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The Economics of Devolution
Evidence from Northern Ireland 1920-1972

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The Economics of Devolution: Evidence from Northern Ireland 1920-1972

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ABSTRACT

This thesis asks whether the devolution of policy-making powers is beneficial for regional economic performance, by examining the subnational government at Stormont, between 1920 and 1972. Greater fiscal decentralisation within the UK has been put forward as a solution to growing regional inequalities in economic performance, but the historical example of Northern Ireland has been overlooked. Northern Ireland presents a puzzle, as its economic performance persistently lagged the UK and its regions, despite the apparent benefit of possessing fiscal decentralisation. This thesis is divided into three chapters, which examine three aspects of the subnational government. Chapter 1 examines financial relations between Stormont and Westminster, showing moral hazard limited the financial support provided by Westminster to Stormont. This restricted the efficiency of fiscal decentralisation, creating long-run opportunity costs in industry, infrastructure, education, and housing. Chapter 2 examines Stormont's interwar industrial policy, showing regional institutions created barriers to productivity growth. New, higher productivity industries failed to establish, helping lock the regional economy into a low-wage-investment-productivity equilibrium, which persisted post-war. Chapter 3 examines the effect of the Great Depression on Northern Ireland's trade performance. Its trade is found to have been more resilient than the existing narrative suggests, with a recovery driven by the staple industries, and the UK's protectionist trade policy benefiting Northern Ireland's exports to Britain. Northern Ireland's problems of high unemployment and slow growth were therefore not simply demand-side problems, but reflected the supply-side of the regional economy as well. Together, the three chapters demonstrate the importance of regional institutions and the supply-side to the economic benefits of devolution being realised, where simply more devolution is not necessarily beneficial for economic efficiency.

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LIST OF ABBREVIATIONS

Economic War	Anglo-Irish Economic War (of 1932 to 1938)
EU	European Union
GB	Britain
1920 Act	Government of Ireland Act, 1920
IFS	Irish Free State
JEB	Joint Exchequer Board
1932 Act	New Industries Act, 1932
1937 Act	New Industries Act, 1937
NI	Northern Ireland
NITB	Northern Ireland Transport Board
ONS	Office for National Statistics
PRONI	The Public Record Office of Northern Ireland
TNA	The National Archive
UIDA	Ulster Industries Development Association
UK	United Kingdom

INTRODUCTION

Northern Ireland's economic performance presents a puzzle. Since its inception, its performance has persistently lagged the rest of the UK and its regions, despite being the one UK region to possess devolution, from 1920 until 1972. For fifty years, it had its own Parliament, and a government at Stormont which held key economic policy-making powers. Literature from fiscal federalism suggests this should be beneficial for economic performance, as policy can be tailored to the specific needs of the region. Yet Northern Ireland's economic performance failed to converge with other UK regions. This raises the question of what role the subnational government played in this poor performance, and does this experience demonstrate that the devolution of economic policy-making powers is beneficial?

Since the 2014 Scottish Independence Referendum, devolution within the UK has received greater attention. Further fiscal powers have been devolved to the Scottish Parliament, in a shift towards 'devomax', and initiatives intended to rebalance policy-making powers around the UK have been expanded, such as the Northern Powerhouse and City Deals. These initiatives can be seen as part of a broader effort to counter the rise of political populism, a rise embodied by the UK's Brexit vote of 2016, but also seen across Europe, and further afield. In 'The revenge of the places that don't matter', Rodríguez-Pose (2018) sets out how differing regional experiences of economic performance have motivated this populism. Regions experiencing decline have reacted through the ballot box, "to rebel against the feeling of being left behind" (Rodríguez-Pose, 2018, p.190). Understanding whether the decentralisation of economic policy-making powers is beneficial, and why it may fail to promote convergence, is therefore important, if regional imbalances in economic performance are to be successfully addressed.

Northern Ireland provides the ideal opportunity to understand the implications of subnational government for long-run economic performance. It is the unique combination of its longevity, and the amount of qualitative and quantitative material this generated, which makes it such an important example of subnational government. Devolution to Northern Ireland began with the Government of Ireland Act 1920 (1920 Act), and ended with Stormont being prorogued in 1972. This provides what Brownlow (2017, p.561) describes as a fifty-year "laboratory", to understand how subnational government operated in practice. This longevity is underpinned by the detailed data and archival material which are available for analysis. Stormont collected extensive statistics across many areas of economic life, and published these in sources such as the *Ulster Year Book*, while Government files have been preserved, at the Public Record Office of Northern Ireland and The National Archive. The combination of longevity, and the quality of the quantitative and qualitative material available, is unique within the UK, and is perhaps unsurpassed for a subnational government outside of the United States. The extent of this archival material means it is yet to be fully exploited, and this thesis takes advantage of this fact, to explore new aspects of subnational government in Northern Ireland.

Despite its importance, Northern Ireland has been ignored as the first example of fiscal federalism within the UK. This is partly due to the Troubles, which has led to the assumption that Northern Ireland could offer few lessons for devolution elsewhere: Stormont was "deemed dangerous, flawed and unlikely to produce anything worth knowing" (Mitchell, 2006, p.58). The failure to consider Northern Ireland also reflects the wider difficulty of fitting it into discussions of the UK and Irish economies. Data for Northern Ireland is often separate from that available for the rest of the UK or Ireland, while its mix of both British and Irish characteristics means it often does not conveniently sit within the respective national narratives. However, treating Northern Ireland as a place apart fails to acknowledge the valuable lessons its long-run

experience of devolution can provide. This thesis makes comparisons between the new historical data collected and digitised for Northern Ireland, with that already available for the UK and Irish Republic, to place the regional economy within its wider context. Its experience can inform policymakers on the future direction UK devolution needs to take to avoid the mistakes of the past.

Where national literature has treated Northern Ireland as a place apart, an extensive literature has assessed the functioning of Stormont (Lawrence, 1965; Buckland, 1979; Birrell and Murie, 1980; Wilson, 1989; Gibson, 1996; Mitchell, 2006). The consequences for the economy has received attention, but this literature focuses mainly on the post-war period, particularly on the issue of discrimination, and how political decisions affected the allocation of economic resources within Northern Ireland. Where this literature is weaker, is analysing the factors which affected the overall, long-run performance of the Northern Ireland economy, and the relevance of institutions to this. Regional institutions are often portrayed as irrelevant to Northern Ireland's economic performance, with an assumption that what was evident in post-war Northern Ireland applied equally to the interwar period. Yet since North (1990), institutions have been increasingly recognised as important to understanding long-run economic performance. It is only by studying the interaction between regional institutions and regional economic performance over the long-run, that a complete picture of devolution can be made. This thesis therefore places a greater emphasis on the interwar period, as the source of many of the economic problems policymakers encountered.

A study of devolution also contributes to more recent fiscal federalism literature. First generation fiscal federalism emphasises the benefits of fiscal decentralisation (Hayek, 1945; Buchanan, 1950; Olson, 1969; Oates, 1972, 1999), while second generation theory emphasises that institutions may create barriers to these benefits being realised (Oates, 2005; Weingast, 2009; Vo, 2010). This fiscal

federalism literature focuses on federal, rather than devolved, institutional structures. This thesis demonstrates that devolution, as a form of fiscal decentralisation, presents different challenges. A key difference is the intergovernmental relationship between national and subnational government, where power flows from the top downwards. This has the potential to create different incentives, depending on how institutional structures operate in the real world. Devolution to Northern Ireland provides an opportunity to test theory from fiscal federalism in this different institutional structure over the long-run, showing what explanatory power it possesses for the puzzle of Northern Ireland's persistent economic underperformance.

A subnational government possesses three economic relationships within a devolved institutional structure. Firstly, it has a relationship with national government, which is hierarchical in nature. Secondly, it has intra-regional relationships, which it possesses with other economic agents within the region. Thirdly, it has external or international relationships, which it possesses with the global economy. Each of these relationships is governed by the external economic context, the operation of the institutions present, and the interaction between these. Existing literature on Northern Ireland has focused on the political side to institutions, in the context of discrimination and the Troubles, neglecting the economic context. Where the economic context has been addressed, it has often been done without much reference to the role of institutions. There are notable exceptions, such as Crafts (1995), Gibson (1996), and Brownlow (2007, 2013), which highlight the potential role of institutions in explaining the performance of the Northern Ireland economy. However, these focus on the post-war period, and have not demonstrated the importance of institutions over the long-run.

To understand how subnational government affects regional economic performance over the long-run, and the role of institutions in this, my thesis is divided into three chapters. Each of these chapters examines a different aspect of the regional

economy, relating to the three economic relationships a subnational government possesses within a devolved institutional structure. Each of these relationships affect a different component of regional income, and so each chapter also addresses a specific component of the regional economy. The first chapter examines how subnational public expenditure (G) was affected by the intergovernmental financial relations between Stormont and Westminster, and the implications for the efficiency of fiscal decentralisation. The second chapter examines how regional institutions affected subnational industrial policy during the interwar period, and the implications for investment and productivity (I). The third chapter examines how national trade policy affected regional economic performance (X-M), and the context and limits this created for regional economic policy. Together, these chapters demonstrate the links between subnational government and economic performance within a regional setting.

Chapter 1 explores how the financial relations between Stormont (subnational government) and Westminster (national government) affected the efficiency of fiscal decentralisation. Existing literature has assumed that the institutional structure, which governed the financial relations between the two governments, did not change over time, with analysis based on post-war Stormont (Lawrence, 1965; Green, 1979; Buckland, 1979; Gibson, 1996; Mitchell, 2006). There has also been very limited analysis of the implications of these financial relations for the provision of public goods and services. To address these issues, an analytic narrative approach is adopted. This combines theory from fiscal federalism (Buchanan, 1950; Olson, 1969; Oates, 1972, 1999, 2005; Weingast, 2009) with archival material and a new dataset constructed for Stormont's public finances. Conducting this analysis using the comparative federalism framework of Weingast (2009), the changing nature of financial relations between the two governments is shown to have affected the

efficiency of fiscal decentralisation, through the level and composition of public goods and services.

Stormont's financial relations with Westminster were defined by the Government of Ireland Act (1920 Act). The 1920 Act was broadly efficient, but contained key weaknesses: it did not provide for fiscal transfers to equalise fiscal pressure, and it did not impose a hard budget constraint, both requirements for efficiency. A key sequence of events during the initial years of devolution therefore saw a movement away from the *de jure* position of the 1920 Act, as Westminster sought to manage its developing principal-agent relationship with Stormont. Prompted by an economic downturn, which placed increasing financial pressure on Stormont, Westminster provided one-off financial support, and guaranteed Stormont's borrowing. Westminster also referred Stormont's financial situation to a body other than the Joint Exchequer Board (JEB), which under the 1920 Act was intended to arbitrate over such matters. This weakening of institutionalised authority, combined with Westminster failure to commit to exercising its veto over subnational legislation, saw Stormont's budget constraint soften. This created a moral hazard problem for Westminster in providing further financial support.

The remainder of the interwar period saw Westminster provide increasing financial support to Stormont, but with conditions attached to limit total public expenditure, and thus moral hazard. This further weakened institutionalised authority, and eroded subnational autonomy. The limited nature of this support failed to equalise fiscal pressure, leading to opportunity costs in the provision of subnational public goods and services, particularly education, housing, and industry and infrastructure. Continued support also further softened Stormont's budget constraint, leading to inefficient expenditure. It was one such instance, the Northern Ireland Transport Board, combined with the outbreak of war, which saw Westminster able to exercise almost full oversight of Stormont's expenditure. It was this sequence of events which

almost fully removed asymmetric information from financial relations, and allowed Westminster to be more financially generous, funding the post-war expansion of the welfare state in Northern Ireland.

While Westminster became more financially generous, fiscal pressure was not immediately equalised. Northern Ireland missed out on the ratchet effect of increased public expenditure post-war, a result of Stormont's desire to continue paying an Imperial Contribution, and an institutional structure which saw Westminster able to control all significant items of expenditure. This continued the earlier opportunity costs in education, housing, and industry and infrastructure. Westminster's focus on solely limiting its total liability also opened the door to discriminatory behaviour in subnational policy. As long as Stormont's expenditure was within prescribed limits, it could vary the composition. It was only when greater transparency was brought to financial relations, combined with electoral competition, that public expenditure increased to equalise fiscal pressure, and the efficiency of policy interventions improved.

Chapter 1 demonstrates the importance of institutional structure in financial relations between national and subnational government. The failure to alter the *de jure* institutions, when it became evident these were inadequate, resulted in a weakening of institutionalised authority, and a softening of the subnational budget constraint. In response to the moral hazard problem this created, the national government further weakened institutionalised authority, which eroded subnational autonomy. This limited Westminster's financial liability in the short-run, but the financial restrictions on the subnational government created long-run opportunity costs. It was only when the national government was able to solve the asymmetric information problem, and greater transparency introduced, that efficiency began to improve, and the opportunity costs could begin to be addressed. This has important implications for how we should view attempts to extend fiscal decentralisation within the current UK institutional structure.

Chapter 2 examines the role of regional institutions in explaining Northern Ireland's long-run productivity gap to the rest of the UK, focusing on Stormont's industrial policy during the interwar period. The importance of institutions in creating barriers to productivity growth has been demonstrated at a national level (Broadberry and Crafts, 1992; Broadberry, 1997), but application to Northern Ireland is limited. Existing literature has focused on the post-war period, and the role of institutions in improving economic performance (Crafts, 1995; Brownlow, 2007). Explanations for Northern Ireland's poor interwar performance have not considered the role of institutions, instead seeing this as a demand-side story, and the inevitable result of an industrial structure concentrated in linen and shipbuilding, with Stormont's industrial policy being irrelevant (Buckland, 1979; Johnson, 1985a). By combining newly digitised data to measure interwar manufacturing productivity, with new archival material relating to Stormont's industrial policy, it demonstrates that overlapping networks between business and politics created barriers to productivity growth. This helped lock the regional economy into a low-wage-investment-productivity equilibrium, the effects of which persisted post-war. The interwar period was therefore a crucial piece in the development of subnational industrial policy, and demonstrates that regional institutions pose a limit on the efficient decentralisation of industrial policy.

Northern Ireland shared many characteristics with other UK regions during the interwar period, yet its performance was particularly poor. This has been attributed to Northern Ireland's industrial structure, and its overreliance on the old, staple industries (Buckland, 1979; Johnson, 1985a). Collecting data from the Northern Ireland *Census of Production*, and comparing this with data for the UK, shows that within-sector productivity failings were more important than simply industrial structure. This within-sector productivity gap was a persistent feature of manufacturing throughout devolution, across all sectors. It reflected the failure of new industries to establish

during the interwar period, such as man-made fibres in textile, and electrical engineering in the metal trades, when these were growing in Britain.

The failure of these new industries to establish is linked to the regional institutions present, which created barriers to productivity growth. Strong overlapping networks existed between the old, staple industries and the ruling Unionist Party. This gave existing firms the means to alter industrial policy to reflect their preferences. They also had the motivation to do so, as falling demand raised the relative payoff from altering institutions for their own benefit. This motivation was reinforced by the supply-side characteristics faced by existing firms, including the availability of cheap labour, and satisficing behaviour amongst firms' management. The two staple industries, textiles and shipbuilding, were able to use their influence to acquire government subsidy, while smaller industries received much more limited support.

Stormont's industrial policy, aimed at attracting new industries to Northern Ireland, was also flawed. The effect of the New Industries Acts of 1932 and 1937 was limited, not simply as the result of a lack of funds as the existing narrative suggests (Buckland, 1979; Johnson, 1985a), but due to the overlapping networks between business and government. The 1932 Act provided financial support for firms to acquire a site for their factory, but the limited nature of support reflected Stormont's desire to protect existing firms from competition. Existing firms were also able to influence which applicants received support, through an Advisory Committee, which was given great discretion over the approval process by Stormont. The Advisory Committee assessed applications based on their potential to compete with existing firms, rather than on their merits as new industries, leading to few successful applications. When Stormont expanded the financial support offered under the 1937 Act, it did so to allow existing firms to apply, and increased the financial support available, but this overwhelmingly supported old, low productivity industries and sectors. Stormont's

industrial policy therefore failed in its objective to promote the growth of new, higher productivity industries.

Chapter 2 demonstrates the importance of regional institutions to the successful implementation of regional industrial policy. While first generation fiscal federalism would suggest providing subnational government with the power to implement tailored industrial policy is beneficial (Hayek, 1945; Buchanan, 1950; Olson, 1969; Oates, 1972, 1999), the regional institutions which governed the interaction between business and politics led to the misallocation of resources. Rather than aiding the growth of new, higher productivity industries in Northern Ireland, Stormont's interwar industrial policy instead created barriers to the growth of these new industries. The protection of short-run employment in the old industries was prioritised over long-run development, the effects of which would persist into the post-war period. This suggests the existing institutional context must be considered before greater decentralisation of policy-making powers takes place.

Chapter 3 examines Northern Ireland's interwar trade performance, to understand how it was affected by the Great Depression and rise in protectionism. While devolution provides a subnational government with a toolbox of policymaking powers, there are powers which remain outside its control. The 1920 Act saw Westminster retain powers over trade, including customs and excise, with Stormont having no influence over these policies. While there is an extensive literature examining the effect of the Great Depression and protectionism on national economies (Aldcroft, 1970; Capie, 1981; Kitson and Solomou, 1990; Eichengreen and Irwin, 1995; Madsen, 2001; Harley, 2003; Jacks *et al.*, 2011; De Bromhead *et al.*, 2019), the experience of regions has received relatively little attention. Examining Northern Ireland's interwar trade performance, demonstrates that it was not as severely affected by the Great Depression as the existing narrative, of Buckland (1979) and Johnson (1985a, 1985b), suggests. Northern Ireland's trade was more

resilient than either the Irish Free State or Britain, recovering to pre-crash levels by 1937, with tariffs redirecting trade towards Britain.

The reason for the lack of historical studies examining regional trade is the absence of trade data at a regional level. Northern Ireland presents a unique opportunity to analyse regional trade, as detailed annual trade statistics were collected during the interwar period, as a result of the 1920 Act. These statistics reflected the need to track the movement of dutiable goods between Northern Ireland and Britain, so that Stormont's share of customs and excise revenue could be calculated. These previously unexploited statistics, held in handwritten trade ledgers and books at the Public Record Office of Northern Ireland (PRONI), provide disaggregated records of Northern Ireland's trade with Britain, the Irish Free State, and directly with foreign countries. Digitising this data allows a systematic analysis of Northern Ireland's trade during the Great Depression for the very first time, giving a new insight into the impact of the Great Depression, and the UK's protectionist trade policy, at a regional level.

The existing narrative for Northern Ireland's interwar trade performance is provided by Buckland (1981) and Johnson (1985a, 1985b), where the region's problems of high unemployment and low economic growth were the result of falling global demand in the staple industries. This reflects the argument of Thirlwall (1980), that a region's growth is determined by demand for its exports. Yet Northern Ireland's trade performance, particularly for exports, was more resilient during the Great Depression, when compared with either the Irish Free State or Britain. The value of its imports and exports did not fall as far, and recovered more quickly, than either Britain or particularly the Irish Free State. Northern Ireland's trade had almost returned to its pre-crash level by the end of 1936, with this recovery driven by exports of manufactured goods, primarily in the staple industries of textiles and shipbuilding. This resilience demonstrates Northern Ireland's problems of high unemployment and

slow growth were not simply demand determined, as Thirwall's (1980) model suggests, but these problems also reflected supply-side characteristics of the regional economy. This conclusion supports the findings of Chapter 2, that long-run barriers to growth existed on the supply-side. The failure of the recovery in trade to translate into wider regional growth can also linked to a weak Keynesian regional multiplier, reflecting weak linkages between tradable and non-tradeable sectors within the regional economy.

The contribution of the UK's protectionist trade policy to Northern Ireland's better than expected trade performance is also examined. The UK introduced wide-ranging tariffs on foreign imports during the interwar period, under legislation such as the 1932 Import Duties Act. In addition, Northern Ireland was on the frontline of the Anglo-Irish Economic War, which saw the UK and Irish Free State place tariffs on each other's exports between 1932 and 1938. Using a gravity model based on the method of De Bromhead *et al*. (2019), the UK's tariff policy is found to have had a statistically significant effect on decreasing Northern Ireland's imports of commodities subject to tariffs. The UK's protectionist trade policy is also shown to have benefited Northern Ireland's exports to Britain. Using a linear fixed effects model, Northern Ireland's exports of commodities subject to UK tariff's increased their share of Britain's exports, particularly for raw materials, and staple manufactured goods. Northern Ireland is also shown to have been more vulnerable to the Economic War than Britain, with manufactured goods particularly affected, but that a redirection of trade towards Britain and direct-foreign trade compensated for this lost market.

Chapter 3 demonstrates that Northern Ireland's interwar trade performance was not as poor as the existing narrative of Buckland (1981) and Johnson (1985a, 1985b) suggests. Northern Ireland's trade returned to its pre-crash levels earlier than either Britain or the Irish Free State. This result supports the wider view that the economic recovery following the Great Depression was driven by within-country,

rather than international, trade (Ghosh, 1940; Aldcroft, 1970; Eichengreen and Irwin, 1995). This resilience was driven by the staple industries in Northern Ireland, contrary to the narrative that these experienced a persistent decline only temporarily halted by World War II (Ollerenshaw, 2013a). This demonstrates that Northern Irelands interwar problems of high unemployment and low growth were not simply demand driven, and emphasises the importance of the supply-side to the regional economy. This can be linked to the barriers to growth identified in Chapter 2, and a low regional multiplier, as a result of the lack of integration across the supply-side of the regional economy. The effect of the UK's trade policy on regional trade also demonstrates that while protectionism may have a negative aggregate effect on economic growth, certain regions may unintentionally benefit, thanks to their particular mix of industries. That the UK's tariff policy benefited certain industries is contrary to Kitson, Solomou and Weale (1991), that UK tariffs had no beneficial effect on individual industries in the UK. The interwar period can therefore be viewed as the period when Northern Ireland's economic links with Britain were strengthened, as a result of the Great Depression, and associated protectionist trade policy.

Together, these three chapters combine new archival material and new sources of data, to provide an insight into Northern Ireland's economic history, and challenge the existing narratives which surround key aspects of the regional economy. Often it is the politics, and the subsequent Troubles, which dominates the discussions of the fifty years of devolution to Stormont. This thesis argues that it is only by fully understanding Northern Ireland's economic history, and particularly the role of institutions, that the region's current economic problems can be fully understood. The conclusion provides further discussion of the implications from Northern Ireland's experience of devolution, and whether greater decentralisation of powers is beneficial within a UK and global context.

CHAPTER 1

The moral hazard of devolution

Applying fiscal federalism to the evolution of Northern Ireland's public finances, 1920-1972

Abstract

Northern Ireland is the first example of devolution within the UK. Yet despite the apparent benefit of fiscal decentralisation between 1920 and 1972, its economic performance continued to lag behind the rest of the UK. Using an analytic narrative, combining theory from fiscal federalism, new archival material, and a new dataset for Stormont's public finances, demonstrates how changes in institutional structure affected the economic efficiency of fiscal decentralisation. Westminster is shown to have been primarily concerned with limiting the moral hazard posed by Stormont, leading to conditions being imposed on fiscal transfers, which restricted the growth of public expenditure. This affected the level and composition of subnational public goods and services, with a large opportunity cost identified for industry, housing, and education. These opportunity costs had significant implications for Northern Ireland's long-run economic performance, and implications for inequality and discrimination, which were issues at the heart of the beginning of the Troubles. This suggests that the UK lacks the institutional capacity to deal with the financial consequences of expanded fiscal decentralisation.

1) Introduction

Increasing regional inequalities in economic performance have emerged across the UK in recent decades, and have been associated with the rise of political populism (Rodríguez-Pose, 2018). Further decentralisation within the UK of policymaking powers has been put forward as the solution, such as the Northern Powerhouse, City Deals, and greater powers to the Scottish Parliament.[1] Greater devolution of authority to local and regional government is also a global trend (Rodríguez-Pose and Gill, 2003). By providing local policymakers with greater powers, it is assumed that local policy interventions will be more efficient at addressing local problems. Yet the existing literature on fiscal federalism provides no consistent conclusion on whether greater decentralisation is beneficial. Devolution to the Stormont Parliament in Northern Ireland, between 1920 and 1972, therefore provides a fifty-year opportunity to test whether greater fiscal decentralisation is indeed beneficial. Using an analytic narrative, combining archival material with a new dataset for Stormont's public finances, demonstrates how changes in the institutional structure affected the economic efficiency of fiscal decentralisation, giving us a better understanding of how fiscal decentralisation operates within a UK institutional structure.

Northern Ireland was the first instance of fiscal federalism, or fiscal decentralisation, within the UK. Yet discussions of the economic effects of devolution within the UK focus primarily on post-1998 devolution, to the Scottish Parliament, Welsh Assembly, and Northern Irish Assembly (McGregor and Swales, 2005; Bell, 2014, 2016). The earlier experience of Northern Ireland is ignored. This is due to the Troubles, which has led to the Stormont model of devolution being "deemed dangerous, flawed and unlikely to produce anything worth knowing" (Mitchell, 2006, p.58). However, by applying theory from fiscal federalism to this first experience, it

[1] See: H.M. Treasury (2016) *Northern Powerhouse Strategy*; H.M. Government (2011) *Unlocking growth in cities*; and H.M. Government (2015) *Scotland in the United Kingdom: an enduring settlement*.

provides lessons for contemporary policymakers on how the institutions can affect the efficiency of fiscal decentralisation, and thus economic performance. Doing so highlights the limited capacity of the UK's institutional structure to deal with expanded fiscal decentralisation.

First generation fiscal federalism emphasises the benefits of fiscal decentralisation, while second generation theory emphasises that institutions may create barriers to these benefits being realised (Oates, 2005; Vo, 2010). The Northern Ireland experience poses a puzzle for the first generation argument that fiscal decentralisation improves economic efficiency. Despite the apparent benefit of fiscal decentralisation, Northern Ireland's economic performance persistently lagged behind the rest of the UK and its regions, with the regional economy so weak that it required ever greater fiscal transfers from Westminster. Devolution to Northern Ireland therefore provides an opportunity to test theory from both first and second generation fiscal federalism within a non-federal, UK institutional structure, to see whether devolution can be beneficial for economic performance in the real world. By applying theory from both generations, it demonstrates that institutions played a key role in determining the efficiency of fiscal decentralisation to Northern Ireland.

Understanding how the institutions which governed how fiscal decentralisation operated is crucial to drawing the link with economic performance. Institutions have been highlighted as a key determinant of long-run economic growth, with British institutions held up as being best at promoting this (North and Weingast, 1989; North, 1990; North, Wallis, and Weingast, 2009; Acemoglu and Robinson, 2012; Schlueter, 2014). The *de jure* institutions of Northern Ireland very closely reflected those in the rest of the UK and at Westminster (Quekett, 1928), while its economy also closely reflected other manufacturing regions of the UK (Ollerenshaw, 1985). Yet despite these similarities, and the apparent advantage of fiscal decentralisation, the Northern Ireland economy remained the worst performer of any UK region throughout

devolution. Given the failure of this combination to deliver convergence in economic performance, it is hypothesised that the *de facto* operation of institutions, and how this changed over time, is key to explaining Northern Ireland's persistent underperformance. Analysing the institutional structure which shaped the interaction between Stormont and Westminster, and the incentives this created for resource allocation, demonstrates how institutions can limit regional economic performance.

Existing literature on Stormont's economic policy provides a mainly historical account (Lawrence, 1965; Buckland, 1979; Birrell and Murie, 1980; Wilson, 1989; Bew et al. 2002; Mitchell, 2006), emphasising the politics, but with minimal empirical analysis. There is a failure to reflect the changes in institutional structure which occurred over time, and in response to specific events. There is also a heavy reliance on a narrow base of empirical evidence. Using an analytic narrative approach addresses these shortcomings, by allowing institutional structure to change over time, with a focus on the sequencing of events, and their effect on the provision of subnational public goods and services. This is achieved by creating the first time-series of Stormont's' public finances, and combining this with archival material from both the Public Record Office of Northern Ireland, and the National Archive. This provides a more complete answer to the puzzle of the persistent underperformance of the Northern Ireland economy, by combining new qualitative and quantitative material, placed within the theoretical framework of fiscal federalism.

The following chapter is structured as follows. Section 2 examines the relevant literature from institutional economics, fiscal federalism, and the Northern Ireland literature. This provides the necessary framework to analyse fiscal decentralisation to Stormont within a non-federal institutional structure, and demonstrates why the existing Northern Ireland literature fails to provide a satisfactory explanation for Stormont's role in the puzzle of Northern Ireland's poor economic performance. Section 3 sets out the method and data used to construct the analytic narrative.

Section 4 begins the analytic narrative, by setting out the weaknesses of the original financial settlement. Sections 5, 6, 7, and 8 continue the chronology of the analytic narrative. Section 5 examines the initial years of devolution, and the sequence of events which saw the divergence between the *de jure* and *de facto* institutions. Section 6 considers the remainder of the interwar period, and the consequences for efficiency of the transition towards ongoing financial support from Westminster to Stormont, and the moral hazard this created. Section 7 sets out how the financial relations between the two governments were renegotiated during wartime, reflecting Westminster's concern over the moral hazard of providing increased financial support under the welfare state. Section 8 sets out how institutional structure affected the expansion of the Welfare State, and the opportunity costs this involved. Section 9 concludes.

2) Relevant literature

To examine the efficiency of fiscal decentralisation to Stormont, it is important to understand which theories from institutional economics and fiscal federalism are most relevant. Institutional economics examines how institutions, mainly at a national level, affect long-run economic growth. Fiscal federalism focuses specifically on how the decentralisation of fiscal power affects regional economic performance. Northern Ireland therefore provides the opportunity to combine these two literatures, to examine the role of subnational government in promoting economic growth, within the context of British institutions. The UK model of subnational government, called devolution, and originating from Northern Ireland between 1920 and 1972, is more accurately described as fiscal decentralisation. This reflects the 'top-down' flow of authority within the UK, rather than the federal structure of countries such as the United States. Given this important institutional difference, it is necessary to consider which theories from within institutional economics and fiscal federalism provide a theoretical framework to examine Northern Ireland's experience within the UK form of fiscal federalism.

(i). Institutions

Economic historians have increasingly turned to institutions as an explanation of long-run differences in economic growth. Institutions are argued by North (1990, p.107) to be "the underlying determinant of the long-run performance of economies". They define the incentive structure of societies and economies, altering resource allocation, with their long-run significance reflecting their path dependent development (North, 1990). Frameworks have been developed to assess institutions and their effect on long-run economic growth. North, Wallis and Weingast (2009) introduce their 'Theory of Social Orders', where economic development is the result of movement from limited access orders to open access orders. Acemoglu and Robinson (2012) similarly

introduce inclusive or extractive institutions. In both cases, limited access orders or extractive institutions, limit long-run economic growth, through institutions which reinforce negative decisions; while open access orders or inclusive institutions, see better resource allocation as a result of institutions which promote more efficient decisions over resource allocation.[2]

The idea of differences in institutions has been applied to divergences in economic growth between countries, and has led to British institutions being seen as best. North (1990) compares the institutions present in England and Spain, with the former advancing economic growth, while the latter placed limits upon it. North and Weingast (1989) demonstrate how the Glorious Revolution in England led to improved institutions, where the upholding of property rights led to more developed capital markets, and superior economic growth. Acemoglu and Robinson (2012) and North, Wallis and Weingast (2009) both see British institutions as being at the forefront of possessing the characteristics necessary for long-run economic growth. Schlueter (2014) applies the limited and open access orders from North, Wallis and Weingast (2009) to New Zealand and Uruguay, and demonstrates that colonies which inherited British, open access order institutions, outperformed colonies which inherited Spanish, limited access order institutions.

Institutional economics clearly views British institutions as best at promoting long-run economic growth. Yet by ignoring Northern Ireland, this literature has not considered the full set of British institutions, with Northern Ireland's persistently poor performance failing to support the conclusion that 'British is best'. As part of the UK,

[2] Limited access order economies display characteristics of: slow growth, with vulnerability to external shocks; rent-seeking; limited access to economic and political organisations; smaller, more centralised government; and an unequal society, with personalised social relationships, and selective laws and rights (North, Wallis and Weingast, 2009, p.12). Open access order economies are the opposite, where: political and economic development is present; periods of negative economic growth are limited; there is a large number of civil organisations; government is bigger and more decentralised; and society displays equality, through impersonal social relationships, and widespread law and rights (North, Wallis and Weingast, 2009, p.11-12).

devolution to Northern Ireland operated under British institutions, yet it suffered from many of the characteristics of limited access order and extractive institutions, including slow growth, rent-seeking, and an unequal society. This contradicts the assertion for open access order economies, that greater decentralisation of government is beneficial. North (1990, p.101) emphasises that imposing a common set of rules in differing contexts can result in very different outcomes. Regional variation in institutions is also increasingly being recognised as important to the success of fiscal decentralisation (Pike *et al*., 2012; Brownlow, 2017). It is therefore important to understand why British institutions failed to lead to better regional economic performance in the Northern Ireland setting.

(ii). First generation fiscal federalism

To examine how institutions affected the efficiency of fiscal decentralisation to Northern Ireland, it is necessary to consider how literature has approached the issue of decentralised government. First generation fiscal federalism was the first to address this issue, emerging from work such as Hayek (1945), and reflects the greater emphasis placed on state intervention following World War II. First generation theory emphasises the benefits fiscal federalism creates, through more efficient provision of public goods and services, and a benevolent government which always seeks to maximise social welfare (Oates, 2005; Vo, 2010).

Several models compete to explain how these benefits are achieved, with Tiebout (1956) portrayed as the foundation of first generation theory (Vo, 2010), and forming the basis of Hamlin's (1991) competition thesis. Yet its applicability is limited to the devolved form of institutional structure experienced by Northern Ireland. Tiebout (1956) argues that subnational government allows citizens to reveal their preferences for the provision of public goods and services, by moving to an area that most closely reflects these preferences. Known as Tiebout sorting, citizens choose where to locate,

based on weighing up the pull factors of different regions, leading to a more efficient allocation of resources. While attractive for its simplicity, it makes strong assumptions, such as: the requirement for citizens to be fully mobile; citizens possessing perfect information; a large number of regions for citizens to choose between; employment opportunities not affecting movement; and public goods having no economies or diseconomies of scale. These assumptions are unrealistic for Northern Ireland, as it was the only UK region to possess fiscal decentralisation, meaning no competition, and little information available for inter-regional comparisons. Indeed, the central assumption of mobility is hard to support. Contemporary migration within the UK is low (Brownlow, 2017, p.563-564), and historically there is evidence it may have been even lower. For example, it was difficult to find workers willing to move from Northern Ireland to Britain for employment during World War II,[3] and citizens only began to become aware of disparities in public services during the war.[4]

The decentralisation theorem of Oates (1972, 1999) outlines an alternative mechanism for devolution to be efficiency enhancing, and focuses on information asymmetries. The decentralisation theorem presumes in favour of local public goods being provided by subnational government, as information asymmetries prevent national government from implementing tailored regional policies, and heterogeneous demand for public goods exists between regions (Oates, 1999). This ensures that subnational provision of local public goods will result in welfare levels being at least as high as under uniform, national provision, assuming there are no economies of scale from national provision, and no spillover effects (Oates, 1972, p.54).

Fiscal decentralisation can also improve the efficiency of fiscal decentralisation by providing a solution to distortions in regional resource allocation, outlined by Buchanan (1950). Differences arise in the standard of public services,

[3] See TNA: HO 45/20268: War Cabinet, Resources of Northern Ireland, 3rd April 1941.
[4] See Lawrence (1965), Green (1979), Gibson (1996) and Ollerenshaw (2013a) for discussion.

and/or the burden of taxation on citizens, across regions, as a result of differing fiscal capacities (Buchanan, 1950, p.584). These differences are measured by the fiscal balance, which is the difference between the costs and benefits of public services to a citizen (Buchanan, 1950, p.588). This can lead to citizens migrating to a region with lower fiscal pressure, with their decision to move determined by the market economic reward they receive, plus their fiscal balance in each region (Buchanan, 1950, p.589). If incomes are low in a region, citizens will be subject to greater fiscal pressure than those living in high income regions, as they must be taxed more heavily to fund a similar, or potentially lower, level of public services (Buchanan, 1950). This results in citizens moving to regions where fiscal pressure is lower, creating distortions in resource allocation. To remove these distortions, fiscal transfers from rich to poor regions ensure the equal fiscal treatment of otherwise equal citizens, equalising fiscal pressure, and thus enhancing the efficiency of resource allocation (Buchanan, 1950).

Olson (1969) provides a further justification for fiscal transfers to subnational government. Spillover effects can result in a subnational government not providing the Pareto optimal level of subnational expenditure public goods and services, as it fails to account for the externality effects on neighbouring areas (Olson, 1969). A similar situation occurs when a public good provided by a unitary government benefits only a subset of the population, creating an internality (Olson, 1969). Thus, only when fiscal equivalence is imposed, with a separate layer of government that matches the unique boundary of each public good, can there be efficient public good provision (Olson, 1969, p.483).

While first generation theory clearly sees fiscal federalism as improving efficiency, the evidence is inconclusive. Studies of the effects of fiscal federalism from a first generation perspective find contradictory results, such as Rodríguez-Pose and Bwire (2004), Akai *et al*. (2007), and Borge *et al*. (2014). Application to the UK is very limited, with Hughes (1987) providing the only example, focusing on Tiebout sorting

as the mechanism for efficiency. Hughes (1987) concludes that implementing fiscal federalism in the UK would prove beneficial, as it would reflect existing heterogeneous fiscal preferences, while introducing market forces to correct regional imbalances. However, these benefits are qualified by several conditions, relating to the form fiscal decentralisation takes, and the balance of power between national and subnational government (Hughes, 1987).

The contradictory evidence of whether fiscal federalism is efficiency enhancing, results from the differing types of fiscal decentralisation present in each case, and a failure to tailor the application of theory to reflect this. Rodríguez-Pose and Gill (2005) see fiscal federalism as taking many forms globally, making the form taken fundamental to its success. There is also the difficulty of how to measure efficiency, as Borge *et al*.'s (2014) method, of assuming greater regional heterogeneity reflects greater efficiency, appears naive. This highlights the need for greater understanding of the institutional context, as suggested by North (1990), and better ways of measuring efficiency, both of which second generation theory seeks to address.

(iii). Second generation fiscal federalism

Second generation theory introduces public choice, institutional structure and asymmetric information, while removing the assumption of a benevolent government, to understand why the apparent benefits of fiscal federalism may fail to be realised (Oates, 2005). This involves applying the principal-agent problem, with either the national government or electorate as the principal, and the subnational government as the agent (Oates, 2005, p.357). Agency theory deals with two potential problems that arise when different parties co-operate: firstly, the goals of each party may differ, and it may not be possible for the principal to verify the actions of the agent; secondly, risk is shared by the two parties, but they have differing risk preferences (Eisenhardt,

1989, p.58). Applying principal-agent theory highlights why the institutional structure suggested by first generation theory may fail to provide the expected benefits, therefore providing a criterion against which to judge the efficiency of fiscal decentralisation (Oates, 2005).

Weingast (2009) extends this by providing a 'comparative federalism framework' to examine how the principal agent problem affects the efficiency of fiscal decentralisation. The framework outlines five conditions for market preserving federalism, which maximises efficiency under the mechanisms of first generation theory. The five conditions are: hierarchy, where each level of government has a delineated scope of authority; subnational autonomy, where subnational government has primary control of local regulation of the economy;[5] a common market, provided by the national government; hard budget constraints, faced by the subnational government; and finally institutionalised authority, the "glue for the decentralised system", where political authority is allocated through institutions, and not at the discretion of the national government (Weingast, 2009, p.281). The absence of one or more of these conditions leads to problems including inefficient public good provision, rent-seeking, inefficient market intervention, subnational governments living beyond their means, and/or lack of policy independence (Weingast, 2009, p.282).

Fiscal transfers are a necessary part of fiscal decentralisation under first generation theory, as an insurance function to protect subnational governments from exogenous shocks, but moral hazard can emerge when they are provided (Oates, 2005, p.365). A subnational government may engage in rent-seeking, and exploit the fiscal commons to increase expenditure beyond revenue, as any deficit will be

[5] This condition of subnational autonomy is supported by Buchanan (1950). As it is only the total fiscal pressure faced by citizens which determines efficient resource allocation, fiscal transfers should not be linked to any particular public service (Buchanan, 1950, p.597), and subnational government should instead retain autonomy over the provision of public goods and services, to tailor these to the preferences of local citizens (Buchanan, 1950, p.598).

covered by national government (Oates, 2005; Weingast, 2009). This creates a trade-off for national government, where fiscal assistance to subnational government provides protection for the national economy, but softens the budget constraint of the subnational government (Oates, 2005).

A soft budget constraint is where the strict relationship between expenditure and earnings is relaxed, due to another institution ultimately being responsible for any excess expenditure (Kornai, 1986, p.4). Expectations are key to the existence of soft budget constraints, as the national government needs to credibly commit to a policy of no-bailouts if a hard budget constraint is to be imposed (Oates, 2005, p.360). Hard budget constraints can be enforced through a number of mechanisms, including developed credit markets, and transparency in subnational public expenditure, with both providing feedback to government; as well as by rules, including balanced budgets required in law, limits on borrowing, and clearly defined bankruptcy laws during fiscal crises (Oates, 2005, p.362-363). Oates (2005, p.363) emphasises there is no universal blueprint for hardening budget constraints, as political, economic and cultural institutions, combined with historical traditions, will influence the required institutional structure. Therefore, the existence of a hard budget constraint is dependent upon the incentives created by the institutional structure (Oates, 2005, p.361).

Where first generation theory failed to account for the principal-agent problem, and the problems it creates, including moral hazard, asymmetric information, and soft budget constraints, Weingast's (2009) comparative federalism framework can be used to explain the poor economic performance of developing countries. Weingast (2009, p.281) finds Mexico, India, and Russia lack the subnational authority condition; the common market condition is missing for India and Russia; a hard budget constraint is absent for Argentina and Brazil, during the 1980s and 1990s respectively; and institutionalised authority is absent in Mexico. Weingast (2009, p.282) notes that

relatively little evidence exists as to what mechanisms are needed to enforce this institutionalised authority condition, but argues a party system that is balanced between national and subnational control provides the best scenario. Ardanaz *et al*. (2014) find that it is this imbalance in the power between national and subnational government, which is responsible for short-term policymaking and inefficient public expenditure in Argentina.

Despite this global application of second generation theory, there is a lack of application to the UK. McGregor and Swales (2005) apply parts of first and second generation theory to the UK, but conclude that: principal-agent theory and spillover effects are irrelevant; regional fiscal deficits are sustainable; and hard budget constraints are damaging for equity, especially for peripheral UK regions. This positive view of further UK fiscal devolution is not shared by more critical literature on the debate surrounding Scottish independence. Discussing greater fiscal decentralisation for Scotland as an alternative to independence, Bell (2014) is more critical of the UK's institutional structure, concluding problems surrounding horizontal fiscal imbalances in revenue, and vertical imbalances in expenditure and debt accumulation, demonstrate that efficiency would be restricted under 'devomax'. Harvey and Keating (2014) also emphasise the importance of institutional structure to the potential success of an independent Scotland, or other small, open economies.

Both Bell (2014) and Harvey and Keating (2014) agree that current Scottish institutions would require adaptation if greater fiscal decentralisation were to be implemented within the UK. Bell (2016) highlights the lack of any intermediary, between national and subnational government, as a significant restriction on efficiency under current Scottish devolution. An implication of Oates (2005), that applying asymmetric information leads to ideal institutional structures which differ from those implied by first generation theory, is that a role may exist for such an intermediary. This intermediary would solve the asymmetric information problem

between national and subnational government, in a similar manner to the role of financial intermediaries in solving the principal-agent problem, as described by Mishkin and Eakins (2012, p.66). However, Bell (2016) argues the process already underway in Scotland demonstrates that political imperatives are placed before economic efficiency, and UK institutional structure is unable to cope with this adaptation.

(iv). Northern Ireland literature

Most analysis of devolution in Northern Ireland under the Stormont Parliament approaches it from a political rather than economic perspective, with the fifty-year experience of devolution viewed as a forerunner to the Troubles. This means there is very limited analysis of Northern Ireland's experience from the perspective of fiscal federalism, despite it being the first such example within the UK. Discussions of Stormont's public finances focus on the financial pressure created by the 1920 Act, and the degree of autonomy Stormont possessed. However, institutional structure is assumed to be unchanging over time, with the importance of different events receiving differing emphasis. This leads to varying, and sometimes contradictory, conclusions on the consequences for economic efficiency of Stormont.

The first area addressed by existing literature is how the design of the 1920 Act affected the public finances of Stormont, with most being critical of the allocation of powers. Mansergh (1936) criticises the 1920 Act for restricting Stormont's autonomy, but concludes this was a necessary part of devolution, and did not hamper its overall success. Lawrence (1965), Buckland (1979), and Wilson (1989) are more critical, seeing the 1920 Act as financially unfair, and directly responsible for Stormont's subsequent financial pressures. Only Birrell and Murie (1980) digress from this consensus, interpreting the 1920 Act as giving Stormont a degree of financial independence more akin to a federal system. Gibson (1996) provides the only

discussion of the 1920 Act from the perspective of fiscal federalism, but it is limited to first generation theory.[6] Gibson (1996) concludes the assignment of expenditure powers was broadly efficient, but the assignment of taxation powers limited Stormont's ability to account for regional preferences.

The second area to be addressed is the interwar period, with a consensus that Westminster began to slowly exert greater control over Stormont, although the motivation for this is unclear. Buckland (1979) emphasises Westminster's desire to remain detached from Northern Ireland affairs, gradually making more interventions, but only enough to ensure that devolution survived. Westminster was reluctant to increase its financial support (Lawrence, 1965), and preferred ad-hoc agreements, in order to limit its financial commitment, with the side effect that these allowed it to supervise Stormont's finances (Buckland, 1979, p.93). Johnson (1985a) argues that Westminster was primarily interested in its own objective of limiting public expenditure to control the national debt, rather than specifically in Northern Ireland. Despite this increasing supervision, Stormont is seen as continuing to have great freedom (Lawrence, 1965, Birrell and Murie, 1980). Taken together, this interwar narrative suggests benign neglect, where Westminster's involvement was minimal, although the motivation for the gradual increase in supervision is unclear.

An explanation for this lack of consensus is the different emphasis given to different events or aspects of the institutional structure, and their implied significance for the financial relationship. An example is the Colwyn Report of 1925, which is subject to varying conclusions. Mansergh (1936) describes the Colwyn Report as being overly favourable to Northern Ireland, with Stormont able to shift the burden of an economic downturn onto Westminster. In contrast, Green (1979) identifies it as the moment when inequality in expenditure on public services was formalised,

[6] Wilson (1989) also acknowledges the relevance of theory from fiscal federalism theory to Northern Ireland, but provides little application.

guaranteeing these would develop more slowly in Northern Ireland. There is similar disagreement over the importance of the Joint Exchequer Board (JEB).[7] Mansergh (1936) criticises it for having more power over Stormont's finances than Westminster. Lawrence (1965) views this as a positive, preventing the Treasury from dictating demands to Stormont. Green (1979) questions whether the JEB was necessary at all, as it simply ratified intergovernmental agreements. Gibson (1996) and Mitchell (2006) are also highly critical, arguing it was side-lined, allowing Westminster's preferences to override Stormont's.

The third area to be addressed by the existing literature is the post-war period, with disagreement over which agreement – before, during, or after World War II – was most important for post-war financial relations between Stormont and Westminster. Green (1979), Birrell and Murie (1980), and Wilson (1989) all identify the 1938 Simon Declaration as most significant, which saw Westminster introduce the principle of parity in public services. This defined all future financial relations (Green, 1979), and meant Stormont abandoned its financial autonomy (Birrell and Murie, 1980). Lawrence (1965) alternatively identifies a 1945 announcement as more significant, with Westminster providing financial assistance to raise the standard of public services in Northern Ireland, but in the process taking greater control. Finally, Gibson (1996) views a 1946 statement as most important, as it gave a formal basis for principles previously agreed, including parity of public services and taxation, but gave Westminster greater control, limiting the potential adaptation of public services to reflect local preferences.

Differing views therefore exist over how the efficiency of devolution changed over time, a result of the differing emphasis placed on particular events. This reflects

[7] The Joint Exchequer Board was an independent body setup under the Government of Ireland Act 1920, to assess the value of the annual Imperial Contribution made by Stormont to Westminster, and to arbitrate over any financial disagreements between the two Governments. See Section 4 for further detail.

a failure to see institutional structure as changing over time, leading to two differing narratives over the level of autonomy Stormont possessed, largely based on the post-war experience. The first narrative views Stormont as remaining largely autonomous, with Westminster placing few financial restrictions on Stormont, despite increased oversight (Lawrence, 1965; Green, 1979; Birrell and Murie, 1980), aided by a "distinctly laissez-faire" attitude from the Treasury (Birrell and Murie, 1980, p.21). In contrast, the second narrative sees Westminster as placing extensive restrictions on Stormont's finances (Buckland, 1979; Wilson, 1989; Gibson, 1996; Mitchell, 2006). These contradictory narratives partly result from a broader failure to combine archival material with empirical measurement of Stormont's financial position.[8] Most do one or the other well, for example, Lawrence (1965) for empirics, and Mitchell (2006) for archival material, but there is an absence of studies which do both. Doing both is necessary if the full consequences of fiscal decentralisation to Stormont are to be assessed.

(v). Conclusion

Economics literature has increasingly recognised the importance of institutions to long-run economic growth. However, there is a Northern Ireland shaped hole in our understanding of British institutions, which must be filled if we are to fully understand whether British institutions are indeed best. First generation theory from federalism provides the mechanisms for understanding how fiscal decentralisation within the devolved setting of the UK can be efficiency enhancing, but second generation theory demonstrates how institutions can place limitations on these efficiency gains. However, this second generation theory is at an early stage of development, and

[8] Isles and Cuthbert (1957) provide the most detailed, systematic, contemporary analysis of the Northern Ireland economy, but is largely uncritical of the provisions of the 1920 Act, and the subsequent interactions between Stormont and Westminster. This is likely because their report was commissioned by Stormont, placing restrictions on their candour.

requires real world testing. There has been a lack of application of either generation of fiscal federalism to the UK, despite Northern Ireland being the first such instance of this. Applying fiscal federalism to Northern Ireland provides an opportunity to understand how institutional structure changed over a fifty-year time period, a length of time no previous study of fiscal federalism has achieved. This will not only allow conclusions to be drawn on the efficiency of fiscal decentralisation to Stormont, which existing Northern Ireland literature has failed to do, but also allow wider lessons to be drawn for fiscal federalism theory within non-federal institutional structures.

3) Method

An analytic narrative approach is used to analyse the efficiency of fiscal decentralisation to Stormont. An analytic narrative combines rational choice theory with a narrative, to explain particular outcomes of interest (Bates *et al*., 1998). Using an analytic narrative allows institutional structure to change over time, which existing Northern Ireland literature has failed to do. Once constructed, the analytic narrative is evaluated against several criteria, including the assumptions and conclusions made, whether the explanation fits with the empirical data, and how well the explanation stands up against explanations provided by existing literature (Bates *et al*., 1998). This section outlines how the analytic narrative is constructed, including the puzzle to be addressed, the actors involved, the analytic framework used to examine the efficiency of fiscal decentralisation, and an outline of the narrative, including the sources of data and archival material used to support the conclusions made.

(i). The puzzle

The outcome of interest, or puzzle, is the failure of fiscal decentralisation to address Northern Ireland's persistently poor economic performance. Was this the result of fiscal decentralisation being inefficient? Instead of seeing its economic performance converge with the rest of the UK, the gap persisted throughout devolution, with Northern Ireland receiving increasing fiscal transfers. This poor performance is evident by comparing Northern Ireland's GDP per capita (Table 1.1), unemployment rate (Figure 1.1), and bank deposits (Figure 1.2), with other UK regions.

Northern Ireland had the lowest level of GDP per capita of any UK region in Table 1.1, a situation which pre-dated partition. Apart from a decline to 62 per cent in 1938, Northern Ireland remained around three-quarters of the UK level throughout

devolution.[9] The next poorest UK regions were Wales and the North of England, but these were a substantial margin ahead of Northern Ireland, particularly during the post-war period. Lee (1971, p.200) demonstrated a similar story for regional income, concluding that Northern Ireland was "economically… the most backward of the regions of the United Kingdom". However, Northern Ireland's GDP per capita remained much higher than the Republic of Ireland, which was only around half the UK level for much of this period.[10]

Table 1.1: Regional GDP per capita (UK=100)

	1900	1910	1925	1938	1950	1960	1970
Northern Ireland	67	61	74	62	73	73	74
London Counties	141	135	142	149	140	146	144
Rest of South East	101	108	103	117	86	89	92
South West	93	94	93	93	90	90	92
West Midlands	86	87	88	106	105	105	103
East Midlands	94	94	88	86	97	96	90
North	97	98	93	69	100	95	94
Yorkshire & Humberside	90	90	91	82	98	95	96
Wales	82	80	80	84	86	91	88
Scotland	91	88	94	96	90	90	92
Ireland (IFS/Republic of)	59	55	47	48	50	50	57

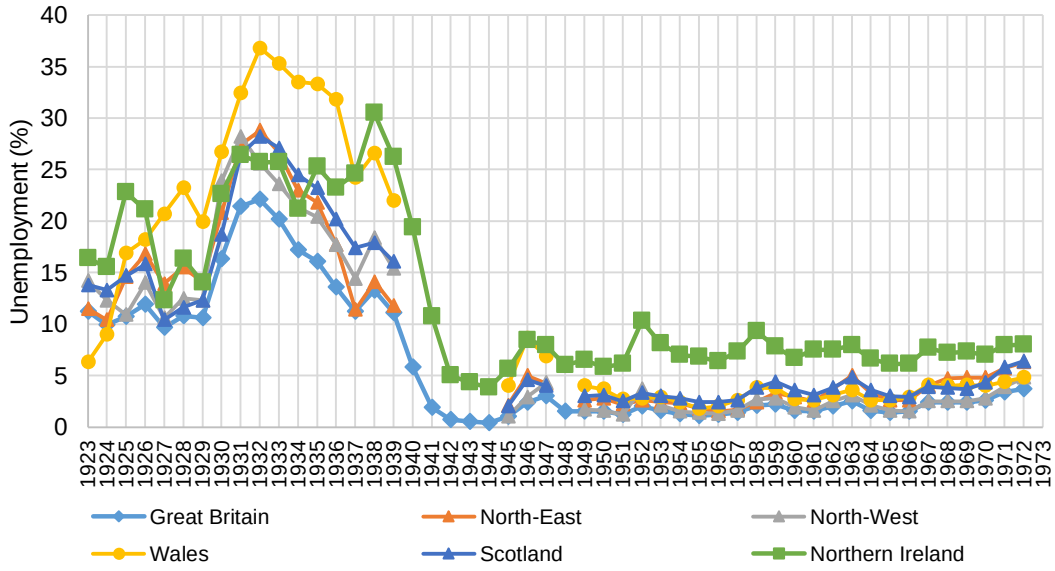
Source: Constructed from Geary and Stark (2019).
Notes: GDP per capital calculated as GDP divided by total population for each year. For discussion on the creation of the GDP estimates, see Geary and Stark (2019, p.331-332). Figure for UK GDP excludes the Irish Republic throughout.

Unemployment in Northern Ireland was also persistently higher than in Britain or other UK regions throughout devolution. Figure 1.1 compares unemployment in Northern Ireland amongst the insured population against the equivalent rate in Britain, and the four worst performing UK regions. During the interwar period, unemployment

[9] Northern Ireland experienced a fall in its population between 1922 and 1930, with its population not returning to its initial level until 1935 (see Figure 1.C.1 in Appendix C). As this falling population would raise Northern Ireland's GDP per capita, Table 1.B.1 in Appendix B calculates each region's GDP as a share of the UK's total GDP. This confirms the pattern shown in Table 1.1, that Northern Ireland's economic performance remained relatively poor throughout devolution, with it failing to experience the necessary growth to see its share increase over time.
[10] That the Northern Ireland economy was better off relative to the Republic of Ireland's is supported by Figure 1.B.1 in Appendix B, which shows that Northern Ireland's share of the total all-island population continued to increase until the end of the 1960s.

in Northern Ireland was initially higher than Britain, and not dissimilar to other poorly performing regions. However, Northern Ireland's relative performance worsened during the post-war slump of the mid-1920s, and was again higher following the Great Depression. While unemployment fell in Britain from 1933 onwards, it remained persistently high in Northern Ireland, and by 1938 had overtaken even the worst performing region of Wales. Unemployment fell during the war, but post-war it remained higher in Northern Ireland than any other UK region, with this gap persisting until the end of devolution.

Figure 1.1: Unemployment by UK region

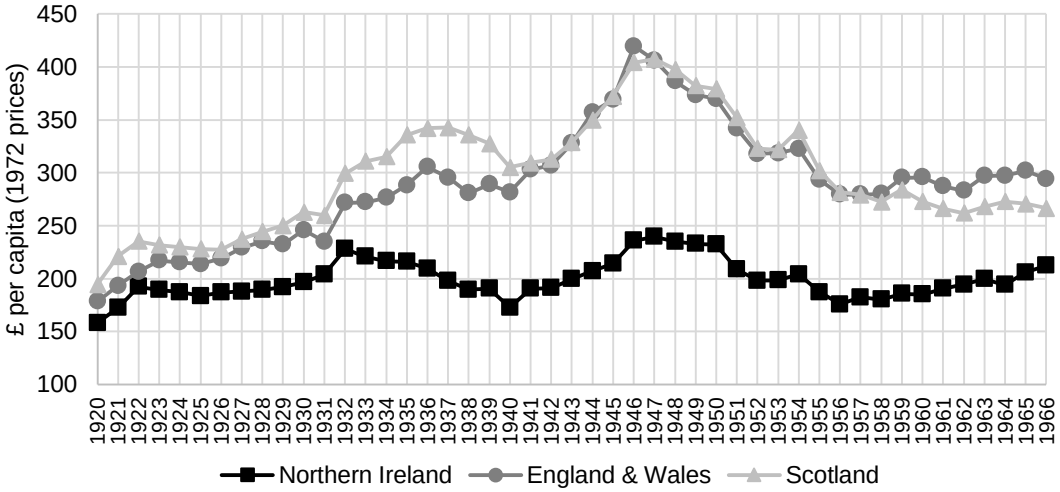


Source: For all regions, 1923-1939, 1945-1947, and 1949-1972 from Mitchell (1988, p.125-126). For Northern Ireland, 1940-1944, and 1948, from Isles and Cuthbert (1957, p.566).
Notes: Unemployment data for the insured population unavailable for the regions of Britain between 1940 and 1944 in Mitchell (1988). North-East uses the values for the North-East region from 1923 until 1939, and the values for the newly created North region from 1945 until 1972.

