy decisions; changes that can help explain the unusual nature of the interwar international economy. The effect of the extended franchise will not be examined in isolation however, with the influence of a number of other important aspects of the political and economic environment also taken into consideration. As arguably the most interesting and novel result of these analyses is the suggested effect of the granting of voting rights to women, the voting preferences of women are examined more closely in an additional chapter using a unique record of women's voting from Weimar Germany. This allows for the difference between men and women's actual voting preferences to be explored, something that is usually impossible due to the use of secret ballots. The fact that the separation of votes by gender occurred during one of the most important periods in modern history gives the analysis an even greater significance.

THE POLITICAL ECONOMY OF THE INTERWAR YEARS

LONG ABSTRACT OF DPHIL THESIS

ALAN DE BROMHEAD
MANSFIELD COLLEGE
HILARY 2014

This thesis is a collection of essays on the political economy of the interwar years. It aims to address two of the most prominent and characteristic aspects of the interwar international economy; the break-up of the gold standard system and the rise of trade protectionism. I argue that extensions to the franchise are crucial to understanding both of these phenomena. Using evidence based on macro-level panel data analysis, micro-level public opinion surveys as well as numerous qualitative sources, I construct an argument that stresses the importance of these changes in voting rights to economic policy decisions: changes that can help explain the unusual nature of the interwar international economy. The effect of the extended franchise will not be examined in isolation however, with the influence of a number of other important aspects of the political and economic environment also taken into consideration. As arguably the most interesting and novel result of these analyses is the suggested effect of the granting of voting rights to women, the voting preferences of women are examined more closely in an additional chapter using a unique record of women's voting from Weimar Germany. This allows for the difference between men and women's actual voting preferences to be explored, something that is usually impossible due to the use of secret ballots. That fact that the separation of votes by gender occurred during one of the most important periods in modern history gives the analysis an even greater significance.

Chapter II explores the impact of the extensions of the franchise that followed the First World War and their effect on the political economy of trade policy. To understand the rise of protectionism during this period it is important to recognise the great changes to

the political environment that followed in the wake of the First World War. The extension of the franchise to millions of new voters in a great many countries represented one of the most significant developments. That the political economy of trade policy would have been affected by this sea-change in democratic politics is difficult to dismiss. But in which direction would these changes to the franchise influence policy? Would the new voters be more inclined towards trade protection or free trade? This chapter argues that extensions of the franchise to men and women influenced tariff policy in opposite directions. The granting of voting rights to previously disenfranchised men, largely working class, had a negative effect on tariff rates. A novel finding of the analysis is the impact of the enfranchisement of women on the politics of trade policy. Public opinion survey evidence from the United States during the interwar period suggests that women were more likely to express a preference for trade protection, identifying a gender gap similar to that revealed by modern survey evidence. Furthermore, panel data analysis of average tariff rates across 30 countries during the interwar period presented in this chapter indicates that where women were entitled to vote tariff rates were, on average, higher. This new insight into the political economy of trade policy suggests an important element to understanding why the doctrine of free trade, arguably in its heyday during the 19th century, proved difficult to maintain in the 20th century world of universal franchise.

Chapter III examines the economic and political factors that influenced countries' ability to adhere to the gold standard during the interwar years, again focusing in particular on the impact of changes in voting rights that occurred after the First World War. Using both a fixed effects probit model and a survival analysis model, a data set of 23 countries covering the period 1919-1939 is analysed. A number of economic factors are found to have played a part in the decision to maintain the gold standard system, including the level of economic development and whether or not a country was a creditor or debtor. Most importantly,

political factors also played an important part. Democracies were more likely to leave the system when democracy is assessed by both "intensive" (polity scores) and "extensive" (franchise) measures. Notably, measures of the extension of the franchise, in the form of a variable capturing the proportion of the population with the right to vote, as well whether or not women were entitled to vote, are found to be positively related to the probability of leaving the gold standard. The implication that countries which had granted voting rights to women were more likely to leave the gold standard early is a particularly novel finding of the analysis. Support for this theory is also provided by a statistical examination of interwar public opinion surveys from the United States. The analyses of a number of survey questions on gold standard related policies suggest some interesting conclusions. Firstly, attitudes to minimum wages and government currency policy in the US during the 1930s differed between sections of the population. The evidence suggests that occupation was a good predictor of attitudes towards minimum wages and the manipulation of the value of the dollar in terms of gold. There is also some evidence that women had different attitudes to men. Although the evidence is not conclusive, the results point to a preference among women for policies inconsistent with the successful operation of a gold standard system. The idea that women may have had different attitudes to policies associated with the gold standard is supported by evidence from a number of qualitative sources.

In order to gain an insight into the actual voting preferences of women during the interwar period, Chapter IV explores a unique historical resource. In 1918, all German women over the age of twenty were granted the right to vote on an equal footing to men by a decree of the revolutionary government. A section of this decree also allowed, but did not make compulsory, the separate counting of the votes of men and women. Despite the extra effort and expense of separating ballots by gender many districts did indeed do so, resulting in a unique record of women's voting in the nascent democracy that emerged following the

First World War. This chapter explores the differences between how men and women voted in Weimar Germany, with a specific focus on the National elections of 1928 and 1930. These years' election results provide the most complete record of women's voting across Germany and therefore represent the best opportunity to gain an insight into the voting prefernces of women in Weimar Germany. Following the approach of Gary King *et al*, election results are combined with census data to make ecological inferences about the particular nature of women voters, with regard to key electoral factors such as class and religion.[325] The results of the analysis indicate that women were something of a moderating force in Weimar politics who gave less support to the extreme right and extreme left, certainly prior to 1932. Religion, especially Catholicism, appears to have been an important factor in stifling the women's vote for the Nazis and Communists. Perhaps most significantly, the analysis also suggests that the groups within which the Nazi party enjoyed disproportionate support among men, were also groups in which women were less likely to vote in 1928 and 1930. As women's turnout increased in the subsequent elections of the 1930s, it is likely that these previously non-voting women would have voted disproportionately for the Nazis, particularly in Protestant areas. Indeed the separated voting evidence that does exist suggests that votes for the Nazi party from women had caught up with those of men in Protestant areas by July 1932 and may have even overtaken men in some areas. In relation to the main arguments of this thesis regarding the impact of increased voting rights on policy, the analysis suggests that women did not simply vote the same way as men but expressed rather a unique political voice. The view that women would simply vote the same way as their husbands or fathers voted - an idea expressed commonly in contemporary debates over the impact of women's suffrage – appears inaccurate. The claim

[325] King, Rosen, et al., Ordinary Economic Voting Behavior in the Extraordinary Election of Adolf Hitler 951.

therefore that the granting of voting rights to women had an impact on the political economy of the interwar years is supported by the evidence uncovered in the analysis.

The final section offers some general conclusions arising from this thesis and suggests a number of potential avenues for future research. Additional materials relating to the analyses contained in chapters I-IV are included in the appendices, where a brief description of the evolution of voting rights for each country included in the empirical analysis can also be found.