Bank deposits can act as a further measure of the health of the local economy. If deposits in a region are relatively higher, it suggests residents are relatively more wealthy than their counterparts elsewhere. Figure 1.2 compares bank deposits in Northern Ireland with those in Scotland, and England and Wales. This demonstrates that pre-partition, bank deposits were lower in what would become Northern Ireland, and this persisted throughout devolution. This gap widened over time, particularly

during the 1930s and 1940s, before beginning to close from the 1950s onwards, mainly due to deposits falling in both Scotland, and England and Wales. Overall, bank deposits grew least in Northern Ireland between 1920 and 1966, by 34 per cent, compared to 37 per cent in Scotland, and 65 per cent in England and Wales.

Figure 1.2: Bank deposits by UK region



Source: Bank deposits from Sheppard (1971, p.118-123); population estimates from Mitchell (1988).
Notes: Bank deposits are from end-of-year balance sheet figures for domestic joint-stock banks, 1920-1966. These are divided by annual population to give per capita figures. Bank deposits for 1920 and 1921 were recorded separately for what would become Northern Ireland; population estimates for these years were calculated based on Northern Ireland's share of the island of Ireland's total population, based on the ratio in 1922. Bank deposits converted into 1972 prices using ONS (2004, 2020).

Regional GDP, unemployment, and bank deposits, all demonstrate Northern Ireland's economic woes persisted throughout devolution, with Northern Ireland showing no sign of convergence with the UK, despite the apparent benefit of fiscal decentralisation. While it remained better off than the Republic of Ireland, Northern Ireland remained the poorest region of the UK. Institutions have been suggested by Crafts (1995) and Brownlow (2007) as an explanation for Northern Ireland's poor post-war performance, with Brownlow (2013) suggesting institutions must be at the heart of any long-run explanation of Northern Ireland's persistent poor performance. Applying theory from fiscal federalism, within an analytic narrative, allows this view of the importance of institutions for Northern Ireland's long-run economic performance to be tested over a fifty-year period.

(ii). The actors

An analytic narrative requires actors. These can be individuals or collective actors (such as electorates or legislatures), with both primary and secondary material used to determine actors' preferences and expectations, and the alternatives and constraints they faced (Bates *et al*., 1998, p.11). The two actors in this narrative are defined as the two legislatures involved: the subnational government of Northern Ireland, Stormont; and the national government of the UK, Westminster.

Principal-agent theory is central to the financial relations between these two actors, and following the method of Oates (2005), Westminster is defined as the principal, and Stormont as the agent. This reflects Westminster's ultimate responsibility as the UK's national government, but having assigned some of its fiscal powers to the subnational government of Stormont, through the 1920 Act. Both governments are treated as single entities, despite themselves each being composed of a number of actors. This simplifying assumption is not unrealistic, given decisions were made on the basis of collective cabinet responsibility.

The objectives and preferences of both governments are allowed to differ from each other, reflecting their differing electorates and political motivations. An initial objective function is defined for both governments, but this is allowed to change over time. Any further objectives or preferences are left to become apparent as the narrative develops, where supported by archival material. Westminster's initial objective function is the implementation of the 1920 Act, based upon Green (1979) and Bew *et al*. (2002). The 1920 Act was the final outcome following three failed Home Rule Bills (Green, 1979, p.1), with British policy being to hold Irish affairs "at arm's length" (Bew *et al*., 2002, p.2). Thus Westminster needed the implementation of the 1920 Act to succeed, in order to remove the Irish issue from its day-to-day affairs.

Stormont's initial objective function is based on Buckland (1979) and Bew *et al*. (2002), and is Northern Ireland's continued existence, through the maximisation of

Unionist political support. This meant that Stormont Ministers viewed most questions from the perspective of the constitutional question, “with scant regard for wider interests or long-term benefits” (Buckland, 1919, p.12). They were also sensitive to any criticism, with a defensive political stance (Buckland, 1979, p.14). Ulster Unionism had solidified into a single bloc in 1913, but at an early stage the Unionist leadership had been concerned with political competition, particularly from trade unions, viewed as posing the twin threats of socialism and republicanism (Bew *et al*., 2002, p.16-17). Thus with the Unionist Party in control of the newly created Northern Ireland Parliament, the Stormont government’s actions would be shaped by the priority to maintain the Union through the electoral dominance of the Unionist Party.

This objective function can be seen in the key players within the Stormont Government. Many members of Stormont had been involved in the Unionist opposition to Home Rule (Buckland, 1979, p.12). A key example is the first Northern Ireland Prime Minister, James Craig, who was closely involved with organising Unionist resistance to the Third Home Rule Bill (Buckland, 1979, p.15). Members of Stormont were also closely integrated into their local communities (Buckland, 1979, p.13), with positions in government viewed as part-time occupations, and Ministers retaining their business interests while in office (Birrell and Murie, 1980, p.40).[11]

These close connections would provide ample opportunity for rent-seeking to take place, with Stormont more receptive to the views of special interest groups. This was particularly the case given James Craig’s style of government, which saw Ministers encouraged to be accessible, and a desire to conciliate local interest groups (Buckland, 1979, p.17). The Unionist Party relied on this “precarious alliance of sectional interest groups” to keep it in power (Riordan, 2018, p.314). The potential therefore existed for Stormont to make long-run economic priorities subservient to the

[11] See Section 4 of Chapter 2 for further discussion of the extent of business interests amongst the Unionist Party and Stormont Cabinet.

short-term political priorities of groups of individuals in society, in order to maximise Unionist political support.

(iii). The analytic component

The analytic component applies rational choice theory, to highlight the significance of the sequence of actions and events, in order to explain the outcome (Bates *et al*., 1998, p.14). As the outcome of interest is whether the failure of fiscal decentralisation to address Northern Ireland's persistently poor economic performance was the result of inefficiency, theory from both first and second generation fiscal federalism is used. The first generation theory to be used includes information asymmetries of Oates (1972, 1999), fiscal pressure of Buchanan (1950), and fiscal transfers of Olson (1969). The second generation theory to be used is based on Weingast's (2009) comparative federalism framework, and its five conditions of hierarchy, subnational autonomy, common market, hard budget constraints, and institutionalised authority. Together, this theory is used to assess the importance of changes in institutional structure over time, the effect this had on the incentives faced by both governments, and the consequences for the efficiency of the provision of public goods and services.

Efficiency is measured by comparing the level of provision of public goods and services against that in Britain, taking into account the potential differing needs of the regional economy. To achieve this, a new, disaggregated time-series of Stormont's revenue and expenditure was constructed, using the *Ulster Year Book* publication. This was then compared against existing time-series for Westminster's public revenue and expenditure from Mitchell (1988). These time-series were converted into 1972 prices using a long-run, seasonally adjusted, price indicator constructed by the ONS (2004, 2020), to give the real values adjusted for inflation referred to throughout the

text.[12] Rent-seeking can affect the efficient allocation of resources, as highlighted by second generation theory (Oates, 2005; Weingast, 2009), but is a difficult concept to measure (Del Rosal, 2011). Thus when comparing the provision of public goods and services in Northern Ireland relative to Britain, the concept of opportunity cost is used to assess what was forgone as a result of the institutional structure present.

Key to the principal-agent relationship between both governments is the presence of asymmetric information (Oates, 2005). Westminster is ultimately liable for the actions of the agent, Stormont, but is unable to verify the intentions or actions of Stormont, creating the potential for moral hazard to emerge. As the objectives and preferences of both governments are allowed to differ from each other, the institutional structure within which the principal and agent interact will be crucial in determining their actions, and whether their interests align or diverge. This in-turn will determine the extent to which the conditions necessary for efficient fiscal decentralisation are met.

(iv). The narrative component

The narrative component provides the setting, beginning, sequence of scenes, and ending (Bates *et al*., 1998, p.14). The narrative must identify the actors involved, the decision points and choices made, and the resulting paths taken, in order to demonstrate how actors' choices generated the outcomes of interest (Bates *et al*., 1998, p.14). To achieve this, interactions between the two actors are approached chronologically, with key events identified using both primary and secondary evidence. The primary evidence used to construct the analytic narrative comes from archival material collected from the Public Record Office of Northern Ireland (PRONI)

[12] Further discussion of this process and the data is provided in Appendix A. Using the long-run, seasonally adjusted, price indicator constructed by the ONS (2004, 2020), shows that prices increased by 1,229 per cent between 1972 and 2019 (or were 13.29 times greater by 2019). Where real terms valuations are referred to throughout the thesis, these are in 1972 prices, unless otherwise stated.

and the UK National Archive (TNA), with secondary evidence coming from existing analysis of the fifty years of devolution. Together, this led to five time-periods being identified, where key events saw institutional structure change. These are:

- Original settlement (1920 Act)
- Initial experience (1921-1925)
- Transition to ongoing support (1925-1938)
- Renegotiation (1938-1945)
- Post-war financial control (1945-1972)

Each section includes: an analysis of the key event(s), including the importance of sequencing; how this altered the institutional structure, and the incentives created for both actors; the actions of each actor; and the consequences of these for the efficiency of fiscal decentralisation. The following sections deal with each period in turn.

4) Original settlement (1920 Act)

Before examining how changing institutional structure affected the efficiency of fiscal decentralisation, it is important to firstly understand how powers were distributed between Stormont and Westminster. The Government of Ireland Act 1920 (1920 Act) defined which powers were transferred to the Northern Ireland Parliament (Stormont), and which were retained under the authority of the UK Parliament (Westminster). The intention of the 1920 Act was to establish two Parliaments on the island of Ireland, with both subordinate to Westminster. However, the establishment of the Irish Free State meant the provisions of the 1920 Act only ever applied to Northern Ireland. While the 1920 Act in this sense was not implemented in full, it formed the basis in law of all future interactions between Stormont and Westminster.

Table 1.2 summarises the assignment of powers between Stormont and Westminster. Westminster retained control of Excepted services, and Reserved services and taxes. Excepted services were those Westminster deemed to have Imperial implications (Lawrence, 1965, p.15) and were of national importance, such as foreign relations, foreign trade, and monetary policy. Reserved services were identified as those potentially suitable to be given to an all-Ireland Parliament, but which Westminster retained control of, following devolution to Northern Ireland (Gibson, 1996, p.15). These included the Post Office, the Supreme Court, and for a time the police. Westminster did assign limited services to an all-island body, the Council of Ireland, which covered railways, fisheries, and contagious diseases of animals, but these were transferred to Stormont following the failure of the Southern Parliament to be established.[13] Reserved taxes were those Westminster retained the power to levy at a national level, and included customs and excise duties, income tax, and any tax on profits or capital. Under the 1920 Act, customs and excise duties was

[13] See Ulster Year Book (1926, p.132) for an outline of the intended operation of the Council of Ireland, and the subsequent transfer of its powers to Stormont.

the only Reserved tax which might be transferred on the creation of an all-island Parliament, but remained under Westminster's control throughout devolution, following the establishment of the Irish Free State (Gibson, 1996, p.18).

Table 1.2: Distribution of government powers

Westminster UK national government			***Stormont*** NI subnational government	
Excepted	Reserved		Transferred	
Services	*Services*	*Tax*	*Services*	*Tax*
• The Crown. • Making war & peace. • Defence. • Foreign relations & treaties. • Foreign trade. • Communications. • Coinage and legal tender. • Intellectual property.	• Postal services. • Post Office Savings Bank and Trustee Savings Bank. • Registration of deeds. • Public Record Office of Ireland. • Land purchase. • Supreme Court.	• Customs & Excise duties. • Excess profits duty. • Corporation profits tax. • Income tax (including super-tax). • Any tax on profits or general tax on capital.	• All powers not Excepted or Reserved.	• Death duties. • Stamp duties. • Motor vehicle duties. • Entertainment duties. • Non Tax: Land annuities.

Source: Constructed using Ulster Year Book, 1926, p.53, & p.131-132.

Stormont was given control of Transferred services and revenue. Transferred services were all remaining legislative powers which were neither Excepted nor Reserved (Gibson, 1996, p.16). This included areas such as agriculture, industry, employment, social benefits, health, housing, and education. Transferred revenue came from two sources. The first was non-tax revenue, which primarily consisted of land annuities, as well as any government fees. The second was tax revenue, which was the receipts from any Transferred taxes imposed by Stormont. This included the existing UK taxes which were not Reserved, namely death duties, motor vehicle duties, and stamp duty. It could also include any new taxes introduced by Stormont, as long as they were not demonstrably the same as any existing Reserved tax. Stormont could also provide relief from income tax to Northern Ireland residents, but this had to be funded from its revenue. The 1920 Act did not explicitly give Stormont

the right to borrow money through issuing government debt, but there was nothing to prevent it legislating to do so.

Stormont did not have complete freedom over how it spent its revenue. It was required to contribute to the cost of Imperial services, by paying an annual contribution. This Imperial Contribution was the first charge on Stormont's revenue, and the 1920 Act set the nominal value of this contribution at £7.9 million for the first two years.[14] After this, a body called the Joint Exchequer Board (JEB) would reassess this figure, and make adjustments if required with regard to taxable capacity.[15] The JEB had originally been intended to possess five members, but following the establishment of the Irish Free State, it possessed only three: one appointed by the UK Treasury, one by Stormont, and an independent chair appointed by The Crown, through the Home Office at Westminster. The other main function of the JEB was to arbitrate over financial questions which arose between Stormont and Westminster.

Finally, the 1920 Act explicitly maintained the national, UK Parliament's ultimate authority over the Northern Ireland Parliament at Stormont, through four rules (Lawrence, 1965, p.27-28).[16] The most important of these was that the Northern Ireland Governor would withhold Royal assent of any Bill, if asked to do so by Westminster. This in effect gave Westminster the right of veto over any bills passed by Stormont, even if they related to matters transferred to the Northern Ireland Parliament.[17]

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[14] Ulster Year Book, 1926, p.54. £26.8 million in 1972 prices.
[15] Ulster Year Book, 1926, p.54.
[16] These were that 1.) the supreme authority of the UK Parliament in Northern Ireland was undiminished, 2.) Stormont could not repeal or alter any Act passed by the UK Parliament and which extended to Northern Ireland, 3.) Stormont's statutes could not contradict and statutes passed by the UK Parliament and which extended to Northern Ireland, 4.) the Governor of Northern Ireland must comply with any instructions by the Crown in respect of any Bill and reserve the Royal assent if so directed (Lawrence, 1965, p.27-28).
[17] The importance of the role of the Governor, and their interaction with Stormont, is best described by the Parliamentary Draftsman to the Government of Northern Ireland, Quekett (1928, p.36), who outlines how "All executive and administrative powers as respects matters over which the Parliament of Northern Ireland has jurisdiction remain vested in the Crown,

Theory from both first and second generation fiscal federalism can be used to examine whether this distribution of powers was efficient, beginning with revenue raising powers, and followed by expenditure powers. Doing so, confirms that while the distribution of both revenue and expenditure powers was broadly efficient, as suggested by Gibson (1996), key institutional weaknesses existed beyond the fiscal imbalance and lack of fiscal transfers, with the potential to limit the efficiency benefits of fiscal decentralisation.

Musgrave (1983, cited in Vo, 2010, p.667-668) provides six fundamental principles of efficient tax assignment, which must be fulfilled to maximise efficiency and minimise distortions in resource allocation. Principles one to three focus on which taxes should be retained under national control, while principles four to six focus on which should be decentralised.

The first principle requires taxes which are suitable for economic stabilisation, influencing aggregate demand, and aiding national redistribution, to be retained by national government. The 1920 Act fulfilled this principle, as Westminster retained control of the relevant taxes on income and corporation profits. The second principle requires taxes with unevenly distributed bases to remain under national control, particularly taxes on natural resources. The 1920 Act generally adhered to this principle, as taxes that might have unevenly distributed bases, such as income and profit tax, were under national control.[18] The third principle requires personal taxes with mobile tax bases to be retained by national government. The 1920 Act broadly fulfilled this principle, as Westminster retained the power to set rates of income tax, as well as corporation and profits taxes. However, Stormont could exercise its right to provide relief from income tax, or could vary the rate of employee and employer

and are exercised by the Governor through departments which had been established by the Lord Lieutenant on the 7th June 1921".

[18] While Stormont could introduce taxes on natural resources, the lack of substantial extractive industries in Northern Ireland, such as coal, made this irrelevant.

contributions for unemployment insurance, which could harm efficiency, as these were mobile tax bases.

The fourth principle requires revenues which are cyclically stable to be assigned to subnational government, as stable revenue flows are more important for the continuity of public good provision at a subnational level. The existing UK taxes which Westminster transferred to Stormont included death duties, motor vehicle duties and entertainment duty, which were all cyclically stable, fulfilling this principle. The fifth principle is that subnational governments should be assigned taxes with immobile tax bases. Under the 1920 Act, Stormont was granted immobile taxes such as land and property taxes, fulfilling this principle. Finally, the sixth principle is that benefit taxes, users' fees and charges are relevant to both levels of government, depending on who benefits from the service. As Stormont was responsible for charging any fees associated with the public services it provided, and was free to introduce any further taxes and fees, the 1920 Act fulfilled this principle.

Applying these six principles of tax assignment demonstrates the 1920 Act was broadly efficient from a first generation perspective. Westminster possessed power over the key national taxes which were unevenly distributed and more strongly related to aggregate demand, while Stormont was responsible for more immobile, inelastic revenues. Weaknesses did exist under the 1920 Act though. Stormont was responsible for setting the rate of contributions for workers and employers under unemployment insurance, could provide relief from income tax, and still retained the ability to introduce new taxes, albeit with the limitation that any new taxes would have to be different from any existing UK tax.

A further restriction on the efficiency of the 1920 Act was the lack of any provision for fiscal transfers, required to ensure equal fiscal pressure on citizens under Buchanan (1950), and account for spillover effects under Olson (1969). Their absence reflected Westminster's view that Northern Ireland should be financially self-sufficient

(Green, 1979, p.5). Yet the island of Ireland had been identified as having much lower taxable capacity than Britain when the 1920 Act was designed (Green, 1979, p.3). If taxes could not be raised to maintain the same level of public goods and services in Northern Ireland as Britain, fiscal transfers would be required to equalise fiscal pressure. Otherwise citizens in Northern Ireland would face a lower level of public goods and services, creating potential spillover effects for Britain, due to reallocation of labour and capital. Therefore, the failure of the 1920 Act to provide for fiscal transfers placed a potentially significant restriction on efficiency.

The efficiency of the assignment of expenditure powers to Stormont can be assessed from a first generation perspective, using five principles set out by Vo (2010). The first three principles relate to the boundaries of public goods and services: that public goods with a national boundary should be provided by national government (Bird, 2000, cited in Vo, 2010, p.665); that the geographic boundaries of local public goods must align with the boundaries of the subnational government (Vo, 2010, p.665-666); and that the boundary of benefits from local impure public goods and services must align with the boundaries of subnational government (Shah, 2004, cited in Vo, 2010, p.666). The 1920 Act fulfilled these three principles, as Westminster retained control of national public goods, such as defence, foreign trade and currency, while Northern Ireland was assigned expenditure powers relating to public goods for its own citizens, with the geographic separation created by the Irish Sea aiding this assignment.

The fourth principle requires transparent assignment of responsibility for public good provision, agreed upon by both national and subnational government (Vo, 2010, p.666). The 1920 Act fulfils this principle, as it clearly set out in law the areas of responsibility for both governments. Finally, the fifth principle requires that economies of scale and administrative capability should be considered when devolving power to subnational government (Vo, 2010, p.666). Here the 1920 Act is weaker, as some

areas of expenditure assigned to Stormont would have benefitted from economies of scale. For example, it would have been beneficial for Stormont to share in the insurance function of a much larger population for the purposes of health and unemployment insurance, rather than having to fund this through only local contributions.

From a first generation perspective, the 1920 Act was therefore broadly efficient, as it met the majority of conditions required for efficiency. However, weaknesses existed in the allocation of both revenue and expenditure powers. In particular, there was no provision for fiscal transfers, and a failure to account for economies of scale in assigning expenditure.

Applying second generation theory highlights further key weaknesses which existed within the institutional structure, which could limit efficiency. The comparative federalism framework of Weingast (2009, p.281) provides five conditions which must be met if fiscal decentralisation is to be efficient. The first condition simply identifies whether a decentralised system exists, which fiscal decentralisation to Stormont clearly meets between 1920 and 1972,[19] but the remaining four demonstrate areas of potential weakness within the 1920 Act.

The second condition is subnational autonomy, where the subnational government has the ability to adapt policy to reflect its individual circumstances (Weingast, 2009). Westminster appeared to give Stormont a high degree of autonomy, by assigning it the responsibility for the majority of public goods and services. However, this was restricted by the fiscal imbalance, where the majority of Stormont's revenue came from taxation controlled by Westminster.[20] This imbalance

[19] While existing literature disagrees over whether Northern Ireland devolution was a federal or devolved form of government, this hierarchy condition within the comparative federalism framework does not require this differentiation to be made. However, it is clear from the wording of the 1920 Act that Stormont was subordinate to Westminster.
[20] See Figure 1.A.2 Panel A in Appendix A.

limited Stormont's ability to alter the provision of public goods and services to reflect local demand. It also meant Stormont was heavily reliant on Westminster not reducing existing taxes, as this would significantly restrict the revenue available to Stormont. Furthermore, Westminster could block any legislation passed by Stormont through its veto. Thus Stormont faced potentially both financial and legislative barriers to full subnational autonomy, making efficiency reliant on Westminster's subsequent actions.

The third condition is the presence of a common market, provided by the national government, which allows the free movement of both factors of production and end products (Weingast, 2009). This is to prevent the subnational government protecting its economy from competition, which can lead to inefficiencies, including rent-seeking, corruption, and costly subnational market intervention. The 1920 Act was strong in ensuring a common market across the UK, as legislative and fiscal powers which were nationally bounded were retained by Westminster, such as customs and excise duties, and Stormont was prevented from legislating in these areas.

The fourth condition is the requirement for hard budget constraints, where the subnational government must bear the full financial consequences of its policy choices, without recourse to bailouts (Weingast, 2009). The efficiency of the 1920 Act was mixed in this respect, as it failed to meet the requirements set out by Oates (2005) to enforce a hard budget constraint. There was no restriction preventing Stormont from legislating to give itself the power to borrow money to fund expenditure, nor did the 1920 Act set out Stormont as ultimately responsible for this debt. Clear information on the cost of public expenditure was not provided to citizens, as the proceedings of the JEB were kept secret. Finally, the 1920 Act failed to set out in law a requirement for balanced budgets, limitations on borrowing, or rules in the event of bankruptcy.

This meant the only legislative brake on Stormont getting into financial difficulties was Westminster's veto.

The fifth and final condition is institutionalised authority, where political authority is allocated through institutions, and is not at the discretion of the national government (Weingast, 2009). The 1920 Act clearly set out the roles and responsibilities of both the national and subnational governments. Westminster could not legislate in Northern Ireland on powers which were transferred, nor could it dictate how Stormont spent its revenue. The role of the JEB in this would be pivotal. Despite the dynamics of the JEB changing as a result of the establishment of the Irish Free State, it remained the arbitrator over any financial disputes. This gave protection to Stormont from Westminster's discretion, while also ensuring Stormont followed the financial provisions of the 1920 Act.

While the 1920 Act was broadly efficient, it contained key weaknesses. Areas of inefficiency from a first generation perspective included the failure to provide for fiscal transfers on the revenue side, or account for economies of scale on the expenditure side. Together, these could lead to relatively greater fiscal pressure on citizens in Northern Ireland, harming efficiency. From a second generation perspective, the fiscal imbalance, lack of fiscal transfers, and Westminster veto, all limited Stormont's subnational autonomy. Combined with a lack of fiscal transfers, limited subnational autonomy would mean Stormont would be unable to address any relatively greater fiscal pressure on its citizens, harming efficiency. Meanwhile, Stormont faced no hard budget constraints, other than Westminster's veto. This could lead to Stormont pursuing inefficient expenditure, particularly if it borrowed to address fiscal pressure. Finally, Westminster's desire was to introduce a decentralised model where Northern Ireland was financially self-sufficient, but this would rely on the preservation of institutionalised authority, as both governments faced incentives which could limit the efficiency of fiscal decentralisation. Thus the efficiency of fiscal

decentralisation would be reliant upon the interactions between the two governments, and how they responded to the incentives they faced, mediated through the institutionalised authority of the 1920 Act.

5) Initial experience (1921-1925)

The first few years of devolution were a test of how sustainable the institutional structure of the 1920 Act would be, both politically and financially. This initial experience saw the principal-agent relationship develop between the two governments. Stormont experienced increasing financial pressure, and thus attempted to exploit a softening budget constraint, while Westminster refused to provide ongoing financial support, as it faced the problem of moral hazard. Westminster instead wanted to enforce *de jure* provisions of the unmodified 1920 Act. However, a sequence of key events, determined by the political and economic context of these first few years, created incentives for both governments, which led to the *de facto* institutional structure changing. These developments were key in defining the subsequent path of fiscal decentralisation during the remaining fifty years.

The principle that Stormont would be self-sufficient, with a real terms annual surplus and making an Imperial Contribution, was tested within the very first year of devolution. This first year coincided with an economic slump in the UK economy. Following the post-World War I boom of 1919 and 1920, the fortunes of Northern Ireland's staple industries reversed, and an economic depression set in, with high unemployment (Johnson, 1985a, p.187-188). This economic downturn put immediate pressure on Stormont's finances. The rise in UK unemployment of the early 1920s was particularly severe in Northern Ireland. Table 1.3 ranks the regions of the UK by their average rate of unemployment, including against Britain, between 1923 and 1925. Northern Ireland had the highest rate of unemployment, and by 1925, was more than twice the rate for Britain. This led to Stormont's expenditure on unemployment insurance rising rapidly, increasing by 85 per cent in real terms between 1923 and 1925.[21] Combined with national health insurance and old age pensions, Stormont's total expenditure on state insurance was much higher per person than Westminster's,

[21] Calculated from Ulster Year Book, 1926, p.94.

and by 1925, Stormont's expenditure was £5.47 per person in real terms, while Westminster's was only £1.47 per person.

Table 1.3: UK regions ranked by unemployment rate of insured population

		1923	1924	1925	Average
1.	Northern Ireland	16.4	15.5	22.8	18.2
2.	Scotland	13.8	13.3	14.7	13.9
3.	North-West	14.2	12.3	10.9	12.5
4.	North-East	11.5	10.4	14.6	12.2
5.	Wales	6.3	9.0	16.9	10.7
	Britain	*11.2*	*9.9*	*10.7*	*10.6*
6.	South-West	10.4	8.7	8.0	9.0
7.	Midlands	9.9	8.3	8.5	8.9
8.	South-East	9.2	7.1	5.5	7.3

Sources: Constructed from Mitchell (1988, p.125) for Northern Ireland and Britain.

Stormont's total expenditure rose rapidly during these initial years, increasing by 10 per cent in real terms between 1923 and 1925. The existing narrative portrays unemployment insurance as the primary driver of this increase. Yet Stormont's expenditure was increasing in areas beyond simply unemployment. Education saw a 19 per cent increase in real terms between 1923 and 1925,[22] almost as much as its total annual expenditure on unemployment insurance. Similarly, law and justice saw a 36 per cent increase in real terms between 1923 and 1925, largely due to increasing expenditure on the Royal Ulster Constabulary (RUC).[23] Increases also occurred in other more modest areas of expenditure, including the cost of Parliament, as well as Surveys, Harbours and Commercial Services. Agriculture experienced the largest increase of 64 per cent between 1923 and 1925, albeit only to £0.3 million in real terms.[24] Stormont's expenditure therefore increased across a broad range of public services, and was not simply the result of the rising cost of unemployment.

[22] £1.8 million in nominal terms, £8.3 million in real terms.
[23] £0.3 million in nominal terms, £3.8 million in real terms.
[24] £59,000 in nominal terms.

This increasing expenditure combined with falling revenue to place even greater financial pressure on Stormont. Between 1923 and 1925, Stormont's total revenue fell by 26 per cent in real terms.[25] This was not the result of Stormont cutting the rates of transferred taxes: transferred revenue actually increased by 19 per cent in real terms during this period. Instead, the fall was due to reserved tax revenue. This fell by 27 per cent in real terms between 1923 and 1925.[26] This was the result of Westminster reducing or abolishing a number of reserved taxes (Buckland, 1979, p.83). Reserved revenue accounted for over two-thirds of Stormont's total revenue. Therefore, even if Stormont's expenditure had remained unchanged, it faced a real terms deficit of £12 million as a result of falling revenue, rather than the £8.5 million real terms surplus envisaged by the 1920 Act.

Despite this financial pressure, and the difficulty in balancing its budget, Stormont continued to commit itself to increased transferred public expenditure. In addition to the increases in expenditure on education, police, and agriculture, Stormont announced new policies with significant financial commitments. In 1922, Stormont announced it would follow a step-by-step policy for social benefits, matching the rates of benefit set by Westminster in Britain, including unemployment (Lawrence, 1965, p.50). In December 1922, Stormont also passed a Loans Guarantee Act, where it took on the financial risk of guaranteeing loans for capital projects undertaken by private firms, replicating a scheme introduced by Westminster in Britain (Buckland, 1979, p.116).

The existing narrative portrays these policies as the result of political decisions, aimed at maintaining support for the government amongst the working class (Buckland, 1979; Green, 1979; Bew *et al*., 2002). New financial commitments were the result of 'populists' overcoming 'anti-populists' within the Stormont

[25] 1923 was the first full year of financial accounts for Stormont.
[26] Fall of £20.5 million in real terms.

government, with the strength of personalities determining their introduction (Bew *et al*., 2002). That these policies were motivated by politics, and Stormont's objective of maximising Unionist support, is clear. In a letter to the UK Treasury, Stormont justified paying the same unemployment benefits as Westminster, as these were "benefits to which the workers have been accustomed and which are being paid in Great Britain".[27] Stormont obviously had the political motivation to introduce these policies, but given Stormont was already struggling to balance its budget, this does not explain why Stormont was able to introduce them.

The answer lies in a sequence of four key events, which weakened the institutionalised authority of the 1920 Act, and softened Stormont's budget constraint. These events created the expectation that the 1920 Act was open to modification, and that Stormont could expect to receive ongoing fiscal transfers from Westminster. This led Stormont to make unsustainable financial commitments, in the expectation that it would be bailed out by Westminster.

The first key event was Westminster providing one-off fiscal transfers to Stormont. As early as November 1921, Stormont made the first of "repeated begging expeditions" to Westminster, to seek revisions to the financial settlement under the 1920 Act (Buckland, 1979, p.86). This immediately paid off, with Westminster agreeing to make a one-off grant in December 1921, totalling £1.6 million in real terms,[28] to remove the initial deficit on the Unemployment Fund, inherited from Northern Ireland's share of the prior UK deficit.[29] This one-off grant was followed by a series of further grants. The Craig-Collins peace pact, between Northern Ireland and the Irish Free State, was signed in March 1922, and in return Stormont received financial benefits from Westminster (Buckland, 1979, p.93). This saw Westminster

[27] PRONI: CAB/9C/1/2 Letter from Pollock to Graham, 10th June 1924.
[28] £477,000 in nominal terms.
[29] PRONI: CAB/9C/1/2 Attached notes labelled 'Part B: Unemployment fund deficit", Letter from Andrews to Craig, 6th November 1924.

provide grants totalling £16.7 million in 1923, £10.6 million in 1924, and £8.3 million in 1925 in real terms.[30] This financial support was justified as covering the transitory costs of establishing the new government in Northern Ireland.[31] The effect of this additional revenue was significant: it boosted Stormont's revenue by 26 per cent, 19 per cent, and 16 per cent in 1923, 1924 and 1925 respectively.

This first event was a significant moment in the financial relationship between Stormont and Westminster. This financial assistance was provided outside the provisions of the 1920 Act, and contravened one of its fundamental principles, that Stormont was expected to be financially self-sufficient. While the need for this additional revenue could be justified by the costs of partition, it set a precedent that Westminster was willing to ignore the *de jure* provisions of the 1920 Act on financial matters. This began the weakening of institutionalised authority and the softening of Stormont's budget constraint under the 1920 Act.

Stormont's budget softened further with the second key event, when it acquired the statutory power to borrow money by issuing public debt. The 1920 Act did not explicitly mention any provision for the creation of subnational public debt. However, the 1920 Act created the expectation that the subnational government would operate along the same financial lines as Westminster. The legislative procedure of passing bills at Stormont was modelled on Westminster (Quekett, 1928, p.25), and the operation of the devolved exchequer was based on the replication of UK laws and governance (Quekett, 1928, p.45). Thus in February 1922, within a year of its establishment, Stormont informed Westminster that it was beginning the process

[30] In nominal terms these amounted to £3.6 million, £2.3 million, and £1.8 million in 1923, 1924, and 1925 respectively. See Ulster Year Book (1926, p.65).
[31] The grants covered four areas: the costs of malicious injuries associated with partition, the relief of unemployment associated with violence surrounding partition; funding the Special Constabulary; and additional 'general' funding. See Ulster Year Book (1926, p.65).

of passing legislation, to give itself the necessary statutory powers to borrow money for the funding of specific public services.[32]

Stormont's justification to Westminster was twofold. Firstly, it would allow Stormont to make loans to local authorities, replicating a similar power held by Westminster in Britain.[33] Under the 1920 Act, proceeds raised in Northern Ireland under National Savings Certificates could no longer be provided as loans from the UK Local Loans Fund to local authorities in Northern Ireland. The Treasury at Westminster was unwilling to alter this situation, and so Stormont decided it would issue its own securities, called Ulster Savings Certificates, to make loans to local authorities in Northern Ireland.

This was initially the only reason given by Stormont,[34] but it quickly became apparent there was a second. As Stormont was not receiving enough revenue to meet expenditure on transferred services, it would need to borrow to make advances to the Unemployment Fund.[35] Stormont blamed this situation on the failure of the promised surplus to materialise under the 1920 Act. It therefore requested that Westminster guarantee the principal and interest of a loan up to a total value of £3.5 million in nominal terms, to "afford a long breathing space until the financial outlook is more clear".[36] The guarantee would cover three purposes: loans to local authorities for public works, advances to Stormont's Unemployment Fund, and to cover general government purposes.[37]

[32] TNA: T 160/110, Letter from Clark to the Treasury, 28th February 1922. See also Ulster Year Book (1926, p.73).
[33] TNA: T 160/110, Northern Ireland note on the Issue of Guaranteed Loans, 1922, p.2.
[34] TNA: T 160/110, Letter from Blackett to The Secretary, Ministry of Finance, 20th February 1922.
[35] TNA: T 160/110, Northern Ireland note on the Issue of Guaranteed Loans, 1922, p.1.
[36] TNA: T 160/110, Northern Ireland note on the Issue of Guaranteed Loans, 1922, p.3.
[37] TNA: T 160/110, Cabinet Memorandum by the Financial Secretary to the Treasury, 23rd May 1922.

Westminster agreed to provide the guarantee,[38] as it felt it had "a considerable measure of responsibility" for the financial liabilities Stormont faced.[39] However, it imposed conditions on this guarantee, demonstrating it was aware of the potential moral hazard associated with providing financial support. It reviewed and approved the contents of Stormont's proposed bill prior to it being introduced at Stormont,[40] with the term and rate of interest of any securities issued to also be approved by Westminster in advance.[41] Westminster ensured that if its guarantee were called upon, this would become the first charge on Stormont's subsequent revenue after the Imperial Contribution.[42] Furthermore, the initial guarantee was limited to £500,000 in nominal terms, with the total guarantee of the £3.5 million to be provided over subsequent issues.[43]

While these new borrowing powers gave Stormont a new source of revenue, the expectations of two governments diverged over whether further support would be necessary. In its original case, Stormont highlighted that this borrowing might become a permanent feature of funding subnational expenditure.[44] However, Westminster viewed this as a temporary arrangement, as a result of the immediate conditions following World War I, and that, "when the present temporary difficulties have disappeared, the necessity will cease".[45] The conditions Westminster imposed did not limit Stormont's subnational autonomy, as Stormont was able to borrow enough to cover its immediate financial pressures. They instead demonstrate that Westminster

[38] TNA: T 160/110, Cabinet Memorandum by the Financial Secretary to the Treasury, 23rd May 1922.
[39] TNA: T 160/110, Notes on Government of Northern Ireland (Loan Guarantee) Bill, 25th May 1922.
[40] TNA: T 160/110, Letter from Niemeyer to The Secretary, Northern Ireland Ministry of Finance, 22nd April 1922.
[41] TNA: T 160/110, Notes to Sir John Baird, Government of Northern Ireland (Loan Guarantee) Bill, 1922, p.3.
[42] TNA: T 160/110 Letter from Blackett to The Secretary, Northern Ireland Ministry of Finance, 24th July 1922.
[43] TNA: T 160/110, Letter from Niemeyer to The Secretary, Northern Ireland Ministry of Finance, 18th March 1922.
[44] TNA: T 160/110, Northern Ireland note on the Issue of Guaranteed Loans, 1922, p.1.
[45] TNA: T 160/110, Notes to Sir John Baird, Government of Northern Ireland (Loan Guarantee) Bill, 1922, p.2.

was beginning to take a more detailed interest in Stormont's financial affairs, as it looked to limit the moral hazard and information asymmetries now emerging.

The third key event was Westminster losing its *de facto* right to veto legislation introduced by Stormont, even though the *de jure* right remained. The financial significance of this incident is overlooked by those who examine it, such as Lawrence (1965) and Buckland (1979). This veto limited subnational autonomy, but did provide Westminster with a means to enforce a hard budget constraint. This relied on Westminster's credible commitment to using its veto; but on its first test, Westminster failed to do so.

The Local Government Bill of 1922 saw Stormont seek to alter the 1920 Act, by abolishing proportional representation for local council elections.[46] Initially, Westminster exercised its veto, and refused Royal assent for the Bill.[47] This was after receiving objections from the government of the Irish Free State,[48] who felt it would prejudice the decision of the Boundary Commission.[49] But later the same year, Westminster acquiesced to pressure from Stormont, and the Bill received Royal assent.[50]

By allowing a Bill to pass which changed an important aspect of the 1920 Act, Westminster had accepted that it would not exercise its veto on transferred matters. Westminster's reasoning for withdrawing its veto, was that "to veto a measure clearly within the powers delegated to the Parliament of Northern Ireland would form a

[46] PRONI: CAB/9/B/40/1 Local Government Act (Northern Ireland) 1922, Report on Local Government Bill (Northern Ireland).
[47] PRONI: CAB/9/B/40/1 Local Government Act (Northern Ireland) 1922, Letter to Prime Minister of Northern Ireland from Lord Lieutenant of Ireland, 8th July 1922.
[48] CAB/9/B/40/1 Local Government Act (Northern Ireland) 1922, Message from Mr Churchill to Sir James Craig, 31st August 1922, and Letter to Churchill from Craig, 1st September 1922.
[49] PRONI: CAB/9/B/40/1 Telegram from Curtis to Cope containing message from Churchill to Cosgrave 11th September 1922.
[50] CAB/9/B/40/1 Local Government Act (Northern Ireland) 1922, Official notification of Royal assent, 11th September 1922.

dangerous precedent".[51] This had been a very public failure to credibly commit to exercising its right of veto, and set a precedent for future interaction between the two governments, which was still being referred to during the late 1960s.[52] Westminster never again exercised its veto during devolution (Lawrence, 1965, p.28).

Being unable to credibly commit to vetoing Stormont's legislation, Westminster lost its one means of enforcing a hard budget constraint under the 1920 Act. The sequencing of this event was important. If it had occurred prior to Westminster agreeing to provide one-off financial support, and guaranteeing Stormont's debt, the principle that Stormont would be financially self-sufficient would have remained intact. In that scenario, Westminster could still have been able to credibly commit to not providing any financial support. As it had instead lost its veto after Westminster had admitted the principle of providing fiscal transfers outside the provisions of the 1920 Act, it had lost the means it required to enforce a hard budget constraint. Westminster could no longer credibly commit to refusing further financial claims from Stormont. By 1922, Stormont had a strong hand to play. If Westminster blocked Royal assent of the Local Government Bill, Stormont could threaten to call an election, which it would be expected to win, leaving Westminster to either acquiesce, or govern Northern Ireland itself, neither of which it wanted to do (Buckland, 1979, p.273). The Local Government Bill of 1922 therefore had important financial ramifications. It softened Stormont's budget constraint, and weakened the institutionalised authority of the 1920 Act, although the removal of Westminster's veto did now provide Stormont with greater subnational autonomy.

The fourth, and final, key event was the referral of Stormont's financial difficulties to a body other than the Joint Exchequer Board (JEB). As Stormont was struggling to fund its expenditure, it wanted the calculation of the Imperial Contribution

[51] PRONI: CAB/9/B/40/1 Telegram from Curtis to Cope containing message from Churchill to Cosgrave 11th September 1922.
[52] TNA: T 224/1606 Background notes, Northern Ireland Debate, 25th October 1967, p.2.

to be revised. Under the 1920 Act, the Imperial Contribution was the first charge on Stormont's revenue, fixed by the 1920 Act at £7.9 million in nominal terms for both 1923 and 1924 (Lawrence, 1965, p.43).[53] Westminster agreed to refer the matter, not to the JEB, but to a Special Arbitration Committee (the Colwyn Committee) in January 1923. The Colwyn Committee's final determination would not be published until 1925, but the first interim report of the Committee was completed in September 1923. This reduced the size of the Imperial Contribution for 1923 and 1924, and recommended a grant to Stormont of £400,000 to cover the cost of buildings associated with public services,[54] equivalent to those which had passed into the ownership of the Irish Free State.[55] This further softened Stormont's budget constraint, as it received more fiscal transfers outside of the provisions of the 1920 Act.

By bypassing the JEB, Westminster further weakened the institutionalised authority of the 1920 Act. Without Southern Ireland, now the Irish Free State, the JEB could not work as originally envisaged, but it was still the *de jure* body to arbitrate over financial disputes between Stormont and Westminster. By appointing a separate committee to examine Stormont's claims, Westminster was able to exert increasing discretion over Stormont's financial matters. The ongoing investigations of the Colwyn Committee meant Stormont decided not to approach the JEB with any further claims, until the Colwyn Committee had reported.[56] The credibility of the JEB had therefore been undermined within the very first years of devolution, and raised the prospect of future alterations to Stormont's financial position, albeit at Westminster's discretion. While this could potentially mean greater financial resources for Stormont, it also left open the possibility of Westminster curtailing Stormont's subnational autonomy.

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[53] £36 million in real terms for both 1923 and 1924.
[54] £1.8 million in real terms (Ulster Year Book, 1926, p.72).
[55] *First Report of the Northern Ireland Special Arbitration Committee*, 1924, UK Cmd 2072, and Ulster Year Book, 1926, p.54.
[56] PRONI: CAB/9C/1/2 Letter from Pollock, Northern Ireland Minister of Finance, to Spender, First Secretary to the Cabinet and Head of the Northern Ireland Civil Service.

Evidence shows the interim report of the Colwyn Committee did shape Stormont's expectations of further financial revisions to the 1920 Act. In a document produced by Stormont in November 1924,[57] it outlined three potential options to persuade Westminster to share the financial burden of unemployment in Northern Ireland. The first option would see a full amalgamation of the Northern Ireland fund with Britain's, but would "raise questions of control of our policy and administration". The second and third options were based on the existing precedents. Either the cost of the Unemployment Fund should be calculated before the Imperial Contribution, based on the precedent set by the Colwyn Committee's interim report; or Westminster should make ongoing payments to bring down the fund's deficit, based on the precedent of previous one-off grants from Westminster. This confirms that Stormont's expectations of further financial support were shaped by preceding events. It also highlights the role of asymmetric information in the developing principle-agent relationship between Stormont and Westminster, as it was made clear that none of this information should be shared with Westminster, as it would reveal Stormont's bargaining position.[58]

The softening of Stormont's budget constraint saw it get into a financially unsustainable position. As part of its step-by-step policy, Stormont had publicly committed itself to matching Westminster's rate of unemployment benefit, and it was seen as a political imperative to be maintained. With unemployment higher in Northern Ireland than any other UK region, Stormont immediately used its new power to issue public debt to borrow to fund unemployment, shown in Table 1.4.[59] Stormont's total

[57] PRONI: CAB/9C/1/2 Part B: Unemployment fund deficit, Letter from Andrews to Craig, 6th November 1924.
[58] PRONI: CAB/9C/1/2 Letter from Andrews to Craig, 6th November 1924.
[59] Stormont's total public borrowings outstanding included not just public debt, but also grants from revenue, borrowing from capital funds, and borrowings from other sources. These could be used to fund either capital expenditure, for example on housing and barracks reconstruction, or to provide loans and advances to the various funds which Stormont administered. These funds included for housing, public health, local loans, agricultural loans, and unemployment.

public debt more than tripled in real terms between 1923 and 1925, from £3.2 million in 1923, to £11.7 million in 1925. The Unemployment Fund was the main beneficiary, as after initially being funded through a grant from revenue of £1.4 million in 1922, it received the majority of funds raised through public debt.

Table 1.4: Stormont's borrowing

	1922	1923	1924	1925
	£ million (1972 prices)			
Public debt	0	3.2	5.4	11.7
Total public borrowings outstanding	1.4	6.1	9.5	16.3
Unemployment Fund advances	1.4	5.9	8.0	12.3

Source: Constructed using Ulster Year Book (1926, p.74-75).
Notes: Years are for financial years. Converted into 1972 prices using ONS (2004, 2020).

Table 1.5: Northern Ireland Unemployment Fund

	1922	1923	1924	1925
	£ million (1972 prices)			
Income				
Contributions	1,297,334	3,040,664	3,350,538	3,332,601
Other income	464,404	1,092,258	1,205,822	1,236,356
Total income	*1,761,738*	*4,132,922*	*4,556,361*	*4,568,958*
Expenditure				
Benefits	3,714,518	6,819,759	6,073,311	9,699,020
Interest on borrowings	5,095	131,103	262,523	424,151
Cost of administration	198,376	501,395	539,869	512,795
Apportioned share of UK Fund's deficit	689,045	0	0	0
Total expenditure	*4,607,034*	*7,452,257*	*6,875,702*	*10,635,965*
Total deficit	-2,845,296	-3,319,335	-2,319,342	-6,067,007
Total borrowing	**2,377,775**	**3,932,118**	**2,101,032**	**5,915,452**

Sources: Ulster Year Book, 1926, p.76-77.
Notes: Years are for calendar years. Converted into 1972 prices using ONS (2004, 2020).

The need to borrow was due to the inability of contributions to keep pace with the rising payments out of the Fund, shown in Table 1.5. This inability was the result of a fundamental flaw in the mechanics of the national fund being applied at a regional

level. Contributions in Britain were designed to balance outgoings of the Unemployment Fund at a much lower level of unemployment than Northern Ireland was experiencing. In nominal terms, where contributions in Britain kept the fund almost balanced in 1925, with around £1.05 paid out for every £1.00 in contributions, in Northern Ireland around £2.00 was paid out for every £1.00 paid in.[60] By 1925, contributions only covered one-third of the Northern Ireland Fund's outgoings, and Stormont borrowed £5.9 million in real terms, equivalent to around one-tenth of its total revenue that year. The cumulative debt on the Unemployment Fund by this stage was £14.3 million in real terms, equivalent to around one-quarter of Stormont's total revenue that year.

The financial situation meant that by 1924 Stormont was making further appeals for Westminster to share part of the financial burden of the devolved Unemployment Fund.[61] This reflected Stormont's recognition that its financial position was unsustainable. It privately calculated that its Unemployment Fund would never balance if unemployment was higher than 5 per cent, at a time when unemployment was currently at 17 per cent.[62] In a letter to Westminster, Stormont described how it had been "compelled to borrow to an abnormal extent" in order to keep paying unemployment benefits at the same rate as Britain, and that the associated interest charges would prevent the fund from repaying the deficit, even if unemployment fell.[63] Westminster's response was to reject any calls for further financial support. In a letter to Stormont in January 1924, Westminster made it clear that taking on any of the financial burden of unemployment in Northern Ireland "would involve a fundamental amendment of the Government of Ireland Act, 1920", and that Stormont already

[60] PRONI: CAB/9C/1/2 Letter from Andrews to Craig, 18th February 1925.
[61] TNA: HO 45/13743 Letter from Andrews to Home Office, 15th April, 1924.
[62] PRONI: CAB/9C/1/2 Attached notes labelled 'Part B: Unemployment fund deficit", Letter from Andrews to Craig, 6th November 1924.
[63] PRONI: CAB/9C/1/2 Letter from Pollock to Graham, 10th June 1924.

possessed the power under the 1920 Act to resolve the situation, in other words by cutting unemployment benefit.[64]

While Westminster's public position was an objection to modifying the 1920 Act, its private concerns also reflected the problem of moral hazard posed by providing further financial support. This is evident in a memorandum by Westminster's Minister for Labour. The UK Minister for Labour made it clear that giving direct financial support "may have far reaching consequences", with complete amalgamation of the two funds being politically out of the question, as it would reopen the 1920 Act.[65] It was also financially out of the question, as Westminster's unemployment fund was already in debt, meaning taking on financial responsibility for Stormont's fund would shift the financial burden from citizens in Northern Ireland to those in Britain, and "deprive Northern Ireland of the incentive to economy and in the circumstances of the case could not be coupled with any effective system of control".[66] Providing grants to Stormont would similarly see Westminster have no control over how the money was spent, and would require "a complicated and elaborate system of checks to be introduced under which this country supervised effectively the administration in Northern Ireland".[67] If unemployment proved permanently higher in Northern Ireland, "requests for further assistance would pretty certainly be made at a later date".[68]

This concern over moral hazard was shared by other Ministers within Westminster. In a memorandum to cabinet in February 1925, the Home Secretary stated that "any form of subsidy is incompatible with the scheme of self-government for Northern Ireland", as "delegation of power is accompanied by corresponding

[64] TNA: HO 45/13743 Letter from Chamberlain to Craig, 3rd January 1924.
[65] TNA: HO 45/13743 Memorandum by Ministry of Labour, 9th December 1924, p.3.
[66] TNA: HO 45/13743 Memorandum by Ministry of Labour, 9th December 1924, p.2-3.
[67] TNA: HO 45/13743 Memorandum by Ministry of Labour, 9th December 1924, p.4.
[68] TNA: HO 45/13743 Memorandum by Ministry of Labour, 9th December 1924, p.5.

delegation of financial responsibility".[69] Westminster would not be able to exercise effective control of grants made to Stormont, while Stormont would have no incentive for "vigilance and economy in administration".[70] Westminster would also be admitting liability for future claims in other social services, and Stormont would "become increasingly dependent on the Exchequer of Great Britain for financing services over which the Imperial Parliament and the Ministers responsible to that Parliament exercise no control".[71] Instead, given the separate systems and separate governments, it should be expected that the standard of social services should be different in Northern Ireland from Britain.[72]

These memorandums demonstrate Westminster's concern over the moral hazard of providing further financial support to Stormont without control. They also demonstrate a desire to enforce a hard budget constraint on Stormont's expenditure. However, the events of the previous years had removed Westminster's ability to credibly commit to this. The one-off grants, provision of borrowing powers, loss of Westminster's legislative veto, and side-lining of the JEB, had weakened the institutionalised authority of the 1920 Act, and created the expectation of further fiscal transfers. This allowed Stormont to pursue policies which would necessitate further financial assistance, despite Westminster's protestations.

Despite the weakening of institutionalised authority and a softening of Stormont's budget constraint, the initial years did see an improvement in the efficiency of fiscal decentralisation, specifically with respect to fiscal pressure. This was the result of the increased fiscal transfers made by Westminster to Stormont, in the form of one-off grants, and the temporary reduction in the Imperial Contribution. The one-off grants accounted for a large proportion of Stormont's total revenue: 21 per cent in

[69] TNA: HO 45/13743 Memorandum by Home Secretary, 4th February 1925, p.1.
[70] TNA: HO 45/13743 Memorandum by Home Secretary, 4th February 1925, p.2.
[71] TNA: HO 45/13743 Memorandum by Home Secretary, 4th February 1925, p.3.
[72] TNA: HO 45/13743 Memorandum by Home Secretary, 4th February 1925, p.3.

1923, 16 per cent in 1924, and 14 per cent in 1925. Meanwhile, the reduction in the Imperial Contribution increased Stormont's revenue by 7 per cent in 1923, and 23.7 per cent in 1924. It was only thanks to this extra revenue that Stormont's expenditure per person on transferred services was able to match Westminster's equivalent expenditure in 1923 and 1924.[73]

Yet Northern Ireland remained a relatively poor region within the UK, with relatively higher demands on its expenditure. Stormont was still expected to make a sizeable fiscal transfer to Westminster each year through the Imperial Contribution. Although this had been reduced, it was still a significant fiscal transfer back to Westminster, accounting for 25 per cent of Stormont's total expenditure by 1925. This was money which could not be spent on local public services. Stormont had warned of the potential issues which might arise from the current financial relationship. This included the issue of equal citizens facing equal fiscal pressure, the beneficial insurance function of a national unemployment fund, and the spillover effects that might emerge as a result of greater fiscal pressure in Northern Ireland, including the movement of workers from Northern Ireland to Britain.[74]

It is notable that despite the great financial pressure Stormont was under, there was very little discussion by either government of addressing this through Stormont increasing transferred taxation. Why did Stormont not make greater use of its tax powers to address its funding gap? The answer is twofold. Firstly, the large fiscal imbalance present in the 1920 Act saw transferred taxation raise very little revenue, meaning any increase in transferred tax rates would have little effect. In 1923, transferred revenue accounted for only 11 per cent of total revenue, and even after reserved revenue fell substantially, transferred revenue still only accounted for around 20 per cent during the remainder of the interwar period.[75] Therefore, even with

[73] See Figure 1.3 in Section 6, and Figure1.B.6 in Appendix B.
[74] PRONI: CAB/9/C/1/1 Letter from Andrews to Shaw, 15th April 1924.
[75] See discussion of Figure 1.A.2 in Appendix A.

a 19 per cent increase in total transferred revenue between 1923 and 1925, Stormont's overall revenue still fell by 26 per cent, due to total reserved revenue falling by 27 per cent. The scale of the fiscal imbalance meant it would be impossible for increases in transferred taxes to compensate for decreases in reserved revenue, limiting Stormont's subnational autonomy.

Secondly, while Stormont had the *de jure* power to increase transferred taxes, or indeed introduce a new tax if it didn't conflict with a reserved tax, it was *de facto* not politically possible. This was due to the two constituencies of voters Stormont had to keep satisfied, in order to fulfil its objective of maximising Unionist political support. While the Unionist Party possessed a large majority at Stormont, its policy decisions were shaped by the need to maintain support for the government amongst the working class (Buckland, 1979; Green, 1979; Bew *et al*., 2002). Any increases in taxes would be politically unpopular, and run counter to the Unionist argument that citizens in Northern Ireland paid the same taxation as those in Britain, and so should receive the same benefits. The Unionist Party's strong, overlapping networks with business, also meant there would be strong opposition to any increase in taxation on businesses, particularly at a time when firms were seeking increased financial support from government, such as under the Loans Guarantee Acts from 1922 onwards.[76]

The opposition Stormont would have faced if it had tried to increase transferred taxation, is demonstrated by the one occasion when it did try and raise greater transferred revenue. In 1934, following pressure from Westminster, Stormont introduced a levy on local authorities, to increase their contributions to education expenditure (Buckland, 1979, p.100). However, it met with strong opposition, both from within the Unionist Party, and from local authorities (Buckland, 1979, p.100-101). This culminated in a legal challenge by the Belfast Corporation, that the education

[76] See Section 4 of Chapter 2 for a more detailed discussion of the strength of Stormont's links with business; and Section 5 of Chapter 2 for further discussion of the financial support businesses sought from Stormont.

levy was not allowable under the 1920 Act, as it was materially the same as income tax, but this challenge was lost (Buckland, 1979, p.101). Ultimately, the education levy raised little additional revenue, and lobbying from local authorities saw its effect diminished, with the Londonderry Corporation receiving unemployment relief grants as financial compensation to offset the cost of the levy (Buckland, 1979, p.101-102). Thus, the little revenue generated by any increase in transferred taxation, and the political opposition it would generate, meant it was rational for Stormont to keep transferred taxation unchanged. Instead it made sense to focus on gaining greater fiscal transfers from Westminster, given the sequence of events which had seen Stormont's budget constraint soften as early as 1921.

Given the sequence of events which had occurred by 1925, it was unclear whether the overall efficiency of fiscal decentralisation to Stormont had substantively changed. Within Weingast's (2009) comparative federalism framework, there had been a weakening of institutionalised authority, with the side-lining of the JEB, and Stormont's budget constraint had softened, with the provision of one-off financial support outside the provisions of the 1920 Act. However, Stormont had achieved greater subnational autonomy, through Westminster losing its veto, and Stormont gaining the power to issue public debt. The final common market condition remained unchanged. The clear consequence from the sequence of events was that Stormont's financial position was unsustainable without further financial support from Westminster. If Westminster were to provide ongoing financial support, it would have to find a means of managing the moral hazard problem it faced, otherwise Stormont would face a softening budget constraint.

6) Transition to ongoing support (1925-1938)

The whole of the interwar period has been characterised as a series of *"ad hoc* arrangements" (Buckland, 1979, p.93). This section instead argues that it was the publication of the Final Report of the Colwyn Committee (Final Colwyn Report) in March 1925, which saw a fundamental shift in the financial relationship between Stormont and Westminster, with a transition from one-off payments to ongoing financial support. While Westminster wanted to maintain the *de jure* position of the 1920 Act, this had proven to be financially unsustainable. The Final Colwyn Report irrevocably changed the *de facto* institutional structure, altering the incentives faced by both governments, even though the *de jure* position of the 1920 Act remained. This triggered a series of financial agreements between the two governments, with Westminster providing ongoing financial support to Stormont for specific public services, but at its discretion. This discretion reflected the moral hazard problem Westminster increasingly faced as it provided greater financial support. While this greater financial support had benefits for efficiency, by partially reducing inequalities in fiscal pressure, the changes to institutional structure further weakened key conditions of the comparative federalism framework. This led to inefficient allocation of subnational resources, which restricted the efficiency of fiscal decentralisation during the remainder of the interwar period.

The Final Colwyn Report recommended the Imperial Contribution should no longer be the first charge on Stormont's revenue, and should instead be the surplus of revenue after necessary expenditure.[77] Conditions were imposed, with necessary expenditure defined as not including services that did not exist in Britain, or were at a higher standard in Northern Ireland. Per capita expenditure was only allowed to increase at the same rate as in Britain, while necessary expenditure would take into

[77] *Final Report of the Northern Ireland Special Arbitration Committee*, 1925, UK Cmd 2389.

account the expectation that social standards might be lower in Northern Ireland than Britain.

The intention was to relieve the financial pressure on Stormont, by allowing it to retain more revenue, but without altering the *de jure* position of the 1920 Act. Westminster did not want to alter the 1920 Act, as it "would raise difficult questions as to the constitutional relationships between Great Britain, Northern Ireland and the Irish Free State", potentially undermining the Anglo Irish Treaty of 1922.[78] The re-transfer of any services back to Westminster was ruled out, as it "would be an admission that the scheme of devolution provided for in the Act is unworkable".[79] Westminster therefore wanted to maintain the façade of the 1920 Act, and was willing to alter the *de facto* financial provisions to ensure the continuation of subnational government. This allowed Westminster to provide an ongoing, but not immediately obvious, fiscal transfer to Stormont, rather than the previous one-off support.

The commitment to ongoing fiscal transfers improved efficiency, as otherwise fiscal pressure would remain permanently higher in Northern Ireland than Britain. However, their benefit was restricted by the conditions limiting what could be defined as 'necessary expenditure'. This restricted Stormont's subnational autonomy, as to receive the maximum fiscal transfer, it had to replicate Westminster's provision of public services as closely as possible. Furthermore, per capita expenditure in Northern Ireland could not rise more quickly than in Britain, which prevented any possibility of catch-up in public services.

The reason for Westminster imposing these conditions was the moral hazard problem it faced. Westminster recognised that without any conditions attached, Stormont could potentially increase its expenditure until it reduced its surplus to zero,

[78] TNA HO 45/13743 Report by Sub-Committee on Amalgamation of Social Services, 15th July 1925, p.5.
[79] TNA: HO 45/13743 Letter from Anderson to Wilson, 17th December 1924.

pay no Imperial Contribution, and return to Westminster to ask for further support. Westminster was right to be cautious. Discussing their approach to further financial negotiations with Westminster, the Northern Ireland Prime Minister made it clear that "we should try and get at least one or two points put right with each succeeding Government that comes in".[80] Westminster was aware of the risk of further financial demands, and therefore wanted to impose a hard budget constraint by imposing conditions on its support.

This new hard budget constraint relied on Westminster's ability to credibly commit to its enforcement, but this had been irrevocably eroded by the Final Colwyn Report. By side-lining the JEB, Westminster had permanently weakened the institutionalised authority of the 1920 Act. Westminster had instead demonstrated it was willing to revise its financial relations with Stormont, and accept liability for claims for further financial support. By demonstrating the *de jure* provisions of the 1920 Act could be substituted with alternative *de facto* arrangements, it permanently weakened institutionalised authority. Westminster's willingness to operate outside of the 1920 Act reinforced the expectation, created by the previous one-off support, that Stormont would receive further financial assistance. Even by 1933, Stormont continued to see the Colwyn Report as setting the precedent for further adjustments to the financial relationship.[81] Stormont's budget constraint had therefore softened irrevocably.

Stormont's expectation of further bailouts was proven to be correct. In a series of agreements, Westminster took on an increasing share of the cost of unemployment in Northern Ireland. Stormont's accumulation of debt had become unsustainable in its attempts to fund unemployment benefits. Stormont made it clear to Westminster that even if unemployment fell, the cost of interest on its borrowing was too high to keep

[80] PRONI: CAB/9/C/1/1 Letter from Craig to Andrews, 23rd May 1924.
[81] PRONI: MIC559/1, Minutes of discussions between Andrews, Craigavon, and Pollock, 15th December 1933.

the fund afloat.[82] By February 1925, Stormont was beginning the Parliamentary process to authorise an extension of borrowing powers to keep the Unemployment Fund afloat, due to an expected £2.75 million deficit by the end of the financial year.[83]

Westminster again bypassed the JEB, continuing the precedent set by the Colwyn Committee, and referred Stormont's case to a cabinet committee, further weakening institutionalised authority.[84] This concluded with the Unemployment Insurance Agreement of 1926, which saw Westminster agree to partially fund unemployment benefits in Northern Ireland, but with conditions attached. In return for financial support, Stormont agreed to make an 'equalisation payment' into its Unemployment Fund each year out of current revenue, equal to the payment made by Westminster into its own Fund.[85] In return, Westminster would cover 75 per cent of the remaining deficit or 'excess', on Stormont's Fund. Westminster could withdraw from the agreement if its payments exceeded £1 million in nominal terms, while Stormont promised to exactly follow any regulations adopted by Westminster in relation to its Unemployment Fund, and would welcome "the fullest possible investigation" into its Fund's administration.[86] The scheme would apply for five years, and Stormont would remain responsible for the debt accumulated prior to the agreement. The consequence was Stormont's expenditure on state insurance immediately increased in real terms by 251 per cent between 1925 and 1926, from £1.9 million to £6.6 million, as it began making the necessary equalisation payments.[87]

These conditions reflected Westminster's concerns over the moral hazard of fully amalgamating the funds, as "the effect would be to make the British Government

[82] PRONI: CAB/9/c/1/2 Letter from Pollock to Graham 10th June 1924.
[83] £12.7 million in real terms. See PRONI: CAB/9/C/1/2 Unemployment Insurance Fund, Cabinet Conclusions, 25th February 1925.
[84] PRONI: CAB/9/C/1/2 Unemployment Insurance Fund, Draft letter from Craig to Churchill, no date.
[85] TNA HO 45/13743 Memorandum on Financial Resolution, 12th February 1926; and TNA HO 45/13743 Committee on the Northern Ireland Unemployment Fund, 7th August 1925.
[86] TNA HO 45/13743 Letter from Pollock to Churchill, 6th February 1926.
[87] £0.4 million and £1.4 million in nominal terms for 1925 and 1926 respectively.

and Parliament ultimately responsible for expenditure over which they exercised no control".[88] Thus, Westminster focused on attaching conditions which limited its liability, and ensured Stormont faced part of the cost of higher unemployment, but with the *de jure* position of the 1920 Act left unaltered. However, attaching conditions restricted Stormont's subnational autonomy. Citizens in Northern Ireland also still faced greater fiscal pressure, as Stormont still had to meet 25 per cent of the cost of higher unemployment.

The agreement also had the potential to induce satisficing behaviour from Stormont in the pursuit of lowering unemployment.[89] As the agreement was reciprocal, Stormont could be called upon to fund Westminster's deficit, if unemployment was higher in Britain than Northern Ireland. Thus, while it was in Stormont's financial interest to pursue policies which lowered unemployment in Northern Ireland, there was no incentive to undertake any fundamental reassessment of what would be necessary to permanently reduce unemployment. While the policy powers available to Stormont to address the unemployment problem were limited, Chapter 2 demonstrates that the industrial polices it did implement were focused on short-run employment levels, rather than long-run economic growth. The agreement therefore encouraged a management of the unemployment problem to a level which was financially acceptable or affordable, rather than a cure, while shifting part of the cost onto citizens in Britain.

During the 1920s, unemployment continued to remain higher in Northern Ireland than in any other UK region, other than Wales. This placed a heavy financial burden on Stormont's finances: expenditure on unemployment benefits accounted for 11 per cent of total public expenditure by 1928. Stormont therefore sought the

[88] TNA: HO 45/13743 Report Sub-Committee on Amalgamation of Social Services, 15th July 1925, p.4.
[89] Satisficing is where firms set themselves a minimum acceptable level of achievement (Simon, 1959).

continuation of its agreement with Westminster beyond its initial fixed term.[90] Westminster offered an indefinite extension, but on the provision that the previous conditions were retained, and that Stormont began to pay off the debt it had amassed funding unemployment in the initial years.[91] Stormont had originally accepted liability for this debt, but the interest was being charged to the Northern Ireland Unemployment Fund, resulting in Westminster bearing around two-thirds of the cost.[92]

Westminster wanted money from Stormont's Reserve Fund to be used to pay off this debt, but Stormont objected. Stormont argued this money was needed to cover the principle on its Ulster Savings Certificates, and other capital commitments already underway, and that if "any small surplus… were automatically to be used for relieving the British Government of the Unemployment deficit, there would be no direct local incentive to economy in administration in Northern Ireland".[93] Such a situation, where national government benefits financially from subnational policies, is recognised as harmful for efficiency (Weingast, 2009), and exemplifies Brownlow's (2017) view of practice running ahead of theory in Northern Ireland. However, Stormont agreed to Westminster's conditions, and the Agreement became permanent.[94]

However, the Agreement quickly collapsed due to the Great Depression. The deficit on Westminster's Unemployment Fund grew faster than Stormont's, and Stormont could no longer match the larger equalisation payments from revenue, leading to payments from Westminster ending in 1933 (Lawrence, 1965, p.55). Stormont therefore had to cover the full cost of unemployment insurance, and between 1931 and 1935, the financial pressure increased to unsustainable levels. Stormont began to run a significant annual deficit which dwarfed anything

[90] TNA: HO 45/13743 Letter from Andrews to Anderson, 30th May 1928
[91] TNA: HO 45/13743 Draft Agreement, 25th July 1928.
[92] TNA: HO 45/13743 Letter from Fisher to Chancellor, 29th September 1928, p.1.
[93] TNA: HO 45/13743 Letter from Fisher to Chancellor, 29th September 1928, p.1-2.
[94] TNA: HO 45/13743 Memorandum by the Chancellor of the Exchequer, 4th October 1928; and Agreement between Treasury and Ministry of Finance, 18th December 1928.

experienced during the 1920s, financed through accumulating more debt. It reached over £2 million in real terms in 1934, equivalent to 5.7 per cent of transferred expenditure.[95]

While Stormont could reduce unemployment benefits, it faced no incentive to do so. It would be extremely politically unpopular, contravening its step-by-step policy, and Westminster had repeatedly failed to enforce a hard budget constraint, creating the expectation of further bailouts. This expectation proved correct, as a new Unemployment Insurance Agreement was signed in 1936. This involved a calculation more favourable to Stormont, based on the size of the insured rather than general population, which effectively lowered the size of equalisation payments (Lawrence, 1965, p.59). Westminster remained determined to limit its financial liability though, as its support would be gradually curtailed if unemployment fell under 19 per cent, and disappear entirely at 8 per cent.[96]

It should be noted that key players within Stormont at times disagreed over the best course of action to take. This was particularly the case with the mounting financial pressure originating from interwar unemployment (Buckland, 1979, p.13). Bew *et al*. (2002) portray these disagreements as a battle of personalities, between 'populist' and 'anti-populist' groups within Stormont. The populist group encompassed the Northern Ireland Prime Minister, Minister of Labour, and Minister of Home Affairs; while the anti-populist group included the Minister of Finance, the Minister of Commerce, and the Head of the Northern Ireland Civil Service (Bew *et al*., 2002, p.48). The populists generally supported increased public expenditure, while the anti-populists supported restraint, often taking the Treasury view (Bew *et al*., 2002, p.53). Led by Craig, the populists can be seen as early adopters of Keynesian policies, disapproved of by the Treasury at Westminster, until they themselves turned

[95] See Figure 1.B.5 in Appendix.
[96] PRONI: CAB/9/C/1/7 Memorandum by the Minister of Finance, 25th May 1935.

Keynesian (Bew *et al*., 2002, p.62). Yet even when there was disagreement between Ministers, the constitutional question remained paramount (Buckland, 1979, p.13), with the same objective of maximising Unionist support. That Stormont was able to pursue policies which were politically popular, but financially unsustainable without further support from Westminster, demonstrates the importance of the softening budget constraint in allowing the populists to win the argument against greater restraint.

Stormont's decision to keep unemployment benefits at the same level as Westminster could have contributed to a higher natural rate of unemployment in Northern Ireland than Britain. It has been argued that the high unemployment rate in interwar Britain was primarily driven by a high ratio of unemployment benefits to wages (Benjamin and Kochin, 1979, 1982). That the replacement rate was higher in Northern Ireland is demonstrated by wages being generally lower than in Britain: wages were lower particularly for unskilled workers, although wages for skilled workers were sometimes above the UK level, and there was an overall convergence post-war (Isles and Cuthbert, 1957).[97] The long-run role of this higher replacement rate in Northern Ireland's unemployment problem has received little attention. It is not mentioned by Simpson (1971), who instead focuses on the structure of industry, a rural population, low inter-regional labour mobility, and low inflow or creation of capital and enterprise. Gibson and Spencer (1981) mention it in passing, but do not see it as a significant factor in determining the level of unemployment. While Johnson (1985a) mentions the issue, falling demand in the staple industries is emphasised as the main driver of high interwar unemployment.

However, the replacement rate has been shown not to have been the primary driver of increasing unemployment in interwar Britain, and instead played a limited role (Ormerod and Worswick, 1982; Crafts, 1987; Eichengreen, 1987). In particular,

[97] See Table 1.B.2 in Appendix B.

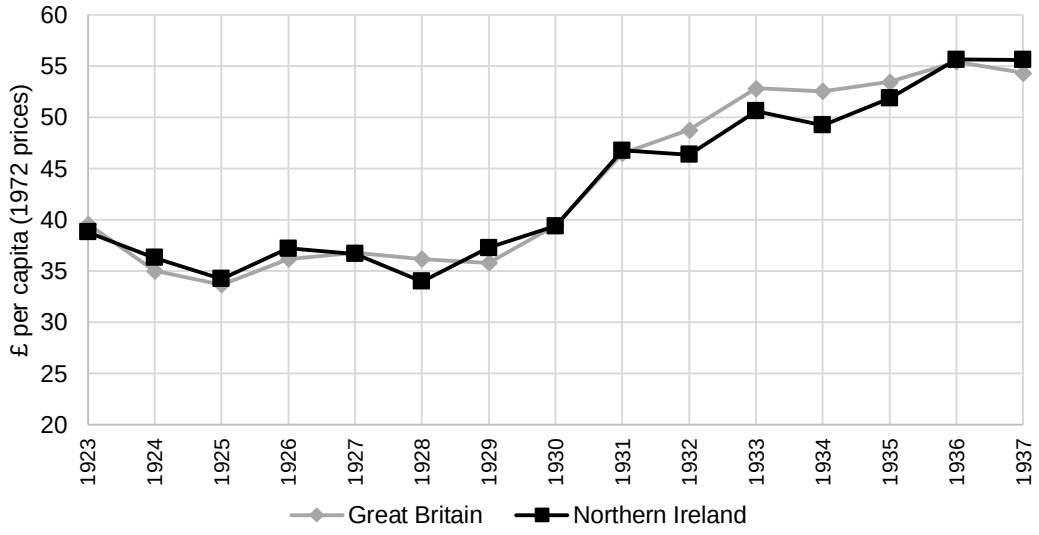
the rise in unemployment following the Great Depression, and subsequent recovery during the 1930s, were primarily the result of changes in aggregate demand (Broadberry, 1986). This conclusion is supported for both interwar shipbuilding (Geary, 1997), and linen (Beacham, 1944), both important sectors within the Northern Ireland economy. Chapter 2 also demonstrates that there were supply-side characteristics of the regional economy, related to regional institutions, which contributed to poor industrial performance. The persistent nature of higher unemployment in Northern Ireland should therefore be seen as primarily reflecting an industrial structure which remained too concentrated in the declining staple industries, where any role for the replacement rate reflected Stormont's failure to pursue policies which raised wages within the local economy. As Gibson (1996, p.31) suggests, simply cutting expenditure on social services, such as unemployment benefit, would have done little if anything to address Northern Ireland's economic problems.

While the continued bailouts of Stormont's Unemployment Fund gradually began to decrease unequal fiscal pressure, this was not fully achieved. Westminster was determined to minimise the moral hazard it faced, but its method involved weakening institutionalised authority, eroding subnational autonomy, and softening Stormont's budget constraint. By operating outside the *de jure* institutional structures of the 1920 Act, it allowed Westminster to exercise discretion over the terms of further support. The consequence of this *de facto* situation was that Stormont had little option other than to agree to sacrifice subnational autonomy, if it wanted to receive support. However, the limited nature of this financial support meant it failed to fully equalise fiscal pressure, as it was not enough to cover the cost of providing the same level of public services in Northern Ireland as Britain. With this issue of higher fiscal pressure in Northern Ireland unresolved, the efficiency of fiscal decentralisation was restricted.

The effect of Westminster providing ongoing financial support was that the level of public expenditure in Northern Ireland did match that in Britain. This can be

seen in Figure 1.3, where the total expenditure per capita on public services in Northern Ireland tracked Westminster's expenditure on equivalent services in Britain. The importance of fiscal transfers from Westminster to Stormont can be seen between 1931 and 1936, when the Unemployment Insurance Agreement broke down. Without these fiscal transfers, expenditure per capita in Northern Ireland began to fall behind Britain. It only recovered in 1936, following the new Unemployment Insurance Agreement between the two governments.

Figure 1.3: Equivalent public expenditure per capita



Source: For Northern Ireland, Ulster Year Book (various years). For Britain, Mitchell (1988).
Notes: Years are for financial years. See Appendix A for construction.

Stormont was therefore reliant on fiscal transfers from Britain to ensure public expenditure matched the equivalent level in Britain, but it could go no higher. The Colwyn Report had placed limits on Stormont's expenditure, preventing it increasing more rapidly than in Britain, with the acceptance of a lower standard of public services in Northern Ireland as a result. By matching the overall level of public expenditure in Northern Ireland to Britain, it did not account for areas where greater expenditure was

required, such as unemployment. The result was the composition of Stormont's expenditure diverged considerably from that in Britain.

An area which required much higher levels of expenditure in Northern Ireland was Law and Justice, shown in Figure 1.4. This partly reflected how the police was funded, and also the political environment. In Britain, local authorities contributed to the cost of the police, but Stormont was almost entirely responsible for funding this service in Northern Ireland (Buckland, 1979, p.37). While law and order had been restored by 1925, and the Special Constabulary disbanded (Lawrence, 1965, p.35), Stormont still felt the need to maintain a large police force, due to anti-partition activities in the Irish Free State (Buckland, 1979, p.71). Law and Justice therefore initially accounted for 16 per cent of Stormont's total expenditure in 1925. At £8.24 per capita, this was considerably higher than Westminster's expenditure in Britain of only £1.21 per capita. Stormont's expenditure did fall from 1927 onwards, but it remained significantly higher throughout the interwar period.

This was an area of expenditure where ongoing financial support from Westminster would have been justified, as it faced potential externalities if law and order broke down, such as increased migration to Britain, or expenditure to restore order. Yet Westminster made no ongoing financial contribution, leaving the vast majority of law and justice expenditure to be covered by Stormont.[98] This reduced the money available for other transferred services, contributing to higher fiscal pressure for citizens in Northern Ireland relative to Britain.

[98] Westminster did cover the cost of the Special Constabulary until 1925, and continued with a much smaller contribution until 1927.

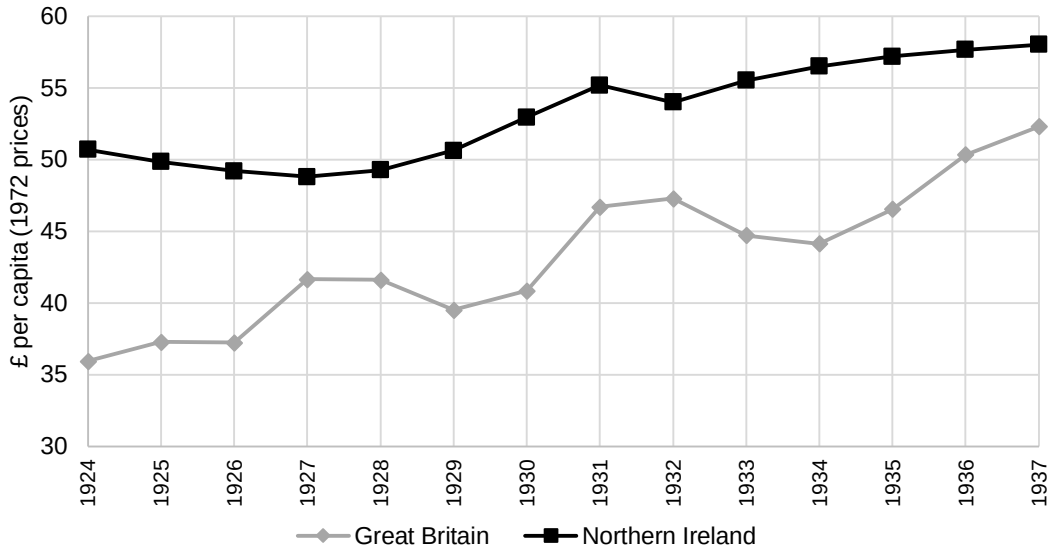
Figure 1.4: Law and Justice per capita expenditure

Source: For Northern Ireland, Ulster Year Book (various years). For Britain, Mitchell (1988).
Notes: Years are for financial years. See Appendix A for construction.

Stormont has been criticised for neglecting education expenditure, particularly during the interwar period (Green, 1979; Rowthorn, 1981). This ignores the system Stormont operated under. As with the police, Stormont's higher expenditure reflected the greater responsibility it held for education. Despite a remodelling of the system in Northern Ireland in 1923, Stormont remained the main source of finance for education, with local authorities contributing only around one-twentieth of the total cost (Buckland, 1979, p.37-38). As Figure 1.5 shows, Stormont's expenditure on education was higher than Westminster's. Education was also one of Stormont's key spending priorities during the initial years, despite the financial pressure it faced, and was responsible for a large proportion of increased transferred expenditure between 1921 and 1925. The implication that human capital was lower in Northern Ireland as a result of underinvestment in education by Stormont can therefore be rejected. Failings in education were not the result of a lack of funding from Stormont, but due to a lack of local revenue, and the restrictions on Stormont's overall level of expenditure, which prevented it from supplementing local revenue enough.[99]

[99] See Figure 1.B.2 for comparison of total education expenditure.

Figure 1.5: Education expenditure per pupil



Source: Education expenditure: for Northern Ireland, Ulster Year Book (various years); for Britain, Mitchell (1988, p.590-593). Number of pupils: for Northern Ireland 1924, Ulster Year Book (1926, p.122), and Northern Ireland 1925 onwards, Mitchell (1988, p.803 and p.808-809); for Britain, Mitchell (1988, p.799-800 and p.805-807.
Notes: Years are for financial years. Education expenditure includes all expenditure on schools (primary and secondary), further education, and higher education.

A further area of opportunity cost in Stormont's interwar public expenditure was housing. World War II highlighted how poor Northern Ireland's housing stock was relative to standards in Britain (Green, 1979, Ollerenshaw, 2013a). As with education, Stormont has been criticised for not investing enough in public housing during the 1920s and 1930s (Green, 1979). Wilson (1989, p.125-126) partly attributes the lack of interwar housing construction in Northern Ireland to Stormont's financial position, but suggests Northern Ireland's position was not uniquely bad, especially relative to Scotland. However, Figure 1.6 demonstrates that Northern Ireland's interwar housing problem was much worse than suggested by Wilson (1989). The number of local authority houses built in Northern Ireland between 1925 and 1936 was extremely low, averaging annually only 0.1 per thousand of the population. In contrast, during the same period England and Wales averaged 1.4 per thousand annually, and Scotland 2.4 per thousand. The pressure on Stormont's finances meant it simply did not have the funds available to provide greater transfers to local authorities to build more

housing. When greater numbers of local authority housing did begin to be built post-war, the issue of discrimination in the access to this public housing became a central issue associated with the beginning of the Troubles (Rowthorn, 1981; Wilson, 1989). The interwar period demonstrates the origin of this problem is the interwar period, as a result of the financial restrictions Stormont faced.

Figure 1.6: Number of local authority houses built

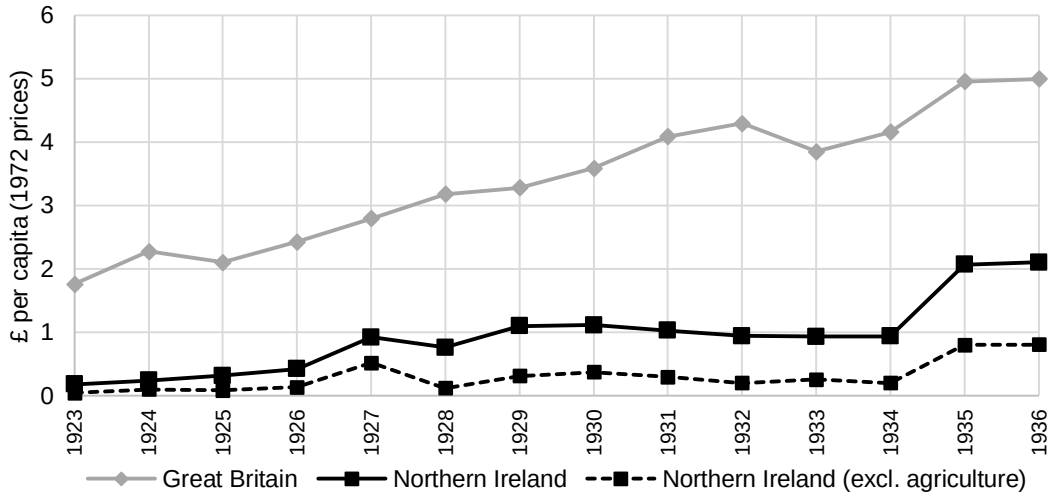
Source: For local authority houses built, Mitchell (1988, p.392). For population, see Appendix C.
Notes: Years are calendar years. Great Britain calculated as the total of England & Wales and Scotland.

An area of transferred expenditure which suffered the greatest opportunity cost was industry and infrastructure, shown in Figure 1.7. During the early 1920s, Stormont's expenditure was almost non-existent relative to Britain, and was only half Westminster's level by the end of the 1930s. Most of Stormont's expenditure went to agriculture,[100] part of the cost of which it had successfully passed onto Westminster during the 1930s. Westminster had agreed to allow farmers in Northern Ireland to benefit from its legislation, and while the first scheme, the 1932 Wheat Act, gave no direct benefit to Northern Ireland farmers, subsequent schemes for cattle, oats, land fertility, and milk benefited Northern Ireland from 1934 onwards.[101] Removing

[100] See Figure 1.B.3 in Appendix B for the level of Stormont's expenditure on agriculture.
[101] See Ulster Year Book (1935, p.xxiv; and 1938, p.68-69).

Stormont's expenditure on agriculture, partially funded by Westminster, demonstrates how little it was spending on other industry and infrastructure.[102]

Figure 1.7: Industry and infrastructure expenditure per capita



Source: For Northern Ireland, *Ulster Year Book* (various years). For Great Britain, *Statistical Abstract for the United Kingdom* (various years).
Notes: Years are financial years. 'Northern Ireland' includes all expenditure on industry and infrastructure, including agriculture. 'Northern Ireland (excl. agriculture)' excludes Stormont's expenditure on agriculture.

This underinvestment in industry and infrastructure had important implications for Northern Ireland's long-run economic performance. An example is the supply of electricity, which became increasingly important for new industries within manufacturing during the interwar period (Richardson, 1967; Pollard, 1992). The arrival of World War II demonstrated the inadequacy of electricity infrastructure in Northern Ireland. Westminster assessed Northern Ireland's capacity for further war work, and highlighted Belfast's reliance on a single electricity generating station as an obstacle.[103] Air raids on Belfast led to the suspension of production of clothing for Ministry of Supply contracts, due to disruption of the electricity supply (Ollerenshaw, 2013a, p.65). The difficulty in getting an electricity supply at a reasonable cost, relative

[102] See Figure 1.B.4 in Appendix B for a comparison of the expenditure by Stormont and Westminster on infrastructure through their respective Road Funds.
[103] TNA: HO 45/20268: War Cabinet, Resources of Northern Ireland, 3rd April 1941

to Britain, almost led to a new munitions factory failing to come to Northern Ireland in 1939 (Ollerenshaw, 2013a, p.70). The lack of expenditure on infrastructure was therefore limiting Northern Ireland's growth potential.

The efficiency of fiscal decentralisation was not simply limited by the lack of financial resources. The softening of Stormont's budget constraint also led to financial resources being used inefficiently, as a result of rent-seeking. The accessible style of government encouraged by Prime Minister Craig, saw a willingness to hand out government aid following lobbying (Buckland, 1979, p.17). Chapter 2 discusses in further detail how regional institutions, particularly the strong, overlapping networks between business and politics, led to inefficient industrial policy interventions by Stormont, creating barriers to productivity growth. Old, low productivity industries were able to use their connections with Stormont to influence industrial policy and capture government subsidy, at the expense of new, higher productivity industries. An example is Stormont's replication of Westminster's Trade Facilities Acts, through the Loans Guarantee Acts. Where Westminster's legislation ended in 1927, and supported a mix of industries, Stormont's continued until 1938, and almost exclusively prioritised shipbuilding.[104] Stormont also repeatedly increased its borrowing ceiling under the Loans Guarantee Act, reflecting the soft budget constraint it faced. Therefore, while Stormont may have replicated Westminster policy, its operation diverged, and created inefficiencies in resource allocation.

The efficiency of public expenditure was also affected by Stormont's objective to maximise Unionist electoral support amongst the working class. This led it to a focus on prioritising expenditure on public goods and services which could be easily compared to those in Britain, such as unemployment insurance. While this focus was successful in gaining fiscal transfers from Westminster, which reduced fiscal pressure for citizens in specific areas, other areas of public expenditure, such as public

[104] See Chapter 2 for further discussion.

housing, were left behind. Gibson (1996, p.45) puts forward the argument that the pursuit of parity in areas such as unemployment benefit, may not have reflected what was best for overall economic efficiency, or for citizens in the Nationalist community. Stormont was therefore able to take advantage of a softening budget constraint to focus on political priorities and engage in rent-seeking, at the expense of the economic efficiency of fiscal decentralisation.

A potential way to encourage more efficient policymaking is to give greater powers of taxation to subnational government. If a subnational government raises a substantial proportion of its own revenue, it helps ensure subnational autonomy and hardens budget constraints, as decisions on expenditure are constrained by the ability to raise revenue, thus improving the efficiency of fiscal decentralisation (Weingast, 2009). Recent debates around increasing the devolution of policymaking powers to Scotland and Wales, and the devolution of corporation tax to Northern Ireland, have seen greater devolved tax powers linked to greater financial responsibility (Birnie and Brownlow, 2017).[105] That the most important taxes for generating revenue remained under Westminster's control under the 1920 Act, reflected its political priority to ensure the payment of an Imperial Contribution (Lawrence, 1965, p.15-16). However, even if Westminster had altered the 1920 Act, it seems unlikely that giving greater responsibility over taxation to Stormont would have been beneficial for the efficiency of fiscal decentralisation.

Firstly, as the discussion of Stormont's failure to increase transferred taxes to relieve financial pressure showed, it would have been politically impossible for Stormont to increase taxation, without significant political opposition from the Unionist Party's supporters. Secondly, it was widely recognised that taxable capacity in Northern Ireland was lower than in Britain (Green, 1979, p.3), demonstrated by the

[105] See also: H.M. Treasury (2011) *Rebalancing the Northern Ireland economy*; and H.M. Government (2015) *Scotland in the United Kingdom: an enduring settlement*.

lower public revenue per capita generated in Northern Ireland relative to the rest of the UK.[106] Transferring greater powers over taxation would have either seen greater fiscal pressure placed on citizens to fund the same level of public services, or a lower level of public services. In both scenarios, the efficiency of fiscal decentralisation would have been harmed from the first generation perspective of Buchanan (1950). Finally, the key sequence of events which had occurred during the first few years of Stormont's existence had softened its budget constraint. This sequence would not have been altered by the relative distribution of taxation powers. Westminster's objective was to ensure the 1920 Act was implemented, and thus needed devolution to work. Stormont would always have faced significant financial pressure, given Northern Ireland's relatively lower taxable capacity and relatively higher need, and it was in Westminster's interests to provide fiscal transfers to cover any budget deficit to ensure Stormont survived. Therefore, greater powers over taxation for Stormont would not have encouraged more efficient policymaking.

The interwar period, and specifically the Final Colwyn Report, marked a fundamental shift in the financial relations between Stormont and Westminster. The 1920 Act had become financially unsustainable, but Westminster wanted to maintain the *de jure* position. While Westminster agreed to provide ongoing financial support, allowing total public expenditure per capita in Northern Ireland to match Britain, this came with conditions attached. These conditions sought to limit its exposure to moral hazard, capping public expenditure in Northern Ireland to the average level in Britain, despite greater demands on public expenditure, particularly unemployment. These conditions led to a lower standard of public services, with clear opportunity costs in the areas of education, housing, and industry and infrastructure. This was harmful for the efficiency of fiscal decentralisation, as it placed greater fiscal pressure on citizens in Northern Ireland. The conditions Westminster imposed, and the continued side-

[106] See Figure 1.A.1 Panel A in Appendix A.

lining of the JEB, also weakened institutionalised authority and subnational autonomy. While this gave Westminster greater discretion, it did not see a hardening of Stormont's budget constraint, and thus subnational policy interventions remained inefficient. As the next section shows, it was one such policy intervention, and its sizeable financial cost, which would have profound implications for the post-war financial relationship between Stormont and Westminster, and the expansion of the welfare state.

7) Renegotiation (1938-1945)

The period surrounding World War II saw the renegotiation of Stormont's financial position, which would be important given the post-war expansion of the welfare state. The 1938 Simon Declaration (1938 Agreement) marked the key moment when Westminster altered the institutional structure to reflect the *de facto* position which had developed during the interwar period. It saw Westminster publicly announce it would cover any future Stormont deficit, provided that it was not a result of higher expenditure or lower taxation relative to Britain.[107] While previously Westminster had only made fiscal transfers for a specific purpose, mainly unemployment, the 1938 Agreement was the first acceptance that as a relatively poorer region, Northern Ireland required an ongoing fiscal transfer across all public services. This was a key change, and a significant improvement for efficiency in principle, through the equalisation of fiscal pressure. However, the conditions Westminster imposed, as it sought to limit moral hazard, would continue to limit efficiency. Institutionalised authority was further weakened, and subnational autonomy further restricted, in an attempt to limit moral hazard, and impose a hard budget constraint. The common market condition also began to be eroded, as Westminster focused solely on financial matters.

The 1938 Agreement originated from the negotiations to end the Anglo-Irish Economic War, which had taken place between the UK and the Irish Free State since 1932 (Gibson, 1996, p.38). Westminster wanted Stormont's public support for any deal to end the Economic War (Buckland, 1979, p.111). Stormont initially refused to back the agreement, as it did not want the Irish Free State, now Éire, to have free access to the UK market, without the UK having reciprocal access to Éire's market: it claimed Northern Ireland producers had been particularly harmed by Éire's protectionism, and would receive little benefit from the proposed agreement

[107] House of Commons Debate 12th May 1938 vol 3335 cc1707-9.

(Buckland, 1979, p.111-112).[108] However, Stormont relented, after Westminster agreed to make new financial concessions outside the provisions of the 1920 Act (Buckland, 1979, p.115).[109]

These financial concessions were outlined by the 1938 Agreement, and covered three areas: Westminster would provide subsidies for agriculture in Northern Ireland; it would provide the necessary funding to ensure parity in public services, if Stormont could not afford to do so from its own budget; and it would waive its right to re-examine its contributions to Stormont under the Unemployment Insurance Agreement 1936, if the cost surpassed £1 million in nominal terms.[110] The first point was a confirmation of the situation which had developed during the 1930s, where Westminster had started to extend its agricultural legislation to Northern Ireland. The agreement confirmed this *de facto* situation, although it was carefully worded, leaving the financial implications open to further discussion. The second point would see Westminster provide the funding necessary to equalise fiscal pressure, by removing the financial barrier to public services being of the same standard as in Britain. The third point removed Westminster's discretion over payments to Stormont to fund unemployment benefit. These concessions reflected an acknowledgement of the *de facto* financial situation which had developed during the interwar period.

Together, these measures had the potential to substantially improve the efficiency of fiscal decentralisation, primarily through the equalisation of fiscal pressure. These benefits though were qualified, by Westminster's parallel achievement of gaining almost full control over Stormont's expenditure. It appears odd that if the 1938 Agreement is read in isolation, as existing literature has done

[108] See also TNA: T 160/747 Note by the Government of Northern Ireland on proposed Treaty, March, 1938.
[109] See TNA: T 160/747 Letter from Simon to Hoare, 28th March 1938, for concessions Westminster were willing to make; and TNA: T 160/747 Financial Concessions to Northern Ireland, for the agreed concessions.
[110] House of Commons Debate 12th May 1938 vol 3335 cc1707-9.

(Lawrence, 1965; Buckland, 1979; Green, 1979; Birrell and Murie, 1980; Wilson, 1989; Gibson, 1996), it shows Westminster making a significant financial commitment without putting in place any measures of control, despite its prior concerns over moral hazard. The 1938 Agreement has vague references to financial limits on Stormont, but nothing specific. Yet Westminster had applied conditions to any previous financial support to Stormont. The existing narrative is that Westminster's introduction of financial controls was a post-war development, and came after the commitment to parity in public services (Lawrence, 1965; Gibson, 1996; Mitchell, 2006). However, it was the events surrounding the creation of the Northern Ireland Transport Board (NITB), culminating in 1938, which would see Westminster able to gain oversight of Stormont's expenditure, thus providing the necessary conditions for Westminster to provide extensive funding for parity in public services.

The creation of the NITB was perhaps the most significant example of inefficient resource allocation during the interwar period, thanks to the combination of special interests and a soft budget constraint. It saw Stormont effectively nationalise the road transport industry within Northern Ireland, which would latterly be described by Westminster as "an utter failure",[111] and a "sordid" venture.[112] During the 1920s and early 1930s, Northern Ireland's railway network faced bankruptcy, due to increasing costs and competition from road transport (Buckland, 1979, p.118). After several stop-gap measures, and following lobbying from the railway companies, Stormont agreed to create a public company to run road transport, which would coordinate services with the railways, and pool receipts (Buckland, 1979, p.121). The NITB was setup in 1935, to take over all road transport for hire, by buying out existing road haulage firms.[113] This was financed through borrowing by the NITB, covered by a guarantee from Stormont of £2.5 million in nominal terms.[114] However, the new

[111] TNA: T 160/1138 Treasury note on Northern Ireland Transport Board, 3rd January 1939.
[112] TNA: T 160/1138 Treasury note to Waley, 25th August 1941.
[113] TNA: T 160/1138 Memo to Sir F Phillips, 13th January 1939.
[114] TNA: T 160/1138 Stormont Memorandum on Transport Board Finance, 1939, p.1.

Northern Ireland Transport Board soon faced great financial difficulties. Firstly, the NITB overpaid for the assets of existing firms, in one case paying £3,800 for assets worth £79.[115] Secondly, the NITB was operating at a loss, partly the result of a legal loophole, which saw previously bought-out firms re-entering the market and competing with the NITB.[116] The losses suffered meant the NITB could not repay its loans, and repeatedly called upon Stormont's guarantee.[117] By 1938, Stormont's full guarantee of £2.5 million had been exhausted, and the NITB was seeking further guarantees for a further £1 million.[118]

Westminster was particularly concerned about the financial consequences of the NITB affair. Westminster expected Stormont to cover the continuing losses of the NITB by issuing more government debt, of up to a thirty year term, the cost of which would fall on Westminster, through a reduction of the Imperial Contribution.[119] Westminster therefore offered Stormont a choice, but which was in fact a thinly veiled threat. Westminster would acquiesce, and cover the cost of the NITB debt, but only on two conditions.[120] Firstly, Stormont must undertake measures to restore the NITB to a sound financial basis. Secondly, Stormont should seek Westminster's approval before committing "itself to measures which may involve expenditure of a novel character".[121] If Stormont did not agree to these conditions, Westminster would take Stormont to the JEB, with all the "political controversy in Northern Ireland" that might entail.[122] Stormont agreed to Westminster's terms, although it interpreted the requirement to consult Westminster as relating only to "substantial" expenditure on

[115] TNA: T 160/1138 Memo to Sir F Phillips, 13th January 1939.
[116] This was achieved by firms purchasing goods at one end, and re-selling them at the other, allowing them to bypass the legal requirement intended to inforce the monopoly of the NITB, by ensuring they were not carrying goods for hire. See TNA: T 160/1138 Memo to Sir F Phillips, 13th January 1939.
[117] TNA: T 160/1138 Stormont Memorandum on Transport Board Finance, 1939, p.2.
[118] TNA: T 160/1138 Stormont Memorandum on Transport Board Finance, 1939, p.2.
[119] TNA: T 160/1138 Minutes of meeting between Duggan, Waley, and Playfair, 29th November 1938.
[120] TNA: T 160/1138, Letter from Simon to Andrews, 17th February 1939.
[121] TNA: T 160/1138, Letter from Simon to Andrews, 17th February 1939.
[122] TNA: T 160/1138, Letter from Simon to Andrews, 17th February 1939.

new schemes, despite Westminster's assertion that "if the two Ministries worked together in future it was right that there should be joint responsibility".[123] Westminster was making it clear that future financial support would be at its discretion, and Stormont accepted this principle.

The principle that Stormont would seek Westminster's permission over new expenditure was implemented, and then expanded, during World War II. This allowed Westminster to completely remove the problem of asymmetric information in its financial relations with Stormont, and hence eliminate moral hazard. At the outbreak of war in 1939, Stormont agreed to make savings "in every possible direction".[124] However, Westminster accepted Stormont would incur additional expenditure for certain wartime services delegated to it.[125] In order to reimburse Stormont, but also ensure it was effecting "all possible economies", Westminster would require Stormont to provide monthly information on all transferred expenditure, and that "no major additional expenditure be sanctioned" without Westminster's prior approval.[126] In 1942, this agreement was expanded, so that Westminster had to be informed of "all aspects of expenditure" by Stormont, whether on new or existing services.[127] All estimates regarding existing services had to be submitted by Stormont to Westminster prior to the Northern Ireland Parliament, while proposals for expenditure exceeding £50,000 on new services, or expenditure under £50,000 but involved "an important question of principle", had to be submitted to Westminster for prior sanction before being included in estimates.[128]

These financial controls continued throughout the war, but their true significance became apparent following the Beveridge Report in 1942. Stormont

[123] PRONI: FIN/18/19/417 Extract from notes of meeting with Chancellor, 21st March 1939.
[124] TNA: T 160/854 Letter from Petherick to Brooks, 10th October 1939.
[125] TNA: T 233/440 Letter from Brooks to Spender, 21st September 1939. See also Lawrence (1965, p.63)
[126] TNA: T 233/440 Letter from Hopkins to Ministry of Finance, 25th October 1939.
[127] TNA: T 233/440 Letter from Brittain to Ministry of Finance, 13th October 1942.
[128] TNA: T 233/440 Letter from Brittain to Ministry of Finance, 13th October 1942.

publicly committed itself to ensuring it followed any resulting developments in social services in Britain,[129] as war had revealed the poor standard of many public services, leading to pressure for action from within Northern Ireland (Lawrence, 1965; Green 1979; Gibson, 1996; Ollerenshaw, 2013a).[130] Westminster realised that implementing the Beveridge Report in Northern Ireland would be relatively more expensive than in Britain.[131] Westminster did accept that there was 'leeway' to be made up in the standard of public services in Northern Ireland, but did not want to allow Stormont to use the Imperial Contribution to fund this,[132] as this revenue was intended for the war effort.[133] Westminster was also particularly concerned at Stormont announcing expenditure which had no comparable scheme in Britain, and would see Westminster bear the cost.[134] Therefore, in 1945 Westminster and Stormont looked to continue the financial procedures which had developed during the war, initially on a temporary basis.[135] Westminster set the conditions: parity of services and taxation would be the guiding principle; Stormont's budget would be agreed with Westminster in advance, with special expenditure having to be justified; in-year supplementary expenditure had to be forwarded to Westminster for approval; and expenditure exceeding £50,000 in nominal terms would require advance approval.[136] Stormont agreed,[137] and both sides later agreed to extend these measures indefinitely into the post-war period.[138]

This agreement in effect removed the institutionalised authority of the 1920 Act, even though the 1920 Act would remain the *de jure* position during the post-war

[129] PRONI: CAB/9/C/48/1 Extract of speech by Andrews, 1st December 1942.
[130] See also TNA: T 160/1277 Letter from Petherwick to Shillito, 5th April 1944.
[131] TNA: T 160/1277 Letter from Epps to Ministry of Labour, 25th November 1943.
[132] UK revenue soared during wartime, reflected in Stormont's total revenue in real terms reaching a high of £188.9 million in 1944, compared to only £82.2 million in 1939.
[133] TNA: T 160/1277 Briefing note on Northern Ireland 'Leeway', 21st April 1944.
[134] TNA: T 160/1327 Letter from Brittain to Wilson, 4th August 1942.
[135] TNA: T 233/440 Basis of financial relations between NI and Imperial Exchequer, 30th October 1945.
[136] Equating to £163,549 in real terms. See TNA: T 233/440 Letter from Cook to Compton, 18th October, 1945; and Letter from Jones to Cox, 21st January 1956.
[137] TNA: T 233/440 Extract of letter from Ministry of Finance, 19th March 1946.
[138] TNA: T 233/440 Letter from Scott to The Secretary, H.M. Treasury, 12th April 1947.

period. It also almost entirely eroded subnational autonomy, as it placed Stormont's finances at the full discretion of Westminster. The common market condition was also weakened during the war. Travel permits for entry into the UK had been introduced across the UK in 1939 (Ó Gráda and Walsh, 2006, p.9), and in 1942, Stormont gained the power, with Westminster's agreement, to limit the period of residency of immigrants who came to Northern Ireland for work, aimed at workers from Éire (Bew et al., 2002, p.83). This would continue into the post-war period, and reflects Westminster's willingness to let Stormont implement its own policies, as long as these had no direct financial implications.

A key sequence of events had seen a fundamental shift in financial relations between Stormont and Westminster. Beginning with the Simon Agreement and the NITB affair, followed by the outbreak of war, and finally the publication of the Beveridge Report, Westminster found itself with the opportunity to remove the moral hazard problem from its financial relations with Stormont. This occurred much earlier than existing literature suggests. While this weakened institutionalised authority, and eroded subnational autonomy, in return Stormont had achieved an agreement from Westminster to finance the raising of the standard of public services in Northern Ireland. The scene was now set for the expansion of the welfare state.

8) Post-war financial control (1945-1972)

The post-war period saw a radical change in the role of government in the UK, with the expansion of the welfare state. This had important implications for Stormont, given the war had revealed the poor standard of many public services. The 1938 Simon Agreement committed Westminster to ensuring public services in Northern Ireland were on par with those in Britain, but the priorities of war meant the detail of how this would be achieved had not been worked out. Lawrence (1965, p.77) suggests that in the immediate post-war period, Westminster "was less anxious about constitutional niceties and more willing to advance Ulster's material welfare". In reality, the war had seen Westminster gain full financial oversight of Stormont, minimising the moral hazard problem it had continually faced over Stormont's total expenditure, and therefore allowing it to be more financially generous.

The end of the war led to a series of agreements over the funding of social services, putting the 1938 Agreement into practice. These new financial relations limited Stormont's autonomy, and had important implications for efficiency. There was only a gradual closing of the gap in the standard of public services, which reflected Westminster's desire to impose financial limits, and Stormont's priority to maintain the politically symbolic Imperial Contribution. The limits imposed by Westminster can be seen as the introduction of a more systematic approach to financial relations with Stormont, with rules for determining the scale of fiscal transfers in certain areas of expenditure. However, it was only with greater transparency during the mid-1950s, that public expenditure finally began to equalise fiscal pressure, and policy interventions became more efficient.

In 1945, Westminster made a comprehensive agreement with Stormont, for Westminster to cover all areas of new social expenditure.[139] This led to the new

[139] TNA: ACT 1/781 Enclosed note, 13th February 1946, with letter from Parnis to Ayers, 22nd February 1946.

welfare state being introduced in Northern Ireland through the 1946 and 1949 Social Services Agreements. The 1946 Agreement was an interim measure, covering only Unemployment Insurance, Unemployment Assistance, and Family Allowances,[140] as not all schemes were ready to be implemented in Britain.[141] The 1949 Agreement therefore saw Westminster's financial support extended to all areas of social services, including the National Health Service.[142]

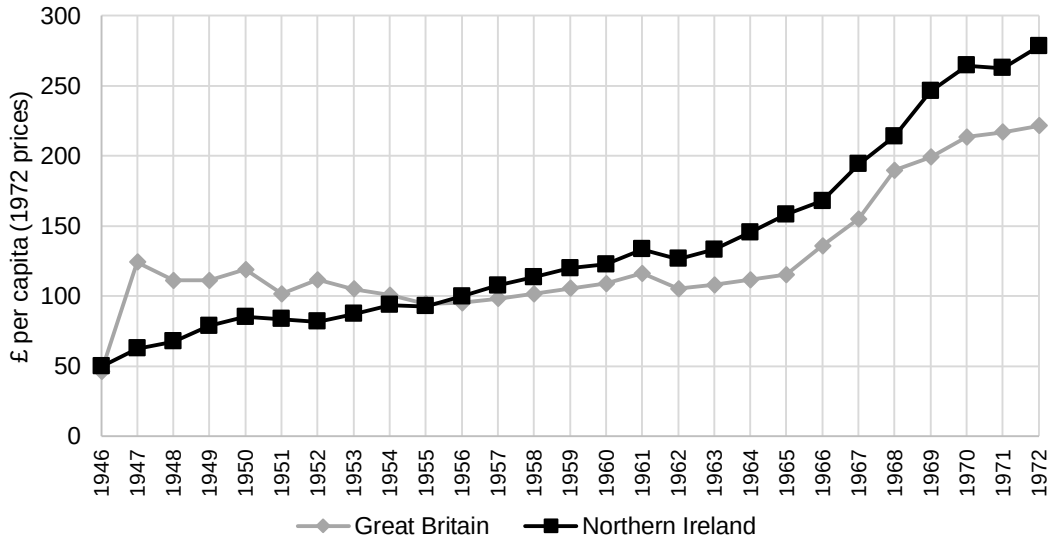
This support was still based on the principles negotiated under the 1926 Unemployment Insurances Agreement. If the proportionate cost of these new social services were higher in Northern Ireland than Britain, Westminster would cover 80 per cent of the excess cost,[143] defined as that above Northern Ireland's share of total UK costs of the schemes.[144] Northern Ireland's share was referred to as the "parity proportion", and was set at 2.2 under the 1946 Agreement, and 2.5 under the 1949 Agreement.[145] This was intended to represent the ratio of Northern Ireland's population to the whole of the UK, but as Lawrence (1965, p.78) noted, Northern Ireland's actual ratio was in fact 2.7. The figure of 2.2, and latterly 2.5, was a deliberate decision by Westminster to be more financially generous to Stormont, intended as a mechanism to allow public services in Northern Ireland to catch-up more rapidly with those in Britain, but in a manner to avoid public scrutiny.[146] This parity proportion can be viewed as an early attempt by Westminster to introduce a standardised measure against which to assess the scale of fiscal transfers required to fund subnational

[140] TNA: T 233/1063 Briefing for Second Reading of Social Services Bill, 19th February 1949.
[141] TNA: ACT 1/781 Letter from Parnis to Ayers, 22nd February 1946.
[142] TNA: T 233/1063 Briefing for Second Reading of Social Services Bill, 19th February 1949.
[143] The agreement was reciprocal, meaning Stormont would have to cover the excess cost in Britain if it arose, but there was no realistic expectation of this ever occurring.
[144] Summarised from Lawrence (1965, p.78).
[145] TNA: T 233/1063 Briefing for Second Reading of Social Services Bill, 19th February 1949, p.2.
[146] TNA: T 233/1063 Briefing for Second Reading of Social Services Bill, 19th February 1949, p.2.

expenditure, several decades before the post-devolution Barnett Formula.[147] Crucially though, it was Westminster's ability to fully oversee Stormont's expenditure, thus removing the problem of moral hazard, which allowed it to be more financially generous.

The effect of this comprehensive financial support was to begin the process of equalising fiscal pressure between Northern Ireland and Britain, but this was not immediately achieved, as Figure 1.8 shows. This was because the Agreements only allowed Stormont's expenditure to increase across the new social services introduced in Britain, but did not include other public services. Compared to Britain, public expenditure in Northern Ireland did not experience the ratchet effect described by Peacock and Wiseman (1961), caused by the dramatic increase in public revenue associated with wartime.[148] This meant public expenditure in Northern Ireland increased more slowly, and only reached the same per capita level as Britain in the mid-1950s. The catch-up in public services was therefore much slower.

Figure 1.8: Total equivalent public expenditure per capita



Source: For Northern Ireland, *Ulster Year Book* (various years). For Great Britain, Mitchell (1988).
Notes: Years are financial years. See Appendix B for method of construction.

[147] The Barnett Formula was initially introduced in 1979, as a temporary method for allocating changes in public expenditure in England to the equivalent services in Northern Ireland, Scotland, and Wales. See King and Eiser (2016) for further detail.
[148] See Figure 1.A.1 Panel A in Appendix A.

Another reason for Northern Ireland missing out on this public expenditure was Stormont's continuing commitment to paying the Imperial Contribution.[149] In the five years prior to the outbreak of war, Stormont's Imperial Contribution per capita was just 10 per cent of the UK level of per capita expenditure on Imperial Services; yet in the five years following the war, this had grown to 71 per cent of the UK level, peaking at 101 per cent in 1949.[150] This situation persisted, and the Imperial Contribution would not fall to its pre-war share of Stormont's total expenditure until 1960. The continued payment of an Imperial Contribution by Stormont was seen as desirable by both governments. Stormont saw the Imperial Contribution as symbolic of its status and contribution to the UK (Mitchell, 2006, p.65), while Westminster saw its payment as publicly demonstrating Northern Ireland's financial commitment to the UK, unlike Éire, therefore justifying the subsidisation of public services in Northern Ireland.[151]

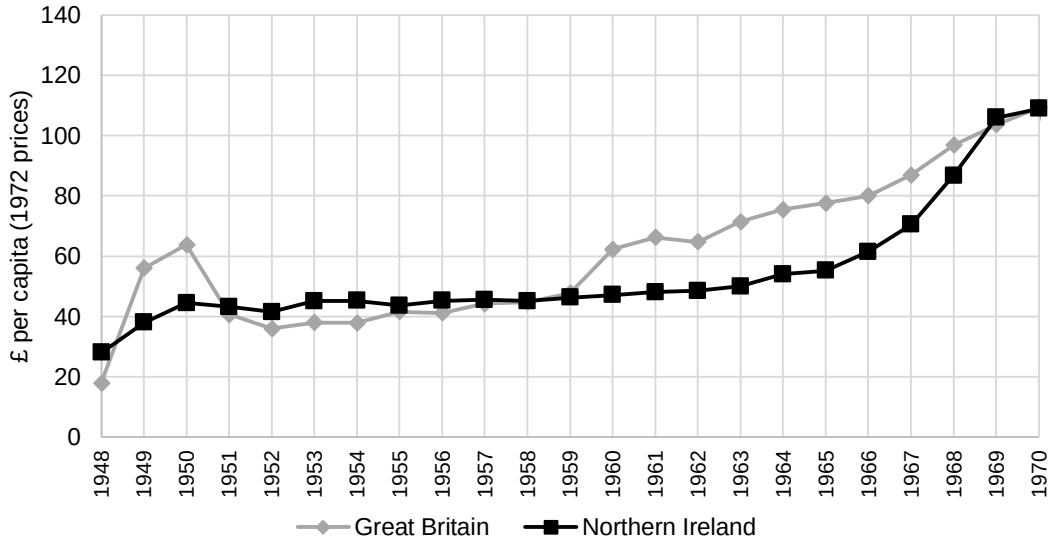
A further constraint on the possibility of rapid increases in Stormont's expenditure, was the lack of any independent body to oversee its financial relations with Westminster. Institutionalised authority had been continually weakened by Westminster throughout devolution, as it sought to limit moral hazard, and this was reflected in the side-lining of the JEB in the early 1920s. As Mitchell (2006) highlights, the JEB had little post-war input, and its main role was legitimising the agreements reached between Stormont and Westminster. This was not only the result of Stormont acquiescing to Westminster, or a lack of resources, as Mitchell (2006, p.60) suggests. The *de facto* institutional structure saw the Treasury appoint the Chairman of the JEB, even though the *de jure* position was this appointment was made by the Home Office on behalf of the Crown.[152] Weakened institutionalised authority had eroded Stormont's subnational autonomy, and without recourse to an independent body to

[149] See Figure 1.A.2 Panel B in Appendix A, and Figure 1.B.7 and 1.B.8 in Appendix B.
[150] Calculated for 1935 to 1939, and 1946 to 1950 respectively. See Figure 1.B.8 in Appendix B.
[151] TNA: T 233/1063 Briefing for Second Reading of Social Services Bill, 19th February 1949, p.4.
[152] TNA: T 341/318 Letter from Rampton to Osmond, 5th August 1964.

arbitrate over financial matters, increases in Stormont's expenditure were at the discretion of Westminster. Stormont had to argue its case each year,[153] with no guarantee of an equitable outcome. This prolonged the period it took for fiscal pressure to be equalised.

The effect of these restrictions on the ability of Stormont's' expenditure to increase, was opportunity costs in several areas. This was even the case for expenditure on social services, shown in Figure 1.9, the majority of which was now covered by the 1946 and 1949 Agreements. Stormont's expenditure briefly fell behind in 1949 and 1950, as Westminster's increased rapidly, before they reverted to a similar level. A further step change was evident at the beginning of the 1960s, with Westminster's expenditure once again exceeding Stormont's, which only caught-up by the end of the decade.

Figure 1.9: Social services expenditure per capita

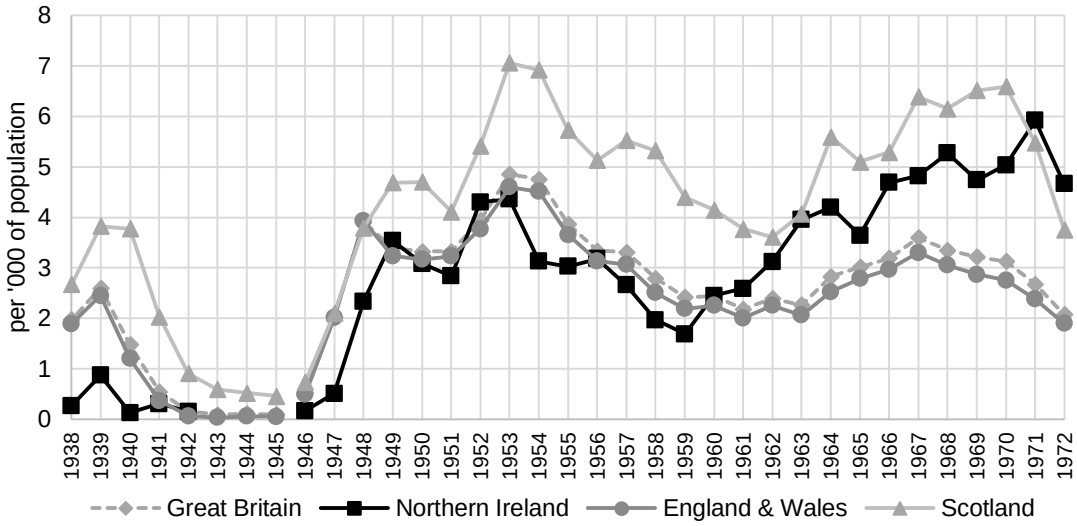


Source: For Northern Ireland, constructed from Ulster Year Book (various years); for UK, constructed from Mitchell (1988, p.592-595).
Notes: Years are for financial years. Covers all expenditure on social services, including health, labour, local government, and housing.

[153] TNA: HO 221/178: Memorandum on financial relations with the Government of Northern Ireland, 1970, p.5.

An area within these social services where the opportunity cost was most evident was public housing, shown in Figure 1.10. Public housing was provided by local authorities, and was not part of the 1949 Social Services Agreement. Despite the lack of public housing being built in Northern Ireland during the interwar period, and the need for such housing identified during the war, the number of houses built in Northern Ireland struggled to match the level in Britain during the 1950s. It also fell behind the level of public housing being built in Scotland. It was not until the beginning of the 1960s that public housing in Northern Ireland would exceed the per capita level in Britain, and begin to make up for earlier lost ground.

Figure 1.10: Number of local authority houses built



Source: For local authority houses built, Mitchell (1988, p.392). For population, see Appendix C.
Notes: Years are for calendar years. Great Britain calculated as the total of England & Wales and Scotland.

Education was a further area of opportunity cost, with implications for long-run economic growth. The post-war period saw a revolution in the provision of education across the UK, with Stormont undertaking “to provide for a commensurate advance” (Lawrence, 1965, p.117). However, despite spending more per pupil than Westminster during the interwar period, it was at this stage that Stormont’s education

expenditure per pupil fell behind Westminster's equivalent expenditure.[154] Education expenditure by local authorities in Northern Ireland remained weak compared to their counterparts in Britain.[155] The relative decrease in Stormont's expenditure therefore widened the gap in total expenditure on education per pupil, shown in Figure 1.11. In 1945 Northern Ireland was slightly ahead, but it fell behind from the late 1940s through until 1958, following a similar pattern but a couple of steps behind. It was only from the 1960s, when expenditure fell in Britain as a result of a cut in central government expenditure, that education expenditure in Northern Ireland closed the gap to Britain. Without education and funding for local authorities being covered by the Social Services Agreements, it created a significant post-war opportunity cost in human capital.

Figure 1.11: Total education expenditure per pupil (Central+Local)

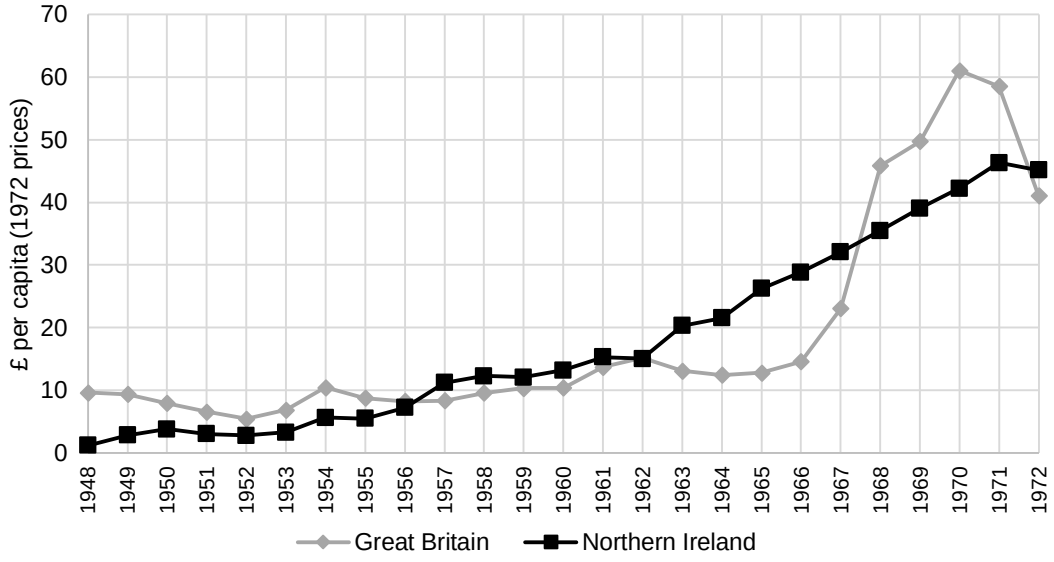
Source: See Sources and Notes of Figure 1.B.2, Appendix B.
Notes: Years are for financial years.

The opportunity cost created by the limitations of the Social Services Agreements is also evident in expenditure on industry and infrastructure, shown in Figure 1.12. This was significantly lower in Northern Ireland than Britain following the

[154] See Figure 1.B.2 Panel B, in Appendix B.
[155] See Figure 1.B.2 Panel C, in Appendix B.

war, and only managed to surpass the level in Britain during the mid-1950s. Even then, this was only making up for the lost ground during the interwar period. A significant improvement in funding occurred from 1963 onwards, a result of Westminster providing special payments to Stormont to encourage industrial development, half of which were charged against the Imperial Contribution (Lawrence, 1965, p.87-88). However, as the interwar period demonstrated, it was not simply a lack of money which saw Northern Ireland industry lag behind Britain (See Chapter 2). If this were the case, Northern Ireland industry should have begun its convergence with Britain earlier, during the 1950s, when it received its biggest proportional increases. Yet it was not until the 1960s that industrial performance improved (Crafts, 1995). This coincided with the introduction of new rules on outside Ministerial interests by Stormont, which led to more efficient policy interventions (Brownlow, 2007). It was therefore the combination of adequate funding and more efficient policy, which allowed convergence to begin to take place.

Figure 1.12: Industry and infrastructure expenditure per capita



Source: For Northern Ireland, constructed from Ulster Year Book (various years); for UK, constructed from Mitchell (1988, p.592-595).
Notes: Years are for financial years. Includes all expenditure on trade, industry, roads and infrastructure.

While Westminster exercised greater post-war supervision of Stormont's expenditure, it was primarily concerned with the total cost of public services. This allowed Stormont's budget constraint to soften for how expenditure was allocated within this hard budget constraint for total expenditure. This allowed divergence to take place where the financial implications were minimal. In 1947, Westminster allowed Stormont to bend the fiscal rules of the 1920 Act, by diverting current revenue to a Capital Purposes Fund, earmarked for industrial development and a wide range of other projects (Lawrence, 1965, p.81). The willingness of Westminster to accept some variation also had financial consequences for local government finance. Stormont was able to reduce industrial rates levied by local authorities by 75 per cent, where these were only reduced by 50 per cent in England and Wales (Lawrence, 1965, p.98). This de-rating was abolished in England and Wales in 1963, but retained in Northern Ireland, where no revaluation took place between 1957 and 1975, creating a substantial shortfall in local authority revenue compared to Britain (Birrell and Murie, p.162). The fiscal capacity of local authorities had been lower since Northern Ireland's inception, but Westminster's focus on matching Stormont's level of expenditure to equivalent services in Britain meant the shortfalls in local government expenditure were not addressed.

That Westminster's primary concern was the total cost of Stormont's expenditure had implications for the possibility of discrimination in the provision of public services. In 1955, Westminster increased the rates paid under several social services, including family allowances, but Stormont wanted to explore whether it would be possible to introduce variations within schemes, while meeting overall parity.[156] Stormont therefore proposed reducing the amount paid in Family Allowances for each additional child below the level in Britain,[157] intended to reduce the benefits

[156] PRONI: CAB/9/C/48/1 Extract from Cabinet Conclusions, 30th November 1955.
[157] PRONI: CAB/9/C/48/1 Memorandum by Minister of Labour, 9th May 1956.

accruing to the growing Catholic population, which Stormont perceived as a threat to Northern Ireland's future existence.[158] Westminster had no objection, as:

> *they would not regard variations to suit local conditions as a breach of the parity agreement if they did not exceed the proportionate overall expenditure limit and did not conflict too markedly with the broad structure of the Chancellor's proposals.*[159]

This was a reiteration the principle Westminster had accepted following the 1922 Local Government Bill, that it would not interfere in transferred matters. Stormont intended to bring forward its modified legislation, but abandoned this following strong objections from within the Unionist Party,[160] instead implementing identical legislation to that in Britain.[161] While Stormont no longer had subnational autonomy over what legislation it brought forward, or its total cost, it did retain the ability to alter legislation to reflect its own preferences, within the budget constraint imposed by Westminster. In this case, disagreement within political Unionism prevented this policy being enacted, demonstrating the interwar disagreements noted by Bew *et al*. (2002) were part of post-war life at Stormont too. Yet Westminster's focus on the overall cost of schemes in Northern Ireland, and the greater funds now available for public services, had opened the door to discriminatory behaviour in their provision.

It was from the mid-1950s onwards that Stormont's expenditure per capita exceeded Westminster's for the first time, coinciding with the Imperial Contribution beginning to fall as a proportion of total expenditure. This increasing expenditure and falling Imperial Contribution were the result of transparency being brought to financial relations. In 1955, the JEB publicly stated for the first time the principles of parity and

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[158] PRONI: CAB/9/C/48/1 Family Allowance Proposals, attached to letter from Gransden to Rose, 8th June 1956.
[159] PRONI: CAB/9/C/48/1 Memorandum by Minister of Labour, 9th May 1956.
[160] Including from the Unionist Party's Westminster MPs, local Unionist Associations, and Protestant Churches. See letters within PRONI: CAB/9/C/48/1.
[161] PRONI: CAB/9/C/48/1 Conclusion of Cabinet Meeting, 7th June 1956.

leeway, which governed the financial relationship between Stormont and Westminster (Birrell and Murie, 1980, p.18),[162] and which were contained within the preceding Agreements of 1945, 1946 and 1949. Westminster had been considering covering 100 per cent of the excess cost of social services in Northern Ireland,[163] but it was the public statement of the JEB which encouraged it to fully adopt an acceptance of leeway in determining expenditure.[164]

Greater transparency is a condition necessary for efficiency, as it hardens budget constraints, and introduces accountability for a subnational government's policies (Oates, 2005; Weingast, 2009). The public statement by the JEB of the principles governing financial relations drew attention to public expenditure in Northern Ireland. It was shortly followed by the publication of the Isles and Cuthbert (1957) Report, which was critical of Northern Ireland's economic performance. This greater transparency and accountability saw the emergence of greater electoral competition, with the Northern Ireland Labour Party winning 4 seats in the 1962 Stormont elections. Previously, with little political competition, the ruling Unionist Party had been able to focus on benchmarking easily compared public goods and services, such as unemployment benefits, against the level in Britain; but the deficiency in other public services, where it was more difficult to compare provision, remained hidden. Now for the first time, the ruling Unionist Party faced electoral competition, introducing the incentive for Stormont to be more financially accountable to its citizens. The greater levels of public expenditure, and more efficient industrial policy of the 1960s, therefore had their origin in the greater transparency surrounding Stormont's financial situation from the mid-1950s onwards.

[162] This covered the principles of parity in expenditure on standard of social services, as well leeway in expenditure, reflecting the need for additional expenditure to bring social services up to the same standard as in Britain.
[163] TNA: T 233/1482 Letter from Thimont to Shillito, 25th August 1954.
[164] TNA: HO 221/178 Report on financial relations with the Government of Northern Ireland, 1970, p.4.

While there was an improvement in the efficiency of fiscal decentralisation towards the end of Stormont's existence, the issue remained of how to determine the scale of fiscal transfers from Westminster to Stormont. The parity proportion had been applied to the introduction of new social service schemes, as part of Westminster's more systematic approach to post-war financial relations. Yet which areas of new expenditure could be justified under the parity concept required regular discussion, as did other new expenditure not covered by the parity proportion, with Stormont in both cases having to argue its case each time.[165] The use of a single parity proportion was also a crude means of reflecting greater need in Northern Ireland, as it failed to reflect differences in need which might exist across different areas of public services.

By the end of the 1960s, there was also concern within Westminster at the ever increasing cost of financing public expenditure in Northern Ireland.[166] The Treasury in particular wished to see new arrangements be developed, "that avoided them getting involved in discussions on individual projects" with Stormont.[167] This led to discussions between Westminster and Stormont over possible ways to reform financial relations.[168] This coincided with an investigation into the financial relations between the two governments, as part of a wider Royal Commission on the Constitution within the UK.[169] However, no reform of Northern Ireland's public finances were made until 1973, after the introduction of Direct-rule (Hewitt, 1990, p.366).

The motivation for the introduction of the Barnett Formula in 1979, can be seen in Westminster's previous financial relations with Stormont.[170] While Westminster had gained complete oversight of Stormont's finances post-war, this required time

[165] TNA: HO 221/178 Report on financial relations with the Government of Northern Ireland, 1970, p.4-5.
[166] TNA: T 224/1606 Letter from Orr to Reid, 17th October 1967.
[167] TNA: T 224/1606 Note for the Record, 8th November 1967.
[168] TNA: T 224/1606 Financial relations with Northern Ireland, 5th December 1967, p.1.
[169] TNA: T 341/66 Evidence to the Royal Commission on the Constitution on financial relations with Northern Ireland.
[170] See King and Eiser (2016) for further detail.

consuming discussions covering every area where Westminster would provide additional funding. Lee (1995, p.161) similarly notes that after 1945, the Scottish Office was engaged in a process of bargaining with the Treasury over changes in public expenditure in Scotland. The subsequent Barnett Formula therefore provided a means to minimise these discussions, applying a standardised rule for changes in public expenditure, built upon a baseline estimate of need. However, by making changes in expenditure simply a function of population, the Barnett Formula has been criticised for failing to take into account changes in relative need (Morgan, 2001; King and Eiser, 2016). Therefore, while the Barnett Formula was an improvement from Westminster's perspective, giving a more systematic basis for regional public finance, it has been limited in its ability to address the problem of relative need.

9) Conclusion

The Northern Ireland economy underperformed relative to the UK throughout devolution, despite the apparent benefit of fiscal decentralisation. Using an analytic narrative approach, and applying theory from both first and second generation fiscal federalism, the operation of *de facto* institutions is shown to be at the heart of why devolved government was unable to address Northern Ireland's persistently poor economic performance.

The *de jure* institutions created by the 1920 Act were not automatically inefficient, but they contained key flaws, which were immediately tested when implemented. A key sequence of events saw institutionalised authority weakened, and Westminster fail to commit to a hard budget constraint. This resulted in a transition in the financial relations between Stormont and Westminster, defined by the moral hazard problem faced by Westminster. Stormont sacrificed subnational autonomy in return for increasing financial support. This financial support was linked to conditions intended to limit this moral hazard problem, but which prevented fiscal pressure from being equalised, even as national public expenditure increased post-war. The consequence was opportunity costs in specific areas of public expenditure, particularly evident in industry and infrastructure, housing, and education, during both the interwar and post-war periods. By placing limits on expenditure to deal with the short-run moral hazard problem, further problems were stored up for long-run economic growth, which Westminster would ultimately become financially liable for when Stormont was prorogued in 1972.

An effect of Westminster's approach to dealing with the moral hazard problem was the weakening of institutionalised authority. With Stormont being provided with financial support outside of the *de jure* provisions of the 1920 Act, its budget constraint softened. It also did not face any checks from the electorate, due to a lack of political competition, resulting from the dominance of the constitutional question. This meant

that while Stormont's total expenditure faced limitations, its policy interventions were inefficient, and shaped by special interests and rent-seeking. Stormont's objective was to maximise electoral support for the Unionist Party, and thus it prioritised areas of public expenditure which were most easily compared against levels in Britain, such as unemployment benefits, or in areas of industry which had close links to politics. Thus short-term political priorities took precedence over policies which might have addressed Northern Ireland's long-run economic problems. Even as Westminster took greater financial control and provided more funding post-war, its focus on the total cost of Stormont's expenditure opened the door to discriminatory behaviour within subnational policy.

The Northern Ireland experience shows that for a devolved, non-federal institutional structure, the institutionalised authority condition is central to all other conditions being met. Without institutionalised authority being met first, the remaining conditions required for efficient fiscal decentralisation, namely subnational autonomy and hard budget constraints, break down. Even the condition of the common market, which is less relevant to a devolved, non-federal institutional structure, began to be eroded with limits on the movement of labour. In this devolved setting, where fiscal decentralisation occurs in a relatively poorer region, weakening institutionalised authority results in the national government exercising ever greater control over subnational expenditure, preventing the first generation benefits of fiscal decentralisation from being realised.

Considering the Northern Ireland experience of devolution, it is clear that the institutional structure moved from one assuming Northern Ireland to be a net fiscal contributor and self-sufficient, to a region which was increasingly reliant on fiscal transfers from Westminster. The length of time this transition took meant there was a large opportunity cost from the lack of fiscal transfers. Investment in industry was particularly low during the interwar period, and if higher, could have helped alleviate

the persistently high unemployment Northern Ireland experienced. It also meant that when expenditure in such areas did rise, it was only making up for lost ground. It is therefore perhaps unsurprising that the Northern Ireland economy persistently underperformed relative to the UK and its regions. Rather than being a benefit, fiscal decentralisation and the institutional structure imposed by the 1920 Act, acted as a brake on long-run economic growth.

Westminster's changing approach to Stormont's claims for greater fiscal transfers, by applying the parity proportion to new areas of public expenditure, highlights the realisation that some form of objective formula to determine fiscal transfers was required as subnational expenditure increased. Yet with the discretion Westminster was able to gain through weakened institutionalised authority, Stormont still had to argue its case for areas of expenditure outside of the agreed social services. If the Barnett Formula were to be replaced with a more needs-based approach, this earlier experience gives an insight into the level of ongoing discussion which might be generated between national and subnational government.

Applying fiscal federalism to the Northern Ireland has lessons for how current fiscal decentralisation should proceed. Testing theory against a real life narrative spanning fifty years, something which current literature lacks, demonstrates the need to combine first and second generation theory to understand institutional structure. It proves the relevance of fiscal federalism theory to a non-federal system, and also emphasises its path dependent nature. British institutions have been held up as the template to achieve long-run economic growth, yet Northern Ireland's experience shows that British institutions are not invulnerable to manipulation and inefficiencies developing over time. Institutionalised authority is therefore central to whether fiscal decentralisation can operate efficiently within a UK non-federal system of government. This supports Bell's (2014, 2016) view that an independent arbitrator between the national and subnational government is required to ensure

institutionalised authority. The failure of the JEB demonstrated the need for such an arbitrator to enforce the rules of the game. This is particularly relevant if a new system of determining fiscal transfers within the UK were introduced to replace the Barnett Formula, to prevent fiscal transfers being solely at the discretion of Westminster. If 'devomax' is to be implemented in Scotland, or further devolution granted to Northern Ireland as the result of Brexit, it will be the careful design, implementation and conservation of institutional structure which will define whether fiscal decentralisation enhances or places limits on economic efficiency.

10) Appendix A – Constructing a time-series of Stormont's public finances

To explore how the financial relations between Stormont and Westminster developed over time, it is necessary to construct a time-series of public revenue and expenditure for Northern Ireland under devolution. No such time-series currently exists, and so the data source used to construct this is the *Ulster Year Book*. This was an official Stormont publication, which brought together numerical and statistical data for Northern Ireland. Its publication spans the complete life of fiscal decentralisation to Stormont, with 20 issues between 1926 and 1975. The resulting disaggregated time-series constructed for Stormont's public finances allows the analytic narrative to be tested against empirical evidence.

The data digitised for Stormont's public revenue from the *Ulster Year Book* is in nominal prices. A long-run, seasonally adjusted price indicator, published by the ONS (2004, 2020), was therefore used to control for inflation, with all values converted into 1972 prices. A limitation of this method is that this series is based on UK-wide prices, and does not reflect any regional variation in price levels. However, as there is currently no regional time-series of prices, this is the next best solution to control for inflation.

Figure 1.A.1 combines the public finance time-series for Northern Ireland, with the annual population estimates of Mitchell (1988),[171] to create a per capita time-series of total public revenue per capita (Panel A), total expenditure per capita (Panel B), and total equivalent public expenditure per capita (Panel C). These are plotted against the equivalent data for the UK and Britain from Mitchell (1988). The final comparison, of total equivalent public expenditure per capita in Panel C, is made between Northern Ireland and Britain, as UK-wide expenditure figures include

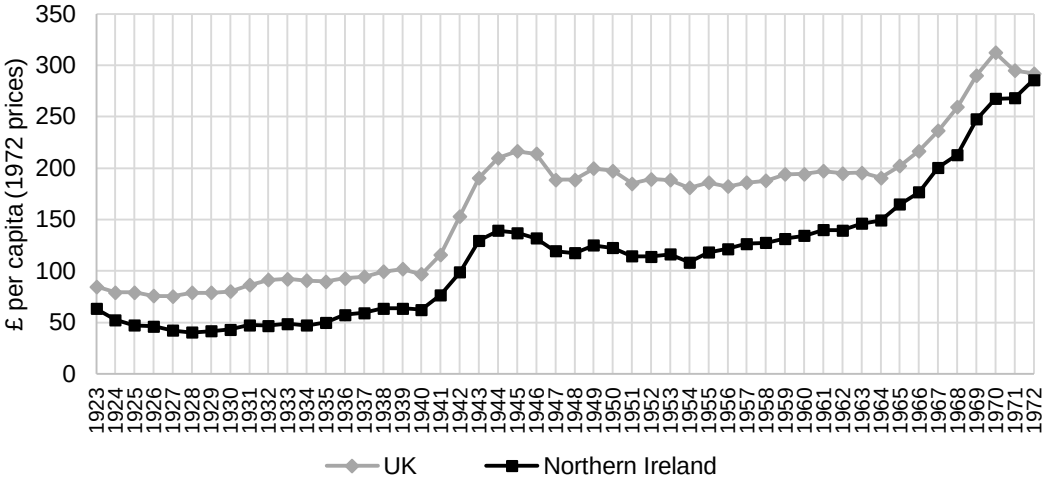
[171] A discussion of the population estimates is provided in Appendix C.

defence and the servicing of national debt. By only considering this civil expenditure which occurred in Britain, it allows a more accurate comparison to be made with the equivalent expenditure in Northern Ireland. To make the Northern Ireland time-series comparable with that for Britain, Stormont's expenditure on the Imperial Contribution has been removed.

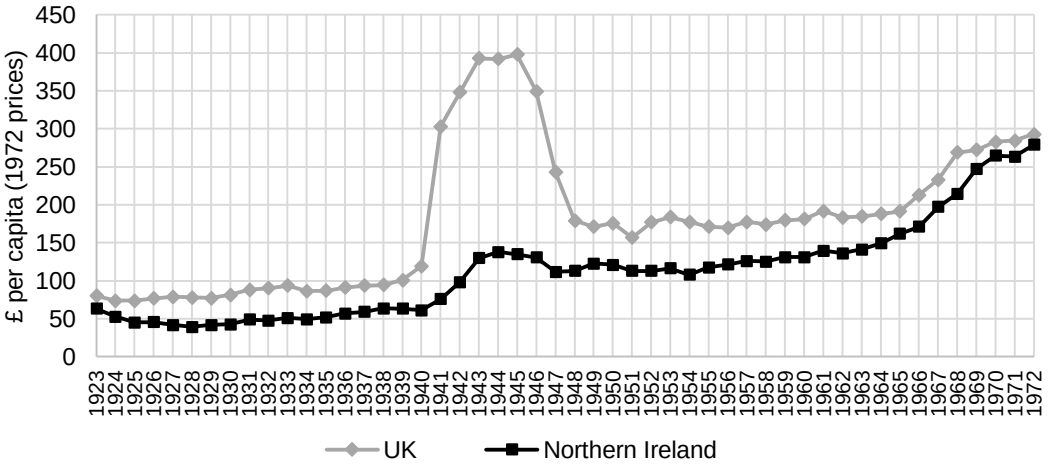
The *Ulster Year Book* provides disaggregated public finance data for Northern Ireland, and this is presented in Figure 1.A.2 for Stormont's revenue (Panel A) and expenditure (Panel B). Stormont's revenue per capita is disaggregated into six categories: Transferred tax revenue, Transferred non-tax revenue, Reserved tax revenue, Reserved non-tax revenue, UK special payments, and Other. Transferred sources of revenue were those revenue raising powers transferred from Westminster to Stormont, including: taxes, for example death duties, stamp duties and motor vehicle duties; and non-tax sources, including land annuities, fees and miscellaneous revenue. Reserved revenue were revenue sources which Westminster retained control over, including: taxes, such as customs and excise duties, income tax, and profits tax; and non-tax sources, such as the Post Office. UK special payments reflected fiscal transfers from Westminster to Stormont, while one-off or uncategorised revenue were included under the category of Other.

Figure 1.A.1: National and Subnational public finances

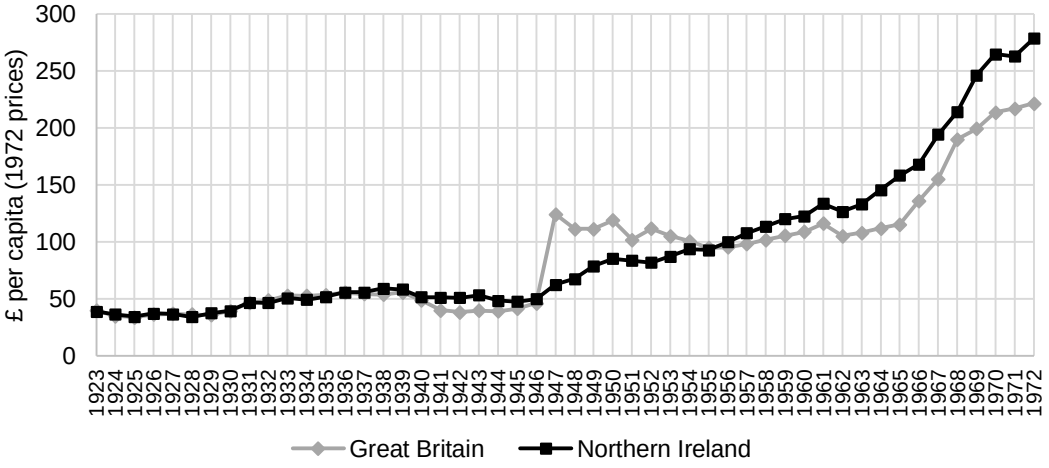
Panel A: Total public revenue per capita



Panel B: Total public expenditure per capita



Panel C: Total equivalent public expenditure per capita



Source: See text.

Figure 1.A.2 Panel A demonstrates how different sources of revenue varied in importance over time. Total revenue per capita started at £63 in 1923, composed of approximately 11 per cent transferred revenue, 68 per cent reserved revenue, and 21 per cent UK special payments. However, total revenue fell in the following years, to a low of £40 per capita in 1928. Between 1923 and 1928, the sources of revenue changed in relative importance: the level of transferred revenue increased by around 30 per cent, and accounted for a larger share of total revenue at 22 per cent; but the level of reserved revenue fell by around 30 per cent, albeit accounting for a larger share of total revenue at 74 per cent, a consequence of fiscal transfers under UK special payments almost disappearing. The slight growth of total revenue into the early 1930s was a result of increasing reserved revenue, while UK special payments reached zero in 1932. However, from 1935 to the outbreak of World War Two, total revenue increased from £50 to £63 per capita, with the relative proportions of transferred and reserved revenue remaining at around 20 per cent and 70 per cent respectively, and UK special payments and other one-off revenue providing the remaining 10 per cent.

World War II marked a radical change in the composition of Stormont's revenue, as tax rises by Westminster to fund the war effort saw Stormont's total revenue rise steeply: reserved revenue increased from 71 per cent to 88 per cent of total revenue; transferred revenue fell from 18 per cent to 7 per cent of total revenue; and UK special payments also fell, from 10 per cent to 4 per cent of total revenue. While total revenue plateaued post-war, and then gently rose through the 1950s and into the 1960s, the proportions of the different sources of revenue remained static until 1967. From this year onwards transferred revenue increased to over 20 per cent of total revenue, with UK special payments increasing from 5 per cent to 16 per cent of total revenue by 1972, and reserved revenue falling to 63 per cent of total revenue, before Stormont was prorogued in 1972.

Figure 1.A.2 Panel B gives Stormont's expenditure per capita over time, disaggregated into five categories: Transferred services consolidated fund, Transferred services supply fund, Reserved services, the Imperial Contribution, and Other. Transferred services were those Stormont was responsible for: the consolidated fund included expenditure which related to legislation, such as interest on borrowings and the road fund; supply services included expenditure which had to be authorised annually by the Stormont Parliament, covering departmental spending and areas such as social services and agriculture. Reserved services were those Westminster retained responsibility for, while the Imperial Contribution was a charge laid out by the 1920 Act, and levied on Stormont to pay its share of the cost of Imperial Services. Finally, one-off expenditure, including the expenditure related to the foundation of Northern Ireland, is included in the category of Other.

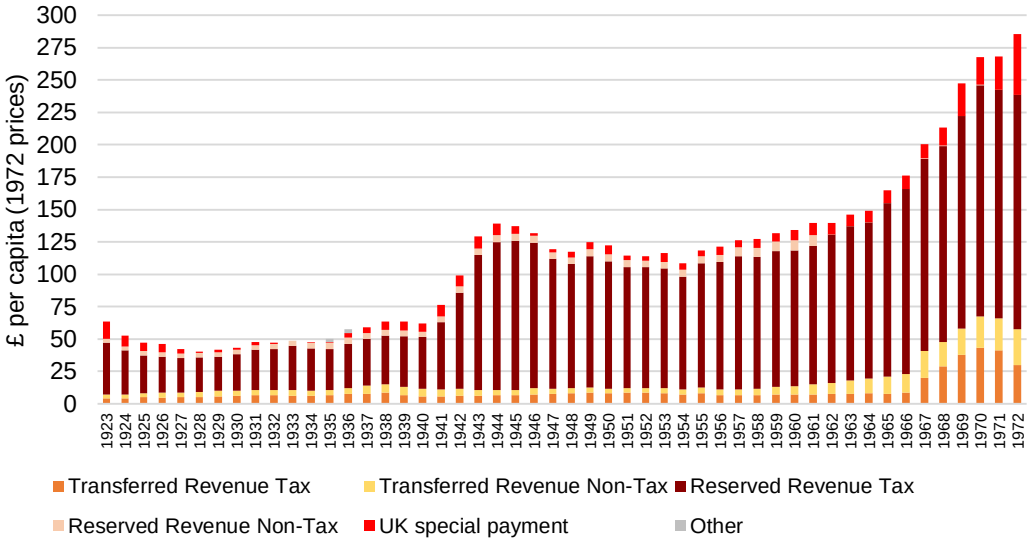
The level of Stormont's expenditure per capita follows that of revenue very closely, with a small surplus in most years, and the only prolonged deficit being between 1931 and 1935. However, the composition of Stormont's expenditure varies substantially over time. In the first three complete financial years of devolution, from 1923 to 1925, transferred expenditure accounted for less than half of total public expenditure in Northern Ireland, a proportion not matched again until World War II. The level of transferred expenditure rose from 1926 onwards, with its relative share of total expenditure increasing to between 67 per cent and 84 per cent during the interwar period. Reserved expenditure remained relatively constant throughout this period, remaining between 11 per cent and 17 per cent of total expenditure. Thus it was the Imperial Contribution which saw the greatest fall in level and share, from 38 per cent in 1923, to less than 1 per cent in 1933 and 1934. This allowed transferred expenditure to increase, before recovering to around 8 per cent by 1939. Other expenditure was most important between 1923 and 1925, accounting for between 21

per cent and 16 per cent of total expenditure, which reflected the costs associated with establishing Northern Ireland.

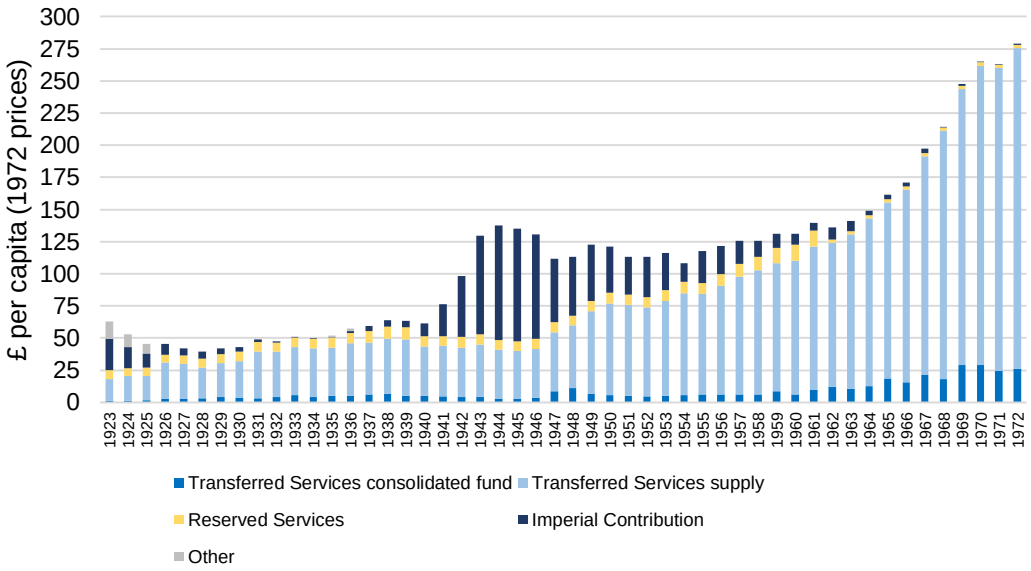
Stormont's expenditure during World War II rose dramatically, made possible by an increase in revenues from reserved taxation. However, this was illusionary, as Stormont's new expenditure was not spent on Northern Ireland, but instead returned to Westminster as part of an increased Imperial Contribution. The level of transferred expenditure therefore remained static throughout the war, falling fractionally below its pre-war level by 1946. Growth in transferred expenditure only began in 1947, increasing by 30 per cent in absolute terms that year, and continuing this growth until 1950, as the Imperial Contribution began to fall in size. Growth in transferred expenditure paused briefly between 1950 and 1952, after which it grew at a relatively constant rate through until 1963, with the share of transferred expenditure increasing from 68 per cent to 92 per cent of total expenditure. Since the 1920s reserved expenditure had remained relatively static in absolute terms, leading to it diminishing as a proportion of total expenditure, before a sharp fall in 1962 to around 1 per cent, at which it remained until 1972. However, it was the Imperial Contribution which displayed the greatest variation in both its level and share of total expenditure, increasing to more than 50 per cent of total expenditure during World War II. It remained high in the immediate post-war period, and only gradually returned to its interwar-war level by the end of the 1950s, after which it fell rapidly to under 1 per cent of total expenditure by 1972.

Figure 1.A.2: Subnational public finances

Panel A: Stormont revenue per capita



Panel B: Stormont expenditure per capita



11) Appendix B – Additional Tables and Figures

Table 1.B.1: Share of UK GDP (%)

	1900	1910	1925	1938	1950	1960	1970
Northern Ireland	2.2	1.8	2.1	1.7	2.0	2.0	2.0
London Counties	22.0	20.8	21.8	23.9	20.1	19.9	19.4
Rest of South East	14.8	16.3	16.2	19.3	15.7	17.4	18.8
South West	6.3	6.1	5.8	5.7	5.9	6.0	6.4
West Midlands	6.7	6.8	7.1	8.8	9.2	9.4	9.5
East Midlands	5.6	5.6	5.3	5.2	6.1	6.2	5.9
North	19.6	19.9	18.8	13.6	18.9	17.6	16.9
Yorkshire & Humberside	7.9	8.0	8.1	7.6	8.5	8.1	8.1
Wales	4.3	4.6	4.7	4.5	4.4	4.6	4.4
Scotland	10.6	10.0	10.2	9.7	9.1	8.8	8.7
Ireland (IFS/Republic of)	5.0	4.2	3.3	3.0	2.9	2.7	3.1

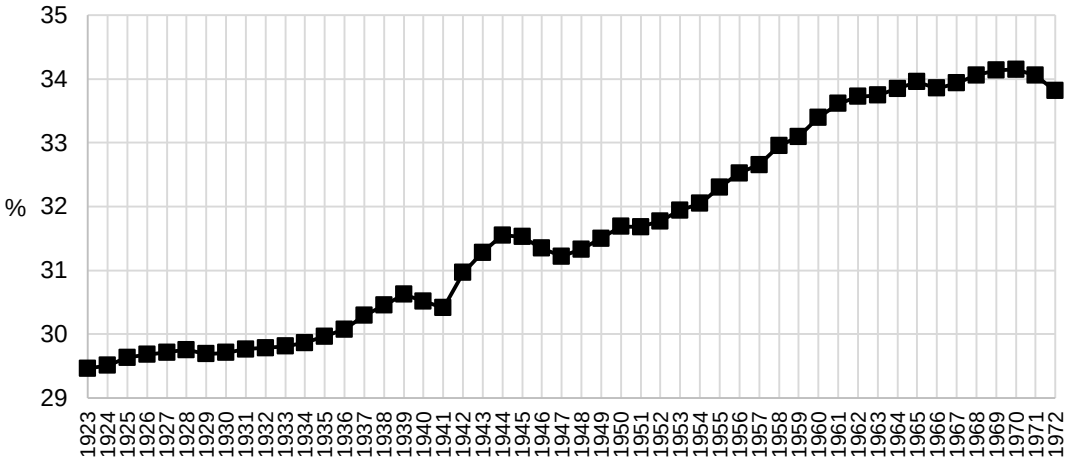
Source: Constructed using Geary and Stark (2019).
Notes: For discussion on the creation of these GDP estimates, see Geary and Stark (2019, p.331-332). Figure for UK GDP excludes the Republic of Ireland throughout.

Table 1.B.2: Comparison of wages by industry

				1923	1936	1946	1949	1954
				(NI/UK where UK=100)				
Voluntary negotiation	*Engineering*	Fitters and turners		112	104	102	100	100
		Labourers		94	95	91	97	98
	Shipbuilding	Shipwrights		104	100	100	100	100
		Joiners		105	100	100	100	100
		Labourers		100	100	100	100	100
	Building	Bricklayers		101	108	107	105	104
		Carpenters and joiners		101	108	107	105	104
		Plumbers		103	112	107	105	104
		Plasterers		101	107	107	105	104
		Painters		102	108	107	105	104
		Labourers		85	93	98	99	96
				1925	1936	1946	1949	1954
				(NI/UK where GB=100)				
Wage councils	Aerated waters		*male*	99	94	94	98	100
			female	97	97	102	100	100
	Boot and shoe repairing		*male*	95	93	103	95	100
			female	94	90	87	87	97
	Brush and broom		*male*	104	109	108	100	100
			female	107	112	103	100	100
	Dressmaking and women's light clothing		*male*	92	92	100	100	102
			female	94	92	97	96	98
	Hat, cap, and millinery		*male*	91	94	95	87	-
			female	92	92	99	87	-
	Laundry		*male*	-	-	92	100	100
			female	96	96	98	97	93
	Linen and cotton handkerchief		*male*	79	83	73	84	93
			female	96	96	82	94	91
	Paper box		*male*	77	80	94	88	97
			female	85	88	94	88	93
	Readymade and wholesale bespoke tailoring		*male*	87	93	95	96	96
			female	82	82	92	93	94
	Rope, twine, and net		*male*	10	98	109	90	90
			female	68	70	79	86	90
	Shirt-making		*male*	83	85	90	98	98
			female	86	86	93	94	95
	Sugar confectionery and food preserving		*male*	84	90	100	100	100
			female	93	93	87	88	95
	Wholesale mantle and costume		*male*	91	91	95	96	96
			female	86	86	92	93	94

Sources: For wages set by voluntary negotiation, Isles and Cuthbert (1957, p.218). For wages set by wage councils, Isles and Cuthbert (1957, p.225).
Notes: For wages set by voluntary negotiation, these are average time rates, relative to the UK, mainly for men, covering around 60 per cent of manufacturing in Northern Ireland (see Isles and Cuthbert, 1957, p.216-217). For wages set by wage councils, these are average minimum time rates, relative to GB, for both men and women (see Isles and Cuthbert, 1957, p.221-227).

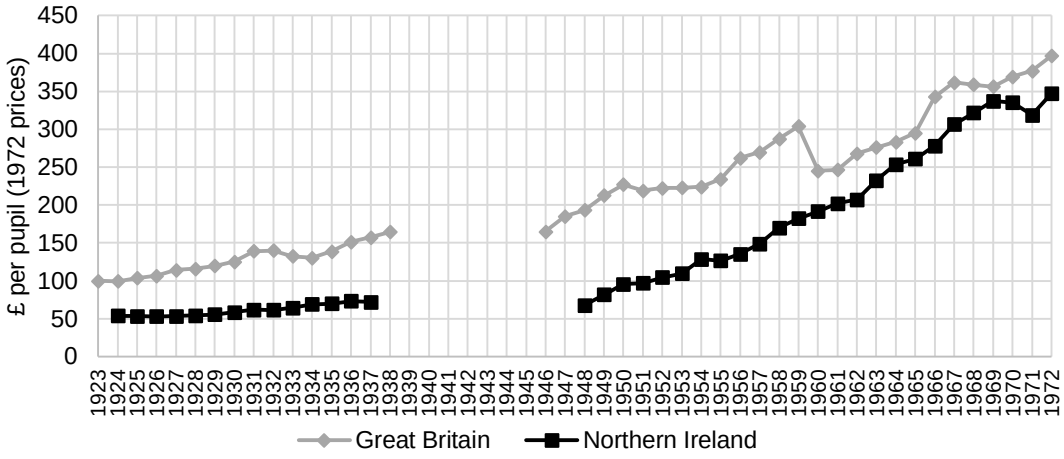
Figure 1.B.1: Northern Ireland's share of all-island population



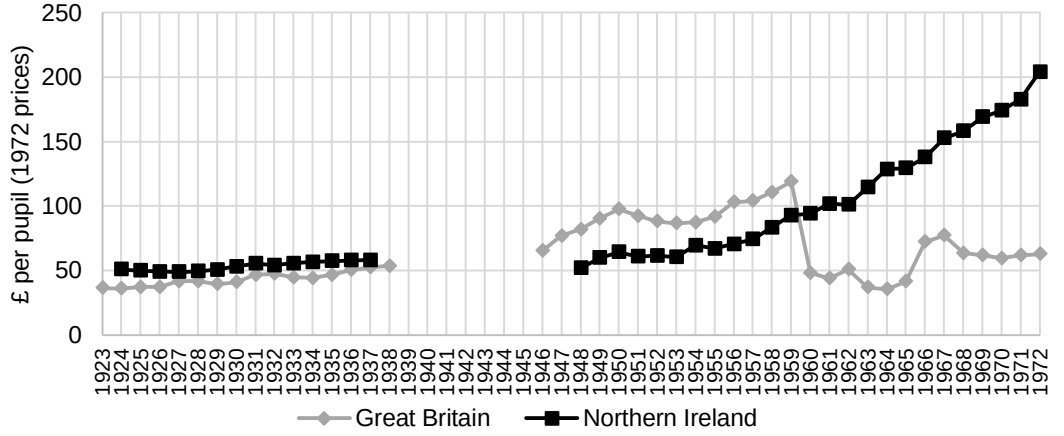
Source: Calculated from Mitchell (1988, p.13-14). See Appendix C for discussion of population estimates.
Notes: Population of Northern Ireland plus population of the Republic of Ireland equals 100 per cent.

Figure 1.B.2: Education expenditure per pupil

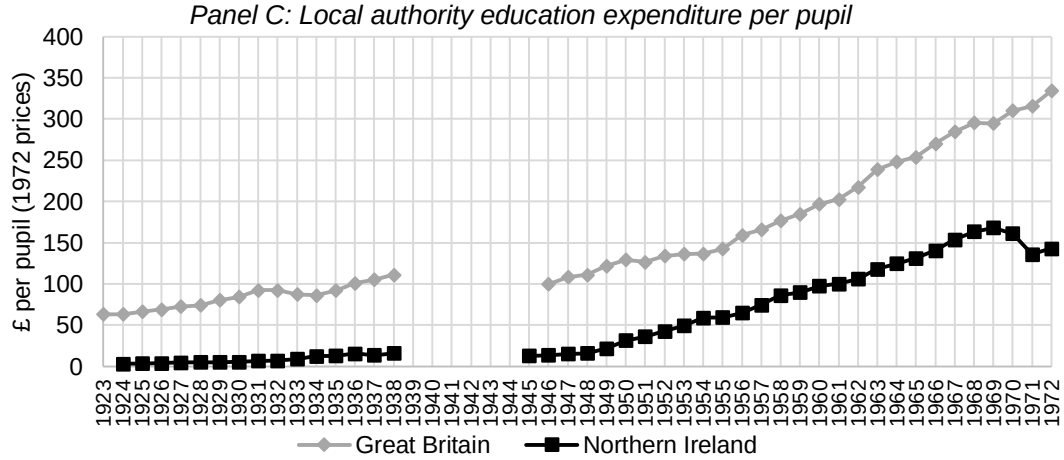
Panel A: Total education expenditure per pupil (Central & Local)



Panel B: Central government education expenditure per pupil



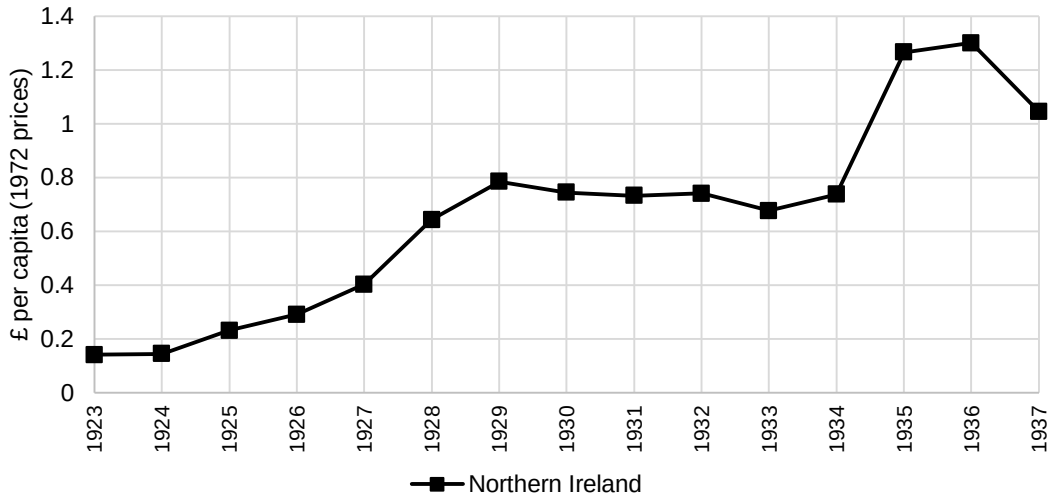
Panel C: Local authority education expenditure per pupil



Source: Northern Ireland education expenditure: for Central Government (Stormont) expenditure, Ulster Year Book (various years); for Local Authority expenditure, Mitchell (1988, p.638-644). For Great Britain education expenditure: for Central Government (Westminster) expenditure, Mitchell (1988, p.587-595); for Local Authority expenditure, England and Wales, and Scotland, Mitchell (1988, p.612-622 & p.626-633). Number of pupils: for Northern Ireland 1924, Ulster Year Book (1926, p.122), and Northern Ireland 1925 onwards, Mitchell (1988, p.803 and p.808-809); for Britain, Mitchell (1988, p.799-800 and p.805-807.

Notes: Total education expenditure calculated as including all central and local government expenditure on education. Includes all expenditure on schools (primary and secondary), further education, higher education, and science. Total number of pupils calculated as primary plus secondary.

Figure 1.B.3: Stormont agriculture expenditure per capita

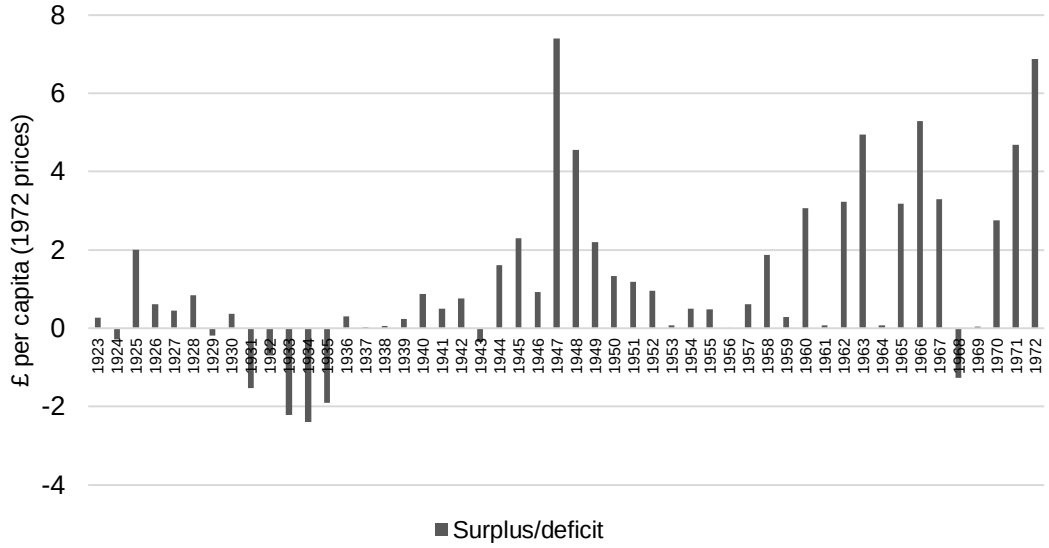


Source: Ulster Year Book (various years).
Notes: Includes all Stormont expenditure on Agriculture Development Fund, Milk Fund, Agricultural Loans Fund, Agricultural Services, and Agriculture Department.

Figure 1.B.4: Expenditure on Road Fund per capita

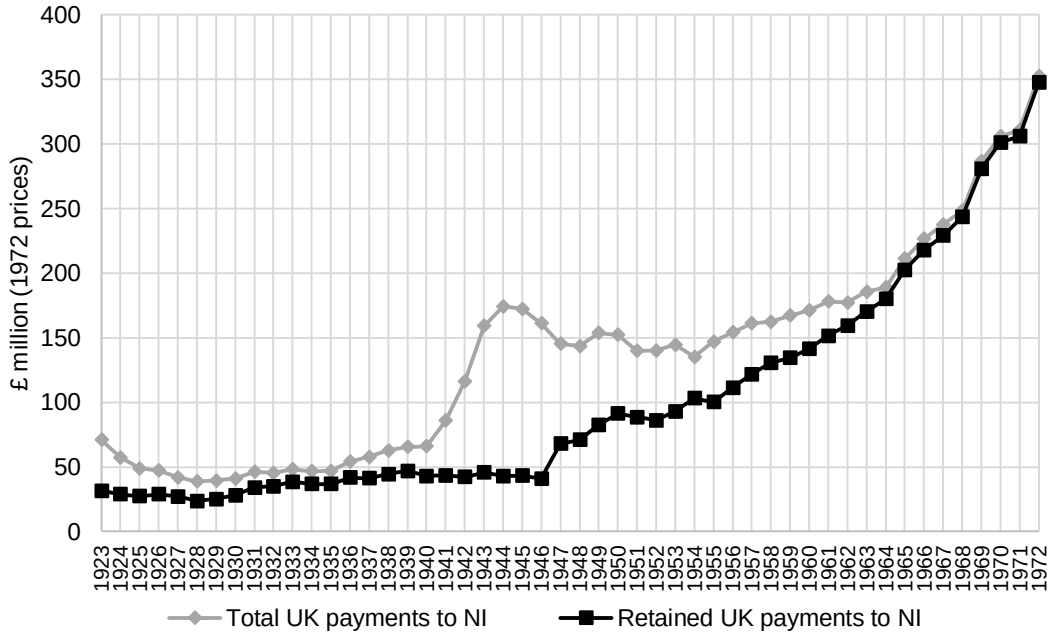
Source: For Northern Ireland, Ulster Year Book (various years). For Great Britain, *Statistical Abstract for the United Kingdom* (various years).

Figure 1.B.5: Stormont's annual surplus/deficit per capita



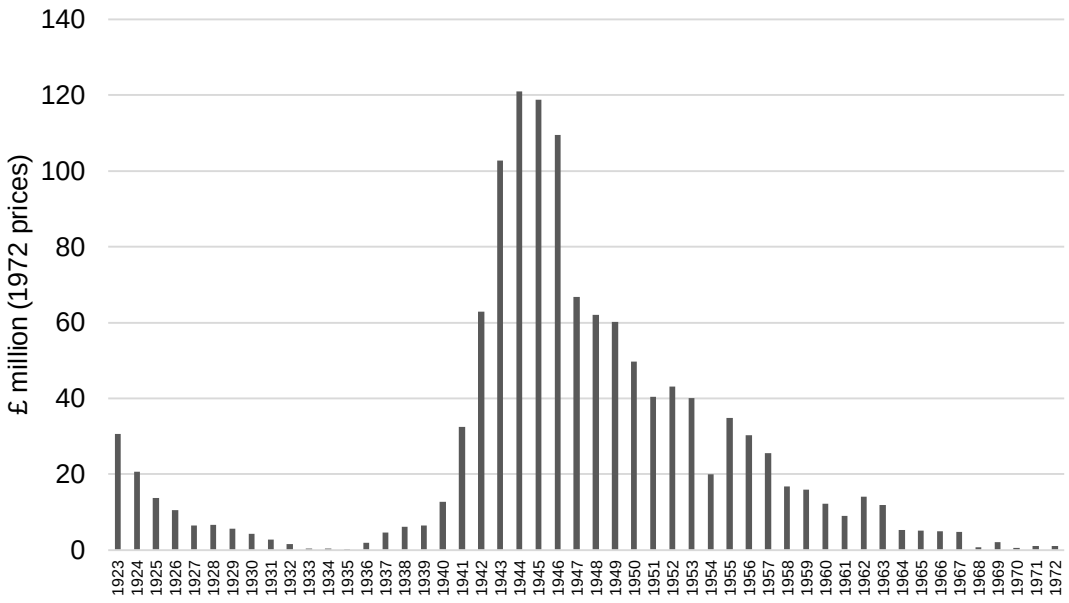
Source: Calculated from Ulster Year Book (various years).

Figure 1.B.6: Total Westminster (UK) payments to Stormont (NI)



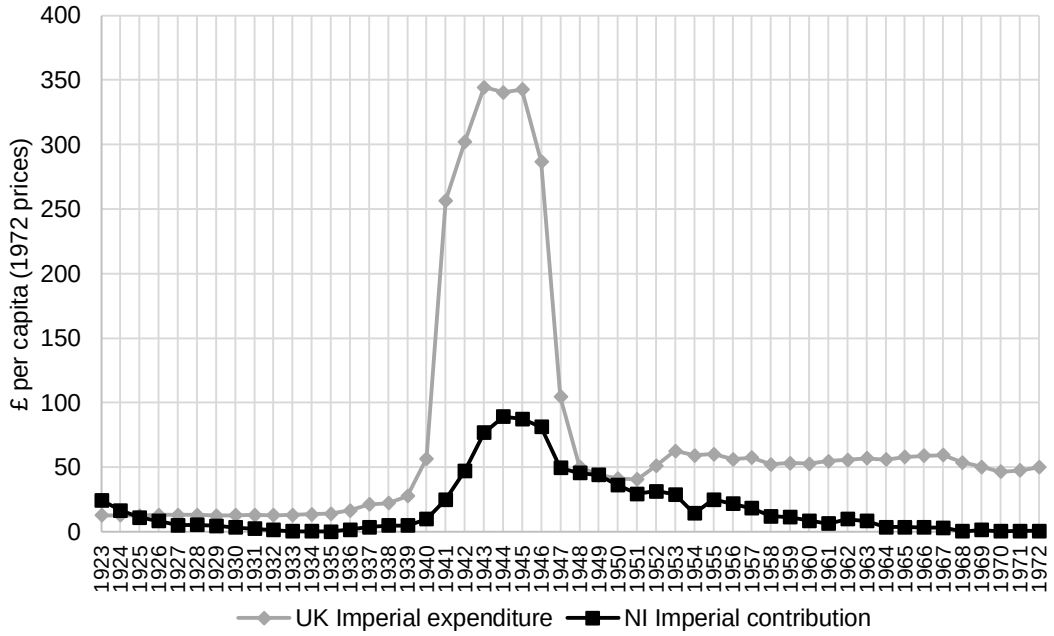
Source: Constructed from Ulster Year Book (various years).
Notes: Total UK payments to NI includes all funds transferred to Stormont from Westminster, including Stormont's share of Reserved Revenue, and all UK Special Payments. Retained UK payments to NI = Total UK payments – (Imperial Contribution + Reserved services expenditure).

Figure 1.B.7: Imperial Contribution



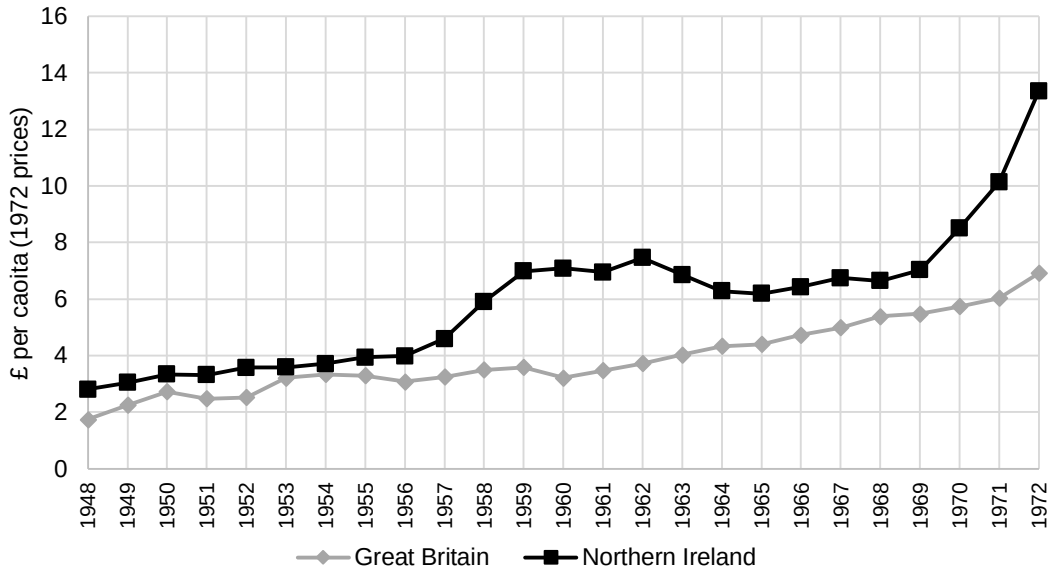
Source: Constructed from Ulster Year Book (various years).

Figure 1.B.8: Imperial Services expenditure per capita



Source: For Northern Ireland Imperial Contribution, constructed from Ulster Year Book (various years); for UK Imperial Expenditure, constructed from Mitchell (1988).
Notes: UK Imperial Expenditure calculated as the total of all UK expenditure on Imperial Services, Defence, and National debt.

Figure 1.B.9: Law and justice expenditure per capita



Source: For Northern Ireland, Ulster Year Book (various years). For Britain, Mitchell (1988)

12) Appendix C – Demography

To account for how population changes may affect our understanding of Stormont's public finances over time, the time-series of the subnational public finances described in Appendix A, involves annual population estimates for Northern Ireland, to create per capita measures of Stormont's revenue and expenditure. These annual population estimates given by Mitchell (1988) cover the whole of the UK, and are disaggregated for England and Wales, Scotland and Northern Ireland, between 1922 and 1980. These annual estimates give the mid-year population, and are constructed using official government statistics.

Figure 1.C.1 compares the total population of Northern Ireland with Britain, indexed to the year 1922, with the annual estimates taking into account births, deaths, migration external to the UK and Europe, and some labour related migration between Britain and Northern Ireland.[172] It shows that following a fall in its population between 1922 and 1930, Northern Ireland followed a similar pattern of growth to Britain through to 1972, closing the gap slightly during the 1960s.[173]

The demographic structure of Northern Ireland can also be compared against Britain using census data compiled by Mitchell (1988). This is used to create the ratio of Northern Ireland to Britain population in each age category, shown in Table 1.C.1. Northern Ireland's population was significantly younger, with a 25 per cent larger population in the under fifteen years of age category by 1971, and the population in the seventy plus category much smaller. The size of Northern Ireland's dependant population was therefore much larger than in Britain, leaving Northern Ireland with approximately a 5 per cent smaller working population. To account for this younger population when considering areas of expenditure which would fall mainly on this

[172] The estimates of Northern Ireland population from Mitchell (1988) match those provided in editions of the *Ulster Year Book*, which provide greater detail (see *Ulster Year Book*, 1938, p.13).
[173] The sudden rise in Northern Ireland's population and subsequent fall between 1942 and 1946 likely reflect Allied forces (mainly American) stationed there.

population, such as education, expenditure was calculated at a per pupil rather than per capita rate.

Figure 1.C.1: Index of population (1922=100)

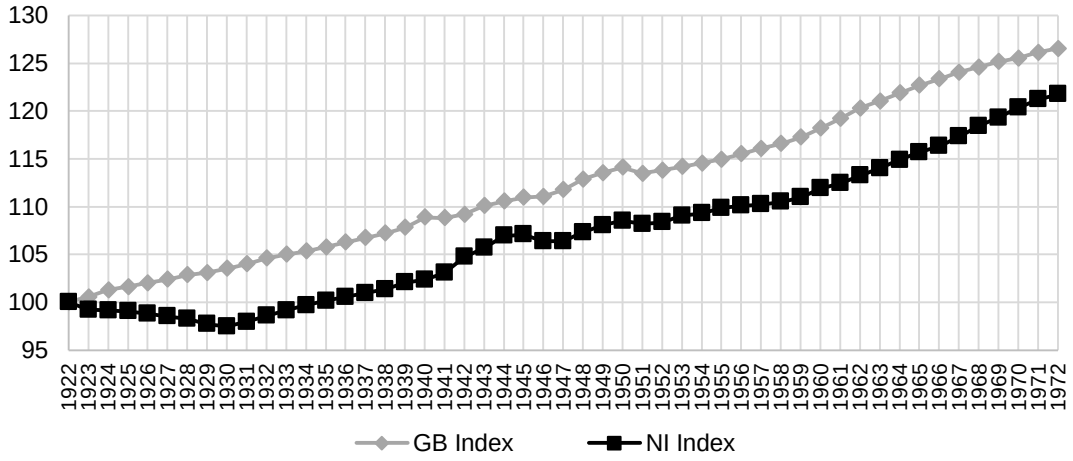


Table 1.C.1: Demographic structure

Age		1921/26*	1931/37*	1951	1961	1971
0-14	NI:GB	1.04	1.12	1.23	1.25	1.24
15-69	NI:GB	0.96	0.94	0.93	0.93	0.94
70+	NI:GB	1.47	1.29	0.94	0.85	0.83

Source: Adapted from Mitchell (1988).
*Population censuses were undertaken in Britain during 1921 and 1931, but in Northern Ireland they occurred during 1926 and 1937.

CHAPTER 2

Doomed to decline?

Interwar industrial performance and policy in Northern Ireland

Abstract

Throughout devolution, Northern Ireland possessed a persistent productivity gap to the rest of the UK. This was despite the apparent benefit of being able to tailor industrial policy to its own needs. The interwar performance of Northern Ireland manufacturing was particularly poor, relative to both the UK and its regions. Unemployment was high, and new industries failed to establish. Existing literature sees Northern Ireland's poor performance as inevitable, blaming it on falling global demand in the staple industries, and a subnational government without the funds to intervene. However, the interwar period provides the opportunity to examine Stormont's early industrial policy in detail, and understand whether regional institutions contributed to the creation of barriers to productivity growth. Using new archival evidence, the interaction between regional institutions and the supply-side of the regional economy is shown to be key. Strong, overlapping networks between business and politics created barriers to productivity growth. Old, low productivity industries were able to capture subsidies through Stormont's industrial policy. This was at the expense of new, higher productivity industries, which were growing in Britain at this time. The failure of Stormont's interwar industrial policy had long-run effects, as it shaped the design of post-war policy interventions, while the failure of new industries to develop limited post-war growth. Regional institutions therefore pose a limit on the efficient decentralisation of industrial policy.

1) Introduction

The UK's recent poor productivity performance has increasingly concerned policymakers (Bank of England, 2014; Pessoa and Van Reenen, 2014; Harris and Moffat, 2017a), with regional inequalities in productivity highlighted across the UK (Rizov and Walsh, 2011; Harris and Moffat, 2017b). Northern Ireland possesses a longstanding productivity gap to the UK (Hitchens and Birnie, 1989a; Mac Flynn, 2016), which has been connected to the broader discussion around how to rebalance the regional economy (H.M. Treasury, 2011). However, why this gap has persisted for so long, despite numerous policy interventions, is not fully understood.

This chapter asks whether regional institutions can explain Northern Ireland's longstanding productivity gap, by examining Stormont's interwar industrial policy, and its impact on the performance of Northern Ireland manufacturing. Using new archival evidence, regional institutions are shown to have placed a limit on the efficient decentralisation of industrial policy. Old, low productivity industries were able to use their strong overlapping networks with Stormont to receive financial support, aiding their survival, but creating barriers to productivity growth. This helped lock the regional economy into a low-wage-investment-productivity equilibrium, which persisted post-war. This has important policy implications for the view that further devolution within the UK is desirable, as it highlights the important role of regional institutions in determining the success of policy interventions.

Regional institutions are increasingly being recognised as important for regional economic performance (Pike *et al*., 2012; Brownlow, 2017; Ganau and Rodriguez-Pose, 2019), but they have not been applied to interwar Northern Ireland as an explanation for its poor performance. An extensive literature exists on the interwar performance of UK manufacturing (Richardson, 1967; Aldcroft, 1970; Pollard, 1992; Broadberry, 1997), but little reference is made to Northern Ireland, beyond an acknowledgement of the importance of linen and shipbuilding to the regional economy. Institutions in Britain have been identified as limiting interwar productivity

growth (Broadberry and Crafts, 1992; Broadberry, 1997), yet the role of institutions at the regional level of the Northern Ireland economy has not been examined. Existing explanations instead see Northern Ireland's poor performance as a demand-side story: an inevitable result of an industrial structure over reliant on the staple industries which were experiencing falling global demand, and a subnational government at Stormont powerless to intervene due to a lack of funds (Buckland, 1979; Johnson, 1985a).

Analysing the poor interwar performance of Northern Ireland manufacturing demonstrates it was not simply a demand-side story. Instead, the supply-side was crucial. Using data digitised from the UK and Northern Ireland *Census of Production*, manufacturing productivity in Northern Ireland is shown to have been at its worst relative to the UK during the interwar period. This is found not simply to be the result of industrial structure, with an overreliance on the staple industries, but also the consequence of within-sector productivity failings. This is linked to the failure of new, high productivity industries to develop in Northern Ireland at the same time as they were growing in Britain, such as man-made fibres within textiles, and electrical engineering within metal trades. The failure of these sectors continued to limit productivity growth within Northern Ireland into the post-war period, as these sectors provided the foundation for post-war growth in UK manufacturing.

Regional institutions are found to have played a key role in contributing to this productivity failure. The expected payoff for firms from investing in skills and knowledge was reduced during the interwar period, both by falling demand, but also by the supply-side conditions they faced. This increased the relative expected payoff to firms from changing institutions to receive benefits. This was facilitated by regional institutions, which saw strong overlapping networks between business and the ruling Unionist Party at Stormont. This led to the influential, old industries receiving subsidies, as Stormont focused on preserving employment. Existing firms were also able to influence the composition and destination of Stormont's industrial expenditure.

Support superficially intended to promote the growth of new industries, was instead captured by old industries and existing firms. This created barriers to structural change and productivity growth, restricting the establishment of new, higher productivity industries. This helped lock the regional economy into a low productivity equilibrium, which persisted post-war. Regional institutions, and their role in altering the allocation of resources within the regional economy through devolved industrial policy, therefore contributed to Northern Ireland's persistent productivity gap.

The rest of the chapter is structured as follows. Section 2 summarises the relevant literature, and the failure to consider the role of regional institutions in explaining Northern Ireland's poor interwar performance. Section 3 compares Northern Ireland's industrial performance against the UK, showing that the productivity gap was not simply a structural problem, but within-sector productivity failures were important. Section 4 discusses the role of regional institutions in Northern Ireland, demonstrating the strong overlapping networks between business and politics, and the means and motive for firms to engage in rent-seeking behaviour. Section 5 examines why existing firms within old industries failed to move into higher productivity areas, due to the supply-side characteristics of the regional economy lowering the expected payoff from investment, and regional institutions raising the expected payoff from changing institutions to receive benefits. Section 6 examines the industrial policy Stormont adopted to promote new industries, and why its failure was the result of regional institutions which favoured existing industries, and not simply a lack of funds. Section 7 provides the conclusion.

2) Relevant literature

Literature from fiscal federalism provides the framework for understanding how Stormont's interwar industrial policy operated. The Government of Ireland Act 1920 (1920 Act) saw the devolved government at Stormont responsible for industrial policy, with Westminster's subsequent industrial policy only applying to Britain. Fiscal federalism examines the consequences of decentralised policy powers for regional economic performance. While first generation theory emphasises the potential benefits, second generation theory emphasises the importance of institutions in explaining why these apparent benefits may fail to be realised (Oates, 2005; Weingast, 2009). In particular, the institutions associated with fiscal decentralisation will affect the incentives faced by a devolved government, which can potentially lead to inefficient industrial policy interventions, such as bailing out failing enterprises (Weingast, 2009). Stormont faced a softening budget constraint during the interwar period, as a result of its financial relationship with Westminster, discussed in Chapter 1. Regional institutions therefore had an important role to play in shaping Stormont's industrial policy interventions.

Institutions have been recognised as key to explaining long-run trends in economic growth (North, 1990; North, Wallis and Weingast, 2009; Acemoglu and Robinson, 2012). However, the importance of regional institutions to economic performance has only been emphasised more recently. Culture and informal institutions have been shown to be important for explaining differences in long-run economic performance across regions (Tabellini, 2010). Regional productivity performance has been linked to the quality of regional institutions. Lamoreaux *et al*. (2006), demonstrate that the regional institutions of Cleveland, USA, drove productivity growth during the second industrial revolution, as they successfully linked business and finance, allowing new technologies to be commercialised. Ganau and Rodriguez-Pose (2019) demonstrate that high quality, regional institutions are linked to high manufacturing labour productivity in modern-day Europe. Government

effectiveness is found to be the main driver of higher productivity, with those most affected being small firms, less capital intensive firms, and high-tech firms (Ganau and Rodriguez-Pose, 2019, p.1654). Devolved government therefore has the potential to affect long-run regional economic performance through industrial policy, but few studies exist which test this theory against real world examples of fiscal decentralisation. While regional institutions have been recognised as being important within a UK context (Pike *et al*., 2012; Brownlow, 2017), their impact on industrial policy interventions has not been examined in detail.

While industrial policy in Northern Ireland has been the subject of much examination, the interwar period has received little attention. Existing literature has mainly focused on post-war industrial policy, and why attempts to promote regional growth failed to see Northern Ireland manufacturing converge with the rest of the UK, whether under Stormont or Direct-rule (Lee, 1971; Harrison, 1990; Harris, 1991; Crafts, 1995; Birnie and Hitchens, 2001; Brownlow, 2013). While the role of institutions has been emphasised in the failings of Stormont's post-war industrial policy (Crafts, 1995; Brownlow, 2007, 2013), evidence of how firms used regional institutions to influence industrial policy, and the importance of regional institutions to earlier periods, has not been examined. The interwar period therefore provides an opportunity to understand how regional institutions contributed to Northern Ireland's persistent underperformance, and whether their importance stretches back to before World War II.

An extensive literature exists on the interwar performance of UK manufacturing, yet little reference is made to Northern Ireland. It is simply not mentioned in many discussions of the interwar period, such as Richardson (1967), Aldcroft (1970), Pollard (1992), and Crafts (2018). Where Northern Ireland is mentioned, such as Broadberry (1997), it is only briefly in relation to shipbuilding and linen. Discussions of the Irish interwar economy mention Northern Ireland more consistently (Johnson, 1974, 1985b; Kennedy, Giblin, McHugh, 1988; Ó Gráda,

1997), but mainly in comparison with the fortunes of the Irish Free State. This leaves detailed analysis of Northern Ireland's interwar experience to only a few select authors. This analysis often concentrates on the experiences of the staple industries, such as Beacham (1944) for linen, and Geary and Johnson (1989) for shipbuilding. However, an overarching narrative for Northern Ireland's industrial performance is provided by Buckland (1979, 1981) and Johnson (1985a).

Johnson (1985a) provides the most complete narrative of the interwar period, attributing Northern Ireland's poor performance to the decline of the export-orientated, staple industries it was concentrated in. Falling global demand is blamed for the poor performance of linen and shipbuilding, and in the case of linen, supply-side factors are specifically rejected as an explanation for this decline. The failure of new industries to establish is attributed to a mixture of misfortune and a lack of government incentives. With southern Britain already containing the new industries which would see interwar expansion, only financial inducements beyond those Stormont was able to give would have brought these industries to Northern Ireland (Johnson, 1985a, p.200-201). The decline of the staple industries, and the failure of new industries to develop, was therefore inevitable, and not the fault of Stormont's industrial policy.

Buckland (1979, 1981) similarly identifies falling global demand, and a lack of government funds to attract new industries, as responsible for the decline in industrial performance. Geographic disadvantages relating to costs are also suggested, including distance from raw materials and markets (Buckland, 1979, p.128), while Stormont is criticised for inaction over industrial policy (Buckland, 1979, p.126). Together Johnson (1985a) and Buckland (1979) view Northern Ireland's poor interwar economic performance as demand driven, unrelated to the supply-side. The existing narrative is therefore that industrial decline was the inevitable result of falling global demand, combined with the misfortune not to already possess new industries which would expand during the 1930s, with this situation one which Stormont could not influence due to a lack of funds.

This interwar narrative contrasts starkly with the post-war explanation of Northern Ireland economic failings. While Northern Ireland's growth was limited by shared UK problems, Crafts (1995) finds factors specific to Northern Ireland also existed, which led to its poor post-war performance relative to other less favoured UK regions. This was primarily the result of an industrial structure focused on low productivity industries immediately post-war, and a gap in labour productivity (Crafts, 1995, p.19). Institutions are suggested as the main source of these problems, as government policy interventions failed to increase industrial efficiency (Crafts, 1995, p.24).

An institutions centred explanation for Northern Ireland's poor performance post-war is supported by Brownlow (2007, 2013). Productivity growth only occurred when Stormont's industrial policy of the 1960s favoured newer, efficient industries, which replaced older, less efficient industries (Brownlow, 2007, p.92), with this period seeing the greatest convergence in GDP per capita between Northern Ireland and the UK average (Birnie and Hitchens, 2001, p.3). In *An Economic Survey of Northern Ireland*, Isles and Cuthbert (1957) hint at the role of regional institutions in Northern Ireland's interwar economic performance. They suggest that an "attitude of restriction" developed within Northern Ireland business during the 1930s, which may have helped restrict business development (Isles and Cuthbert, 1957, p.349). As their report was commissioned by Stormont, this theme was left undeveloped.[174] However, it reinforces the role of institutions in affecting regional economic performance, as demonstrated discussed by Crafts (1995) and Brownlow (2007) for the post-war period. Brownlow (2013, p.306) concludes that institutions, and their influence on supply-side competitiveness, are central to explaining the long-run gap in economic performance between Northern Ireland and Britain.

[174] Isles and Cuthbert (1957) was published two years after originally being written, which Bew, Gibbon, and Patterson (2002, p.116) suggest was the result of it being critical of the Stormont government.

While there has been a failure to examine the role of institutions in Northern Ireland's interwar economic performance, this is not the case for the UK as a whole. Broadberry (1997) provides an institutions based explanation for the relative performance of UK manufacturing. Comparing the long-run productivity performance of UK manufacturing against Germany and the USA, Broadberry (1997) demonstrates the UK was not a productivity leader during the interwar period. UK productivity was superior to Southern Europe (France and Italy), and matched Northern European countries (Germany, Netherlands, Norway, Sweden, and Denmark), but lagged behind Australia and Canada, and was half that of the USA (Broadberry, 1997, p.53-54).

The explanation for the UK's relatively poor interwar productivity performance is centred on the role of institutions, with a failure to remain competitive being the result of barriers to productivity growth (Broadberry, 1997). These can arise when the owners of human and physical capital, which are associated with inferior production techniques, use their bargaining power to delay the transition to higher productivity methods (Broadberry, 1997, p.129). This can involve lobbying for protection, and subsidies from government. Whether this delaying strategy is successful depends on the institutions present, as these determine the competitive environment, and thus the incentives firms face to improve their productivity performance (Broadberry, 1997). Broadberry (1997, p.210) shows institutions were responsible for the UK's productivity gap widening to the USA between 1914 and 1950. Barriers to competition became institutionalised, weakening the pressure for firms to adjust and compete against new innovations, which stored up problems for post-war readjustment (Broadberry, 1997).

Broadberry and Crafts (1992) similarly identify institutional factors as responsible for Britain's poor manufacturing performance relative to the USA during the interwar period. This included restrictive working practices, a lack of human capital, and collusive agreements between firms (Broadberry and Crafts, 1992). The inheritance of institutions developed during the nineteenth century, which were

unsuitable and unable to adapt to the context of the interwar British economy, has also been blamed for the UK's relatively poor economic growth (Elbaum and Lazonick, 1984). The UK is not the only country where institutions have been suggested as creating barriers to interwar productivity growth. Giordano and Giugliano (2015) examine Italy's labour productivity during the first half of the twentieth century, and show that more interventionist industrial policy under the Fascist government resulted in slower productivity growth.[175]

The only long-run analysis of manufacturing productivity in Northern Ireland is provided by Hitchens and Birnie (1989a). Productivity was not only lower in Northern Ireland than Britain, but failed to converge over time (Hitchens and Birnie, 1989a, p.449). They suggest institutions may have been responsible for this long-run productivity gap to the UK, but do not provide evidence of whether this was the case. The analysis of sectoral productivity is also limited to after devolution ended, and the contribution of industrial structure to the interwar productivity gap is only provided for the single year of 1935, from estimates by Isles and Cuthbert (1957). This means it is unclear where Northern Ireland's productivity gap originated from during the interwar period, and what caused it.

Northern Ireland manufacturing possesses a long-run productivity gap to the UK. However, the existing narrative for Northern Ireland's poor interwar performance focuses on the demand-side, with institutions having little role, due to Stormont's apparent lack of funds for industrial policy interventions. This contrasts with analysis of the UK's interwar performance, and Northern Ireland's post-war experience, which focus on the supply-side, and the role of institutions in creating barriers to productivity growth. However, the post-war narrative for Northern Ireland does not provide evidence to prove how existing firms were able to alter regional institutions for their

[175] In a recent working paper by Akcigit, Baslandez, and Lotti (2018), which considers modern-day Italy, they demonstrate that firms with greater political connections have a higher rate of survival and growth of employment and revenue, but are less likely to innovate, harming productivity growth.

own benefit. Therefore, by combining new archival material with data measuring manufacturing productivity, the interwar period gives an opportunity to test whether industrial decline was solely a demand-side story, and if regional institutions affected economic performance.

3) Industrial performance and productivity

It is clear that Northern Ireland's economic performance was persistently poor throughout devolution. While there are limited sources available to measure Northern Ireland's long-run economic performance,[176] the available comparisons demonstrate this poor performance, relative both to the UK and other regions.

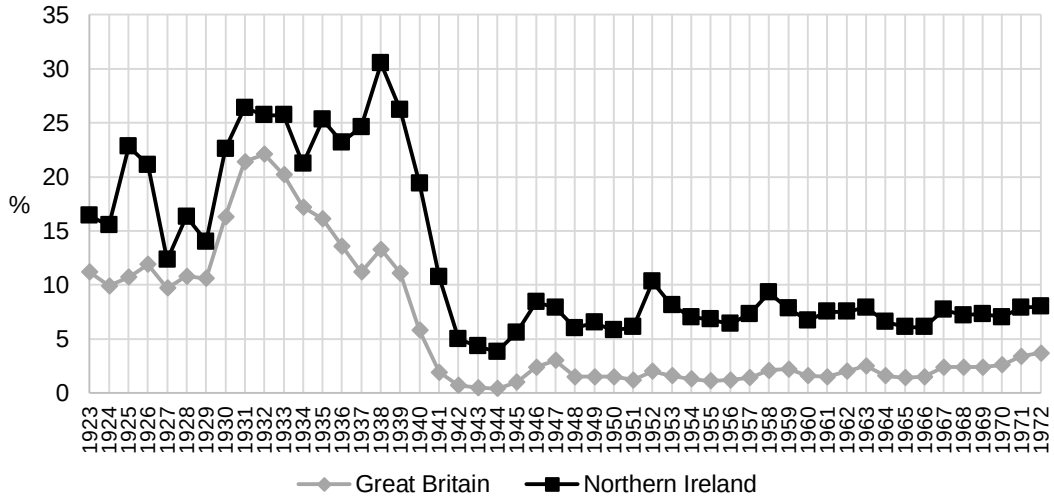
Table 2.1 shows GDP per capita, and Figure 2.1 shows the rate of unemployment in the insured population, comparing Northern Ireland to the UK and Britain respectively. In both cases, Northern Ireland's poor performance was at its worst during the 1930s. Unemployment was persistently high and diverging from the rate in Britain, while the gap in GDP per capita was at its widest. Northern Ireland's poor performance was a long-run problem, already evident during the interwar period, and not simply a result of post-war deindustrialisation.

Table 2.1: Relative GDP per capita

	1924	1938	1947	1960	1973
NI/UK (where UK=100)	62	52	71	63	73

Source: Kennedy, Giblin and McHugh (1988, p.124-125).

Figure 2.1: Average annual unemployment

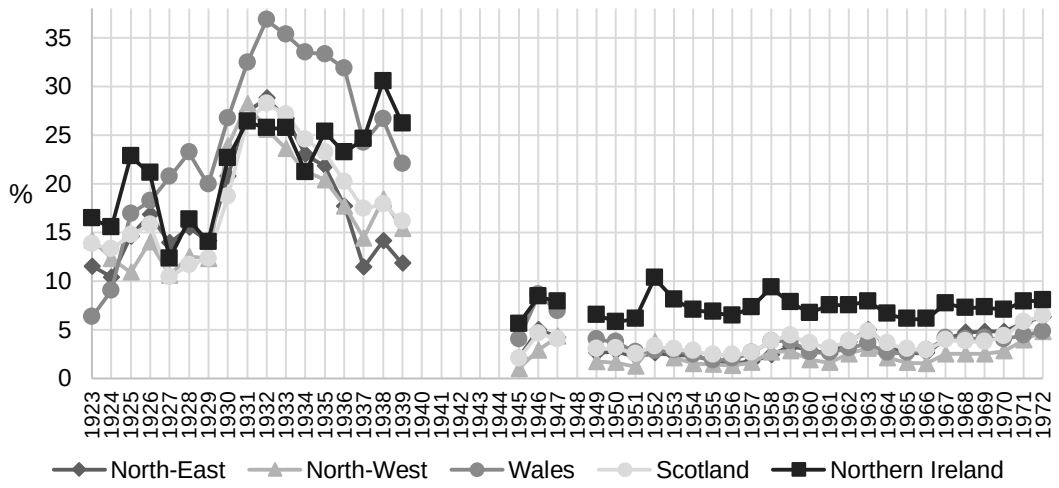


Source: For both Britain and Northern Ireland: 1923-1939, 1945-1947, and 1949-1972 from Mitchell (1988, p.125-126); 1940-1944, and 1948, Isles and Cuthbert (1957, p.566).

[176] Official annual estimates of regional GDP within the UK were only introduced during the late 1960s.

Given Northern Ireland was a region within the UK, its economic performance might be expected to more closely reflect that of its peers. Nineteenth century industrialisation meant Northern Ireland shared similar characteristics with other industrialised UK regions (Ollerenshaw, 1985, p.62). Yet even comparing unemployment in Northern Ireland against the four worst performing regions in Britain (North-East England, North-West England, Scotland, and Wales), there is a divergence in performance which is evident during the 1930s, shown in Figure 2.2. From the mid-1930s, Northern Ireland did not experience the fall in unemployment seen in the other regions, and by 1938, Northern Ireland had the highest level of unemployment. This was higher than at the height of the Great Depression in Northern Ireland, and saw it surpass Wales, the UK's previous worst performer. This unemployment gap, relative to other regions and the UK, persisted post-war.

Figure 2.2: Regional average annual unemployment

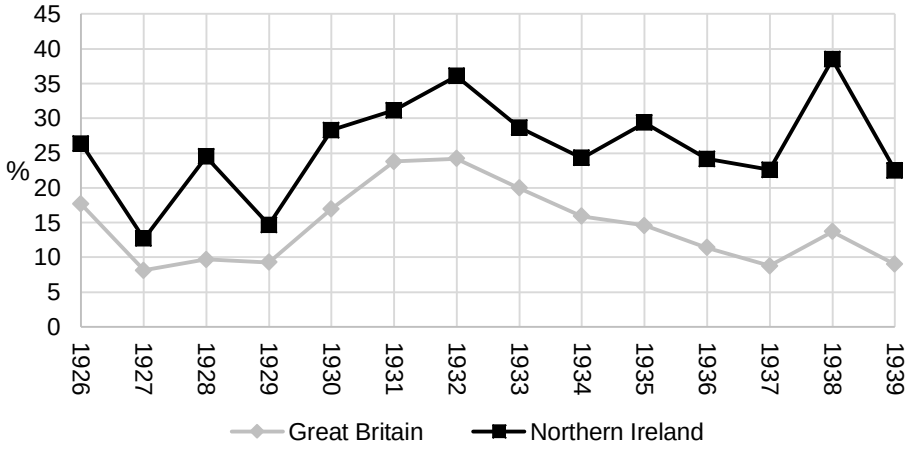


Source: Mitchell (1988, p.125-126).
Notes: Unemployment data for the insured population unavailable for the regions of Britain between 1940 and 1944 in Mitchell (1988). North-East uses the values for the North-East region from 1923 until 1939, and the values for the newly created North region from 1945 until 1972.

Manufacturing was the largest source of employment in interwar Northern Ireland, accounting for over one-third of the working population, and over one-fifth of

the adult population.[177] Its performance was therefore important to the overall health of the regional economy. Unemployment in manufacturing, compared to the overall insured occupations, was even higher for Northern Ireland relative to Britain, shown in Figure 2.3. A divergence was again evident post-1934, with manufacturing unemployment reaching 38 per cent in Northern Ireland in 1938, compared to only 14 per cent in Britain. The poor performance of manufacturing was therefore central to the regional economy's poor interwar performance.

Figure 2.3: Interwar unemployment in manufacturing



Source: For Northern Ireland, Isles and Cuthbert (1957, p.578 and p.586). For the UK, HMSO (1971, p.210-211 & 312-313).
Notes: The rate of unemployment in the insured population of Britain was calculated by subtracting the numbers insured and unemployed in Northern Ireland from the UK figures.

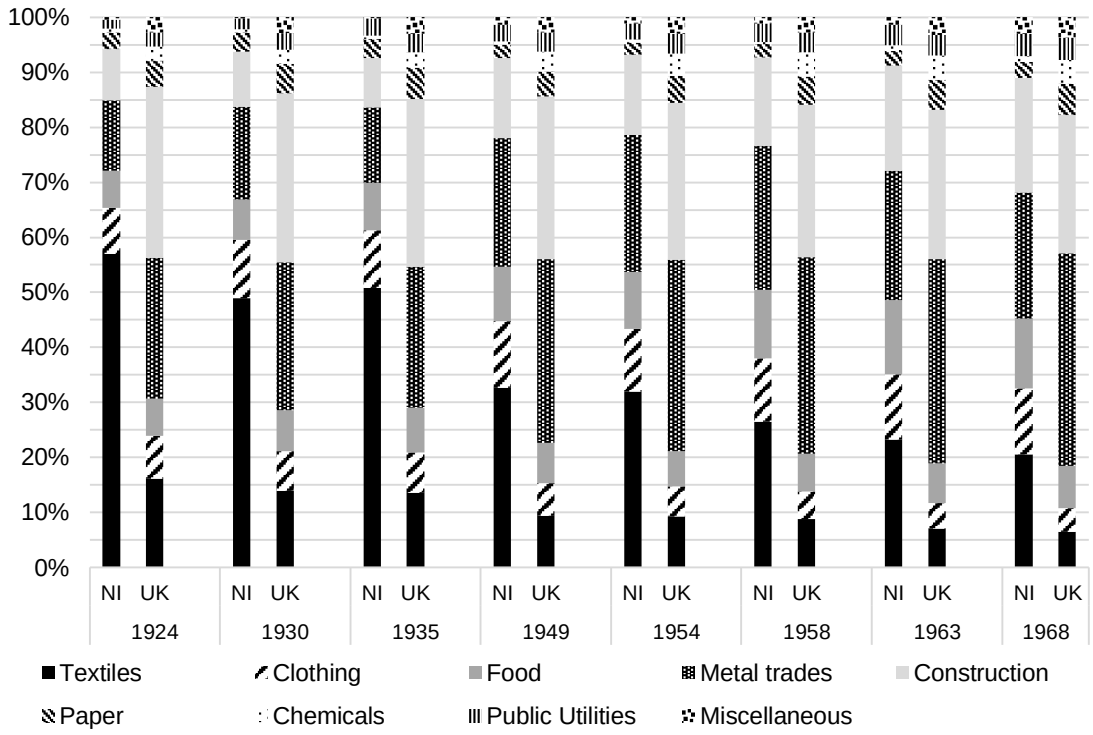
Existing literature blames the poor performance of Northern Ireland manufacturing on an overreliance on the staple industries of textiles and shipbuilding (Buckland, 1979, Johnson, 1985a). To examine their importance to the structure of Northern Ireland manufacturing, Figure 2.4 uses data from the *Census of Production*, to give each manufacturing sector's employment as a percentage of total manufacturing employment. The *Census of Production* was a survey of manufacturing firms published at intervals for the whole of the UK, and containing data on areas

[177] See Table 2.A.1 in the Appendix.

including output, costs, and employment. Crucially, the *Census of Production* was published separately for Northern Ireland, at a much greater level of detail than provided in the UK publication, allowing for more in-depth analysis of the region's manufacturing sector.

Figure 2.4 clearly shows that Northern Ireland manufacturing was indeed more concentrated in specific sectors. During the interwar period, textiles and the metal trades, which includes shipbuilding, were the two largest sectors. In contrast, UK manufacturing was much more diverse. The post-war period did see diversification in Northern Ireland manufacturing employment, and a gradual shift towards the UK structure, previously highlighted by Crafts (1995, p.19). However, post-war Northern Ireland still retained higher employment in textiles, clothing, and food, and lower employment in metal trades, construction, paper, and chemicals.

Figure 2.4: Manufacturing employment by sector



Sources: For Northern Ireland: *Census of Production of Northern Ireland Report 1924, 1935, 1949, 1958, 1968*. For the UK: HMSO (1978).

Table 2.2 compares the overall productivity performance of manufacturing across the UK. Northern Ireland possessed a persistent productivity gap over time, averaging only 72 per cent of the UK level for the majority of devolution. In comparison, England and Wales were around the UK level, with Wales being above this level post-war, while Scotland was only slightly below the UK level. Northern Ireland's productivity gap worsened during the interwar period, being at its greatest during the 1930s. This reflects the pattern seen for GDP per capita in Table 2.1, and demonstrates that manufacturing's performance closely reflected the wider regional economy. With unemployment in manufacturing significantly higher in Northern Ireland than the UK, it also suggests this productivity gap was not simply a case of labour hoarding.

Table 2.2: Relative regional productivity performance of manufacturing

Year	Relative net output per person employed (UK=100)			
	England	*Wales*	*Scotland*	*Northern Ireland*
1924	101	-	97	71
1930	101	-	95	65
1935	101	-	95	66
1954	103	118	93	69
1958	100	118	97	71
1963	100	113	98	76
1968	101	106	95	85

Sources: *Census of Production UK Report*, 1935, for England and Wales, and Scotland 1924, 1930, and 1935; and HMSO (1978) for England, Wales, and Scotland, 1954, 1958, 1963, 1968. *Census of Production of Northern Ireland Report,* 1924, 1935, 1949, 1958, 1968, for Northern Ireland, all years.
Notes: Manufacturing productivity is calculated as net output divided by total persons employed. England includes Wales for 1924, 1930, and 1935. England and Wales, and Scotland exclude Construction sector and Government Departments for 1924, 1930, and 1935.

To examine whether Northern Ireland's persistent productivity gap was simply a structural story, as argued by the existing literature, Table 2.3 measures the relative contributions of structure and within-sector productivity to the productivity gap. This is calculated using the shift-share method described by Hitchens and Birnie (1989a, p.452). An overall value for manufacturing productivity is calculated by giving each

sector in Northern Ireland the UK level of productivity, but retaining the Northern Ireland structure of manufacturing. The proportion of the productivity gap which this closes, reflects the share attributable to within-sector productivity differences. The remaining productivity gap therefore only reflects what is due to a differing industrial structure.[178]

An alternative approach, used by Isles and Cuthbert (1957) and Hitchens and Birnie (1989a), is to calculate the contribution of structure first. This approach is attractive for showing what Northern Ireland's performance would be if it possessed the UK manufacturing structure. However, the method chosen here, of calculating the contribution of within-sector differences first, is preferred as it is a counterfactual that demonstrates the potential for the productivity gap to be closed within sectors, without requiring a complete change in industrial structure.

The results in Table 2.3 show that, despite variation over time, differences in within-sector productivity accounted for the majority of the productivity gap, with an average value of 72.9 per cent, while structure accounted for 27.1 per cent. In 1935, within-sector productivity is shown to account for 65.6 per cent of the productivity gap, which is higher than the 45 per cent calculated by Isles and Cuthbert (1957, p.273). To test if this difference is the result of calculating the contribution of within-sector productivity first, the calculation is repeated using the alternative approach of Isles and Cuthbert (1957). While this lowers the contribution of within-sector productivity to

[178] This method involves splitting the data contained within the *Census of Production* into nine sectors, for both the UK and Northern Ireland. This was the lowest level of disaggregation that allows the maximum number of consistently defined sectors, to allow consistent comparisons over time, given the data available. These were: 1.) Textiles, 2.) Clothing, 3.) Food, drink and tobacco, 4.) Metal trades, engineering and shipbuilding, 5.) Construction and extractive industries, 6.) Paper and printing, 7.) Chemicals, 8.) Public utilities, 9.) Miscellaneous. UK sectoral output per person was then weighted by the proportion of total manufacturing employment in that sector in Northern Ireland. These sectoral values were added together to give an overall synthetic value for productivity in Northern Ireland. The difference between this synthetic figure and the actual Northern Ireland figure is then expressed as a percentage of the total gap between overall Northern Ireland and UK productivity. This provides the proportion of the productivity gap due to a within-sector productivity gap, labelled Productivity in Table 2.3. The remaining gap is a result of structural differences between manufacturing in Northern Ireland and the UK, labelled Structure in Table 2.3.

51.5 per cent in 1935, and lowers the within-sector figure in other years, the overall conclusion still holds: within-sector productivity accounted for the majority of the gap, with an average of 69.2 per cent.[179]

Table 2.3: Relative manufacturing productivity performance

Year	Net output per person employed, (£, 1972 prices)		Relative output per person employed	Contribution to the productivity gap (%)	
	NI	*UK*	*NI/UK (UK=100)*	*Within-sector*	*Structure*
1924	707.94	992.11	71	76.3	23.7
1930	691.08	1,062.70	65	62.4	37.6
1935	798.65	1,217.94	66	65.6	34.4
1949	1,075.44	1,434.94	75	95.4	4.6
1954	1,125.61	1,624.38	69	80.8	19.2
1958	1,236.75	1,732.33	71	70.1	29.9
1963	1,631.94	2,139.87	76	74.6	25.4
1968	2,197.37	2,597.88	85	58.2	41.8

Sources: For Northern Ireland: *Census of Production of Northern Ireland Report,* 1924, 1935, 1949, 1958, 1968. For the UK: HMSO (1978).
Notes: Net output converted into 1972 prices using ONS (2004, 2020). For description of method to calculate within-sector and structural productivity, see text.

Another possible reason for the difference in results compared to Isles and Cuthbert (1957) may be the differing degree of disaggregation used. Isles and Cuthbert (1957) use 37 sectors, compared to only 9 sectors in Table 2.3. Having greater disaggregation may increase the role of structure, as more accurate matching of industries within sectors will reduce the effect of a higher concentration of low productivity industries within a sector. However, in order be able to make consistent comparisons over time, 9 sectors is the lowest possible disaggregation that gives the maximum number of consistently defined sectors, due to the relatively lower level of detail published in the interwar editions of the *Census of Production*.[180] While it would be possible to re-run the calculation in Table 2.3 with a different number of sectors for

[179] See Column (2), Table 2.A.2 in the Appendix for the results for individual years using this alternative method.
[180] Isles and Cuthbert (1957, p.266 & p.274) note this difficulty in comparing the *Census of Production* across years due to changes in the classification and grouping of individual industries.

each year, the differing degree of aggregation would make it unclear whether any changes over time were due to the relative contribution of structure and within-sector productivity, or simply the result of higher or lower disaggregation.

The structural part of the productivity gap in Table 2.3 averaged 27.1 per cent, and reflected Northern Ireland's relatively higher concentration in low productivity sectors, such as clothing, textiles, and construction, and a relatively lower concentration in high productivity sectors, such as chemicals, paper and printing, and metal trades.[181] The persistence of the productivity gap therefore did partly reflect industrial structure, as low productivity sectors maintained their share of manufacturing into the post-war period, and higher productivity sectors failed to grow. However, Northern Ireland's productivity gap was not simply the result of this industrial structure.

This conclusion does need to be treated with care, given the choices made around method and disaggregation of sectors, as well as the *Census of Production* not covering all those employed in manufacturing. For example, the 1935 *Census of Production* covered 80 per cent of manufacturing employment in Northern Ireland, but only 44 per cent of manufacturing employment in Britain (Hitchens, Wagner and Birnie, 1990, p.288). Yet even with the limitations in how the productivity gap is measured and attributed, the within-sector productivity gap was at least, if not more, important than industrial structure.

The within-sector productivity gap was a persistent feature of Northern Ireland manufacturing throughout devolution. Table 2.4 calculates each sector's productivity relative to the UK. It shows that textiles, the largest sector in Northern Ireland manufacturing, had the greatest productivity gap to the UK, but all sectors possessed a persistent productivity gap over time. The only significant convergence in within-sector productivity took place during the 1960s, specifically in the sectors of textiles,

[181] See Table 2.B.3 in Appendix.

food, and chemicals. In textiles, this coincides with the arrival of multinational firms, and the closure of many smaller, family owned firms (Ollerenshaw, 1991). These productivity improvements also coincide with the introduction of the improved industrial policy identified by Brownlow (2007).

Table 2.4: Manufacturing productivity by sector (NI/UK where UK=100)

	1924	1930	1935	1949	1954	1958	1963	1968
Textiles	74	71	70	72	64	76	78	105
Clothing	73	67	65	72	70	72	71	71
Food, drink & tobacco	79	66	88	83	86	88	93	111
Metal trades, engineering & shipbuilding	80	87	75	72	76	74	78	76
Construction & extractive industries	90	91	86	79	76	78	83	85
Paper & printing	78	79	76	69	71	75	70	83
Chemicals	59	76	76	84	78	98	140	164
Public utilities	73	59	61	98	82	85	72	74

Sources: For Northern Ireland: *Census of Production of Northern Ireland Report,* 1924, 1935, 1949, 1958, 1968; For the UK: HMSO (1978).
Notes: Manufacturing firms categorised under 'Miscellaneous' were excluded, as the variation in firms included, both over time and between Northern Ireland and the UK, made meaningful comparison impossible.

A reason suggested for Northern Ireland's productivity gap is the transport costs associated with peripherality. Buckland (1979) suggests transport costs were the reason for Northern Ireland manufacturing's inability to compete with those in Britain during the interwar period. However, the evidence does not support the productivity gap being driven by transport costs. Isles and Cuthbert (1957) highlight the role of transport costs in potentially limiting Northern Ireland's regional competiveness, but emphasise other factors as more important. Hitchens and Birnie (1989b) reject peripherality as an explanation for the post-war productivity gap, using transport cost data from the post-war *Censuses of Production*, to demonstrate that transport costs were not higher. Considering long-run performance, Brownlow (2013, p.293) argues the "hard peripherality argument does not seem plausible" as an

explanation for Northern Ireland's poor long-run performance, as Ulster's prior industrialisation of the late nineteenth and early twentieth century demonstrated.

To support this conclusion for the interwar period, costs for Northern Ireland manufacturing are shown to be no higher than those for the rest of the UK. Using data from the *Census of Production*, costs can be measured as a percentage of gross output. While these costs do not reflect the cost of shipping finished goods to their final destination, they do include the transport costs of raw materials used in the production of goods, which would lower productivity. These costs were not uniformly higher in Northern Ireland relative to the UK, whether at the aggregate or disaggregated level.[182] This supports the argument that the direct costs of peripherality were not to blame for Northern Ireland's lower productivity.

An explanation of Northern Ireland's within-sector productivity gap can be linked to the failure to begin the transition from old, low productivity industries, to new, high productivity industries. The interwar period was a crucial period, as it saw the growth of new, high productivity industries in Britain (Richardson, 1961; Aldcroft, 1970). These included man-made fibres in textiles, and electrical engineering in the metal trades, but Northern Ireland failed to see similar growth within its two largest manufacturing sectors.

In textiles, the interwar period saw the expansion of high productivity rayon (man-made fibres) in Britain (Aldcroft, 1970). This expansion began during the 1920s, with output almost nine times greater in 1929 than 1920, and tripling again between 1929 and 1939, being largely unaffected by the Great Depression (Aldcroft, 1970, p.188). Man-made fibres were complimentary to the production of other textiles, allowing otherwise idle mills to mix production with existing fabrics (Aldcroft, 1970,

[182] See Table 2.A.4 in the Appendix.

p.188). Man-made fibres was also a much higher productivity industry, with output per person in 1935 of £928.72, compared to £523.87 in linen.[183]

Yet the man-made fibres industry failed to develop on any notable scale in Northern Ireland during the interwar period. By 1935, man-made fibres accounted for 8 per cent of total UK textile employment, employing 81,825 people in Britain.[184] This was larger than linen's employment of 55,621 in Northern Ireland, where man-made fibres remained so small that it was only included within the 'Other textile' category, which in total accounted for just 4 per cent of textile employment.[185]

Table 2.5 shows that the production of man-made fibres remained almost non-existent in Northern Ireland until after World War Two. This was despite rayon yarn being able to be spun on existing flax machinery during the war (Beacham, 1944, p.207). It was the late 1950s and into the 1960s before a fundamental shift towards man-made fibres occurred, as a result of the arrival and investment of large multinationals (Ollerenshaw, 1991, p.76). It was this shift which saw productivity in Northern Ireland textiles surpass the UK level by the end of the 1960s in Table 2.4.

Table 2.5: Proportion of textile output (sq. yds.) in Northern Ireland by type

Year	Linen (%)	Cotton & cotton/rayon mix (%)	Rayon (%)	Other materials (%)
1912	100.0	0.0	0.0	0.0
1924	98.5	1.5	0.0	0.0
1937	96.8	3.1	0.0	0.1
1949	54.5	13.0	31.2	1.2
1951	52.9	9.3	36.8	1.0
1954	57.8	11.9	28.3	2.1
1958	53.9	12.7	27.0	6.4
1960	51.8	17.3	23.9	7.0
1961	45.4	20.2	26.8	7.5

Source: *Ulster Year Book*, 1960-62, p.113

[183] For the UK, calculated from UK *Report on the Census of Production*, 1935. For Northern Ireland, calculated from *Census of Production of Northern Ireland Report*, 1935. Both converted into 1972 prices using ONS (2004, 2020).
[184] Calculated from UK *Report on the Census of Production*, 1935.
[185] Calculated from the *Census of Production of Northern Ireland Report*, 1935.

Metal trades in Northern Ireland was another sector to miss out on the interwar growth of new, high productivity industries within the UK, specifically electrical engineering. By 1935, electrical engineering accounted for 3.2 per cent of total manufacturing employment in the UK, but accounted for only 0.7 per cent in Northern Ireland.[186] Shipbuilding continued to dominate the metal trades sector in Northern Ireland, increasing both its level and share of manufacturing employment, from 7,546 workers in 1924 (5.0 per cent), to 12,031 workers in 1935 (9.1 per cent).[187] Northern Ireland also accounted for 14.7 per cent of all UK workers in shipbuilding in 1935, significantly above its share of UK manufacturing employment of 1.7 per cent.[188] Output per person in Northern Ireland shipbuilding was £835.98 in 1935, but output per person in UK electrical engineering was much higher at £1,246.55.[189]

This inability to shift away from low productivity industries towards new, high productivity areas, ensured Northern Ireland's productivity gap to the UK persisted. The interwar period laid the foundations for the growth of these new industries post-war, but Northern Ireland missed out on this crucial phase, despite having a high concentration in the industrial sectors which would successfully transition in Britain. The existing narrative for Northern Ireland focuses on falling global demand in the staple industries as explaining Northern Ireland's poor interwar performance. However, this explanation ignores crucial aspects of the supply-side of the regional economy. Northern Ireland's productivity gap was not simply structural: there were significant within-sector productivity failings too. Examining the role of regional institutions demonstrates their contribution to these failings.

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[186] Calculated from UK *Report on the Census of Production*, 1935, and the *Census of Production of Northern Ireland Report*, 1935.
[187] Calculated from the *Census of Production of Northern Ireland Report*, 1935.
[188] Calculated from the *Census of Production of Northern Ireland Report*, 1935.
[189] For the UK, calculated from *UK Report on the Census of Production*, 1935. For Northern Ireland, calculated from *Census of Production of Northern Ireland Report*, 1935. Both converted into 1972 prices using ONS (2004, 2020).

4) Regional institutions

The interwar period provides an opportunity to examine how regional institutions affected the operation of industrial policy in Northern Ireland. Institutions are key to explaining trends in long-run economic growth (North, 1990), and explain the UK's relatively poor interwar productivity performance (Broadberry and Crafts, 1992; Broadberry, 1997). Regional institutions have been suggested as a possible explanation of Northern Ireland's long run productivity gap (Hitchens and Birnie, 1989a; Crafts, 1995; Brownlow, 2007, 2013), but how business interests were able to affect Stormont's industrial policy has not been demonstrated. The interwar period allows this to be examined, showing how existing firms had both the means and motive to influence regional industrial policy for their own benefit, and create barriers to productivity growth. This highlights the potential restrictions on the successful implantation of efficient regional industrial policy.

The 1920 Government of Ireland Act partitioned the island of Ireland, creating a subnational government for Northern Ireland at Stormont. Responsibility for industrial policy was amongst the powers transferred to Stormont.[190] Although after 1939, and following the Northern Ireland Transport Board affair, Westminster did begin to gain control over Stormont's expenditure,[191] prior to this it was unable to impose any direct constraints on Stormont's industrial policy.

The Unionist Party dominated the subnational institutions at Stormont, with no realistic expectation of an alternative government being formed (Brownlow, 2007, p.74). A potential negative consequence of fiscal decentralisation is that the feedback loop between the electorate and the subnational government is weakened (Weingast, 2014, p.17). With no electoral competition, the incentive for the Unionist government at Stormont to align industrial policy with the electorate's preferences, rather than its own, or those of special interest groups, was weakened. The interwar period was also

[190] For a full overview of the distribution of fiscal powers, see Chapter 1.
[191] See Section 7 of Chapter 1.

characterised by a softening of the budget constraint faced by Stormont, discussed in Chapter 1. This situation can lead to rent seeking, subsidies for uncompetitive enterprises, and benefits conferred upon special interest groups (Weingast, 2009).

While second generation fiscal federalism emphasises how the benefits of fiscal decentralisation may fail to be realised (Oates, 2005, Weingast, 2009), regional institutions are not always harmful for productivity growth. Interwar Northern Ireland can be compared against the successful regional institutions described by Lamoreaux *et al*. (2006), of Cleveland, USA, during the second industrial revolution.[192] They shared strong similarities: they were regions situated a significant distance from capital markets, with strong industrial histories, and characterised by relatively small enterprises. However, Cleveland's institutions promoted transition into higher productivity areas of manufacturing, through the application of new technology (Lamoreaux *et al*., 2006). High rates of formation of new firms provided technological leadership, with nodal firms spawning clusters of innovative enterprises (Lamoreaux *et al*., 2006). This was a result of local enterprises serving as hubs of overlapping networks between business and finance, allowing new technologies to be financed and commercialised, often facilitated by family connections (Lamoreaux *et al*., 2006).

The characteristics of these overlapping networks provides the key difference between Cleveland and Northern Ireland. In Cleveland, these were virtuous in nature for productivity growth, as the strongest connections were between business and sources of finance, with these promoting the growth of new, higher productivity industries. Institutions in Northern Ireland were instead vicious in nature for productivity growth, with strong overlapping networks between business and politics, giving firms the means to influence subnational policy in order to receive benefits, creating barriers to productivity growth.

[192] Table 2.A.5 in the Appendix provides this comparison as a table.

The vicious nature of these institutions for productivity growth was the result of two key differences between Stormont and Westminster. The first difference was the electoral dominance of the Unionist Party. The lack of electoral competition weakened the incentive to align industrial policy with the preferences of voters more widely. The primary political motivation of the Unionist government was the maintenance of the Union, (Buckland, 1979, p.12), with Ministers sensitive to any form of criticism, particularly from within Unionism (Buckland, 1979, p.14). Thus Stormont's economic policies prioritised the political objective of maintaining the Unionist Party's electoral support, rather than society's total welfare or long-run economic growth. The fiscal structure of subnational government also ensured Stormont was not rewarded for policies which promoted long-run economic growth.[193] Instead, Stormont faced the incentive to focus purely on preserving short-run employment, as by lowering expenditure on unemployment benefits, it would maximise the politically symbolic Imperial Contribution, but without any consideration of the economic value or productivity of this employment.[194] This desire to use policy interventions to maximise electoral support by prioritising employment, aligned with the preferences of the old, staple industries, which provided the majority of this employment.

The second difference was the strength of the links between the ruling Unionist Party and the business community, particularly the old, staple industries. Table 2.4 outlines the business interests held by Unionist MPs and members of the government between 1921 and 1945. Being a Stormont Minister was viewed as a part-time occupation, and Ministers did not have to give up their business interests on entering office (Birrell and Murie, 1980, p. 40). This meant that over one-third of both MPs and

[193] This is not a situation unique to Northern Ireland, and is highlighted by Weingast (2009) as a possible downside of subnational government.

[194] Stormont's revenue and expenditure were dependent on the number of people in employment, not the value of their employment. Thus greater employment meant less expenditure on unemployment benefits, and more revenue to pay the Imperial Contribution, a charge on Northern Ireland to cover the cost of Excepted and Reserved expenditure by Westminster. This was a politically symbolic payment for Unionism. Therefore, it was more important to maximise the number of people in employment, rather than consider how valuable this work was to the regional economy.

Cabinet members recorded a direct business interest. Of MPs with direct business interests, over one-third of these were in textiles. This reflected the concentration of linen's interests in Northern Ireland society's elite, and most obviously manifested itself in Stormont's Minister of Commerce between 1925 and 1941, John Barbour, who was in charge of industrial policy, but also the managing director of several textile firms.[195] The Northern Ireland system of devolved government was also renowned for providing easy access to government Ministers (Brownlow, 2012, p.294), with the accessibility of Ministers making them responsive to the lobbying of special interest groups (Buckland, 1979, p.17). Together with the electoral dominance of the Unionist Party, the strong connections between politics and local business gave existing firms the means to influence Stormont's industrial policy.

Table 2.4: Business interests of Stormont Unionist MPs 1921-1945

	%
Unionist MPs as a proportion of all Stormont MPs (average)	70.8
Unionist MPs holding company directorships or ownership	38.5
Members of Cabinet holding company directorships or ownership	40.0
Unionist MPs with interests in textiles as a proportion of all those with business interests	37.1

Sources: Constructed using Harbinson (1974) and Birrell and Murie (1980).
Notes: Methodology based on Brownlow (2007).

The electoral dominance of the Unionist Party, and strong links with the business community, also had implications for the quality of decision-makers at Stormont. With the Unionist Party in power throughout the interwar period, there was little turnover in government Ministers, with only 12 individuals serving in the Stormont Cabinet between 1921 and 1939 (Buckland, 1979, p.10). The Northern Ireland Prime Minister, James Craig, was in office from 1921 until his death in 1940; the Minister of Commerce, John Barbour, was in office from 1925 until 1940; the Minister of Labour, John Andrews, was in office from 1921 until 1940; and the Minister of Finance, Hugh

[195] See Harbinson (1974) for a detailed list of MPs business interests.

Pollock, was in office from 1921 until 1935.[196] With a high average age, and a strong background in Ulster Unionist resistance to Home Rule, Ministers had “limited vision and a defensive political stance” (Buckland, 1979, p.12). This “dearth of political talent and unwillingness to take a broad view”, saw leaders “slow to subordinate personal and local interests in order to devise well-considered policies” (Buckland, 1981, p.24-25). A lack of turnover in Ministers therefore saw these views and preferences ingrained into subnational policymaking, with short-term political motivations, rather than long-run economic considerations, being prioritised in Stormont’s decision making.

Not only did existing firms have the means to influence Stormont’s industrial policy for their own benefit, they also had the motivation to do so. Stigler (1971) and North (1990) discuss how existing firms may create barriers to productivity growth. Firms make a decision on whether to invest in skills and knowledge, or devote resources to changing the institutional constraints they face (North, 1990, p.79). If the expected payoff from changing institutions is greater than investing in skills and knowledge, and if firms have sufficient influence, they will use the polity to change institutions (North, 1990, p.79). This leads to industry acquiring regulation designed and operated primarily for its own benefit (Stigler, 1971, p.3). In the case of Northern Ireland, the staple industries were facing falling global demand for their products during the interwar period. Falling demand reduced the expected payoff from investing in skills and knowledge, increasing the relative expected payoff from changing institutions to acquire benefits. It was therefore in their interest to engage in rent seeking behaviour to try and acquire financial benefits, which would keep them in business.

This context provides the institutional framework to understand how barriers to productivity growth were created on the supply-side of the Northern Ireland

[196] See Harbinson (1974) for a detailed list of Stormont MPs and their positions in government.

economy. The strong overlapping networks between politics and business gave firms the means to acquire benefits from Stormont, while the external market conditions of falling demand provided the motivation to do so. The politically well-connected firms were from the old, staple industries, where falling global demand was most acute during the interwar period. They were also the largest employers within manufacturing, making it in Stormont's interest to preserve the employment they provided, given the large financial burden unemployment placed on the subnational government's finances. Existing firms therefore had both the means and motive to engage in rent seeking behaviour: they now just required the opportunity.

5) Survival of old industries

Northern Ireland was heavily reliant on the old, staple industries of textiles and shipbuilding for employment during the interwar period. Existing literature blames their poor performance on falling global demand. However, firms within textiles and shipbuilding failed to move into new, higher, productivity areas. This failure to improve within-sector productivity was not simply the result of poor trading conditions. This section describes how in textiles, shipbuilding, and smaller industries, regional institutions allowed existing firms to influence devolved industrial policy, and receive government subsidy. This aided their short and medium-run survival, but helped lock the Northern Ireland economy into a low wage-investment-productivity equilibrium.

(i). Textiles

Textiles was the largest manufacturing sector in interwar Northern Ireland, accounting for around half of manufacturing employment, and around two-thirds was female.[197] This made the fortunes of the textile industry important for many households. Linen accounted for the vast majority of textile employment, at over 80 per cent during the interwar period.[198] Linen was also the most geographically dispersed manufacturing industry in Northern Ireland (Isles and Cuthbert, 1957, p.114). No other manufacturing industry could match linen on either scale or geographic dispersion. The second largest sector of metal trades, which included shipbuilding and engineering, was almost exclusively found in and around Belfast.[199] Even by the 1950s and 1960s, linen still retained firms from at least one stage of production in every county of Northern Ireland (Steed, 1971).[200]

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[197] Female employment calculated as an interwar average, equalling 67%, from the *Census of Production of Northern Ireland Report*, 1924, 1930 and 1935.
[198] Calculated from the *Census of Production of Northern Ireland Report*, 1924, 1930 and 1935. See Table 2.A.6 in the Appendix.
[199] See *Ulster Year Book*, 1938, p.81-82
[200] This was post-war, when rationalisation saw the disappearance of a number of smaller linen firms (Ollerenshaw, 1991), meaning the interwar geographic dispersion would have been at least as great.

The linen industry in Northern Ireland shared similar characteristics with both the cotton and wool industries in Britain. Linen exported the majority of its output (Beacham, 1944, p.201), as did cotton and wool (Bowden and Higgins, 2003). Small firms dominated cotton and wool (Bowden and Higgins, 2015, p.226), as well as linen (Beacham, 1944; Ollerenshaw, 1991). Firms in cotton were publicly owned, but the majority were privately owned in both wool (Bowden and Higgins, 2003) and linen (Ollerenshaw, 1991).

Wool performed well during the interwar period, as a result of specialising in high quality, niche products, allowing it to retain and develop markets (Bowden and Higgins, 2003, p.381-382). However, cotton saw exports suffer (Bowden and Higgins, 2015), with linen more closely reflecting this experience. Linen shifted towards coarser yarns and cheaper piece goods, as a direct consequence of tough trading conditions (Beacham, 1944, p.202). Both cotton and linen saw their output fall substantially between 1912 and 1937, as shown in Table 2.5, although the exogenous demand shock was much greater for cotton, which saw output fall much further than for linen.

Table 2.5: Comparison of changes in output, capital, and employment, 1912-1937

	Linen *Northern Ireland*			Cotton *Britain*		
	1912	1937	*Change (%)*	1912	1937	*Change (%)*
Output (million sq. yards)	204	161.5	*-20.8*	8,453	3,806	*-55.0*
Spindles	926,000	870,000	*-6.0*	563,000,000	386,000,000	*-31.4*
Looms	34,000	28,000	*-17.6*	786,000	485,000	*-38.3*
Employment	77,375	61,900	*-20.0*	621,500	359,700	*-42.1*
Spindles per person	12.0	14.1	*+17.4*	90.6	107.3	*+18.5*
Looms per person	0.44	0.45	*+2.9*	1.26	1.35	*+6.6*

Sources: Constructed using Beacham (1944) for linen in Northern Ireland, Singleton (1986) for cotton in Britain.

Cotton suffered from prolonged levels of excess capacity during the interwar period (Bowden and Higgins, 2015, p.229). Linen shared this problem, with an

average of 44 per cent of spindles, and 43 per cent of looms, idle between 1921 and 1928 (Ollerenshaw, 1991, p.66). The spinning and weaving sections were 17 per cent and 20 per cent below maximum employment respectively during the mid-1930s (Beacham, 1944, p.200). Unlike cotton, where the Lancashire Cotton Corporation (LCC) was established in 1929 to reduce excess capacity, (Bowden and Higgins, 2003, p.392), linen did not benefit from similar measures. Therefore, while both cotton and linen saw capital and employment levels fall between 1912 and 1937 in Table 2.5, capital per worker in cotton improved relative to linen. Linen firms failed to increase their relative capital intensity, retaining much higher levels of labour input.

This failure of linen firms to become more capital intensive in the face of falling demand, reflects their ability to pursue a successful survival strategy reliant on varying labour inputs. This survival strategy was facilitated by high sunk costs and abundant cheap labour, reinforced by satisficing behaviour.

In cotton, firms focused on short-run survival rather than long-run change, as a response to uncertainty over when conditions would improve (Bowden and Higgins, 2003, p.397). Cotton firms had incurred high levels of debt following the 1919-20 re-floatation boom (Bowden and Higgins, 2015). This high level of sunk costs meant the exit process did not operate effectively, as exit would require owners to forgo any opportunity to recoup their investment, should the trading environment improve (Bowden and Higgins, 2003, p.397). Firms were able to survive, but the sector was locked into low productivity.

Linen firms faced similar sunk costs in machinery, but were able to pursue this survival strategy more effectively, as they were privately owned, without the debt problems of cotton. Linen firms relied on cheap, unskilled labour (Isles and Cuthbert, 1957), meaning in the face of uncertainty, linen firms could adopt a short-run survival strategy of varying labour inputs. Evidence for this is shown in Figure 2.5. Throughout

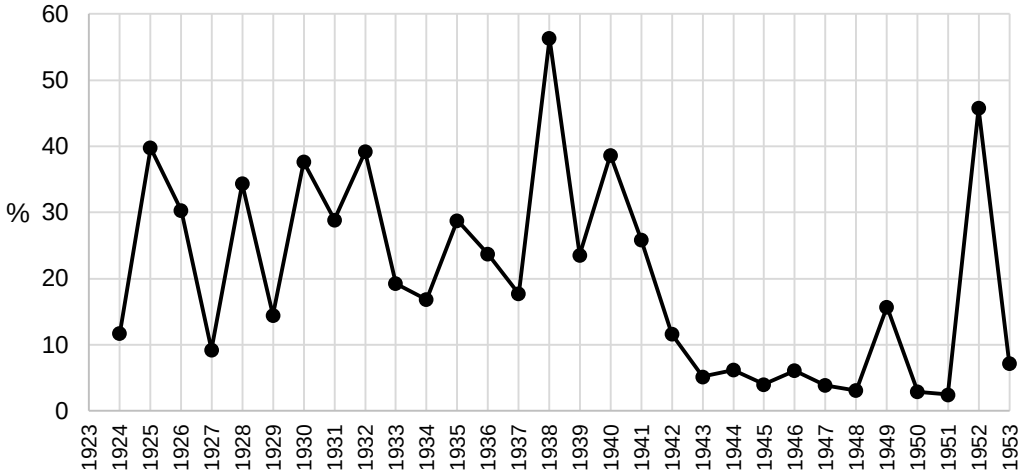
the interwar period, unemployment in linen follows a clear cyclical pattern.[201] The importance of this to the linen industry has not been previously identified by either Beacham (1944) or Steed (1971). It suggests firms were not labour hoarding, but instead hiring and firing as required, thanks to a large, cheap, unskilled labour source.

This suggests that linen firms faced an almost perfectly elastic labour supply curve, which can be formally modelled using the Lewis Model, shown in Figure 2.6. This is based on Lewis (1954), Ranis and Fei (1961) and Stafford (1981). In this model, workers transfer from a labour intensive sector, in this case agriculture, to a more capital intensive industrial sector, in this case linen. Employment in agriculture was much higher in Northern Ireland than Britain,[202] and farms in Northern Ireland tended to be smaller and family owned.[203] This supports the assumption that agriculture provided an unlimited supply of labour for the industrial sector. Linen firms therefore initially faced a perfectly elastic labour supply curve (S), shown in Figure 2.6 by S, allowing expansion until L_1 without driving-up wages (W). Beyond L_1, agricultural surplus is declining, as further reductions in labour affect output. This causes prices to rise, and thus the labour supply curve steepens.

Linen's demand curve for labour (D_1) is the marginal product of labour, with the profit maximising level of employment being where D_1 intersects S. As firms make profits, they invest in capital, raising the marginal product of labour, and causing the demand curve to move outwards, with the process continuing until D_2. At this equilibrium, the reserve of surplus labour in agriculture is exhausted, and labour employed in linen has reached L_2, with wages in both sectors equal to their marginal products. Capital accumulation is therefore key to shifting the demand curve outwards and improving productivity.

[201] The number of insured workers in linen fell by 11 per cent between 1924 and 1939, but only gradually. This means the changes in unemployment were not the result of dramatic fluctuations in the total number of insured employees.
[202] See Table 2.A.1 in the Appendix.
[203] *Ulster Year Book*, 1938, p.39.

Figure 2.5: Linen unemployed



Source: Calculated using Isles and Cuthbert, 1957, p.578 and p.583.
Notes: The per cent unemployed is for insured workers in linen for July each year. While the number of unemployed amongst insured workers is available on a monthly basis, the total number of insured workers is only available for July.

Figure 2.6: Industrial sector labour market

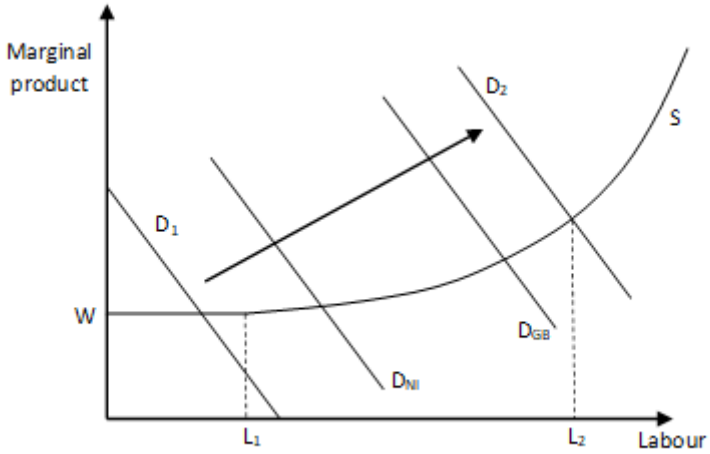


Table 2.6: Relative wages in textiles

Year	Average annual wage per operative (£)		Relative wage per operative
	NI	*UK*	*NI/UK (UK=100)*
1930	340.01	457.27	74
1935	347.61	482.56	72

Source: For Northern Ireland: *Census of Production of Northern Ireland Report* 1930, 1935*;* For the UK: *Report on the Census of Production of the UK* 1930, 1935.

Wages in textiles were lower, and grew more slowly, in Northern Ireland than in the UK, as shown in Table 2.6.[204] This supports the demand curve for labour being on the more elastic part of S for linen firms in Northern Ireland. This is demonstrated by D_{NI} relative to D_{GB} in Figure 2.6. With the profits of textiles in Northern Ireland being squeezed by falling demand, this left less money available for investment. This is reflected by interwar productivity for textiles, which was much lower in Northern Ireland than Britain. Without money available to invest in capital, D_{NI} would not shift outwards, and the capital investment necessary to transition into higher productivity man-made fibres would not occur. Instead, D_{NI} would remain on the elastic portion of S, with no upward pressure on wages, thanks to a surplus of unskilled labour. Firms could survive without investment in capital, thanks to excess capacity in textiles allowing cannibalisation of spare machinery, a common occurrence in textiles during the interwar period (Sandberg, 1974, p.130).[205] Therefore, with falling demand, an elastic labour supply curve, and with little profits for capital investment linen, firms were able to survive by competing on costs, and varying labour inputs to reduce these costs in the short-run.

The incentives created by the supply-side conditions linen firms faced were reinforced by their own satisficing behaviour. Satisficing is where firms set themselves a minimum acceptable level of achievement (Simon, 1959). Owner-controlled firms are more likely to display satisficing behaviour (Hornby, 1995), and family owned firms dominated the linen industry in Northern Ireland (Ollerenshaw, 1991, p.65).[206] Qualitative evidence from Beacham (1944) and Ollerenshaw (1991) supports the view that linen firms displayed satisficing, rather than profit maximising, behaviour, and this

[204] Wages for unskilled workers in Northern Ireland were lower than those in Britain (Isles and Cuthbert, 1957, p.219).
[205] Even where firms did close, remaining firms would have been able to buy their machinery at potentially low cost, as occurred during the 1950s when the textile industry rationalised. See Bew, Gibbon, and Patterson (2001, p.108).
[206] The ratio of paid-up capital in private to public firms was two-to-one even by the 1950s (Ollerenshaw, 1991, p.65).

aided their ability to persevere in the face of falling demand. Beacham (1944, p.205) describes how small linen firms had been “handed down from father to son, and their present owners are content to work with a very small return to their labour and capital rather than abandon a business which is their sole and only likely source of income”. They survived adverse market conditions by paying lower wages, producing inferior goods, and selling below the costs of production (Beacham, 1944, p.205). Ollerenshaw (1991, p.65) describes how with few alternatives, “the temptation to plod on regardless was one to which most firms succumbed”. Owners cared little about long-run performance, lacked interest in technological innovations which would improve productivity, had little knowledge about costs, and were content to follow the status-quo (Ollerenshaw, 1991). The characteristics of the owners of linen firms, who were also their managers, therefore facilitated their survival.

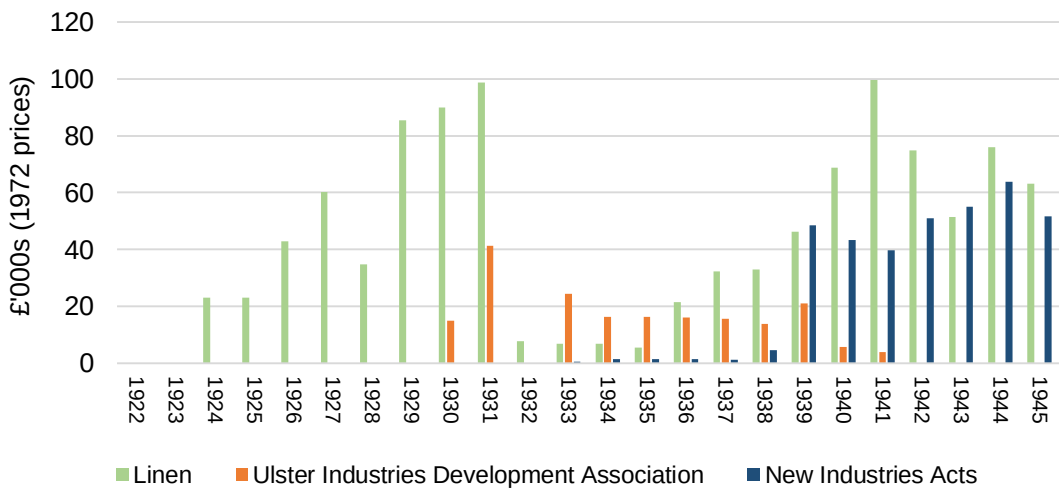
The importance of management to firm performance is a contemporary issue for Northern Ireland’s economy. Bloom and Van Reenen (2010) demonstrate a management gap exists in firms today in Northern Ireland relative to Britain, negatively affecting productivity and firm performance, and that owner-controlled firms are on average more badly managed than other ownership forms. The evidence from linen firms during the interwar period therefore suggests this is a long-run problem within the Northern Ireland economy.

With linen firms adopting a survival strategy reliant on cost competition and cheap labour, without investment in capital, it became locked in a low-wage-investment-productivity equilibrium. The incentives created by the supply-side and firm characteristics were reinforced by Stormont’s industrial policy. First generation fiscal federalism suggests a subnational government should be best placed to solve a regional market failure (Weingast, 2009; Vo, 2010). However, with little expected payoff from investment in skills and knowledge, it increased the relative return to firms of changing institutions for their own benefit. This was facilitated by linen’s strong overlapping networks with Stormont. With over a third of Unionist MPs having

business interests connected to textiles, including the Minister of Commerce, who was in charge of industrial expenditure, it ensured government was more receptive to providing financial assistance.

The ability of linen firms to change institutions for their own benefit is demonstrated by their receiving most of Stormont's direct industrial expenditure during the interwar period, as shown in Figure 2.7. Although this expenditure was intended to promote research and development through the Linen Industry Research Association (LIRA),[207] the vast majority went on advertising for the industry, of no benefit to productivity. Advertising accounted for the majority of expenditure on linen every year from 1926 to 1931, reaching 84 per cent of total expenditure in 1931, and only halting temporarily between 1932 and 1936, before continuing until 1941. Linen thus exploited its strong overlapping networks with Stormont to receive government subsidy, at a time when the industry was in decline. The opportunity cost of this expenditure is evident in Figure 2.7. Expenditure on linen dwarfed that under the New Industries Acts of the 1930s (discussed further in Section 6). Diverting Stormont's limited financial resources towards advertising for the linen industry, meant less money available for supporting new, higher productivity industries.

Figure 2.7: Stormont industrial expenditure



Source: Northern Ireland House of Commons Papers, Appropriation Accounts.
Notes: Expenditure converted to 1972 prices using ONS (2004, 2020).

[207] LIRA was formed in 1919 to promote co-operative research in industries where individual firms were perceived to lack necessary facilities (Ollerenshaw, 1991, p.68-69).

(ii). Shipbuilding

While linen received the majority of Stormont's direct industrial expenditure, Northern Ireland's other main staple industry, shipbuilding, received even greater indirect financial support. In Britain, Westminster introduced a series of Trades Facilities Acts from 1921 until 1927. These were to assist export industries during a period of relatively high interest rates, with £35 million of the £74.3 million in guarantees going to shipbuilding (Aldcroft, 1970, p.347). Under the Acts, Westminster guaranteed loans taken out by private firms, lowering their cost of borrowing, and encouraging the placement of orders with firms, particularly shipbuilding. While there was no legal barrier to Northern Ireland firms applying to the Westminster scheme,[208] industrial policy was a transferred matter, and Stormont adopted very similar legislation in 1922 with the Loans Guarantee Acts. These saw Stormont become the guarantor for loans made in Northern Ireland, particularly for shipbuilding (Buckland, 1979, p.116). The justification given by Stormont for introducing its own guarantees for loans to firms, despite the Trades Facilities Acts applying to the whole of the UK, was the view that applicants from Britain might receive preferential treatment by Westminster over those from Northern Ireland.[209] While Westminster's primary motivation was to reduce the cost of borrowing for firms, Stormont's was employment: "the intention of the Loans Guarantee Acts was to cover works of new construction involving the creation of employment in Northern Ireland".[210]

Stormont extended the Loans Guarantee Acts annually until 1938, eleven years after the similar legislation ended in Britain. It almost exclusively prioritised shipbuilding during this time. Of the 37 guarantees made by Stormont, 26 were for shipbuilding, which received £21.9 million, or 98 per cent of the total value of

[208] See TNA: T 190/26, Letter from Spender to Upcott, 16th February 1926.
[209] TNA: T 190/26, Letter from Spender to Upcott, 16th February 1926.
[210] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, Legislative proposals arising out of Committee's Report amending New Industries (Development) Bill No.2, Minutes to Minister, 17th August 1937.

guarantees.[211] Given average interwar employment in Northern Ireland shipbuilding was 9,820, compared to 109,293 for Britain, Stormont's guarantee per worker was significantly more generous, at £2,230, compared to Westminster's £320 per worker.[212]

Shipbuilding in Northern Ireland was able to receive this significant financial support as a result of its overlapping networks with Stormont. Stigler (1971) predicts that the distribution of benefits from government to industry is not proportional to an industry's size, but to its political influence, and whether the number of beneficiaries is limited. Shipbuilding did not employ as many workers as linen, but compared to linen's multitude of small, family owned firms, where it was more difficult to restrict the number of beneficiaries, shipbuilding had strong political connections concentrated in just two firms: Harland & Wolff, and Workman, Clark & Co. In the face of falling demand, shipbuilding was able to leverage its overlapping networks to receive subsidy, helping it survive, while aligning with Stormont's priority to preserve employment.

The idea of Stormont replicating Westminster's legislation was proposed by a businessman with strong political connections: Viscount Pirrie, Chairman of Harland & Wolff, Northern Ireland's largest shipbuilder.[213] Viscount Pirrie was even given the opportunity to vet the ministerial speech which introduced the legislation (Buckland, 1979, p.116). Under the Loans Guarantee Acts, the Minister of Finance nominated an Advisory Committee, composed of "prominent business men", who recommended the terms of any guarantee.[214] These overlapping networks gave industry the opportunity to influence the destination of government support, distorting the allocation of

[211] The total guaranteed by Stormont under the Loans Guarantee Acts (Northern Ireland) 1922-1938 was £22,455,521. See Loans Guarantee Acts (Northern Ireland) 1922-1938, H.C. 654, 1945

[212] Calculated as an average of employment for both the UK and Northern Ireland, taken from the *Report on the Census of Production*, 1924, 1930, and 1935.

[213] PRONI: FIN/30/D/72: Notes on the administration of the Loans Guarantee Acts (Northern Ireland), 1922-1933. See also Buckland, 1979, p.116.

[214] PRONI: FIN/30/D/72: Notes on the administration of the Loans Guarantee Acts (Northern Ireland), 1922-1933.

resources in the regional economy, and creating barriers to productivity growth by restricting the opportunity for structural change.

The priorities of industry were therefore able to influence the allocation of financial resources. This was harmful for economic efficiency in two ways. Firstly, the opportunity cost of Stormont's expenditure on shipbuilding was the redirection of limited financial resources away from employment in other industries. Over the life of the Loans Guarantee Acts, Stormont had to pay a total of £4.6 million, to cover loans it had guaranteed, as a result of either orders for ships falling through, or firms going bust.[215] Policymakers were aware of this opportunity cost. In 1937, the Northern Ireland Civil Service noted that a guarantee to a non-shipbuilding firm for £16,000 had "probably by now operated to relieve the [Stormont] Exchequer to an extent greater than the relief from unemployment benefit obtained from the construction of a of a £1,000,000 liner".[216] While Stormont's priority during the interwar period was to preserve and increase employment levels, the guarantees made to shipbuilding were an inefficient policy intervention to achieve this goal. Instead, they reflected a well-connected industry's ability to capture government subsidy.

Secondly, the extended implementation of the Loans Guarantee Acts in Northern Ireland coincided with a decline of productivity in shipbuilding. Table 2.7 compares the interwar levels of gross output, costs, and net output in shipbuilding in Northern Ireland and the UK. In 1924, costs were equal, and net output per person in Northern Ireland was higher than the UK. However, by 1930, despite a relative rise in gross output for Northern Ireland, costs had risen further, reducing net output per person to 20 per cent below the UK level, a situation repeated in 1935. While subsidy from Stormont helped prevent unemployment in shipbuilding being higher than it

[215] This broke down into £3.4 million to cover the loan capital, and £1.2 million to cover interest charges. See Loans Guarantee Acts (Northern Ireland) 1922-1938, H.C. 654, 1945.
[216] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, Legislative proposals arising out of Committee's Report amending New Industries (Development) Bill No.2, Minutes to Minister, 17th August 1937.

might otherwise have been, it had reduced the competitive pressure to cut costs, harming productivity.

Table 2.7: Shipbuilding output and costs, where NI/UK (UK=100)

Year	Gross output per person employed	Costs as a per cent of gross output	Net output per person employed
1924	113	100	113
1930	117	125	80
1935	109	121	80

Source: For Northern Ireland: *Census of Production of Northern Ireland Report* 1924, 1930, 1935. For the UK: *Report on the Census of Production of the UK* 1924, 1930, 1935.

(iii). Smaller industries

Outside of linen and shipbuilding, smaller industries received much more limited financial support. This reflected their industry characteristics, as suggested by Stigler (1971), given their relatively small size, and absence of ability to restrict the number of beneficiaries from support. However, in their own more modest way, they maintained and strengthened their overlapping networks with Stormont, changing institutions for their own benefit where possible, but remaining of secondary importance to the big two staple industries.

In 1929, Stormont helped fund the establishment of the Ulster Industries Development Association (UIDA), an arm's length body intended to promote domestic consumption of Northern Ireland manufactured goods, particularly for smaller sectors.[217] Its creation was a response to increasing pressure for Stormont to respond to the high unemployment of the late 1920s, particularly from local chambers of commerce.[218] Stormont did not want to give local chambers of commerce these new responsibilities, believing they would oppose firms which competed against their

[217] See *Ulster Year Book*, 1938, p.87
[218] PRONI: COM/63/1/232: Attraction of New Industries to Northern Ireland, Ulster Industries Development Association, letter from the Association of Northern Ireland Chambers of Commerce, 6th February 1929.

own.[219] However, a single body in the form of the UIDA maximised Stormont's control and oversight. Stormont funded the UIDA, as shown in Figure 2.7, but this was on a much smaller scale than for linen, reflecting the more limited influence of smaller industries.

Part of the UIDA's remit was to attract new industrial undertakings to Northern Ireland, but there is no evidence the UIDA was successful in this. Although it raised the idea of growing the man-made fibre industry in Northern Ireland, this was rejected by the Ministry of Commerce, which felt it was more important to keep "existing factories going full time rather than developing new ones".[220] In reality the UIDA focused its activities on "the practical interpretation of the slogan, 'Push Ulster Goods'", allocating its funding to advertising and publicity.[221] This reflected an attempt to engage in the kind of restrictive practices which were occurring in Britain during the interwar period, but on a much smaller scale, but its success appears to have been limited.

The main benefit of the UIDA to smaller industries was non-financial, giving them direct access to Stormont Minsters. The President of the UIDA was appointed to the Advisory Committee for Stormont's New Industries Act of 1932, giving it influence over which applicants would receive financial support, or perhaps more importantly, blocking financial support being given, as discussed in Section 6. Ultimately the limited extent of smaller industries' influence over Stormont's policy was clear, and reflected their size. The UIDA's President blamed the organisation's lack of success on the Ministry of Commerce, who favoured linen and shipbuilding, and showed a disinterest towards Northern Ireland's smaller industries.[222]

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[219] PRONI:COM/63/1/232: Attraction of new industries to NI, Ulster Industries Development Association, Letter to the Prime Minister's Secretary, 17th April 1929.
[220] PRONI:COM/63/1/232: Attraction of new industries to NI, Ulster Industries Development Association, Meeting of the new industries committee, Ulster Industries Development Association, 2nd December 1929.
[221] *Ulster Year Book*, 1935, p.74
[222] PRONI: CAB/9F/126/1: Attraction of New Industries to NI, Letter sent to the Minister of Commerce by J. Cleland, President of the UIDA, 26th November, 1937.

6) Barriers to new industries

The existing explanation for the failure of Stormont's interwar industrial policy is that there was simply a lack of funds (Buckland, 1979, Johnson, 1985a). However, this ignores how regional institutions affected the design and operation of Stormont's interwar industrial policy, and how this laid the foundation for Stormont's post-war industrial policy interventions. Ultimately, it was the overlapping networks between business and government which ensured flaws existed within Stormont's industrial policy, limiting its effectiveness, and creating barriers to productivity growth, reinforcing a low-wage-investment-productivity equilibrium.

Stormont's industrial policy is notable for being the first example of industrial policy being implemented at a regional level within the UK. It was 1934 before Westminster introduced specific legislation to promote the creation of new industries, through the Special Areas Acts, and even then it was 1936 before commercial enterprises were supported through these Acts. Prior to this, Westminster had focused on trying to reduce unemployment through public works, and the movement of labour from poor to prosperous areas (Lee, 1971; Jones, 1985). Of these, only public works were adopted by Stormont.[223] The Nuffield Trust also promoted new industrial development in Britain, but no evidence exists to demonstrate any of its funds were spent in Northern Ireland. This was despite attempts by Stormont to convince the Trust to operate in Northern Ireland.[224]

During the 1920s, Stormont's attitude towards promoting new industries can be inferred from a private response by the Secretary to the Ministry of Commerce, to a letter suggesting the creation of new industries with government support:

> *I really do not see how a government department can initiate new industries short of putting public money into them. If the capital is*

[223] *Ulster Year Book*, 1926, p.113.
[224] PRONI: FIN/18/17/371, Letter from Northern Ireland Prime Minister Craig, to Lord Nuffield, 3rd November 1937.

> *forthcoming, as Mr Liddy apparently believes, it is up to the people of Enniskillen to get one or more of the suggested industries going.* [225]

This demonstrates an aversion to public expenditure on new, smaller private firms, which might provide new employment. Instead, Stormont was focusing on preserving existing employment in the staple industries, which provided the majority of employment.

This changed with the Great Depression of the 1930s, and the associated rise in unemployment, which forced Stormont to act. However, Stormont's policy was motivated by political rather than economic priorities. At an election rally in West Belfast in October 1931, the Northern Ireland Prime Minister announced that free sites would be provided for new factories, to "rebut charges of apathy in the face of rising unemployment" (Buckland, 1979, p.126). This political prioritisation of the level of employment, over employment value or productivity, was a theme evident throughout Stormont's interwar industrial policy, which aligned with the preferences of the influential old industries' desire for survival, rather than the growth of new industries.

In June 1932, the first New Industries Act (1932 Act) was introduced. To be eligible, applicants had to be a new industrial undertaking which did not already exist in Northern Ireland as of October 1931, and provide "employment within Northern Ireland to a substantial extent".[226] Firms could receive a grant to cover the cost of acquiring a site, paid for a maximum of twenty years, and could be exempted from paying rates at the discretion of local authorities. An Advisory Committee was appointed by the Minister of Commerce, which was intended to give a non-binding recommendation on whether an application should be accepted, along with any

[225] PRONI: COM/62/1/176A: Suggested development of new industries near Enniskillen – Memo by Secretary to Ministry of Commerce, 11th May 1928.
[226] New Industries (Development) Act (Northern Ireland) 1932.

conditions to be imposed, such as the amount of working capital to be raised by the applicants.[227]

The 1932 Act was a failure. During its five-year lifespan, only eleven applications were received, of which eight were approved and received financial support. This led to public ridicule, with an independent unionist at Stormont enquiring, "whether if the Government set up a few new chip shops they would not give more employment" (Buckland, 1979, p.126). This quip reflected the failure of the 1932 Act to meet the government's own aim of providing substantial employment.

Table 2.8 ranks successful applications by size of site grant under the 1932 Act. Four of these were approved in 1937, at the very end of the 1932 Act's life, including the largest site grant, which was awarded to Short & Harland to produce aircraft. The arrival of this new aircraft industry is not a success which can be attributed to the 1932 Act, as both Buckland (1979, 1981) and Johnson (1985a) conclude the new factory would still have been established without financial assistance from Stormont. The Short and Harland factory was "the end result of a series of decisions and events which were only tenuously related"; where the combination of reclaimed land in Belfast harbour, the subsequent establishment of a city airport adjacent to Harland and Wolff, and finally Shorts Bros.'s Kent factory being without the capacity to fulfil an RAF order in 1936, led to the new Belfast factory being opened (Johnson, 1985a, p.201).[228] The remaining grants under the 1932 Act were much smaller, with only two grants going to firms outside Belfast, and only one going to a new, higher productivity industry producing chemicals. The small number of applications, their concentration in Belfast, and the relatively small amounts involved,

[227] PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee.

[228] The minutes from the 1932 Act's Advisory Committee provide little evidence of much involvement of Stormont or its industrial policy in the establishment of the factory. Compared to other applications, the Short & Harland application was only mentioned in passing at the final meeting of the Advisory Committee, and there is no record of the Committee ever discussing the application in detail. See PRONI: COM 63/1/228: New Industries Advisory Committee, 6th meeting, 1st March 1937.

demonstrate the failure of the 1932 Act to promote the growth of either new industries or employment to any significant extent.

Existing literature attributes this failure solely to a lack of funds. While Stormont's financial resources were under pressure at the time of the 1932 Act's design, in reality the Act put no pressure on the government finances. Stormont was unable to spend all the funds it allocated each year. On average only 48 per cent of the amount budgeted annually for the 1932 Act was spent between 1935 and 1937.[229] A lack of funds was therefore not the primary reason for its failure. Even if more funds had been available, two reasons, linked to how regional institutions influenced the 1932 Act's design and operation, are more significant in explaining its failure.

Table 2.8: Successful applicants under the 1932 New Industries Act

Applicant	Location	Product	Manufacturing sector	Year approved	Site grant	Initiated
Short & Harland	Belfast	Aeroplanes	Metal trades	1937	£2,410	Yes
Messrs. Richard Atkinson & Co.	Belfast	Poplin	Clothing	1932	£95	Yes
Lyness Bros.	Belfast	Chrome plating	Metal trades	1933	£52	Yes
Alister Kirk & Co. Ltd.*	Belfast	Fruit spraying machinery	Metal trades	1933	£50	Yes
Collin Glen Canners Ltd.	Dunmurry	Vegetable canning	Food	1932	£37.50	No
James Mackie & Sons, Ltd.	Belfast	Jute yarn	Textiles	1937	£32	Yes
Damolly Spinning Co. Ltd.	Newry	Woollen carpet yarns	Textiles	1937	£20	Yes
Nicobrand Co. Ltd	Belfast	Insecticides	Chemicals	1937	£15	Yes

Source: FIN/18/19/245 and COM/63/1/223-228.
Notes: Site grant given in nominal terms.
*Original application was by Messrs. Swinson's Engineering Works Ltd., but this firm was wound-up in 1936, and the assets were bought by a new firm.

[229] Calculated from *Northern Ireland House of Commons Papers, Appropriation Accounts*, various years.

Firstly, the design of the 1932 Act was flawed. The financial support being offered was shaped by Stormont's desire not to be too generous towards new firms, at the expense of existing firms, who might feel aggrieved or unfairly treated.[230] This meant the financial support available was too restrictive, and unsuitable for firms establishing in new industries. Grants were only awarded to cover the cost of acquiring a site. Yet, particularly for a new firm, this was only a small part of the total capital costs, compared to the costs of constructing a suitable factory and acquiring machinery. New industries would also struggle to meet the requirement to provide substantial employment in order to receive financial support, as they would be growing from a small size, and not immediately provide significant employment. This simply placed a further barrier to new industries receiving financial support under the 1932 Act.

Secondly, the operation of the 1932 Act was flawed. The decision making process of an Advisory Committee gave figures from existing industries a say over which applicants were successful. This emphasised applicants having the right connections. The Advisory Committee for the 1932 Act consisted of eight members, shown in Table 2.9.[231] While officially Stormont's Ministers of Commerce and Finance together had the final say on decisions, in practice their decisions were a rubber stamping exercise for the view of the Advisory Committee.[232] Writing to the Advisory Committee on the expiry of the 1932 Act, the Minister of Commerce emphasised that every recommendation made by the Committee had been accepted by both himself and the Minister of Finance.[233]

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[230] PRONI: CAB/9F/126/1: Attraction of new industries to Northern Ireland.
[231] PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee.
[232] Applications were vetted by the Ministry of Commerce before being passed to the Advisory Committee, to ensure applications were of substance and not speculative. There is no archival evidence to suggest the Ministry exercised discretion over which applications reached the committee. Indeed, applications put before the committee were sometimes of such speculative nature that it suggests the vetting process was not particularly rigorous.
[233] PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee: Letter to Advisory Committee from Minster of Commerce, 6th October 1937.

Table 2.9: The Advisory Committee under 1932 New Industries Act

Name	External responsibilities	Address
Senator D. McCorkell (*Chairman*)	Stormont Senator; Mayor of Londonderry; Wholesale general merchant	Londonderry
A. Agar	Sirocco Engineering Works	Belfast
Sir R. Baird	Belfast Telegraph	Belfast
J.A. Cleland	UIDA Chairman; Printer & paper merchant	Belfast
V.A. Devoto	Deputy Lieutenant, City of Belfast; Flour & grain importer; Director of bakery; Director of Irish News	Belfast
H. Turtle	Building contractor	Belfast
M.J. Watkins	General Manager & Secretary, Belfast Harbour Commissioners	Belfast
W.H. Webb	Linen firm owner	Randalstown

Source: Constructed using information contained within COM/63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee.

The members of the Advisory Committee strongly reflected the interests of existing firms. They were drawn from the business community in Northern Ireland, and chaired by a Stormont Senator from the ruling Unionist Party.[234] The staple industries were well represented, and the majority of the membership was from Belfast. Members were not simply chosen for their apparent business experience, but also for the networks they possessed. A representative from the Belfast Harbour Commissioners was identified as desirable, because it "would bring into the picture the public body having available large tracts of land for new factories".[235] A representative of Sirocco Engineering Works was suggested, as Sirocco had overseas interests which might allow them to persuade overseas industrialists to locate in Northern Ireland.[236] Two members were directly linked with two of the main newspapers in Northern Ireland,[237] and their appointment appears to have been

[234] Prime Minister Craig initially recommended potential members, for a committee of between 3 and 5 members. However, the Minister of Commerce, Barbour, chose a committee of 8 members, with only two of Craig's four recommendations included. PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee.
[235] PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee, 23rd Feb 1932.
[236] PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee, 23rd Feb 1932.
[237] Prime Minister James Craig's desire to see Sir R. Baird of the Belfast Telegraph made Chairman of the committee was also not implemented, due to the request coming after

motivated by a desire to garner a favourable hearing in the press for Stormont's efforts. Members were therefore not chosen simply to fulfil the role of independent adjudicators on the merits of an application, but also chosen on the basis of their networks. This gave members the opportunity to act in the interests of their respective businesses and industries when making decisions. They were unlikely to support the arrival of competitors, and would instead reinforce existing connections between firms.

Six meetings of the Advisory Committee took place between 1932 and 1937. The minutes record a significant level of detail on their discussions. This provides a rich resource and level of detail which does not exist in later instances of Advisory Committees under Stormont's industrial policy. The minutes record how the Committee arrived at its decisions, what influenced these, and how this compared to the priorities laid out in the legislation. They show how existing firms were given the opportunity to advance their own priorities and special interests.

The first meeting saw the Committee consult with the Minister of Commerce on guidelines for accepting an application.[238] The 1932 Act set out two criteria: that applications should be for a new industrial undertaking, and they should provide substantial employment. Crucially, the Committee, in agreement with the Minister, was given discretion on how to implement these criteria. On whether an application was for a new industrial undertaking, no "hard and fast rule of rigid application" was to be used. On the issue of substantial employment, the Committee was also given discretion if they believed an application possessed potential for growth.

This discretion gave the Committee the opportunity to implement its own preferences, and led to the Committee making decisions based on two of its own

letters had been sent out to potential members requesting their presence on the Advisory Committee by the Ministry of Commerce. PRONI: COM 63/1/222: New Industries (Development) Bill – Appointment of Advisory Committee.

[238] PRONI: COM/63/1/223 New Industries Advisory Committee: First meeting proceedings, 21st June 1932.

criteria. The first was whether the new firm would compete against existing firms. Superficially intended to ensure applications were for new industries, this allowed the Committee to reject applications when any potential for competition existed, no matter how small. This even led to the Committee in some cases only recommending a grant for part of the applicant's site, as the rest of the site was deemed not part of the new industry. The Committee's second priority was whether the applicant would be a commercial success, with detailed financial analysis undertaken before an opinion was given, allowing the Committee to reject applications when desired.

Evidence of this is provided by rejected applications made to the Committee, two of which were from within the high productivity paper sector. At the Committee's second meeting, it considered an application by Cartons Ltd, who had started a factory in Larne producing cardboard milk cartons.[239] Despite this being a new product, already successfully manufactured in Britain, the application was rejected by the Committee, as it did not believe it would be a commercial success. The second rejected application in the paper sector was by the Lurgan Boxmaking Company in 1933. The owner had purchased a factory to produce corrugated cardboard egg containers, and had even successfully patented the machinery used to produce the corrugated cardboard.[240] Despite this being a new product not already manufactured in Northern Ireland, the application was again rejected.

In both these cases, overlapping networks influenced the Committee's decision. Mr Cleland was present for both decisions, and was both the President of the UIDA, and the owner of a firm manufacturing paper and cardboard. In the minutes regarding the application of the Lurgan Boxmaking Company, he is the only member specifically recorded as giving their personal view on the firm's products. With discretion given to the Committee over how they assessed applications, and particular

[239] PRONI: COM/63/1/224: New Industries Advisory Committee: Second meeting proceedings – Minutes of meeting, 20th October 1932.
[240] PRONI: COM/63/1/225: New Industries Advisory Committee: Third meeting proceedings – Application by the Lurgan Boxmaking Co.

weight given to the views of members in the same industry as applicants, applications could be easily rejected if they might compete against existing firms.

Even where applications were approved, there was an unwillingness to give approval until it was proven that no competition with existing firms would take place. In applications from two textile firms,[241] the Committee considered in great detail the potential for competition, and evidence collected included interviews with owners of existing firms producing similar products.[242] The applications were only approved once enough evidence had been gathered to finally satisfy members there was no remote possibility of any future competition with existing firms.

Overlapping networks likely affected whether firms applied at all under the 1932 Act. The Loans Guarantee Acts also used an Advisory Committee, and in an internal Ministry of Commerce minute in 1937, the reason given by the owner of a County Armagh textile firm, John Compton Ltd, of now wishing to apply for financial support, but having not previously done so, was that "he was not prepared to give detailed information concerning his factory and processes to an Advisory Committee the chairman of which was a potential competitor".[243] The use of an Advisory Committee, with well-connected members, meant self-selection in applicants was likely commonplace, as it was only worthwhile applying if a firm had the right connections. Indeed, given the reasoning behind the selection of members for the 1932 Act's Advisory Committee, Stormont willingly promoted overlapping networks as part of its industrial policy.

The 1932 Act expired in 1937, and coincided with the expansion of Westminster's industrial policy. The 1934 Special Areas Act focused on relieving high levels of regional unemployment, with four development areas designated in Britain

[241] These were Messrs Mackie & Sons, and the Damolly Spinning Company
[242] PRONI: COM/63/1/228: New Industries Advisory Committee: Sixth meeting proceedings, 1st March 1937.
[243] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 4th August 1937 – New Industries Development Act.

(Lee, 1971, p.153). This was followed by the 1936 and 1937 Special Areas Acts, which extended the financial support on offer beyond non-profit endeavours, with loans, grants, and relief from rates and income tax available for firms creating new employment (Lee, 1971, p.153-154). While the Special Areas were not particularly effective at reducing unemployment (Lee, 1971; Jones, 1985), innovations such as the creation of trading estates promoted the growth of new industries in these depressed areas (Lee, 1971, p.154).

After initial disagreement amongst the Stormont Cabinet over whether the 1932 Act should be replaced,[244] two pieces of legislation were passed as part of the New Industries Acts of 1937, both increasingly generous in their financial support. Crucially, eligibility would be extended to existing firms, which had been the previous constraint to providing greater financial support. Eligible firms now only had to establish an undertaking which would be "likely to provide and maintain additional employment", and the criterion of the industry being new to Northern Ireland was scrapped.[245] This reflected Stormont's continued prioritisation of employment quantity over quality, and the amount of financial support being linked to its availability to existing firms.

In July 1937, the first part of new legislation saw financial support extended to grants covering the cost of acquiring or renting a site, and loans up to £200,000, interest free for the first five years, to cover the costs of purchasing, building, or adapting premises. The second part of new legislation in December was even more generous. Applicants could now receive support if they were only extending an existing factory, the maximum size of interest bearing loans was increased to £750,000, which could now cover capital costs such as machinery, and firms could

[244] PRONI: FIN/30/AA/97: New Industries Legislation. Memorandum by the Minister of Commerce, 26th February 1937.
[245] New Industries (Development) Act (Northern Ireland), 1937.

also be exempt from income tax for the first five years of operation, subject to the recommendation of the Advisory Committee.

It was the overlapping networks between business and Stormont which led to the second part of the 1937 Act being even more financially generous than initially planned. This was the direct result of lobbying by two local textile firms: a carpet weaving factory near Ballymena, and a textile firm in County Armagh.[246] These firms wished to avail of both a guaranteed loan under the Loans Guarantee Act, to cover the cost of machinery, and a loan under the New Industries Act, to cover the cost of the factory premises. However, the first 1937 Act contained a clause which prevented applicants from simultaneously receiving support from both. After discussion within the Ministry of Commerce, the Minister agreed that the second 1937 Act would remove this clause.[247] The Minister of Commerce also decided the initial maximum loan should be raised from £200,000 to £750,000, and firms only expanding their existing premises would now be eligible,[248] with these alterations accepted in full by the Cabinet.[249] Firms from old industries were therefore able to directly influence Stormont's industrial policy, and increase the financial benefits they received.

The 1937 New Industries Act ran until 1945, extended beyond its original five-year life due to World War II. An Advisory Committee continued to recommend whether applications should be approved, and with what conditions. The Committee shrank to only three members, but its members remained well-connected in Northern Ireland business.[250] One member, Mr H. Boyd, was the accountant to some of the applicants, vouching for their suitability when their application was being considered.[251] This Committee's minutes omit the detail of the 1932 Act, preventing a

[246] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 4th August 1937– New Industries Development Act.
[247] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 20th August 1937.
[248] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 26th November 1937.
[249] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, Extract from draft cabinet conclusions, 29th November 1937.
[250] See Table 2.A.7 in the Appendix for names and occupation.
[251] PRONI: COM/63/1/28-30: New Industries Advisory Committee.

similar depth of insight into their reasoning.[252] However, using surviving Ministry of Commerce files, it has been possible to construct a database of all the applications made under the 1937 Act. [253]

A total of 146 applications were made between 1937 and 1945.[254] Table 2.10 uses this information to compare the distribution of support under the 1937 Act to the existing structure of manufacturing in Northern Ireland. This demonstrates that Stormont's industrial policy was ineffective at promoting new, higher productivity industries, and was weighted towards low productivity sectors. Clothing had the lowest productivity, but its share of applications made and accepted was much higher than its share of employment in 1935. Similarly, for the second lowest productivity sector of textiles, its share of applications accepted was also higher than its share of applications made. In contrast, the high productivity sectors of chemicals and paper saw their share of applications accepted be lower than their share of applications made. Even when measured by share of financial support received, low productivity sectors received the most support, and high productivity sectors the least.

[252] The 1937 Act's Advisory Committee minutes in most cases only recorded whether an application was discussed, if it was accepted, and if so, the extent of support recommended. Detail of the reason for the committee's decision not to recommend an application was rarely given.

[253] No single record of all the applications made under the 1937 Act was kept, nor for the number accepted by the Advisory Committee. To construct the database, each application's unique identifying number was used. These were assigned once an application passed the initial vetting by the Ministry of Commerce. By analysing the minutes of every meeting of the Advisory Committee, with the addition of incomplete summary records kept by the Ministry of Commerce, the attributes of the applicant associated with each unique number were recorded. This created a database listing each applicant's name, location, industry, whether their application was approved by the Advisory Committee, the year in which it was approved, the support offered by the Advisory Committee, and whether it became operational.

[254] Of the 146 applications made, 42 have incomplete details, due to their location or industry being unrecorded. Of these, 4 applications exist where only the unique identifying number was allocated and no further details were recorded, and 11 only record the name and nothing further.

Table 2.10: New Industries Act 1937 distribution by manufacturing sector

Manufacturing sector	Existing industrial structure in 1935 (%)	Share of applications made (%)	Share of applications accepted (%)	Share of applications operational by 1945 (%)	Operational firms' share of financial support (%)
Textiles	50.8	15.8	20.4	17.0	23.7
Food, drink & tobacco	8.6	11.6	7.8	15.1	21.8
Clothing	10.4	30.1	35.9	39.6	23.1
Metal trades, engineering & shipbuilding	13.7	9.6	11.7	7.6	10.9
Construction & extractive industries	9.0	7.5	6.8	3.8	1.2
Paper and printing	3.5	3.4	2.9	3.8	6.4
Chemicals	0.6	1.4	1.0	0	6.7
Public utilities	3.1	0	0	0	0
Miscellaneous	0.2	10.3	9.7	11.3	4.6
Unrecorded	-	10.3	3.9	1.9	1.6
Totals		**146 applications**	**103 approved**	**34 operational**	**£975,525 in loans**

Sources: Existing structure of manufacturing taken from the Census of Production of Northern Ireland Report 1935. Information on applications under the 1937 Act constructed from: PRONI: FIN/18/19/245: New Industries (Development) – Monthly statements of loans authorised and employment returns, 1939-1945; PRONI: COM/63/1/75: Position of the New Industries assisted under the New Industries (Development) Acts (NI) 1932 and 1937, Schedules; PRONI: COM/63/1/28-30: New Industries Advisory Committee.

There was also an absence of applications from firms in high productivity areas within sectors. In textiles, 21 applications were accepted, but only 5 of these were for man-made fibres, with only 3 of these actually operational by the end of 1945. Similarly, within the metal trades sector, 12 applications were accepted, but only 3 of these were for electrical engineering firms, and only 2 of these became operational. Despite the apparent benefits of being able to tailor industrial policy to Northern Ireland's own circumstances, Stormont's industrial policy, which was superficially intended to promote new industries, instead favoured existing, low productivity industries.

A further problem with the 1937 Act was its focus on Belfast. The 1932 Act saw nearly all the firms receiving support established in Belfast. Of the 146

applications made under the 1937 Act, 36 were for firms located in Belfast, equal to 25 per cent.[255] Of these 36 applications, 31 were accepted, equal to 30 per cent of the total accepted. Crucially, 19 of these became operational, equal to 56 per cent of those operational. This only further reinforced the concentration of manufacturing around Belfast, despite high unemployment throughout Northern Ireland.

By October 1943, the 1937 Act had only provided employment for 2,639 people.[256] The employment related to firms which received loans totalled only 1,605 people. Despite this low figure, it was a more efficient means of creating employment than Stormont's support under the Loans Guarantee Acts. The average cost per job under the 1937 Act was £120.98.[257] This compares to a cost per job under the Loans Guarantee Acts for shipbuilding of £455.91.[258] While neither cost per job takes into account whether employment may have occurred anyway in the absence of government subsidy, it does give an insight into the efficiency of Stormont's expenditure on industrial policy. It suggests that if Stormont's expenditure had been better targeted at higher productivity industries, and the legislation had been better designed and implemented to achieve this, the potential was there for Stormont's limited financial resources to have been spent more effectively in the creation of employment in new, high productivity industries.

[255] The location of 39 firms were left unrecorded.
[256] PRONI: FIN/18/19/245: New Industries (Development) – Monthly statements of loans authorised and employment returns, 1939-1945. No record of employment levels in firms supported is available beyond this date.
[257] Calculated by dividing the total amount of loans by the total employment of firms receiving loans in October 1943, using PRONI: FIN/18/19/245 New Industries (Development) – Monthly statements of loans authorised and employment returns, 1939-1945.
[258] Calculated using the total number employed in shipbuilding, from the *Census of Production Northern Ireland Report 1935*, and the total amount of loans Stormont became liable for under the Loans Guarantee Acts (Northern Ireland) 1922-1938, H.C. 654, 1945.

7) Conclusion

This chapter has examined whether regional institutions can provide an explanation for Northern Ireland's longstanding productivity gap to the UK. This was at its worst during the interwar period, when Northern Ireland performed poorly relative to the UK and other regions. Despite having the apparent benefit of being able to tailor industrial policy to its own specific needs, Stormont's industrial policy failed to improve productivity performance. This chapter rejects the existing narrative, that Stormont's industrial policy was irrelevant, and that the poor performance of Northern Ireland manufacturing was simply the result of an industrial structure over reliant on the staple industries amidst falling global demand. Instead, regional institutions were crucial in creating barriers to productivity growth, and determining the supply-side competitiveness of the regional economy.

Institutions have been placed at the heart of explanations for Britain's poor interwar performance, and suggested as a long-run explanation of Northern Ireland's productivity gap. The interwar period demonstrates that regional institutions provided an additional avenue to those identified nationally for firms to create barriers to productivity growth, and that regional institutions play a key role in explaining the long-run productivity gap. The supply-side characteristics of the regional economy, including satisficing and the availability of cheap labour, combined with the fall in global demand, reduced the expected payoff from investing in skills and knowledge. This created the motivation for existing firms to alter institutions for their own benefit and to aid their survival. The means to do so were provided by the strong overlapping networks between business and Stormont. Old, low productivity industries were able to use this influence to acquire financial support at the expense of new industries.

Stormont's industrial policy to promote the growth of new industries was poorly designed, and ineffective at rebalancing the regional economy away from old, low productivity industries. This reflected not only Stormont's desire to maintain existing employment, but also its willingness to facilitate the protection of existing firms from

competition. These existing firms were able to exert influence over the design, implementation, and recipients of Stormont's industrial policy, with each industry's influence reflecting its relative size and barriers to entry. These weaknesses in Stormont's industrial policy came with the opportunity cost of the failure of new, high productivity industries to establish during the interwar period, which would have provided the foundation for a more diversified and stronger post-war economy. Instead, the rent-seeking behaviour of existing firms, facilitated by Stormont's industrial policy, created barriers to productivity growth, and helped lock the Northern Ireland economy into a low wage-investment-productivity equilibrium.

Regional institutions are receiving increasing attention for their role in determining regional long-run economic performance. Northern Ireland's experience demonstrates that regional institutions pose a limit on the efficient decentralisation of economic policy making powers. While a policy of more fiscal decentralisation might be viewed as politically desirable, the regional institutions within which decentralised policy operates will determine its economic success. This is particularly relevant to circumstances where institutional rules to prevent conflicts of interest may be weakened, as suggested by Crafts (2017) post-Brexit, or where transparency and/or the feedback loop of electoral competition is partially absent, such as in contemporary Northern Ireland. The opportunity cost of investment in skills and knowledge can compound the problems already faced by a region suffering from low productivity, restricting its ability to experience convergence.

The interwar period demonstrates how industry and individual firms were able to use their political influence to capture government subsidy. While their interests may align with those of the subnational government in the short to medium-run, they can create barriers to productivity growth in the long-run. Further research is required to understand the extent regional institutions influenced the efficiency of industrial policy in Northern Ireland during the remainder of the twentieth century. After 1939, Westminster had an increased role in controlling Stormont's expenditure. Further

research could explore how this increased role affected expenditure under Stormont's industrial policy, including how it may have changed Stormont's interactions with the business community, and whether this new triangular relationship was beneficial for the efficiency of industrial policy. The transitions from a subnational government at Stormont, to Direct-rule from Westminster, and finally to post-Belfast Agreement devolution, also provide opportunities to examine how changes in regional institutions affected the efficiency of regional industrial policy.

8) Appendix

Table 2.A.1: Percentage of population by occupation

		1926	1951	1971
Agriculture & Fishing	Northern Ireland	15.7	10.5	4.7
	Britain	*4.3*	*3.3*	*1.7*
Manufacturing	Northern Ireland	22.0	19.3	17.8
	Britain	*20.8*	*19.9*	*17.0*
Services	Northern Ireland	18.7	22.9	29.7
	Britain	*27.9*	*29.7*	*35.5*
Other	Northern Ireland	2.6	6.3	4.5
	Britain	*6.3*	*6.1*	*4.5*
No occupation/Retired	Northern Ireland	41.0	41.0	43.3
	Britain	*40.8*	*41.0*	*41.3*

Source: Constructed from Mitchell, 1988, p.105-107 & p.109
Notes: Excludes defence. Population figures for Britain in 1926 were estimated as an average of the values from the 1921 and 1931 population censuses in Britain. Working population defined as: for 1921, those aged twelve and over; for 1926 and 1931, those aged 14 and over; for 1951 onwards, those aged 15 and over. The 'no occupation' category (the majority of which were female) includes all those who listed no occupation in the census, and all those who were retired.

Table 2.A.2: Northern Ireland manufacturing productivity

Year	Contribution to the productivity gap (%)					
	(1) Original		(2) Alternative		(3) Existing estimates	
	Within-sector	*Structure*	*Within-sector*	*Structure*	*Within-sector*	*Structure*
1924	76.3	23.7	72.9	27.1		
1930	62.4	37.6	49.6	50.4		
1935	65.6	34.4	51.5	48.5	45	55
1949	95.4	4.6	90.6	9.4		
1954	80.8	19.2	78.6	21.4		
1958	70.1	29.9	74.9	25.1		
1963	74.6	25.4	69.7	30.3		
1968	58.2	41.8	65.5	34.5	73	27

Sources: Columns (1) and (2): for Northern Ireland: *Census of Production of Northern Ireland Report,* 1924, 1935, 1949, 1958, 1968; for the UK: HMSO (1978). Column (3): for 1935, Isles and Cuthbert (1957, p.273); for 1968, Hitchens and Birnie (1989a, p.450).
Notes: Column (1) shows results from Table 2.3, where contribution of within-sector productivity is calculated before structure. Column (2) calculates contribution of structure before within-sector productivity. Column (3) provides existing estimates from other authors, where the contribution of structure is calculated before within-sector productivity, and which can be compared with Columns (1) and (2).

Table 2.A.3: Output per person across sectors, 1924-1968

Rank	Sector	Avg. UK output per person, (£)	Avg. UK output per person as % of rank 1	Avg. size of UK sector (%)	Avg. size of NI sector (%)
1	Chemicals	2,713	100	3.6	0.7
2	Food, drink & tobacco	2,176	80	7.2	10.2
3	Paper and printing	1,801	66	5.2	2.8
4	Metal trades, engineering & shipbuilding	1,589	59	32.2	20.5
5	Construction and extractive industries	1,352	50	28.8	14.2
6	Textiles	1,244	46	10.6	36.5
7	Clothing	1,000	37	6.0	11.0

Sources: For Northern Ireland: *Census of Production of Northern Ireland Report,* 1924, 1935, 1949, 1958, 1968; For the UK: *Historical Record of the Census of Production 1907 to 1970*; all values converted into 1972 prices using ONS (2004, 2020).
Notes: Public utilities were excluded, as they were part of the public sector. The Miscellaneous sector was excluded, as the variation in firms included, both over time and between Northern Ireland and the UK, made meaningful comparison impossible. Output per person employed was converted into 1972 prices, and averaged across all eight censuses of production between 1924 and 1968. Averaging separately across the interwar years did not affect the ranking.

Table 2.A.4: Costs as a percentage of gross output by manufacturing sector (NI/UK where UK=100)

	1924	1930	1935	1949	1954	1958	1963	1968
Textiles	99	93	104	106	103	102	101	93
Food, drink & tobacco	108	116	112	105	107	111	115	112
Clothing	102	99	98	105	103	102	108	106
Metal trades, engineering & shipbuilding	93	108	111	95	88	79	81	78
Construction & extractive industries	136	125	123	130	119	122	113	111
Paper & printing	100	96	93	98	90	93	96	93
Chemicals	100	92	96	91	86	110	98	95
Public utilities	114	111	85	108	102	98	104	108

Source: *Census of Production* (various years).

Table 2.A.5: Regional characteristics for productivity growth

	Characteristic	Cleveland	Northern Ireland
1	A region situated a significant distance from nation's main capital markets	Yes	Yes
2	Strong industrial history	Yes	Yes
3	Local economy characterised by relatively small enterprises	Yes	Yes
4	High rates of formation of new firms	Yes	No
5	New firms formed for the exploitation of inventions	Yes	No
6	Creation of new firms provided technological leadership	Yes	No
7	Local enterprises trained and cultivated young inventors	Yes	No
8	Nodal firms helped spawn clusters of innovative enterprises	Yes	No
9	Local enterprises served as a hub of overlapping networks	Yes (business & finance)	Yes (business & politicians)

Notes: Based on Lamoreaux *et al.* (2006), see text.

Table 2.A.6: Northern Ireland employment in textiles

	1912	1924	1930	1935	1949	1954	1958	1963	1968
Total textiles	87,427	85,497	67,079	67,328	64,960	65,856	51,531	45,141	41,532
Linen	77,333	74,777	55,460	55,621	52,542	50,142	43,106	33,884	25,157
Proportion of all textiles in linen (%)	*88.5*	*87.5*	*82.7*	*82.6*	*80.9*	*76.1*	*83.7*	*75.1*	*60.6*

Source: Census of Production of Northern Ireland Report 1924, 1935, 1949, 1958, 1968.

Table 2.A.7: The Advisory Committee under 1937 New Industries Act

Name	External responsibilities	Address
H. Boyd	Accountant, Messrs Atkinson and Boyd	Belfast
J.G. Michaels	Tobacco, Messrs Gallaher Ltd.	Belfast
W.F. Scott	Banker, Northern Bank Ltd	Belfast

Source: Constructed using information contained within PRONI: COM/63/1/28: New Industries Advisory Committee.

CHAPTER 3

Borders of the past

The effect of the Great Depression on Northern Ireland's interwar trade performance

Abstract

The Great Depression saw a fall in international trade and a rise in protectionism. Existing literature focuses on the national experiences of the UK and the Irish Free State, but Northern Ireland's experience is not examined. Using a new archival source, a dataset for Northern Ireland's external trade is constructed for 1924 to 1937. This allows the collapse of international trade to be analysed at a regional level within the UK for the first time. Northern Ireland's trade performance is found to have been more resilient than either Britain or the Irish Free State. Both imports and exports recovered to their pre-crash level by 1937, a result of increasing trade with Britain, and strong growth in direct-foreign trade. Northern Ireland's problems of slow growth and high unemployment are shown not simply to be demand-driven problems as regional theory suggests. The effect of UK protectionist trade policy on Northern Ireland is examined, with a redirection of trade towards Britain substituting for falling cross-border trade with the Irish Free State. The interwar Northern Ireland economy was therefore more resilient, and less severely affected by the Great Depression, than the existing narrative suggests, emphasising the relative importance of the post-war period to Northern Ireland's economic decline.

1) Introduction

An important aspect of any economy's performance is its external trade. Not only is it an important component of national income, it also reflects an economy's overall health. This is equally true for a region, where regional problems of slow growth and high unemployment have been linked to a weak trade sector (Thirlwall, 1980). Understanding regional trade within the context of a global economy is of particular relevance, as the recent rise in populism has been linked to disparities in regional experiences of global economic growth (Rodríguez-Pose, 2018). Contemporary events such as Trump's trade war with China, and the potential for increased trade barriers following a UK exit from the European Union (EU), means trade policy is of increasing relevance to regional economies and policy-makers.

One of the most notable trade events in trade history is the Great Depression. Its effects at a national and international level have generated much research (Aldcroft, 1970; Kitson and Solomou, 1990; Eichengreen and Irwin, 1995; Klasing and Milionis, 2014; De Bromhead *et al*., 2019), but its effects at a regional level have received little attention. This reflects the lack of availability of regional trade statistics for this period. This Chapter addresses this shortcoming, by using new archival material to construct a database of Northern Ireland's interwar trade, to understand the effect of the Great Depression on the regional economy. This demonstrates that Northern Ireland's trade was more resilient than the existing narrative for the regional economy suggests, provided by Buckland (1979, 1981) and Johnson (1985a, 1985b). Despite suffering a sharp decline in trade, Northern Ireland recovered to its pre-crash level by 1937, before either Britain or the Irish Free State. This recovery was driven by manufactured goods, primarily linen and shipbuilding. While cross-border trade with the Irish Free State fell, there was a redirection of Northern Ireland's trade towards Britain, and strong growth in direct-foreign trade. Northern Ireland's poor economic performance was therefore not simply a demand-driven problem, as the

existing regional theory of Thirlwall (1980) might suggest, but the supply-side was also important.

Northern Ireland provides this unique opportunity to examine interwar regional trade due to the Government of Ireland Act 1920 (1920 Act). This partitioned the island of Ireland, creating Northern Ireland, with powers distributed between Westminster (the national UK Government) and Stormont (the subnational Northern Ireland Government).[259] Crucially, matters of foreign trade, including Customs and Excise, were retained by Westminster, and outside of the control of Stormont. However, under the 1920 Act, Stormont was to receive its share of Reserved revenue, which included Customs and Excise. In order to calculate Stormont share, statistics had to be collected, not only for Northern Ireland's external trade directly with foreign countries, but also for its cross-channel trade in dutiable goods with Britain. These trade statistics were recorded at a disaggregated level between 1924 and 1937, but they have not previously been exploited. Digitising these trade statistics provides the opportunity to examine regional trade within the UK during the Great Depression for the first time.

This Chapter addresses two main research questions. Firstly, how was Northern Ireland's trade performance affected by the Great Depression? Answering this question focuses on the level and composition of Northern Ireland's trade, making comparisons with Britain and the Irish Free State. Existing literature on Northern Ireland's experience of the Great Depression, particularly from the perspective of trade, is very limited. The existing narrative is provided by Buckland (1981) and Johnson (1985a, 1985b), and focuses on the experiences of the staple industries, particularly linen and shipbuilding. However, there has been no systematic analysis of the overall trade performance of the regional economy. Doing so contributes to the

[259] See Table 1.2 in Chapter 1 for a full outline of the distribution of powers under the 1920 Act.

existing Northern Ireland literature, by providing a more complete picture of interwar trade, and placing Northern Ireland's regional experience within the broader UK and international context.

The second research question is, what effect did the rise in protectionism, specifically the UK's protectionist trade policies, have on Northern Ireland's trade? Answering this question focuses on the direction of Northern Ireland's trade. The 1930s saw a rise in protectionism, as countries sought to address both the economic and political effects of the Great Depression. The UK introduced a number of protectionist trade policies during the interwar period, but particularly from 1932 onwards. These included the Import Duties Act of 1932, the Ottawa Agreements Act of 1932, and the Irish Free State (Special Duties) Act, which were in addition to existing Acts, such as Safeguarding of Industries (NIESR, 1943). This introduction of UK protectionist trade policy provides the opportunity to examine how a region is affected by national trade policy.

The remainder of the chapter is structured as follows. Section 2 surveys the relevant literature, covering the Great Depression and Northern Ireland. Section 3 sets out the method and data used for analysis. Section 4 analyses Northern Ireland's overall trade performance, demonstrating it was not as severely affected as either Britain or the Irish Free State, with the staple industries central to this recovery, but the failure of this to be reflected in the wider performance of the regional economy being linked to the Keynesian regional multiplier. Section 5 examines the role of UK protectionism in Northern Ireland's interwar trade performance, demonstrating that Northern Ireland's trade became more home biased, and that the UK's protectionist trade policies benefited Northern Ireland's exports to Britain, particularly in the staple industries. Section 6 concludes, summarising the implications for our understanding of the Northern Ireland economy.

2) Relevant literature

The interwar period has generated a large volume of literature, examining the global rise in protectionism and collapse in trade following the Great Depression. However, this has focused on the levels of trade between countries, or the performance of specific industries within countries. The impact on regional trade is left unexplored, with regional experiences contained within wider national or industry specific discussions. This hides the potentially differing geographic impacts of the Great Depression on regional trade. Northern Ireland therefore provides an opportunity to address this question with new trade data, while also furthering our limited understanding of the interwar Northern Ireland economy.

The effect of the Great Depression on world trade was substantial. Madsen (2001, p.848) describes it as the "strongest adverse shock to international trade in modern history". This collapse was the result of governments seeking to protect domestic firms and jobs, and insulate their monetary system, in the face of spreading depression and monetary instability (Harley, 2003, p.162). The value of world trade fell 30 per cent in constant prices between 1929 and 1932 (Eichengreen and Irwin, 1995, p.2), and world trade volume fell 16 per cent between the third quarters of 1931 and 1932 (Eichengreen and Irwin, 2010, p.877), with global exports of manufactured goods hardest hit (Harley, 2003, p.162). Even by 1938, global trade volume was only around 90 per cent of its 1929 level, despite global production having already recovered (Eichengreen and Irwin, 1995, p.2).

The global fall in trade following the Great Depression is seen to be the result of a combination of factors. Madsen (2001) presents the decline as a combination of changes in income, tariff barriers, and non-tariff barriers. Discretionary tariff barriers accounted for 41 per cent of the world trade collapse between 1929 and 1932, while 59 per cent was the result of falling nominal income (Madsen, 2001, p.865). The subsequent recovery in world trade by 1937, was almost entirely driven by income, as trade barriers persisted (Madsen, 2001, p.863). Estevadeordal, Frantz and Taylor

(2003) attribute the fall in trade from 1929 onwards to both high transport costs, and the collapse of the gold standard. Jacks *et al*. (2011) use a gravity model to explore the long-run role of bilateral trade costs, finding these fully explain the trade bust of 1929 to 1932. Trade costs increased least within Europe, within Asia/Oceania, and between Europe and Asia/Oceania, but the Americas saw the greatest increases (Jacks *et al*., 2011, p.191). Eichengreen and Irwin (2010) argue that it was a country's choice to introduce protectionist policy which contributed to rising trade costs, with policy shaped by the decision of whether to remain on the gold standard, which led to more protectionist trade policy, in order to protect the country's balance of payments.

Economies in Europe were amongst some of those hardest hit following the Great Depression, but the UK was not as badly affected. The European core economies experienced the greatest implosion of trade, as measured by total trade as a share of GDP (Klasing and Milionis, 2014, p.193).[260] In comparison, the UK's slump in GDP per capita following the Great Depression was mild relative to other European countries (Eichengreen, 2003, p.316). The UK's GDP growth was over double the weighted growth rate of the world economy during the 1930s, and outperformed other major industrial countries, such as the USA and France (Kitson and Solomou, 1990, p.1).

While the UK's GDP recovered, its trade did not regain its pre-1929 level by 1937. The level of UK exports declined much further than world trade between 1929 and 1937, falling 20.3 per cent, while world trade fell only 11 per cent (Aldcroft, 1970, p.246). The recovery in the UK economy meant trade had declined in relative importance: the UK's exports declined from a 17.6 per cent share of net national income, to only 9.8 per cent in 1938 (Aldcroft, 1970, p.55), with the influence of fluctuations in exports on output diminishing during the 1930s (Aldcroft, 1970, p.56).

[260] The European core includes: Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden, Switzerland, and the UK (Klasing and Milionis, 2014, p.195-196).

Imports as a share of net national income also declined, from 26.7 per cent in 1929, to 17.6 per cent in 1938 (Aldcroft, 1970, p.245). This reflected the wider international experience of economic recovery in production but not trade, identified by (Eichengreen and Irwin, 1995).

Aldcroft (1970, p.255) attributes the fall between 1931 and 1933 in the UK's imports of manufactured goods to tariffs, rather than prices or domestic incomes. After 1929, countries had raised their tariff levels, such as the United States introducing the Smoot-Hawley Tariff in 1930 (Eichengreen and Irwin, 1995, p.2). However, the UK was the last major trader to adopt protectionist policies (Capie, 1981, p.155). The UK had adopted a limited amount of protection during the 1920s, with tariffs primarily aimed to protect key industries or generate revenue (NIESR, 1943, p.2-4). Relative to other countries, the UK's average *ad valorem* tariff on manufactured goods in 1925 was low, at only 5 per cent, while the average for Continental Europe was around 25 per cent, and 37 per cent in the US (Kitson and Solomou, 1990, p.4). However, this situation changed rapidly, and by 1932, "the United Kingdom had become a fully protectionist country", with the introduction of the Import Duties Act of 1932, Ottawa Agreements Act of 1932, and the Irish Free State (Special Duties) Act of 1932, all of which levied tariffs and enforced quotas on foreign imports (NIESR, 1943, p.5-7).

Three factors influenced the UK's tariff structure: political influence of interest groups; large regional differences within the economy; and protection for industries under severe import pressure (Capie, 1981, p.155). Those industries with least need for protection had greatest political clout, but they were unable to affect tariff policy, and there is no evidence that industries were protected by tariffs as a result of import competition (Capie, 1981, p.172-173). However, regional concerns did receive a sympathetic hearing, with regional differences influencing the structure of tariffs (Capie, 1981, p.162).

Protectionist policies therefore did affect the level of trade, but the effect of preferential trading agreements, such as the Ottawa Agreement, on the direction of

trade is viewed as limited. Using a gravity model, Eichengreen and Irwin (1995) conclude that protectionist policies did contribute to falling trade, as they helped prevent trade to recover in-line with output and incomes. However, the formation of trading blocs was ineffective at redirecting trade, and instead it was existing commercial and financial linkages which determined the level of trade between countries (Eichengreen and Irwin, 1995, p.21). Focusing on the Canadian experience, Jacks (2014) uses a gravity model approach to similarly emphasise the role of existing linkages, with the preferential protectionism embodied by the Ottawa Agreement being ineffective at redirecting trade.

Other literature has found that tariffs did alter the geographic direction of trade. Kitson and Solomou (1990, p.63-65) find that UK tariffs were associated with a changing pattern of import shares from different countries, particularly for manufactured goods. De Bromhead *et al*. (2019) examine the UK's preferential protectionist policy in greater detail, using a gravity model and disaggregated import data across all commodities for the UK. The UK's protectionist policies of the 1930s are found to explain increased Imperial imports into the UK, but these only accounted for around one-quarter of the decline in UK imports between 1929 and 1933 (De Bromhead *et al*., 2019, p.348). While the UK's protectionist trade policy affected the direction and partly the level of trade, Kitson, Solomou and Weale (1991) conclude that it had no effect on the recovery of sectors within the UK economy.

While the effect of the Great Depression and protectionist trade policies has been explored extensively at a national level, there is little analysis of their impact at the regional level. Writing shortly after the Great Depression, Ghosh (1940, p.497) stated there had been "a shift in the relative importance of foreign trade and internal trade", citing the recovery in world industrial activity between 1929 and 1936, and the failure of world trade to keep pace. The later findings of Aldcroft (1970) for the UK, and Eichengreen and Irwin (1995) for the global economy, support this. However, the lack of trade data has meant the effect of the Great Depression on regional trade has

received little attention. The decline in world trade between 1929 and 1937 affected the UK's staple industries, which were geographically concentrated, causing high regional unemployment (Harley, 2003, p.162). Within the UK, Scotland was already experiencing de-globalisation during this interwar period (Tomlinson, 2014). Modern studies have been able to exploit more widely available regional trade data. This is demonstrated by McCallum's (1995) seminal paper, which uses a gravity model to find that trade between Canadian provinces was much greater than trade across the Canada-US border, relative to what would be predicted given their relative economic size and distance. This has been labelled as 'home bias' in trade (Yi, 2010, p.365). However, it has not been possible to measure regional trade within the UK for the interwar period.

While the trade performance of both the UK and Irish Free State during the Great Depression has received attention, there is little detailed discussion of Northern Ireland. Instead, Northern Ireland's trade performance is left to be indirectly inferred from the perspective of one of its main staple industries: such as Beacham (1944) and Ollerenshaw (1991) for linen; or Johnson (1985a) and Geary and Johnson (1989) for shipbuilding. The earliest study of Northern Ireland's trade is from Fitzsimons, Hogan and Neary (1999), for 1970 to 1992, which examines it in the context of the Irish Republic's trade connections. Thus, there is a failure to empirically measure Northern Ireland's trade performance during the interwar period, leaving the impact of the Great Depression and associated protectionism unknown.

The existing interwar narrative for Northern Ireland's trade performance is provided by Buckland (1979, 1981) and Johnson (1985a, 1985b). The region's interwar economic problems, of high unemployment and low economic growth, were the result of the decline of the staple industries, caused by falling global demand. Johnson (1985a, p.216) goes as far as stating that in an international perspective, "essentially the province's economy between the wars was in a hopeless position".

Northern Ireland's economic performance is viewed as being determined exogenously, and inextricably linked to the poor performance of the staple industries.

This argument is encapsulated by Johnson's (1985a) description of the interwar fortunes of the staple industries. Despite a short boom for the staple industries at the beginning of the 1920s, they fared poorly throughout the remainder of the interwar period, with high levels of unemployment (Johnson, 1985a). Shipbuilding faced falling global demand, combined with global overcapacity, and a competitive international market (Johnson, 1985a, p.191-192). The linen industry similarly experienced a global decline in demand for its products (Johnson, 1985a, p.196). Agriculture also faced difficult economic conditions, driven by global oversupply, and sluggish growth in demand (Johnson, 1985a, p.197). While supply-side challenges are identified by Johnson (1985a), the central argument is that falling demand was the fundamental reason for the weak performance of these industries, and thus slow economic growth relative to Britain. This has led to claims from McCann (2014, p.48), although unsupported by empirical evidence, that it was Northern Ireland's reliance on exports to Britain which was to blame for Northern Ireland's poor interwar performance.

Johnson (1985b) places Northern Ireland's experience in the context of the wider interwar economy of the island of Ireland, comparing it to the Irish Free State, particularly in relation to agriculture. The economic effects of partition are not viewed as that great, as while Belfast and Londonderry possessed trading links pre-partition with northern and western parts of the island, north-south trade links were not that strong (Johnson, 1985b, p.6). McCann (2014, p.48) presents the contrary view, that partition had a significant, negative long-run impact on commercial activity near the Irish border. Johnson (1985b, p.6-7) accepts the Land Boundary may have inflicted some limited damage to cross border trade, but Northern Ireland benefited from access to Westminster subsidies for unemployment and agriculture, and tariff free access to the UK market. Ó Gráda and Walsh (2006) perhaps present a compromise

viewpoint, concluding that while the effect of partition on the border area may have been negative, the overall effect was relatively small.

A significant event in interwar trade, of which Northern Ireland was part, was the Anglo-Irish Economic War (Economic War). This exemplifies the rise of protectionism during the interwar period, but has been studied primarily from the perspective of the Irish Free State. The Economic War saw tariffs and quotas imposed by both the UK and Irish Free State on each other's exports, triggered by a dispute over the payment of land annuities.[261] The arrival of a new Fianna Fáil government, saw payment of these land annuities to the UK Government withheld, beginning in July 1932 (Kennedy, Giblin and McHugh, 1988, p.41-42). Westminster immediately responded by imposing duties on imports from the Irish Free State, to recoup the revenue through other means (Ó Gráda, 1997, p.5-6), and the Irish Free State retaliated with similar trade restrictions, including duties imposed on around one-third of goods imported from the UK (Kennedy, Giblin and McHugh, 1988, p.42).

The Economic War ended in 1938, with existing literature viewing the Economic War as having ended on favourable terms for the Irish Free State. Against an estimated £100 million liability in land annuity payments, the Irish Free State only made a £10 million payment to settle the dispute, while it only experienced an overall reduction in GNP of around an £31.5 million (O'Rourke, 1991, p.366). Neary and Ó Gráda (1991) similarly conclude that the combination of a debt write-off with lump-sum payment, was a beneficial outcome for the Irish Free State. While overall the Irish Free State is viewed as having 'won the war', the impact of trade restrictions on particular sectors demonstrates the Economic War was not without economic damage for the Irish Free State. Johnson (1985b, p.17) emphasises that farming, particularly cattle producers, bore the brunt of the Economic War, and did not regain their

[261] These land annuities arose from various Acts, which saw tenants able to purchase their holdings from landlords, and following partition, repay the money lent to them through the Irish Free State Exchequer to the UK Government at Westminster (Kennedy, Giblin, and McHugh, 1988, p.41).

privileged position in the UK market. However, it is recognised by Johnson (1985b), O'Rourke (1991) and Ó Gráda (1997) that it was not simply the Economic War, but the wider shift towards protectionist policy, which harmed the Irish Free State's economy, creating long-run issues that were not fully resolved until well into the post-war period.

Smuggling was an important side effect of the Economic War, and Johnson (1979) explores the issue of cattle smuggling in greater detail. Cattle were the Irish Free State's most important export, and following partition, many farmers continued to ship their produce via Northern Ireland ports (Johnson, 1979, p.43-44). Following the imposition of protectionist measures by the UK government, including duties and tariffs, there was a divergence in the price of cattle north and south, with prices falling more in the Irish Free State than in Northern Ireland (Johnson, 1979, p.44-46). However, the movement in price in the Irish Free State, and Northern Ireland's continued high exports of cattle, suggest cross-border smuggling was relatively effective, with the true value of cattle exported to Northern Ireland being up to 20 per cent higher than official records (Johnson, 1979, p.57).

Apart from smuggling, mention of Northern Ireland's experience of the Anglo-Irish Economic War is very limited. Discussing the two economies on the island, Johnson (1985b) suggests that British protectionism of the 1930s was beneficial for the Northern Ireland economy, but exclusively focuses on agriculture. Until the introduction of protectionism during the 1930s, agricultural goods were traded between the Irish Free State and the UK as a part of a free-trade area for foodstuffs (Johnson, 1985b, p.10). Agriculture in both the Irish Free State and Northern Ireland faced similar problems of remaining competitive, but both performed well during the 1920s (Johnson, 1985b, p.12-13). From 1932 onwards, falling agricultural prices, due to world oversupply and slowing population growth, affected both parts of the island, with Johnson (1985b, p.13) arguing that Northern Ireland benefited from Westminster's protectionist trade policies and subsidies for agriculture, while the Irish

Free State was harmed by both measures. Johnson (1985a, p.189-190) suggests that the aggregate increase in Northern Ireland's exports to Britain between 1931 and 1935, was a result of the fall in agricultural products being imported from the Irish Free State to Britain, but does not provide evidence for this assertion. Buckland (1979, p.46) similarly views the UK's protectionist trade policy as having benefited agricultural products, but also manufactured exports from Northern Ireland to Britain. The degree to which the UK's protectionist policies aided this good performance in agriculture is therefore unclear.

The Great Depression saw a collapse in global trade, which was the result of both falling incomes and increased protectionism. Relative to other countries, the UK was not as severely affected by the Great Depression, but it did become less open, with its protectionist trade policies changing who it traded with. However, throughout these national and international accounts, the effect on regional economies is unknown. We do not know whether regional trade was as severely affected, or if it followed the same pattern. The interwar period was also an important time for Anglo-Irish relations, with the Economic War one of its major features. Yet accounts of the Anglo-Irish Economic War focus almost exclusively on the economic relations between the Irish Free State and Britain, with little attention given to Northern Ireland. The main reason for this has been the lack of regional trade statistics for this interwar period. New trade data for Northern Ireland therefore provides the opportunity to understand how Northern Ireland's trade was affected by the Great Depression and rise of protectionism. This adds to the existing national and international literature, and tests the existing narrative of Northern Ireland's interwar economic performance against a new data source.

3) Method and data

A shortcoming of previous literature examining Northern Ireland's interwar economy is the failure to analyse the region's trade performance. The focus has been on the trade performance of specific industries, rather than the overall level of trade, or how the composition and direction of trade changed over time. The reason for this failure is the absence of a database for Northern Ireland's interwar trade. This section begins by outlining the method used to analyse Northern Ireland's trade performance. This is followed by a discussion of the data used to construct a disaggregated time-series for Northern Ireland's interwar trade, collected from a new archival source, and the additional data required for analysis.

(i). Method

In order to systematically analyse Northern Ireland's interwar trade for the first time, this Chapter uses a newly constructed database, discussed below, to compare the overall level of Northern Ireland's trade with Britain and the Irish Free State. This will demonstrate how the overall level of Northern Ireland's imports and exports changed over time, placing it in the context of the national UK economy, and Northern Ireland's closest neighbour, the Irish Free State. This will allow comparisons of the timing and extent of the impact on regional trade from the collapse in world trade, and how and when the regional economy recovered.

This will be followed by a discussion of the composition of Northern Ireland's trade. When discussing Northern Ireland's interwar economy, previous literature has focused on the experiences of linen and shipbuilding, to the exclusion of other industries. Being able to disaggregate Northern Ireland's imports and exports, it will integrate other sectors into the analysis of the regional economy, and demonstrate the relative importance of the staple industries to Northern Ireland's experience of the Great Depression. This will include a discussion of how Northern Ireland's trade

performance was linked with the wider regional economy, and whether Northern Ireland's problems of high unemployment and slow regional growth, as predicted by Thirlwall's (1980) regional model.

Finally, this Chapter will discuss how the direction of Northern Ireland's overall trade changed over time, making use of the disaggregated information contained within the database. This will show how integrated the Northern Ireland economy was with both Britain and the Irish Free State, and the extent of home bias in Northern Ireland's trade. Finally, the effect of the rise in protectionism on Northern Ireland's trade is explored. This includes the estimation of econometric models for both Northern Ireland's imports and exports, based on the methods of De Bromhead *et al*. (2019) and Fukao, Okubo and Stern (2003) respectively. Finally, there is an analysis of the impact of the Anglo-Irish Economic War on Northern Ireland's trade with the Irish Free State, relative to that of Britain.

(ii). Main data source

Under the Government of Ireland Act 1920, the UK government at Westminster was responsible for determining trade policy, and administering all matters in relation to Customs and Excise.[262] Therefore, throughout the interwar period, H.M. Customs and Excise were responsible for collecting trade statistics for the UK, which were published in the *Annual Statement of Trade of the United Kingdom*. This included Northern Ireland's foreign trade recorded by H.M. Customs and Excise, at Northern Ireland's ports and at the Land Boundary with the Irish Free State. However, this publication did not include Northern Ireland's domestic (or cross-channel) trade with Britain.

[262] See Ulster Year Book, 1926, p.59.

While H.M. Customs and Excise did not collect statistics for this cross-channel trade, as this was internal to the UK,[263] Stormont's Ministry of Commerce did collect these cross-channel statistics. This was because Stormont received its share of Customs and Excise revenue as part of its Reserved revenue from Westminster, with the calculation of Stormont's share of this revenue based on the level of consumption of dutiable goods in Northern Ireland.[264] Therefore, to know Northern Ireland's consumption of dutiable goods, and calculate Stormont's share of revenue, it was necessary to track cross-channel trade.[265] Stormont collected these statistics from port authorities, using the declarations made by shippers of goods between Northern Ireland and Britain, to keep track of the movement of all goods, not just those which were dutiable.[266] Stormont combined these statistics with those collected by H.M. Customs and Excise, to publish its own *Summary of the Trade of Northern Ireland*, but these provided only aggregated trade statistics, and did not differentiate between cross-channel and direct-foreign trade.[267]

However, two previously unexploited sources of statistics for Northern Ireland's trade exist. These are the original, disaggregated, handwritten, trade statistics for Northern Ireland, from which the Ministry of Commerce published the *Summary of the Trade of Northern Ireland*. There are two sources: a series of ledgers for cross-channel and direct-foreign trade at Northern Ireland's ports (port ledgers), and a series of trade books for trade across the Irish Land Boundary (Land Boundary books), both held at the Public Record Office of Northern Ireland (PRONI).

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[263] H.M. Customs and Excise did not collect these statistics, because "for fiscal purposes Great Britain and Northern Ireland form a single unit and Customs "entries" are therefore not required in respect of goods passing between the two areas" (Ulster Year Book, 1935, p.76).
[264] See Ulster Year Book (1926, p.59).
[265] Stormont's share of dutiable revenue = the net duty collected in Northern Ireland from goods imported directly from outside the UK (direct-foreign trade) + the amount of duty attributable to goods originating from outside the UK imported into Northern Ireland through Britain – the duty attributable to goods originating from outside the UK exported through Northern Ireland into Britain.
[266] See Ulster Year Book (1926, p.60).
[267] Summaries were also published in the Ulster Year Book.

The statistics contained within these two sources are disaggregated by commodity and location. The first source is the port ledgers, which cover Northern Ireland's trade via its ports, and includes both annual direct-foreign and cross-channel trade, disaggregating imports and exports to the level of around 500 commodities, recorded by port of arrival or departure.[268] These trade statistics were based on the recording of weight of goods traded, with values assigned by the Ministry of Commerce. While this process is not ideal, there is no reason to believe these assigned values do not reflect true values any more or less than the statistics collected by H.M. Customs and Excise.[269] The second source is the Land Boundary books, which provide disaggregated statistics for imports, exports, and re-exports of around 1,500 commodities across the Irish Land Boundary. The advantage of combining these sources over the published trade statistics, is the ability to differentiate between cross-channel and direct-foreign trade, and greater disaggregation across commodities over time.[270]

Digitising and combining these two sources presented several challenges. This included the categorisation of commodities, combining the port ledgers with the Land Boundary books, missing values, and the inability to differentiate trade with the Irish Free State via the sea from other direct-foreign trade. How these were overcome, and the limitations they place on analysis, are discussed in greater detail in Appendix A. None of these issues pose a fundamental barrier to an analysis of Northern Ireland's interwar trade. While it would be desirable to have the statistics for trade with the Irish Free State via the sea separated from other foreign trade for the 1930s, it does not fundamentally change the conclusions drawn from the analysis, as Appendix

[268] PRONI: COM/38/2/2 to COM/38/2/17. These ledgers' existence appears to be the result of the aggregation of monthly trade statistics, but for which only records relating to 1941 survive (see folders within PRONI: COM/38/3).
[269] Appendix A discusses the limitations of these statistics in more detail.
[270] For example, statistics for tobacco were not published separately in the *Summary of the Trade of Northern Ireland*, but are recorded separately in the port ledgers and Land Boundary books.

A discusses. Digitising and combining these two sources of statistics provides a new time-series for Northern Ireland's trade, starting in 1924, the first full year following the introduction of the Land Boundary,[271] and ending in 1937, the last full year of the Anglo-Irish Economic War. This time-series is disaggregated across 39 main groups of commodities, 4 main classes of commodity (food, drink, tobacco; raw materials; manufactured goods; and livestock), plus the totals for these classes, and an overall total. The format of this is shown in Table 3.B.1 in Appendix B. Due to how the trade statistics were recorded across the two sources, and with limited time and resources, it was only possible to digitise the total value of commodities.[272]

(iii). Additional data sources

To make relevant comparisons with the trade of Britain and the Irish Free State, additional data is required. The main source of trade statistics used for comparisons with the UK and Irish Free State is Mitchell (1988), which is disaggregated into three classes of commodity: food, drink, tobacco (including livestock); raw materials; and manufactured goods. Given the relative differences in the sizes of the three economies, and hence their trade, annual population estimates from Mitchell (1988) were used to compare the level of trade per capita for both imports and exports over time.[273]

An important contribution of collecting trade statistics for Northern Ireland, is the ability to use these to calculate Britain's trade within the UK for the first time. This is possible because the new trade data for Northern Ireland differentiates between cross-channel, direct-foreign, and Land Boundary trade. To calculate Britain's trade

[271]Border controls were imposed between the Irish Free State and Northern Ireland from 1st April 1923, after the Irish Free State took responsibility for Customs and Excise. See Denton and Fahy (1993) for a detailed timeline of events.
[272] To record the quantity and value of every single commodity recorded would have required 434,000 observations to be digitised from the handwritten records.
[273] These annual population estimates are the same as those used and discussed in Chapter 1.

this firstly involved digitising the necessary classes and subclasses of UK trade from *Annual Statement of Trade of the United Kingdom*, to correspond with the 39 commodities digitised for Northern Ireland. Britain's imports (exports) of a particular class were then calculated as: the total UK value, plus the value of Northern Ireland' cross-channel exports (imports), minus the value of Land Boundary imports (exports), and minus the value of Northern Ireland's direct-foreign imports (exports).

To undertake econometric analysis of the impact of the UK's protectionist trade policies on Northern Ireland's trade, measures of trade barriers were required. This involved collecting from the *Annual Statement of Trade of the United Kingdom*, the total value of imports for each of the digitised classes and subclasses of commodities from the new Northern Ireland trade data. The equivalent total UK revenue data for each of these classes and subclasses was also collected from the same source, to calculate an *ad valorem* tariff rate for each category of good, to be used as the tariff variable in the models estimated. Revenue generated from trade with the Irish Free State was also published separately in *Annual Statement of Trade of the United Kingdom*, and this allowed *ad valorem* rates for commodities specific to the Irish Free State to be calculated. This is discussed in further detail in Section 5(ii).

Finally, throughout the analysis, the values of imports and exports were adjusted to control for inflation, using a seasonally adjusted price indicator, published by the ONS (2004, 2020), with all values converted to 1972 prices. Ideally this would be done individually for each commodity, using the prices at which they were traded, but this is complicated by the data remaining aggregated to some degree, the incompatibility of some of the port and Land Boundary volume statistics, and no ready access to the equivalent data already digitised for the UK and the Irish Free State. Given the primary aim is to measure the performance of Northern Ireland's trade relative to Britain and the Irish Free State, rather than simply its absolute level, using a general price deflator was the best available method.

4) Impact of the Great Depression on trade

This section discusses the level and composition of Northern Ireland's trade, making direct comparisons with equivalent data for Britain and the Irish Free State. This demonstrates that Northern Ireland's trade performance was more resilient than either Britain or the Irish Free State following the Great Depression. This resilience was driven by trade with Britain, and the recovery in exports is shown to be the result of the staple industries, particularly textiles and shipbuilding.

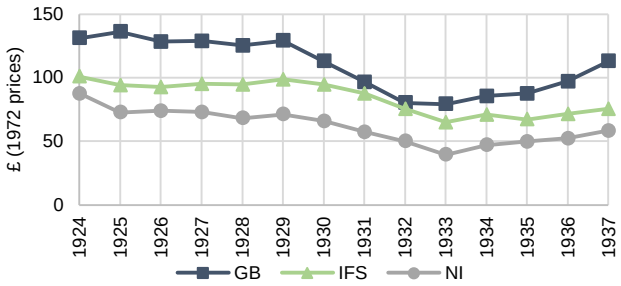
(i). Level of trade

The first area of analysis is the total value of Northern Ireland's direct-foreign trade, compared with Britain and the Irish Free State, and shown in Figure 3.1. This foreign trade is all direct trade with foreign countries, split between imports and exports.[274] Panel A and Panel B show that Northern Ireland had the lowest level of foreign imports and exports per capita respectively, while Britain had the highest. This lower level of trade per capita reflects part of Northern Ireland's foreign trade was through goods being sold to firms in Britain, which were subsequently exported abroad, as well as foreign imports arriving in Northern Ireland through Britain (Isles and Cuthbert, 1957, p.90). Unfortunately, this indirect-foreign trade can not be differentiated from domestic trade with Britain. Thus Northern Ireland's foreign trade appears relatively lower than the true figure would be. However, if it is assumed that foreign trade is a reasonable proxy for Northern Ireland's unobservable foreign trade, then it provides a way of measuring its performance relative to Britain and the Irish Free State following the Great Depression.

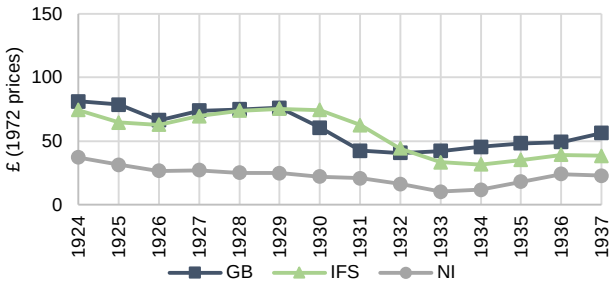
[274] For Northern Ireland, foreign trade was all trade external to the UK (direct-foreign trade via sea plus trade across the Irish Land Boundary), which does not include cross-channel trade with Britain. For Britain, foreign trade was calculated as total UK foreign trade, minus Northern Ireland's direct-foreign trade, and not including cross-channel trade between Britain and Northern Ireland. Foreign trade for the Irish Free State remained unmodified.

Figure 3.1: Total value of foreign imports and exports per person

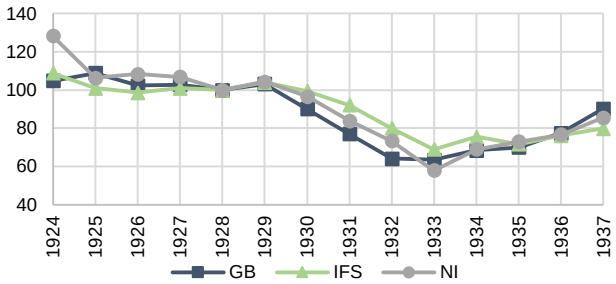
Panel A: Total value of foreign imports per person



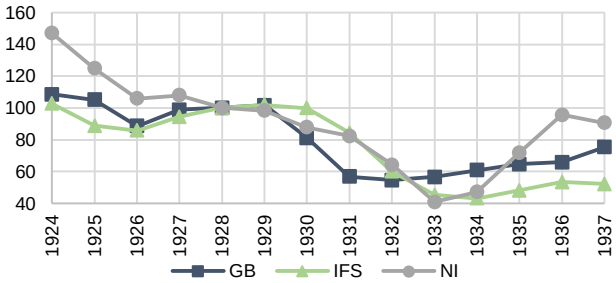
Panel B: Total value of foreign exports per person



Panel C: Index of total foreign imports (1928=100)



Panel D: Index of total foreign exports (1928=100)



Sources: see text.

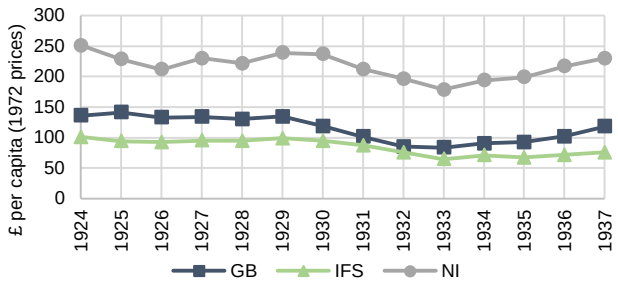
While Northern Ireland's level of foreign trade per capita was lower for both imports and exports, the performance of its imports and exports was good relative to Britain and the Irish Free State. Panel C and Panel D respectively show the level of direct-foreign imports and exports per capita as an index, with a base year of 1928. The base year was chosen as 1928, because this was the final year before the onset of the Great Depression. This shows that Northern Ireland's direct-foreign imports experienced a similar decline to Britain and the Irish Free State, albeit with a lower trough in 1933, at 42 per cent below its 1928 level, compared to lows of 37 per cent below for Britain, and 31 per cent below for the Irish Free State in the same year. This was followed by a recovery in Northern Ireland's direct-foreign imports, which saw it almost match the level of Britain in 1937, and be slightly ahead of the Irish Free State. However, this was still 14 per cent below its 1928 level by 1937.

Panel D in Figure 3.1 suggests a slightly different conclusion for Northern Ireland's direct-foreign exports. Northern Ireland's direct-foreign exports had been declining rapidly since 1924, but where Britain's foreign exports declined rapidly after 1929, both Northern Ireland and the Irish Free State saw a more gradual decline. Both then saw their foreign exports fall further than Britain's, to around 60 per cent below their 1928 level by 1933. While the Irish Free State remained at this level, Northern Ireland's foreign exports recovered rapidly, almost reaching their pre-crash level by 1936. This was a much more rapid recovery than that experienced by Britain.

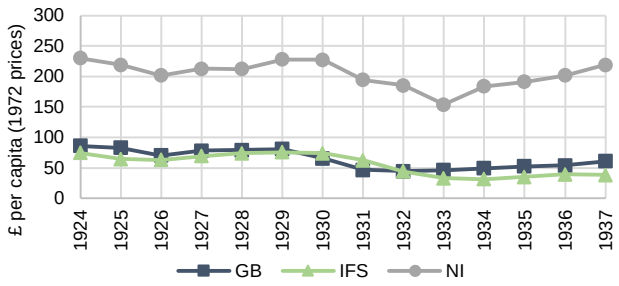
This direct-foreign trade does not tell the whole story for Northern Ireland, as it excludes its trade with Britain. Figure 3.2 therefore compares the total value of Northern Ireland's imports and exports, including cross-channel trade with Britain, against the total trade of Britain and the Irish Free State. Panel A and Panel B in Figure 3.2 show that imports and exports per capita were much higher for Northern Ireland than either Britain or the Irish Free State, when cross-channel trade is included. This is consistent with regional economies having a relatively larger trade sector in comparison to national economies (Thirlwall, 1980, p.419).

Figure 3.2: Total value of all imports and exports per person

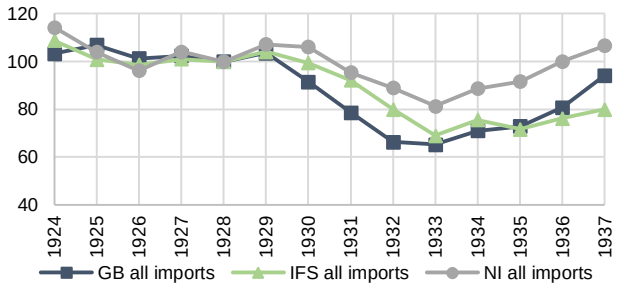
Panel A: Total value of imports per capita



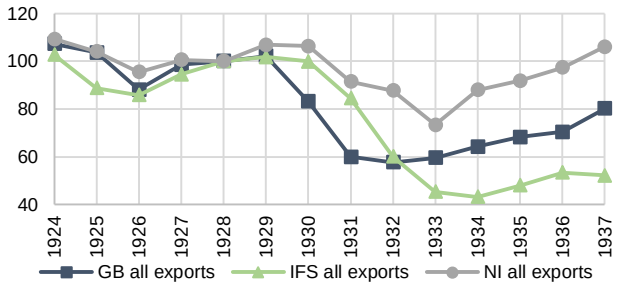
Panel B: Total value of exports per capita



Panel C: Index of total imports (1928=100)



Panel D: Index of total exports (1928=100)



Sources: see text.

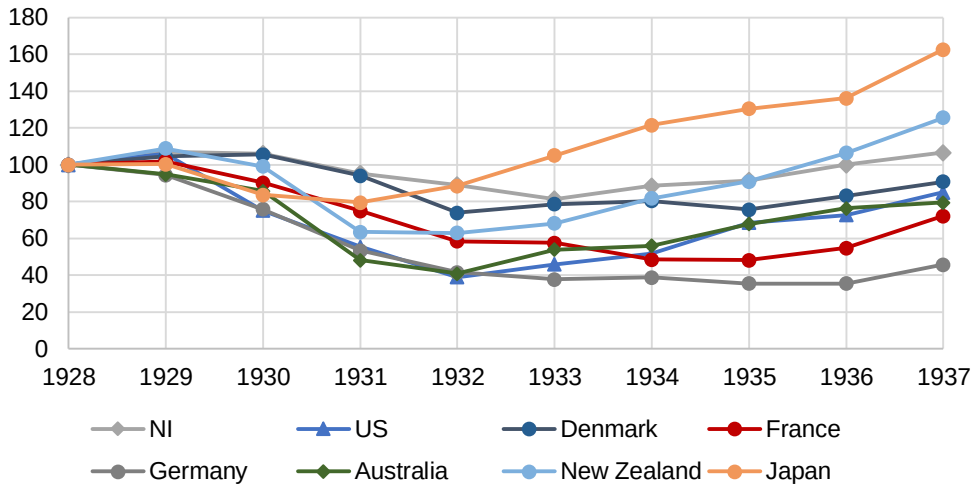
Panel C and Panel D in Figure 3.2 present indexes for the total value of all imports and exports respectively. From this it is clear that both Northern Ireland's imports and exports were not as severely affected as either Britain or the Irish Free State. Imports into Northern Ireland had returned to their pre-crash level by 1936, at a time when the foreign imports of Britain and the Irish Free State were still around 20 per cent down. Similarly, Northern Ireland's exports had returned to almost its pre-crash level by 1936, and this strong recovery saw it reach 6 per cent above its pre-crash level, when Britain was still 20 per cent below, and the Irish Free State was 48 per cent below.

These results demonstrate that Northern Ireland's trade performance was much more resilient than that of either Britain or the Irish Free State following the Great Depression. This was primarily driven by cross-channel trade with Britain, as well as a strong recovery in direct-foreign exports. This presents a very different picture from the existing narrative for Northern Ireland during the interwar period. This narrative views Northern Ireland's export industries being hit hard by falling demand following the Great Depression, with a relatively weak economy which experiences little rebound (Buckland, 1979, 1981; Johnson, 1985a, 1985b). Yet what emerges from this new trade data is that the trade sector of the Northern Ireland economy was more resilient than previously thought. This evidence for Northern Ireland instead supports the wider international narrative (Ghosh, 1940; Eichengreen and Irwin, 1995), that the recovery in the world economy was driven by economic activity within, rather than between, countries.

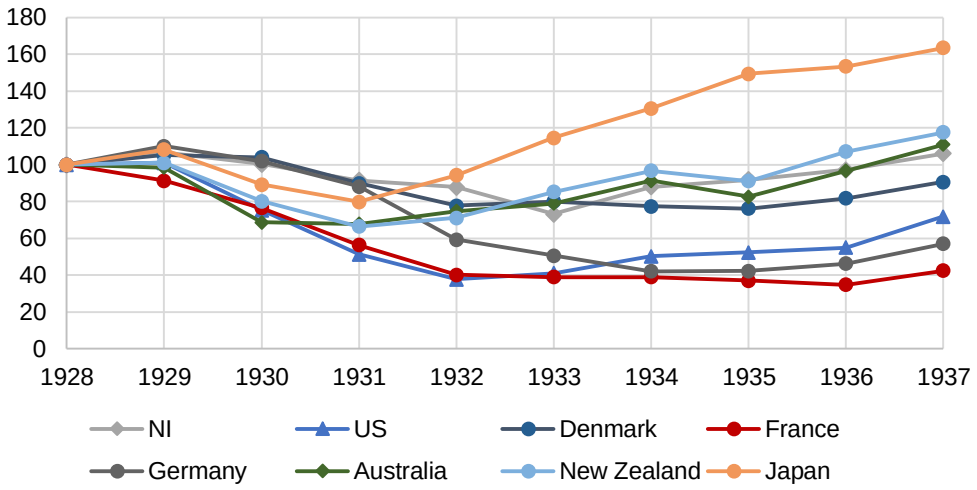
This is supported by placing Northern Ireland's regional trade performance in the context of the foreign trade performance of other countries, shown in Figure 3.3. For both imports in Panel A, and exports in Panel B, Northern Ireland's regional trade performance equates to the national trade performance of countries which were least negatively affected following the Great Depression.

Figure 3.3: Northern Ireland's trade in international context (1928=100)

Panel A: Import index



Panel B: Export index



Source: Constructed from Mitchell (2013) for all countries except Northern Ireland.

(ii). Composition of trade

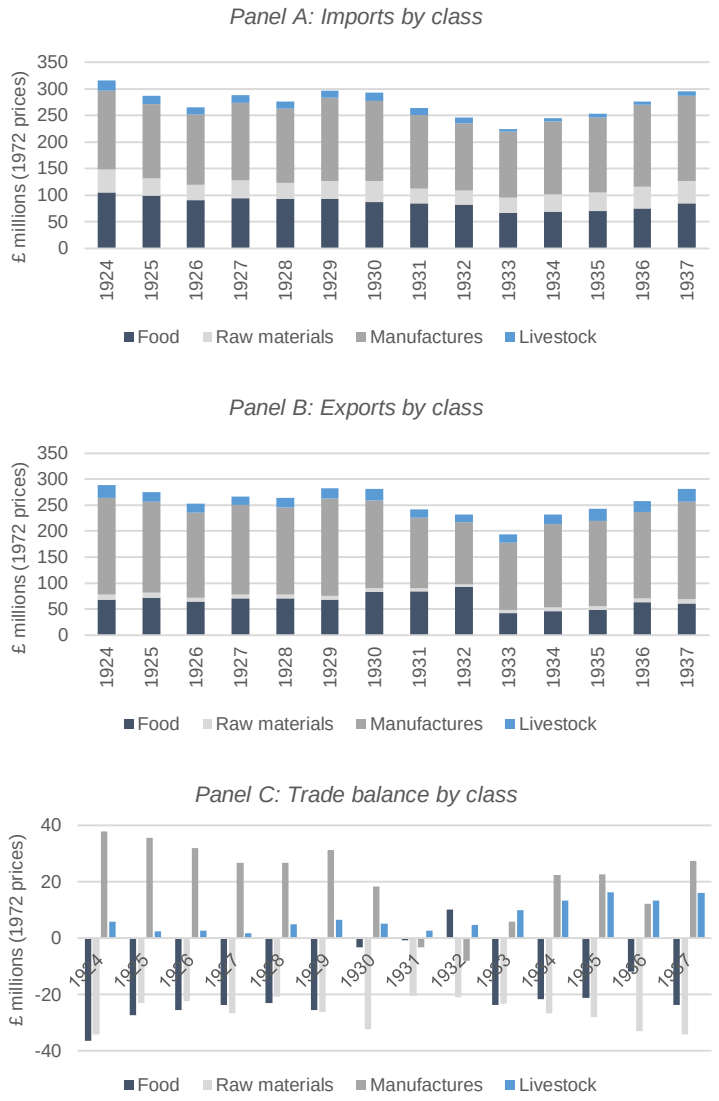
Northern Ireland's trade performed well relative to Britain and the Irish Free State during the Great Depression. Was this the result of trade remaining high across all commodities, or was this driven by specific commodities? The new dataset for Northern Ireland allows this question to be answered, as imports and exports are disaggregated by class, across: food, drink, tobacco; raw materials; manufactured

goods; and livestock. For comparisons with Britain and the Irish Free State, the fourth category of livestock is included within food for Northern Ireland, reflecting this categorisation within the trade statistics of Britain and the Irish Free State sourced from Mitchell (1988).

Figure 3.4 shows the composition of Northern Ireland's trade, with Panel A showing this for imports, Panel B showing this for exports, and Panel C showing the balance of trade for each of the four classes of commodities. Manufactured goods accounted for the largest share of Northern Ireland's trade, followed by food, drink, tobacco, and then the much smaller classes of raw materials and livestock. Panel C shows that Northern Ireland was a net importer or food, drink, tobacco, and raw materials, and a net exporter of manufactured goods and livestock. The deficit in food, drink, tobacco and surplus in manufactured goods both vanished immediately following the Great Depression, but returned by 1933. Livestock maintained a surplus throughout, with this growing after 1932.

Northern Ireland's surplus in manufactured goods can be seen as reflecting the importance of manufacturing to the regional economy. Since the nineteenth century, Northern Ireland was renowned as the industrial region on the island of Ireland (Ollerenshaw, 1985, p.62). Raw materials were needed to provide the inputs for these manufactured goods, hence the persistent and sizeable trade deficit for this category. The trade deficit in food, drink, tobacco would be expected to reflect Northern Ireland agriculture specialising in certain goods, and that Northern Ireland was not producing all of its requirements. The surplus in livestock reflected the re-export of imports of livestock from the Irish Free State. The increase in the surplus for livestock after 1932 reflects the widespread smuggling taking place during the Anglo-Irish Economic War, identified by Johnson (1979), following the tariffs imposed by the UK on imports of livestock from the Irish Free State. This would explain the artificial increase in Northern Ireland's surplus in livestock during the mid-1930s.

Figure 3.4: Northern Ireland's trade disaggregated by class



Source: See text.

The changing balances of trade evident in Panel C suggests the Great Depression did have an effect across all classes of commodities, but that Northern Ireland's trade was broadly reverting to its pre-crash pattern by 1937. The performance of each class can be analysed, and compared against the equivalent classes for Britain and the Irish Free State, to see which contributed most to the resilience of Northern Ireland's trade, and whether Northern Ireland experienced similar trends.

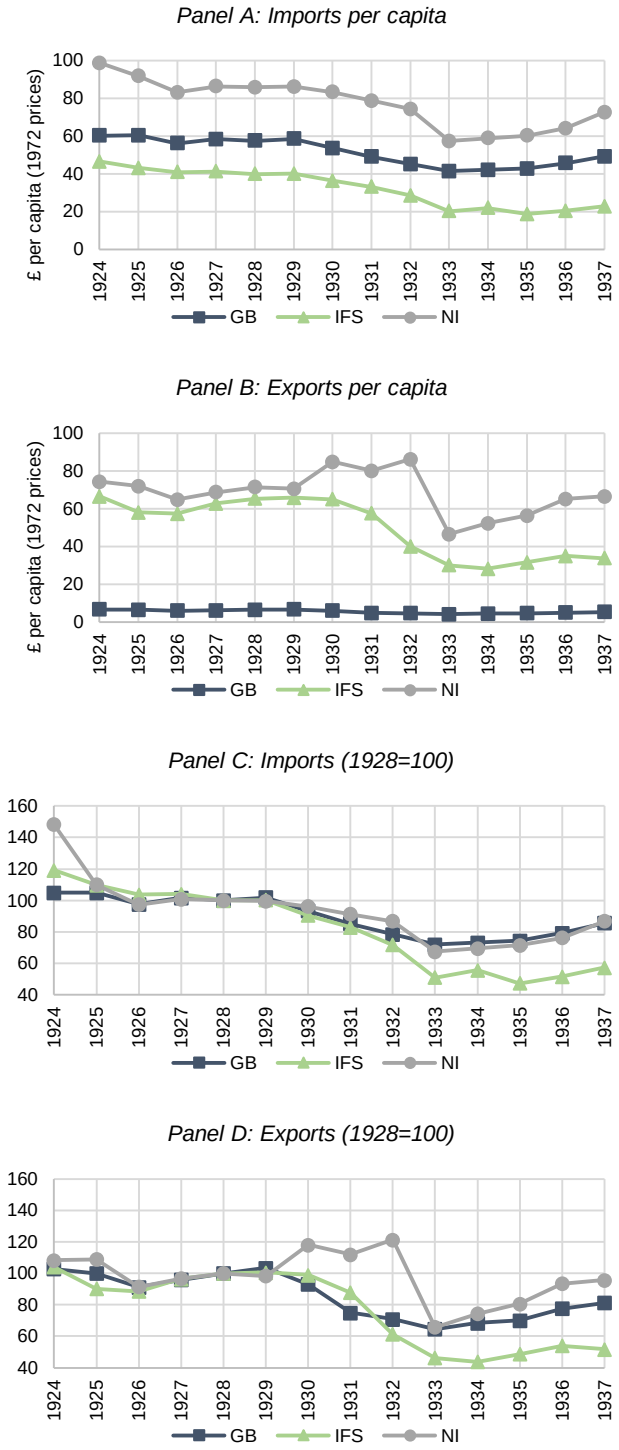
a) Food, drink, tobacco

Figure 3.5 compares the total value of Northern Ireland's imports and exports of food, drink, tobacco per capita against those of Britain and the Irish Free State. Food, drink, tobacco includes all agricultural produce, such as grain, meat, and processed food, as well as drink, tobacco, and livestock. Northern Ireland's imports and exports per capita are shown in Panel A and Panel B respectively. Northern Ireland had the highest imports of food, drink, tobacco per capita, followed by Britain and the Irish Free State, with all three following a similar pattern. Exports of food, drink, tobacco display a slightly different story, with Northern Ireland having much higher trade per capita than Britain, and being slightly above the Irish Free State's level as well.

That Northern Ireland's exports of food, drink, tobacco per capita matched those of the Irish Free State is contrary to what might be expected.[275] On the island of Ireland, the Irish Free State is characterised as the highly agricultural economy at this time, while Northern Ireland is characterised as the industrial centre of the island. However, in terms of exports, Northern Ireland was matching the level of the Irish Free State. This made Northern Ireland potentially as vulnerable to falling demand for agricultural goods as the Irish Free State. However, changes in Northern Ireland's trade in food, drink, tobacco more closely reflected Britain than the Irish Free State. Part of Northern Ireland's overall recovery in trade was the ability of food exports to return more quickly to being closer to their pre-crash level. In contrast, the poor performance of the Irish Free State's food exports stands out, with their failure to recover coinciding with the Anglo-Irish Economic War.

[275] Even if re-exports were able to be differentiated for trade with Britain, to take account of Irish Free State exporting food through Northern Ireland to Britain, this would be expected to bring Northern Ireland's exports down to around the same level as the Irish Free State.

Figure 3.5: Total value of trade in food, drink, tobacco



Source: See text.

Panel C and Panel D in Figure 3.5 present an index of Northern Ireland's imports and exports of food, drink, tobacco, with a base year of 1928, to compare the

pattern of trade against Britain and the Irish Free State. For imports in Panel C, the overall trend experienced by Britain and Northern Ireland is very similar, apart from a sharp decline for Northern Ireland between 1924 and 1925. Both saw imports per capita fall by around 30 per cent between 1928 and 1933, followed by a recovery, although neither regained their pre-crash level by 1937, remaining 15 per cent below. However, the Irish Free State had a very different experience, with imports falling faster and further after 1928, to around 50 per cent by 1933, and failing to recover by 1937.

For exports in Panel D of Figure 3.5, all three saw a similar pattern prior to 1930. However, while Britain and the Irish Free State then experienced declines, Northern Ireland saw its exports increase by around 20 per cent between 1930 and 1932. This was followed by a sharp fall to the same level as Britain in 1933, before Northern Ireland experienced a much stronger recovery, to just 4 per cent below its pre-crash level by 1937, while Britain remained 19 per cent below. The Irish Free State had also initially experienced a less rapid decline after 1929, but by 1934 its exports had fallen to 66 per cent below their 1928 level, and these again failed to recover significantly, remaining 48 per cent below their pre-crash level by 1937.

To understand which commodities within food were driving Northern Ireland's relatively strong recovery, Table 3.1 and Table 3.2 give the average annual weighted percentage change of each commodity within the food, drink, tobacco class of goods. This measures the contribution of each commodity to the class's overall change in total value, for imports and exports respectively, across three time periods.[276] The three time periods reflect before the Great Depression (1925-1928), during the Great Depression (1929-1932), and the period of recovery (1933-1937).

[276] This was constructed by calculating the annual growth rate in per cent of the value of each commodity imported and exported, weighted by its share of the overall total value of food, drink, tobacco imported or exported that year. This was averaged for each time period, to show each commodity's relative contribution.

Table 3.1: Average annual weighted percentage change in value for imports of food, drink, tobacco

Commodity	*1925-1928*	*1929-1932*	*1933-1937*
Alcoholic beverages	-0.3	-0.1	+0.5
Fish	-0.2	0	+0.1
Fruit	+0.1	+0.1	-0.1
Milk and cream	0	0	0
Butter	-0.2	+0.2	+0.2
Cheese	0	0	0
Cocoa	-0.2	-0.1	0
Coffee	0	0	0
Eggs	+0.1	-0.4	-0.2
Feeding stuffs	+0.2	-0.2	+1.7
Grain and flour	-0.8	-2.6	+3.5
Meat	-0.2	-0.8	-0.5
Other vegetables	0	0	+0.3
Potatoes	+0.1	+0.5	+0.4
Preserved fruit	0	0	0
Other food	-1.0	+0.7	+0.7
Tea	-0.2	0	+0.1
Tobacco	+0.3	+2.6	-0.5
Livestock	-7.8	-4.6	-1.6

Source: See text.

Table 3.2: Average annual weighted percentage change in value for exports of food, drink, tobacco

Commodity	*1925-1928*	*1929-1932*	*1933-1937*
Alcoholic beverages	-2.5	-0.7	+1.1
Fish	+0.1	+0.1	+0.3
Fruit	+0.1	+0.2	+0.3
Milk and cream	0	0	+2.9
Butter	0	-0.1	-0.1
Cheese	0	0	0
Cocoa	0	0	+0.9
Coffee	0	0	0
Eggs	-1.0	+0.6	+0.8
Feeding stuffs	0	-0.1	-0.2
Grain and flour	-0.3	-1.0	+0.1
Meat	+1.2	-0.9	+3.9
Other vegetables	0	0	+0.7
Potatoes	+0.9	+3.1	+1.8
Preserved fruit	0	0	0
Other food	-0.4	-0.6	-0.2
Tea	0	0	+1.3
Tobacco	+0.3	+16.3	-3.8
Livestock	-5.6	-3.4	+10.5

Source: See text.

In Table 3.1, the commodities which contributed most to imports of food, drink, tobacco, with a positive weighted growth of over 1 per cent during the period of recovery, were grain and flour (+3.5 per cent), and feeding stuffs (+1.7 per cent). However, nearly all commodities saw positive growth, the only exceptions being livestock (-1.6 per cent), tobacco (-0.5 per cent), meat (-0.5 per cent), eggs (-0.2 per cent), and fruit (-0.1 per cent). For tobacco, this reflected the contraction following a sizeable increase between 1930 and 1932, while meat and livestock were both continuing a decline which had been taking place since the 1920s.

In Table 3.2, the commodities which contributed most to exports of food, drink, tobacco, with a positive weighted growth of over 1 per cent during the period of recovery, were meat (+3.9 per cent), milk and cream (+2.9 per cent), potatoes (+1.8 per cent), tea (+1.3 per cent), and alcoholic beverages (+1.1 per cent). Growth in exports of food, drink, tobacco was therefore spread across a number of different commodities, with nearly all remaining commodities experiencing positive growth, with the only exceptions being tobacco (-3.8 per cent), feeding stuffs (-0.2 per cent), other food (-0.2 per cent), and butter (-0.1 per cent). This decline for tobacco again reflected it being the commodity driving the strong growth in exports of the food, drink, tobacco category between 1930 and 1932, before seeing saw a sizeable decline.

Table 3.1 and Table 3.2 show that Northern Ireland's more resilient trade in food, drink, tobacco was not driven by one single commodity, but across several. In imports, only grain and flour, and feeding stuffs stand out, with growth otherwise evenly spread. In exports, stronger growth was experienced across a number of commodities, but again there were few commodities which experienced negative growth. The only commodity which stands out for affecting the class's overall total in earlier periods is tobacco, the strong growth of which affected the overall class at the beginning of the 1930s, but reverted to its previous level within a few years.

b) Raw materials

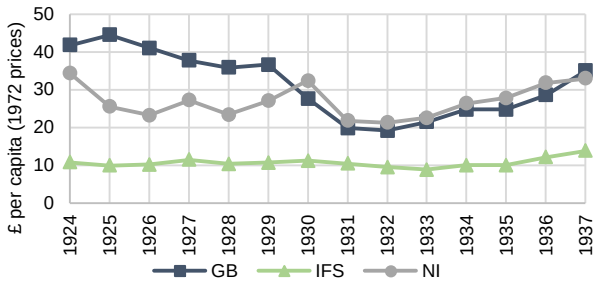
Figure 3.6 compares the total value of Northern Ireland's imports and exports of raw materials per capita, against Britain and the Irish Free State. Raw materials include those from mining and quarrying, coal, raw textile materials, and wood and timber. Northern Ireland's imports and exports per capita are shown in Panel A and Panel B respectively. During the 1920s, Northern Ireland's imports of raw materials were between those of the very low level of the Irish Free State, and the much higher level of Britain. The onset of the Great Depression saw this change, as Britain's imports fell rapidly, and from 1930 onwards, Northern Ireland's level of imports was similar to Britain's. In exports, Northern Ireland was again lower than Britain during the 1920s, but much higher than the Irish Free State. Again, following the onset of the Great Depression, the gap between Britain and Northern Ireland closed, remaining at a similar level for the rest of the 1930s.

Panel C and Panel D in Figure 3.6 respectively present an index of the imports and exports of raw materials, with a base year of 1928. For imports in Panel C, apart from substantial increases in 1929 and 1930, Northern Ireland followed a similar pattern to the Irish Free State. Neither experienced Britain's steep decline after 1929. Indeed, by 1933 Northern Ireland's imports had almost returned to their 1928 level, and by 1937 were 44 per cent above. This was almost matched by the Irish Free State, which was 34 per cent above its 1928 level by 1937, while Britain was only just returning to its 1928 level.

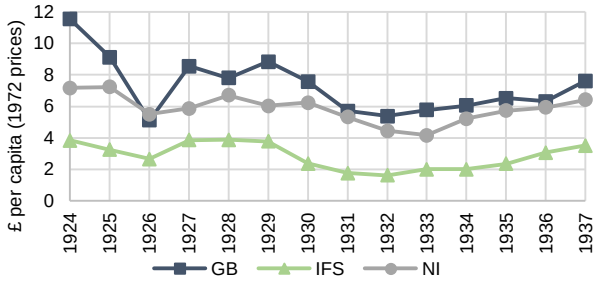
For exports in Panel D of Figure 3.6, all three experienced a similar pattern during the 1920s. This pattern continued, with all three experiencing a similar decline following the onset of the Great Depression, although it was most severe for the Irish Free State, which fell to 58 per cent below its 1928 level by 1932. Northern Ireland and Britain did not fall below 60 per cent of their 1928 level, and by 1937 had recovered to their 1928 level, with the Irish Free State still 10 per cent below following a strong recovery after 1934.

Figure 3.6: Total value of trade in raw materials

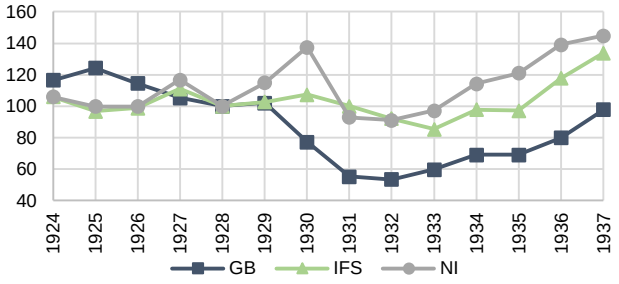
Panel A: Imports per capita



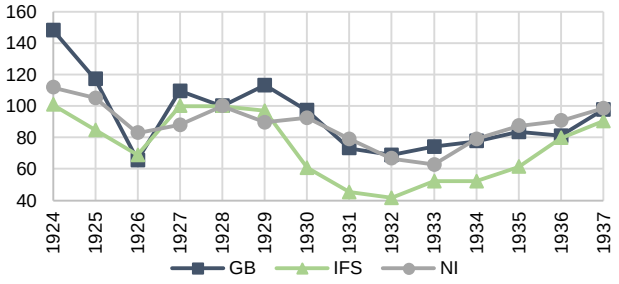
Panel B: Exports per capita



Panel C: Imports (1928=100)



Panel D: Exports (1928=100)



Source: see text.

Northern Ireland's resilient performance in the export of raw materials is remarkably similar to Britain, despite it lacking certain natural resources which Britain possessed, such as coal. Northern Ireland's imports were also much stronger than Britain's, displaying a rapid recovery and then growth during the mid-1930s. Given Northern Ireland's lack of natural resources required as inputs for its manufacturing industries, this robust performance of imports of raw materials suggests a strong recovery in regional demand for manufacturing inputs. However, this was also a period when unemployment was worsening relative to Britain, suggesting this robust demand for raw materials was not feeding through to overall regional performance.

To understand whether this resilient trade in raw materials was due to specific commodities, Table 3.3 and Table 3.4 give the average annual weighted change in imports and exports of each commodity within the raw materials class. In Table 3.3, all commodities contributed positively to the growth in imports of raw materials during the period of recovery, between 1933 and 1937. The strongest growth was in textile materials (5.7 per cent), coal (+2.6 per cent) and wood and timber (+2.3 per cent). Imports of coal had actually performed strongly during the earlier period of 1929-1932, growing 1.3 per cent, which does not suggest a severe economic slowdown.

Table 3.3: Average annual weighted percentage change in value for imports of raw materials

Commodity	*1925-1928*	*1929-1932*	*1933-1937*
Mining and quarrying	-0.2	-0.5	+0.3
Textile materials	-5.3	+0.3	+5.7
Coal	-0.7	+1.3	+2.6
Hides and skins	+2.8	-0.1	+1.9
Paper making materials	+0.1	-0.1	+1.0
Wood and timber	+0.1	-1.1	+2.3
Misc. raw materials	-0.5	+0.2	0

Source: See text.

Table 3.4: Average annual weighted percentage change in value for exports of raw materials

Commodity	*1925-1928*	*1929-1932*	*1933-1937*
Mining and quarrying	+1.5	-1.2	+2.9
Textile materials	-0.6	-3.0	+12.5
Coal	-0.3	0	-0.8
Hides and skins	+2.8	+2.6	+2.7
Paper making materials	-0.4	-2.2	+2.1
Wood and timber	-0.1	-0.4	-0.2
Misc. raw materials	+0.4	-2.9	+2.2

Source: See text.

Table 3.4 gives the contribution of each commodity to the overall change in the total value of exports of raw material. Nearly all commodities experienced strong positive growth during the period of recovery. The biggest increase was for textiles (+12.5 per cent), followed by mining and quarrying (+2.9 per cent), and hides and skins (+2.7 per cent). The strong growth of textile materials suggests this sector's trade was recovering more strongly than the existing narrative for the interwar period suggest for Northern Ireland. The only exceptions to this positive growth were wood and timber (-0.2 per cent) and coal (-0.8 per cent). Given Northern Ireland did not possess its own coal deposits, the fall in coal appears to be linked to the Anglo-Irish Economic War, and the contraction in coal re-exports through Northern Ireland from Britain to the Irish Free State.

c) Manufactured goods

The final class of commodities is manufactured goods, shown in Figure 3.7, which compares the total value of Northern Ireland's imports and exports of manufactured goods per capita against those of Britain and the Irish Free State. Panel A and Panel B show imports per capita and exports per capita respectively. Northern Ireland had much higher levels of both imports and exports of manufactured goods. It imported three times as many manufactured goods per capita as the Irish Free State or Britain, with the Irish Free State importing slightly more than Britain, particularly during the

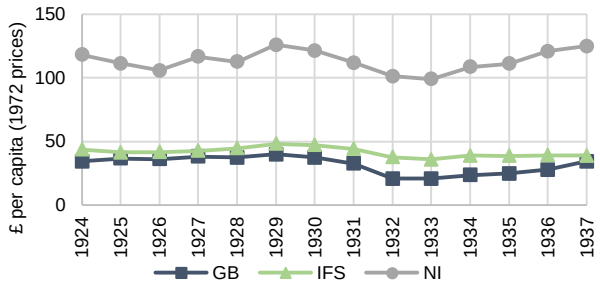
early 1930s. Northern Ireland's exports of manufactured goods were again three times higher than those of Britain, while the Irish Free State's exports were close to zero throughout.

Panel C and Panel D in Figure 3.7 present an index of Northern Ireland's imports and exports of manufactured goods, with a base year of 1928. For imports in Panel C, there was a slight upward trend prior to the Great Depression for all three. This ended in 1929, after which a decline occurred, with Britain seeing the sharpest fall, to just 45 per cent of its 1928 level by 1933. Northern Ireland and the Irish Free State also experienced declines, but these were not as far, to only 11 per cent and 19 per cent respectively below their 1928 level by 1933. Thereafter, Northern Ireland experienced a strong recovery, with imports almost regaining their 1928 level by 1934, and reaching 14 per cent above their pre-crash level by 1937. Britain's imports also experienced strong growth, and by 1937 were just 8 per cent below their 1928. This saw them overtake the Irish Free State, which did not experience the same recovery, and saw imports remain 12 per cent below their 1928 level by 1937.

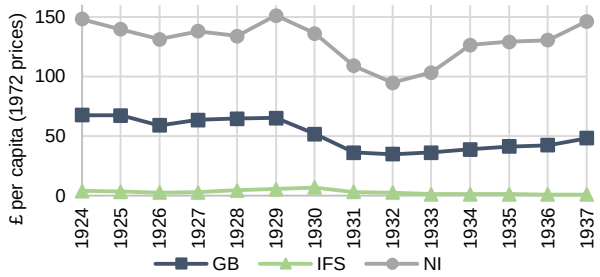
For exports in Panel D, Northern Ireland and Britain had again performed similarly during the 1920s. The Irish Free State had experienced a decline, followed by strong growth, but this sizeable variation reflects the relatively low level of manufactured exports. After 1930, the Irish Free State saw a substantial decline in exports, falling to 73 per cent below their pre-crash level by 1933, and with no recovery by 1937. Northern Ireland and Britain saw their manufactured exports fall from 1930 onwards, but the decline was more severe for Britain, falling to 46 per cent below their 1928 level in 1932, and only recovering to 26 per cent below by 1937. Northern Ireland had seen manufactured exports grow by 12 per cent in 1929, and the subsequent fall was to only 29 per cent below their 1928 level. A rapid recovery followed, and by 1934 they had almost regained their 1928 level, and by 1937 they were 12 per cent above.

Figure 3.7: Total value of trade in manufactured goods

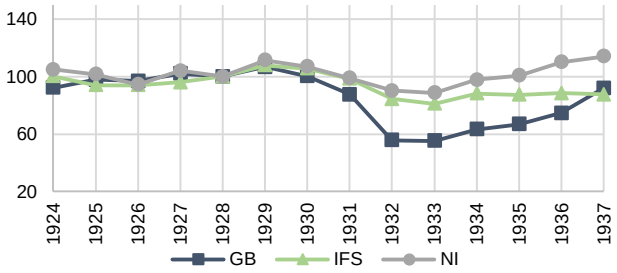
Panel A: Class 3 imports per capita



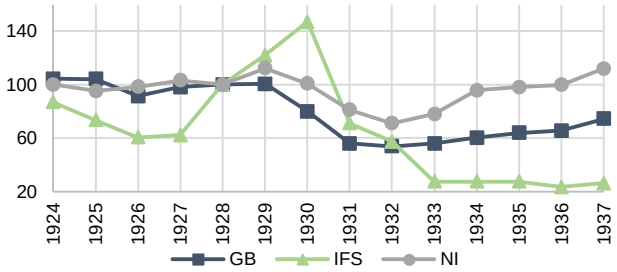
Panel B: Class 3 exports per capita



Panel C: Class 3 imports (1928=100)



Panel D: Class 3 exports (1928=100)



Source: See text.

Figure 3.7 shows that the resilience of Northern Ireland's trade performance was driven by manufactured goods. By 1937, exports of both food, drink, tobacco and raw materials had almost recovered to their pre-crash level, but it was exports of manufactured goods which explains Northern Ireland's overall exports surpassing their pre-crash level by 1937. Manufactured goods is also the class of commodities where Northern Ireland differs most from either Britain or the Irish Free State. Northern Ireland had much higher levels of trade per capita in these, and was not as severely affected by the Great Depression, compared to Britain or the Irish Free State. The conclusion from this is that the performance of the manufacturing sector in Northern Ireland was relatively strong during the 1930s. This is supported by the similarly strong performance of raw material imports, needed to supply inputs for the manufacturing sector. This is contrary to the existing narrative for the regional economy, which sees this period as one of decline rather than recovery.

To understand which commodities within manufactured goods were driving this resilient trade performance, Table 3.5 and Table 3.6 give the average annual weighted change for imports and exports for each commodity within manufactured goods. In Table 3.5, the commodities which contributed most to imports of manufactured goods during the period of recovery were metal manufactures (+1.1 per cent), textile manufactures (+1.0 per cent), and machinery (+0.9 per cent). The remaining commodities all experienced either positive or zero weighted growth, and none saw negative growth.[277]

In Table 3.5, the commodities which contributed most to the recovery in exports of manufactured goods were vehicles, locomotives and ships (+15.6 per cent), textile manufactures (+6.1 per cent), and machinery (+0.8 per cent). This was

[277] An outlier in the earlier, pre-Great Depression period is imports of coke and manufactured fuel, with growth of +2.8 per cent. This was due to an over 1,500 per cent increase in imports in 1926, almost exclusively by sea from foreign countries. This reflects the period when coal imports from Britain were severely affected by the General Strike, and thus coke and manufactured fuel were imported to replace this.

a particular reversal of fortunes for textile manufactures, which had experienced declines in the previous periods, before and during the Great Depression. In the remaining categories there was either positive or zero weighted growth, except for miscellaneous manufactures, which saw a small decrease (-0.1 per cent).

Table 3.5: Average annual weighted change in value for imports of manufactured goods

Commodity	*1925-1928*	*1929-1932*	*1933-1937*
Chemical manufactures	+0.1	0	+0.1
Metal manufactures	+0.5	-0.7	+1.1
Textile manufactures	-0.7	-1.1	+1.0
Apparel	-0.1	-0.2	+0.3
Coke and manufactured fuel	+2.8	0	0
Earthenware	0	-0.1	+0.5
India rubber goods	0	0	+0.1
Machinery	-0.4	0	+0.9
Wood and timber manufactures	0	+0.1	+0.1
Oils and fats	-0.1	0	0
Paper and cardboard	+0.1	+0.2	+0.6
Miscellaneous manufactures	+0.1	+0.4	+0.1
Vehicles, locomotives and ships	0	+0.2	+0.6

Source: See text.

Table 3.6: Average annual weighted change in value for exports of manufactured goods

Commodity	*1925-1928*	*1929-1932*	*1933-1937*
Chemical manufactures	+0.2	-0.1	+0.1
Metal manufactures	0	-0.1	+0.1
Textile manufactures	-2.3	-4.1	+6.1
Apparel	+0.2	-0.1	0
Coke and manufactured fuel	0	0	0
Earthenware	+0.1	0	0
India rubber goods	0	0	0
Machinery	+0.2	-0.4	+0.8
Wood and timber manufactures	0	0	0
Oils and fats	-0.1	0	0
Paper and cardboard	+0.3	0	+0.4
Miscellaneous manufactures	0	+0.4	-0.1
Vehicles, locomotives and ships	+0.1	+1.7	+15.6

Source: See text.

The evidence from individual commodities within manufactured goods demonstrates that it was the staple industries, of textiles and shipbuilding, which drove Northern Ireland's recovery in exports following the Great Depression. These staple industries also played a role in the recovery of imports of manufactured goods, along with metal manufactures and machinery. Together with the strong performance of imports of raw materials, this presents a picture of a regional economy recovering quickly from the Great Depression, thanks to more resilient trade than either Britain or particularly the Irish Free State.

Yet this picture of strong manufacturing exports does not fit with the existing narrative for the Northern Ireland economy, provided by Buckland (1979, 1981) and Johnson (1985a, 1985b). This existing narrative suggests that manufacturing performed poorly relative to Britain, as a result of falling demand, with a weak recovery during the 1930s, due to the poor performance of the staple industries. Northern Ireland's trade performance in manufactured goods does not support this narrative.

The results also emphasise the importance of the agricultural sector to Northern Ireland's economy. It demonstrates that the characterisation of the Irish Free State as the agricultural economy, and Northern Ireland as the industrial economy on the island of Ireland, is perhaps overly simplistic. While Northern Ireland was more reliant on trade in manufactured goods than the Irish Free State, and imported more food, drink, tobacco, both economies displayed very similar levels of exports of food, drink, tobacco. This supports the view that Northern Ireland was an amalgamation of the manufacturing economy of Britain, and the agricultural economy of the Irish Free State, and that's its economic problems are a mixture of those experienced on both sides of the Irish Sea.

(iii). Demand versus supply explanations

The existing narrative for Northern Ireland's economy is that it performed poorly during the interwar period, due to falling global demand in its staple industries, resulting in high unemployment and low regional growth (Buckland, 1981, Johnson, 1985a, 1985b). This reflects a similar argument for the poorly performing, northern industrial regions in Britain during the interwar period, where a key reason for their decline was negative exogenous demand shocks (Gardiner *et al*., 2013, p.893). Regional growth theory, as outlined by Thirlwall (1980), supports this demand-centred explanation, where problems of slow economic growth and high unemployment are the direct result of a balance-of-payments problem, stemming from a weak trading sector.

In Thirlwall's model, regional growth is not determined by the supply side, as factors of production, such as labour and capital, are assumed to be freely mobile between regions (Thirlwall, 1980, p.90). Instead, Thirlwall (1980, p.91-92) argues that a lack of demand is to blame, as a change in exports will adjust income enough to change imports to match the new level of exports: income therefore adjusts to preserve the trade balance. The inclusion of investment, government expenditure, saving and taxation, provide the necessary income transfers to compensate for any trade deficit, ensuring a balance-of-payments equilibrium in the regional model (Thirlwall, 1980, p.92). The view that unemployment and regional income were primarily determined by regional exports, is the view of Isles and Cuthbert (1957) for Northern Ireland's economy.

Yet the performance of Northern Ireland's interwar trade, especially its exports, does not align with this existing narrative. Northern Ireland's trade following the Great Depression was more resilient than either the Irish Free State's or Britain's, and even when excluding cross-channel trade with Britain, Northern Ireland's direct-foreign exports performed more strongly. It was manufacturing, specifically the staple industries of textiles and shipbuilding, which saw Northern Ireland's trade

performance recover quickly to its pre-crash level. Can the existing narrative of a weak regional economy be reconciled with this evidence of a resilient trade sector? This section argues that constraints on the supply-side hold the key to understanding Northern Ireland's economic problems, and these were not simply limited to demand as the existing narrative and theory suggests.

Despite Northern Ireland's strong trade performance, other economic indicators support the existing narrative of a weak regional economy during the interwar period. Table 3.7 uses estimates of GDP for Northern Ireland, the Irish Free State, and the UK, to compare annual average growth in real terms between 1925 and 1938. This shows that Northern Ireland had the weakest growth rate, of only 0.4 per cent, while the Irish Free State's economy grew at 1.2 per cent, and the UK economy grew at 1.9 per cent. This puts Northern Ireland at a similar level of GDP growth as the poorest performing European economies between 1929 and 1937, including France (0.51 per cent), Canada (0.37 per cent), and Belgium (0.25 per cent), and not far ahead of the USA (0.16 per cent) (Kitson and Solomou, 1990, p.13).

This picture of a poorly performing regional economy is reinforced by Figure 3.8, which shows an index of the total number unemployed for both Britain and Northern Ireland, between 1923 and 1938, where 1928 equals 100.[278] Northern Ireland had a much higher rate of unemployment than Britain or its regions during the interwar period, as shown previously in Figure 2.1 and Figure 2.2 in Chapter 2. Figure 3.8 demonstrates that while unemployment in Britain began to fall after 1932, in Northern Ireland it remained persistently high through until 1937, with no sign of recovery.

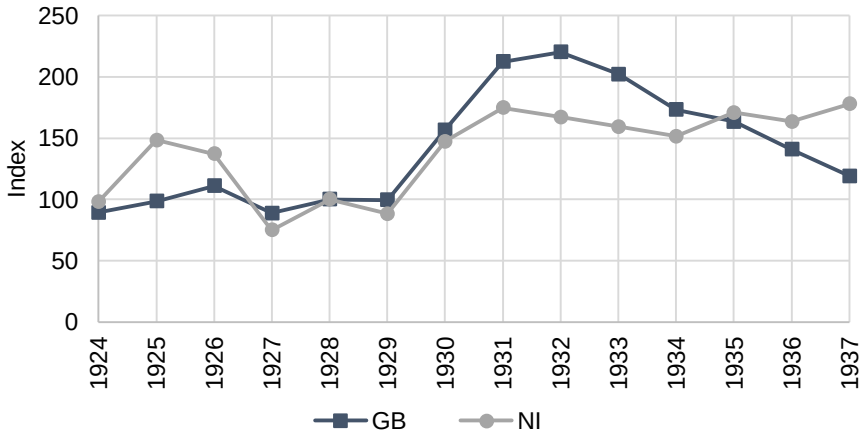
[278] It is not possible to make direct comparisons with the level of unemployment in the Irish Free State during this period, due to major changes which occurred in the administration of unemployment schemes in the Irish Free State: see Kennedy, Giblin, and McHugh (1988, p.48) and Ó Gráda (1997, p.91).

Table 3.7: Average annual real growth in GDP and exports

	1925-1938	
	GDP (%)	Exports (%)
Northern Ireland	0.4	-0.53
UK	1.9	-3.82
IFS	1.2	-3.54

Sources: For GDP, Northern Ireland and Irish Free State from Geary and Stark (2019); UK from Maddison (2010). For exports, Northern Ireland see text, Irish Free State and UK from Mitchell (1988).
Notes: Calculated in 1990 prices, conversion for Northern Ireland and the Irish Free State using ONS (2004, 2020).

Figure 3.8: Index of number unemployed (1928=100)



Source: For Britain and Northern Ireland, Mitchell (1988, p.125-126).
Notes:

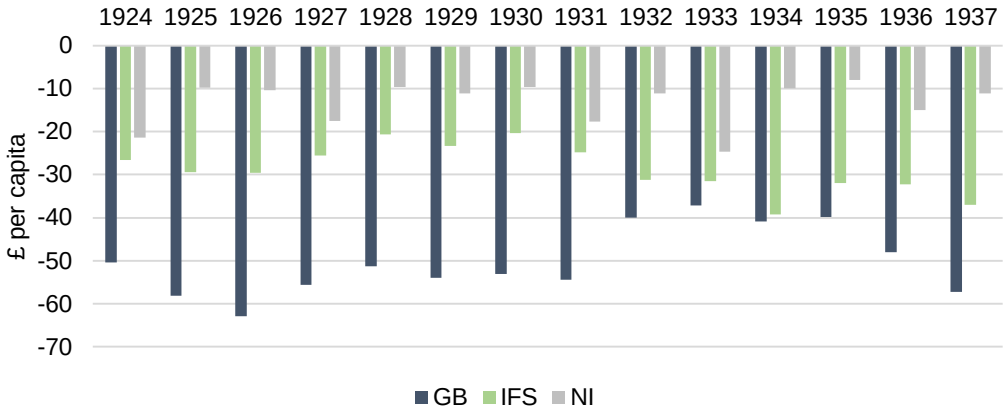
Together, the relatively low growth rate of GDP and the persistently high rate of unemployment support the existing narrative. Yet, Northern Ireland's trade performance was resilient during this period, and exports of manufactured goods had nearly returned to their pre-crash level as early as 1934. This relatively more resilient trade performance is supported by Northern Ireland experiencing an annual average decrease in the real value of exports of only 0.53 per cent between 1925 and 1938, shown in Table 3.7, compared to a 3.82 per cent decrease for the UK, and a 3.54 per

cent decrease for the Irish Free State. Northern Ireland's trade performance was significantly better than those countries it shared a low GDP growth with, such as France, who's trade had not recovered by 1937 in Figure 3.3.

This apparently healthier trade performance is further reinforced by examining Northern Ireland's balance-of-payments, as measured by its trade balance. According to Thirlwall (1980), Northern Ireland should be displaying balance-of-payment problems, stemming from a weak trading sector. Figure 3.9 calculates the trade balance per capita for Northern Ireland, Britain, and the Irish Free State.[279] Britain and the Irish Free State possess a significant trade deficit over time, but Northern Ireland's is much smaller. For most years, Northern Ireland's trade deficit is at or below £10 per capita, only significantly exceeding this on four occasions (1924, 1927, 1931, 1933), while across the fourteen years, Britain's minimum was £37 per capita, and the Irish Free State's minimum was £20 per capita.[280] This gives Northern Ireland a much healthier looking trade balance compared to Britain and the Irish Free State. Isles and Cuthbert (1957) found that Northern Ireland's remaining balance-of-payments deficit was financed by capital inflows from outside the region.

[279] This is calculated as exports per capita minus imports per capita. A variation of this method is to scale exports minus imports by the sum of exports plus imports, as described by Kennedy *et al*. (1988). Doing so makes Northern Ireland's trade balance even smaller relative to Britain and the Irish Free State, reinforcing what is already shown in Figure 3.9.
[280] Using the method of Kennedy *et al*. (1988), Northern Ireland's trade deficit rarely surpasses 5 per cent during this period, while Britain remains above 25 per cent, and the Irish Free State sees its trade deficit increase from over 10 per cent in the 1920s, to 30 per cent in the 1930s.

Figure 3.9: Trade balance per capita



Sources: For Northern Ireland, see text. For Britain and the Irish Free State, Mitchell (1988).
Notes: Trade balance per capita calculated as total exports per capita minus total imports per capita.

Northern Ireland's slow growth and high unemployment relative to Britain fit Thirlwall's (1980) model, yet its resilient trade sector and balance-of-payments do not. Northern Ireland's exports experienced a recovery in demand, which saw exports regain their pre-crash relatively quickly, especially compared to the Irish Free State, which experienced higher economic growth, but no recovery in exports. Northern Ireland's balance-of-payments from it trading sector were also stronger than either Britain or the Irish Free State. An explanation for this contradiction can be attributed to two reasons, both linked to the supply-side of the regional economy.

The first reason relates to Thirlwall's (1980) assumption, that factors of production are perfectly mobile between regions. If they are, then as external demand falls for a region's exports, capital and labour will be reallocated within the regional economy, to whatever areas offer relatively higher returns on these factors of production. However, as Chapter 2 showed, there were clear barriers to mobility of capital and labour within the Northern Ireland economy. Existing firms were able to create these barriers through the regional institutions, including Stormont's devolved industrial policy. If we view the staple industries of textiles and shipbuilding as experiencing a long-run decline, which pre-existed the Great Depression, and barriers to the reallocation of capital and labour were present throughout, then their swift

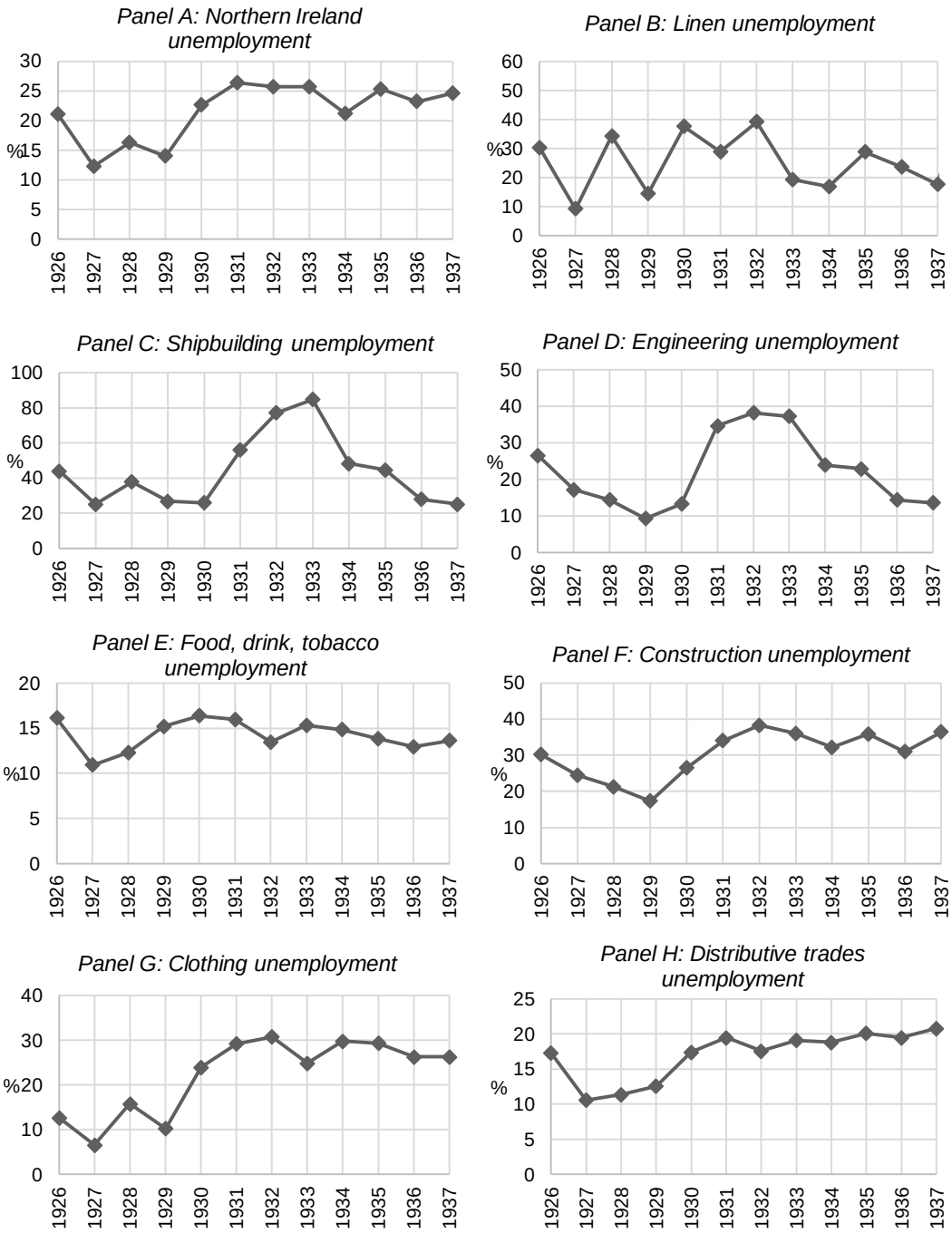
recovery in exports was simply a return to their prior low-wage-investment-productivity equilibrium. With satisficing behaviour evident amongst existing firms, and the barriers to entry for firms which might compete for capital and labour, the recovery in demand for exports simply gave existing low productivity firms a short to medium-run reprieve, increasing the incentive to persist rather than adapt. Given the relative size of the staple industries within the regional economy, it continued the existing low level of economic growth.

The second reason relates to the regional multiplier, and the links between the tradable (basic) and non-tradable (non-basic) sectors within the regional economy. While the tradable sectors experienced a recovery in demand for their exports, their improved performance failed to filter through to the rest of the regional economy, particularly the non-tradable sector, containing firms with little or no exports. This was reflected by the divergent experiences of unemployment between the tradable and non-tradable sectors, shown in Figure 3.10. As Panel A shows, the overall rate of unemployment remained high amongst the insured population in Northern Ireland throughout the 1930s, despite the recovery in regional exports. In the tradable sector, exports of manufactured goods had quickly returned to their pre-crash level, and by 1937 were 12 per cent higher. As has been shown, this recovery was primarily driven by textiles, vehicles, locomotives and ships, machinery, and metal manufactures. This was reflected by unemployment falling in these sectors: in linen (Panel B), shipbuilding (Panel C), and engineering (Panel D). In food, drink, tobacco, where exports were just regaining their pre-crash level by 1937, unemployment was beginning to return to its pre-crash level (Panel E). However, unemployment remained persistently high in the non-tradable sectors, including: construction (Panel F), clothing (Panel G),[281] and the distributive trades (Panel H). The recovery of the

[281] Clothing included shirt-making for exports, but mainly covered the non-tradable sectors of tailoring and dress making.

tradable sector was failing to be seen in a comparable recovery by the non-tradable sector within the regional economy.

Figure 3.10: Northern Ireland unemployment by sector



Sources: For Panel A: Mitchell (1988, p.125-126); For Panels B-G: constructed from Isles and Cuthbert (1957, p.578-587). For Panel H: constructed from Ulster Year Book (various years).
Notes: For Panels B-G: unemployment at July each year, calculated as total insured workers unemployed divided by total number of workers insured.

The failure to see a recovery in exports be translated into wider improved regional performance can be linked to the supply-side of the regional economy. This is based on the role of the Keynesian regional multiplier, k_r, within the economic base multiplier model outlined by McCann (2013), and further detailed in Appendix C. In a regional economy with two sectors, a tradable (basic) sector, and non-tradable (non-basic) sector, total employment will be a function of the employment generated by both. Employment in the non-tradable sector will be determined by its sensitivity to employment growth in the tradable sector, reflecting the strength of demand for local inputs (McCann, 2013, p.157). This employment linkage within the base multiplier model, can be shown to be equivalent to the expenditure linkage parameter within the Keynesian regional multiplier model (McCann, 2013, p.158). This expenditure linkage parameter is the Keynesian regional multiplier, k_r, which is determined by both the marginal propensity to consume locally produced goods (McCann, 2013, p.169), and the marginal propensity to invest in the domestic economy (McCann, 2013, p.171). If the marginal propensity to consume locally produced goods is low relative to the marginal propensity to import, then the regional multiplier will be low, and any increase in exports for the tradable sector will not lead to growth, and therefore employment, in the non-tradable sector.

Evidence for the Northern Ireland economy supports there being weak linkages between the tradable and non-tradable sectors. As Figure 3.2 showed, Northern Ireland had much higher imports per capita than either Britain or the Irish Free State, reflecting a higher propensity to import. The staple industries relied on imports of raw materials to produce finished goods for export, rather than purchasing these from within the regional economy. In textiles, linen was heavily dependent on imports of flax required to produce linen (Beacham, 1944; Ollerenshaw, 1991). In shipbuilding, there was a reliance on the importation of raw materials such as steel (Johnson, 1985b). Even when demand increased for goods outside the staple industries, such as munitions during World War II, this involved work confined to only

a few engineering firms, which imported the necessary raw materials, and exported the finished goods to Britain, with limited mobilisation of smaller firms in this process (Ollerenshaw, 2013). Examining the post-war integration of manufacturing in Northern Ireland, Law (1964) found that newly established, national firms were not well integrated into the supply-side of the regional economy, with purchases made outside the region. With raw materials being imported from abroad, any increase in demand was not going to lead to a strong, direct increase in demand for local inputs.

The failure of exports to generate wider economic growth within the region was therefore the result of a low regional multiplier. This reflected weak connections between the tradable and non-tradable sectors, thanks to a high marginal propensity to import from outside the region. Thus even as the staple industries experienced a recovery following the Great Depression, this was not more reflected in the wider health of the Northern Ireland economy. Northern Ireland's problems of low growth and high employment should therefore not be simply seen as a result of falling demand during the interwar period. While this part of the explanation for the long-run performance of the staple industries, it was not the only constraint. Supply-side problems also existed, which meant that even with more a resilient export performance, the regional economy would remain locked in a low-growth equilibrium.

5) Direction of trade and protectionism

The level and composition of Northern Ireland's trade demonstrates it was more resilient than either Britain or the Irish Free State to the effects of the Great Depression. The 1930s saw a rise in protectionism globally, associated with the Great Depression, and which included the UK. This raises the question of whether Northern Ireland's trade benefited from the UK's protectionist trade policy. Was the resilience of Northern Ireland's trade in the face of falling global demand due to the tariffs imposed on imports by Westminster? This section examines how Northern Ireland's imports and exports were affected by the UK's protectionist trade policy of the 1930s.

The UK's main protectionist trade policies were introduced in 1932, with the Import Duties Act, Ottawa Agreements Act, and Irish Free State Special Duties Act (NIESR, 1943). The Import Duties Act of 1932 applied a general 10 per cent *ad valorem* tariff on all foreign imports, with the application of additional duties also possible (NIESR, 1943, p.5). Other protectionist legislation included the Ottawa Agreements Act of 1932, which saw increased tariffs on agricultural imports, but with preferential treatment for Empire countries, and the Irish Free State (Special Duties) Act of 1932, which levied higher tariffs on imports from the Irish Free State (NIESR, 1943, p.6-7).

Powers over Customs and Excise were Reserved matters under the Government of Ireland Act 1920 (1920 Act), and so Stormont had no formal say over the protectionist policies Westminster introduced. Evidence for the interwar period demonstrates that Stormont also had no informal influence over the UK's trade policy. During the 1920s, Stormont failed in its attempts to aid the linen industry gain protection under the Safeguarding of Industries Acts (Buckland, 1979, p.108).[282] Stormont managed to persuade Westminster to let it send some of its own Ministers to attend the Ottawa Conference in 1932, but this delegation had no formal input, as

[282] See *Report of the Committee on Handkerchiefs and Household Linen Goods*, Cmd. 3096.

Northern Ireland was represented by the UK delegation,[283] and there is no evidence the Northern Ireland delegation had any influence.[284] Finally, towards the end of the 1930s, when Westminster was negotiating the end of the Economic War with the Irish Free State, it did consult Stormont, but only to garner its seal of approval, and Stormont was unable to alter any trade aspects of the Anglo-Éire Agreements of 1938 (Buckland, 1979, p.110).[285] Thus the UK's protectionist trade policies were determined exogenously from Stormont's interests, and any potential positive effect on Northern Ireland's trade was not the result of lobbying from Stormont.

The effect of these trade policies has been examined mainly at the international level, with the effect on regional trade unknown. The existing literature on Northern Ireland's interwar economy also devotes little space to the effect of the UK's trade policy on the region's trade performance. Using the newly digitised trade data for Northern Ireland, it is possible to differentiate between three different destinations for its imports and exports: Britain (cross-channel), the Irish Land Boundary, and direct-foreign sea trade. This allows an analysis of the direction of Northern Ireland's trade, and what effect protectionist trade policy had on this. The following sections consider first the direction of Northern Ireland's trade, before applying econometric models to establish the importance of the UK's protectionist trade policy for this direction of trade. Finally, a closer look is taken at the effect of the Anglo-Irish Economic War on Northern Ireland's trade with the Irish Free State, relative that of Britain.

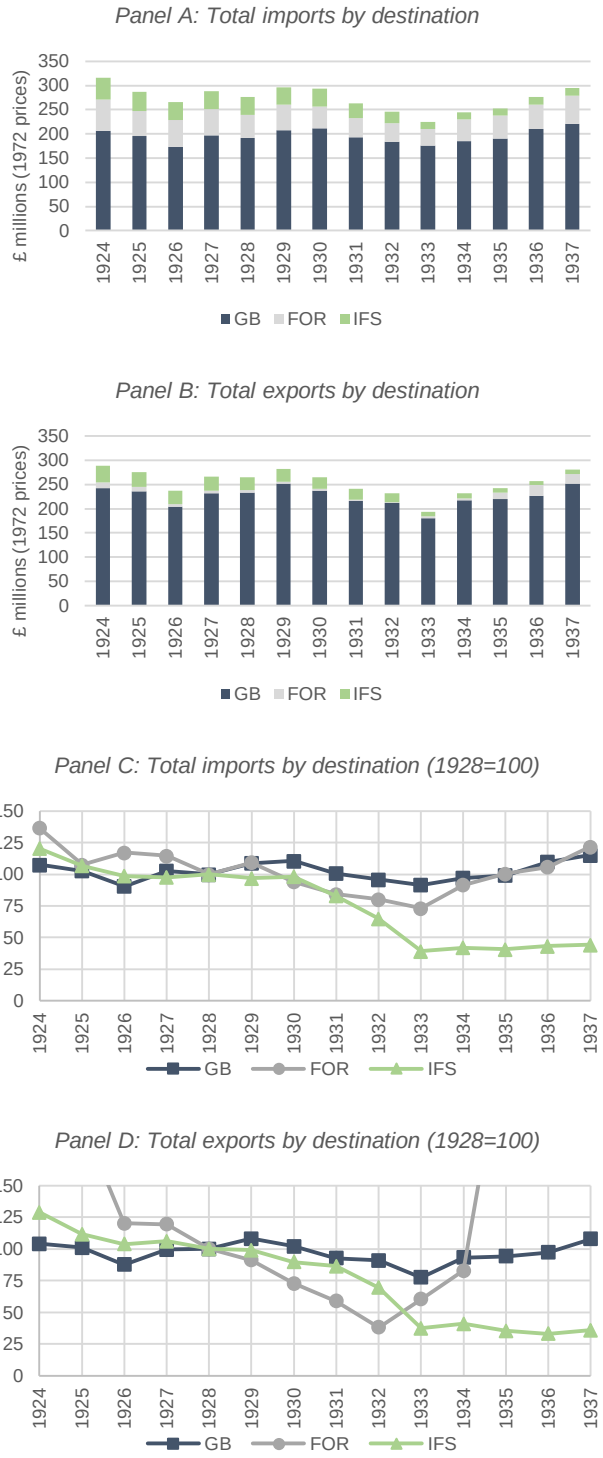
[283] PRONI: CAB/4/302 Memoranda on Imperial Economic Conference, 16th June 1932.
[284] See PRONI: CAB/4/304 Cabinet Minutes, 31st August 1932.
[285] See also TNA: CAB 27/527 Memoranda of Cabinet Committee on the Irish Situation, Memos 101-140.

(i). Direction of trade

To understand how Northern Ireland's trade was affected by the UK's protectionist trade policies, it is important to firstly examine whether the direction of Northern Ireland's trade changed. The direction of trade reflects who Northern Ireland was trading with. Figure 3.11 shows how Northern Ireland's trade was distributed across each of three origins and destinations: Britain (GB), direct-foreign (FOR), and the Irish Free State (IFS). Panel A and Panel B in Figure 3.11 respectively show how the total value of Northern Ireland's imports and exports were shared across each destination. Britain was the main market for Northern Ireland's trade between 1924 and 1937, with an average of 72 per cent of Northern Ireland's imports, and 88 per cent of its exports being with Britain. Direct-foreign trade averaged 18 per cent of Northern Ireland's imports, and only 3 per cent of its exports, between 1924 and 1937. Finally, trade across the Land Boundary with the Irish Free State averaged 10 per cent of Northern Ireland's imports, and 8 per cent of its exports, between 1924 and 1937.

Panel C and Panel D in Figure 3.11, show the relative performance of Northern Ireland's imports and exports by destination over time, where 1928 equals 100. Northern Ireland's imports from all destinations behaved similarly prior to the Great Depression in Panel C. After 1928, direct-foreign imports declined first from 1929 onwards, while those from the Irish Free State did so from a year later in 1930, and Britain from a further year later in 1931. By 1933, direct-foreign imports were 27 per cent below their 1928 level, and imports from the Irish Free State were 61 per cent below, but imports from Britain only 8 per cent below. After 1933, both Northern Ireland's direct-foreign imports and imports from Britain experienced strong growth, and by 1937 were 22 per cent above and 15 per cent above their 1928 level respectively. In contrast, imports from the Irish Free State remained 56 per cent below their 1928 level by 1937.

Figure 3.11: Total value of Northern Ireland's trade by origin/destination



Source: See text
Notes: As Northern Ireland's direct-foreign imports were low relative to those from Britain and the Irish Free State, the relative change in these direct-foreign imports do not fit within the axes of Figure 10 Panel D. The missing values are: 251 for 1924; 201 for 1925; 274 for 1935; 439 for 1936; and 395 for 1937.

Panel D of Figure 3.11 presents a similar story for the destination of Northern Ireland's exports. Direct-foreign exports had experienced a decline during the 1920s, which continued into the 1930s, with a lowest point of 62 per cent below their 1928 level in 1932. This was followed by rapid growth, and by 1937 they were 295 per cent above their 1928 level, and 144 per cent above their 1924 level. These large percentage changes reflect the relatively small size of Northern Ireland's direct-foreign trade, hence a small change in absolute terms led to a significant relative change in its index level. Exports to the Irish Free State had also been declining during the 1920s, but the greatest decline was after 1929, and by 1933 they were 62 per cent below their 1928 level, and remained at this level until 1937. As with imports, exports to Britain were not as severely affected, falling to only 22 per cent below their 1928 level by 1933, and by 1937 they had risen to 8 per cent above their 1928 level.

A limitation of the data for Northern Ireland's trade, and shown in Figure 3.11, is that it does not represent the final destination of goods being transported or shipped to and from Northern Ireland, only the initial destination. Goods manufactured in Northern Ireland were often sold to firms in Britain, before being sold on and shipped abroad (Isles and Cuthbert, 1957, p.90). Therefore, part of Northern Ireland's cross-channel trade with Britain included goods subsequently exported to foreign destinations. Unfortunately, there is no way to accurately quantify how large a proportion this indirect-foreign trade was of cross-channel trade with Britain. Isles and Cuthbert (1957, p.90) used confidential information supplied by firms, to conclude that firms in Northern Ireland exported proportionately more abroad than their counterparts in Britain, but it was not possible to accurately estimate the scale of this. However, while it is not possible to accurately estimate the true level of Northern Ireland's trade with foreign countries, direct-foreign trade does provide a reasonable proxy. Assuming that Northern Ireland's indirect-foreign exports saw declines similar to those

of direct-foreign exports, it suggests that domestic exports to Britain declined relatively little, and experienced a lesser fall in demand.

The relatively strong performance of trade with Britain and direct-foreign locations is reflected in these destinations' respective shares of Northern Ireland's trade. Table 3.8 and Table 3.9 measure the average share of imports and exports respectively by destination, for each of the four classes of goods: (1) food, drink, tobacco (2) raw materials, (3) manufactured goods, and (4) livestock. This measure is compared across two periods, 1924-1931 and 1932-1937, which reflect before and after the introduction of the UK's protectionist trade policy, and corresponds to the wider introduction of protectionist trade policy by other countries. Doing so demonstrates the shift which took place in the destination of Northern Ireland's imports and exports.

In Table 3.8, between 1924 and 1931, slightly over half of Northern Ireland's food imports came from Britain, just over one-quarter came from foreign countries, and just under one-fifth came from the Irish Free State. By 1932-1937, this had changed, with the share of imports of food, drink, tobacco from Britain increasing, and those from other destinations falling, particularly the Irish Free State, which saw its share almost half. In raw materials, direct-foreign imports and those from Britain were almost equally important during 1924-1931, but during 1932-1937, direct-foreign locations increased their share to just over half. Both Britain and the Irish Free State saw their share fall, albeit by proportionally more for the Irish Free State, although these cross-border imports of raw materials were relatively insignificant. For manufactured goods, Britain was the source of nearly all of Northern Ireland's imports, at just over 90 per cent for 1924 to 1931, with this share increasing for 1932 to 1937. Both direct-foreign and Irish Free State saw their share of manufactured imports decline for 1932 to 1937, again by proportionally more for the Irish Free State.

Livestock was nearly exclusively imported from the Irish Free State, but even this saw a decline in its share for 1932 to 1937.

Table 3.8: Share of imports by origin (%)

Class	Period	GB	FOR	IFS
1. Food	1924-1931	53.7	27.3	19.0
	1932-1937	60.1	29.7	10.2
2. Raw materials	1924-1931	47.9	48.4	3.7
	1932-1937	46.1	51.5	2.4
3. Manufactured goods	1924-1931	90.6	6.9	2.5
	1932-1937	94.7	4.2	1.2
4. Livestock	1924-1931	0.9	0.0	99.1
	1932-1937	2.7	0.1	97.2
Total	1924-1931	68.9	18.1	13.0
	1932-1937	75.5	17.8	6.6

Source: See text.

The destination of Northern Ireland's exports by class, shown in Table 3.9, reflects a similar pattern to imports. In food, drink, tobacco, Britain was the main destination, and saw its share across the two periods rise from 81.5 per cent to 92.6 per cent. Direct-foreign exports also saw its share double, although remain small in absolute terms, while the Irish Free State's share more than halved, from 17.9 per cent to 6.4 per cent. For raw materials, Britain was the primary destination, with both it and direct-foreign exports seeing their share increase, again at the expense of the Irish Free State's share, which fell from 23.4 per cent to 14.0 per cent. In manufactured goods, the Irish Free State's share of exports again declined. This was almost exactly mirrored by an increase in direct-foreign's share, although this was relatively small in absolute terms. Britain's share of Northern Ireland's manufactured exports remains almost identical. Finally, nearly all of Northern Ireland's exports of livestock went to Britain, with its share increasing, due to a fall for exports of livestock to the Irish Free State.

Table 3.9: Share of exports by destination (%)

Class	Period	GB	FOR	IFS
1. Food	1924-1931	81.5	0.5	17.9
	1932-1937	92.6	1.1	6.4
2. Raw materials	1924-1931	62.9	13.7	23.4
	1932-1937	66.2	19.8	14.0
3. Manufactured goods	1924-1931	90.6	2.9	6.5
	1932-1937	90.4	5.7	3.9
4. Livestock	1924-1931	93.0	0.0	7.0
	1932-1937	97.9	0.0	2.1
Total	1924-1931	87.3	2.4	10.3
	1932-1937	90.9	4.5	4.6

Source: See text.

Overall, Britain's share of Northern Ireland's trade increased between the two periods. This was reflected across all the classes of goods, where Britain's share either increased, or at least remained the same, except for a small decline for raw materials. This supports the conclusion that there was an increase in the home bias in Northern Ireland's trade during the 1930s. The other standout feature is the strength of direct-foreign trade, increasing its share of exports across all classes of goods, as well as for imports of food, drink, tobacco and raw materials. In contrast, the Irish Free State's share of both imports and exports fell across every single class of good. Perhaps most interestingly, the Irish Free State's decline in the share of Northern Ireland's exports of manufactured goods was almost mirrored by an increase in direct-foreign's share, while Britain's share remained static. This suggests that while Northern Ireland's overall trade was increasingly home biased, other foreign destinations were able to substitute for declining trade with the Irish Free State, particularly in manufactured goods.

(ii). Effect of UK's protectionist trade policy

The potential explanation for these changes in the direction of Northern Ireland's trade is the UK's protectionist trade policy of the 1930s. To formally test this, two different econometric techniques are adopted to examine the effect on Northern Ireland's imports and exports respectively. The first technique focuses on imports, and involves testing whether UK tariffs had a statistically significant effect on where Northern Ireland imported from. The second technique focuses on exports, and involves testing whether Northern Ireland's exports to Britain benefited from UK tariffs.

Since McCallum's (1995) investigation of the US-Canada border using a gravity model, their application to trade between countries has become commonplace, including for interwar trade (Jacks *et al*., 2011; Estevadeordal, Frantz and Taylor, 2003; De Bromhead *et al*., 2019). The most relevant example for examining Northern Ireland's imports is De Bromhead *et al*. (2019), who demonstrate that the UK's interwar trade policy affected where the UK's imports came from. De Bromhead *et al*. (2019) use disaggregated data for 847 individual commodities imported into the UK during the interwar period, from 49 countries and sub-regions, to examine the effect of UK tariffs. De Bromhead *et al*. (2019) find that the UK's protectionist trade policy increased the share of imports from within the British Empire. Given the absence of annual estimates of GDP for Northern Ireland, it is difficult to implement many of the gravity methods in the literature. While the trade data for Northern Ireland trade is less detailed, covering only 39 commodities across three destinations, it is still possible though to apply a similar method to De Bromhead *et al*. (2019) to this data, to test whether UK trade policy affected Northern Ireland's imports.

Equation (1) provides the equation to be estimated using a gravity model. The dependent variable is the log of the value of imports into Northern Ireland, for good g, from country c, in year t. The dependent variables are: the log of one plus the UK tariff rate of each class of imported good g, from country c, at time t (which is equivalent to

the trade elasticity); the log of GDP for each country c, at time t; good g times year t, and good g times country c, fixed effects; and the error term, given by Ɛ for good g, from country c, in year t. Equation (1) is estimated for the period t equals 1924 to 1937. A Poisson pseudo maximum likelihood (PPML) estimator is used, following the method of De Bromhead *et al*. (2019), as under heteroscedasticity, parameters of log-linearised models estimated by OLS leads to biased estimates of trade elasticities

Equation (1)

$$\ln(\text{NI imports})_{g,c,t} = \ln(1 + \text{tariff rate}_{UK})_{g,c,t} + \ln(\text{GDP})_{c,t} + d_{gt} + d_{gc} + \varepsilon_{g,c,t}$$

The data for Northern Ireland's imports is limited to three geographical locations, represented by c. They are: Britain, the Irish Free State, and direct-foreign trade. The 39 commodities are spread across the four main classes of goods, g, these being: food, drink, tobacco (18 commodities); raw materials (7 commodities); manufactured goods (13 commodities); and the remaining class of livestock (1 commodity), which is included within food, drink, tobacco in the model estimation. The values for Northern Ireland's imports are nominal values, as are the values used for the GDP of the UK and Irish Free State, taken from Maddison (2010). As the Irish Free State was effectively in a currency union with the UK, the exchange rate is not relevant.

Data on UK tariffs was collected from the *Annual Statement of Trade of the United Kingdom*. Tariffs were calculated as *ad valorem* rates for each commodity, by dividing the total revenue of each relevant subclass or commodity, by the total value of foreign imports for that subclass or commodity. As it is the change in UK protectionist trade policy from 1932 onwards which is of primary interest, these *ad valorem* tariffs were collected for all commodities levied under the Import Duties Act 1932 and the Ottawa Agreements Act 1932. Tariffs prior to 1932, and for commodities not covered by these Acts, were therefore set equal to zero.

The trade statistics for Northern Ireland only indicate whether commodities were coming from Britain, the Irish Free State, or direct-foreign. Under the UK's protectionist trade policy from 1932 onwards, some commodities were subject to Imperial Preference, where commodities from the Empire could be exempted from tariffs (De Bromhead *et al*., 2019, p.332). Within Northern Ireland's direct-foreign trade, there is no way of knowing which countries imports were coming from. Therefore, to calculate the effective *ad valorem* tariff rates, the total duty collected for each commodity was divided by the total foreign UK trade in that commodity. Calculating the *ad valorem* tariff rate in this way assumes that Northern Ireland's pattern of trade with Empire and non-Empire countries was the same for each commodity, but without knowledge of the exact distribution across countries of Northern Ireland's imports, this is the next best method.

As the Economic War saw extra tariffs applied to imports from the Irish Free State, under the Irish Free State (Special Duties) Act 1932, these were calculated as the effective *ad valorem* tariffs from the amount of duty recorded separately in the *Annual Statement of Trade of the United Kingdom* under this Special Duties Act, using the same method as for foreign imports. As with direct-foreign imports, the tariff rate was set to zero prior to 1932. Finally, for Northern Ireland's imports from Britain, the tariff rate is set to zero throughout, as Northern Ireland and Britain were part of a single customs union, reflecting this being a Reserved power under the 1920 Act.

Table 3.10 gives the results of estimating Equation (1), across six variations of commodity groupings. Column 1a, Column 2a, and Column 3a estimate the gravity model across the three categories of food, drink, tobacco (excluding livestock), raw materials, and manufactured goods. The coefficient for GDP is only statistically significant in relation to manufactured goods, at the 1 per cent level, while those for both food and raw materials are both statistically insignificant. The elasticities of trade with respect to tariffs are negative and statistically significant for both food and

manufactures, at the 5 per cent and 1 per cent levels of significance respectively, while it is not statistically significant for raw materials.

These results suggest that only Northern Ireland's imports of manufactured goods were positively and significantly related to the overall level of macroeconomic activity. The positive coefficient for manufactured goods in Column 3a, means that a 1 per cent decline in GDP of the originating country was associated with a 0.23 per cent decline in Northern Ireland's imports of manufactured goods. The coefficient being less than one means the demand for imports of manufactured goods was inelastic in relation to GDP.

The statistically significant, negative coefficients in relation to tariffs for food, drink, tobacco and manufactured goods, demonstrate that the UK's protectionist trade policies did reduce Northern Ireland's imports from countries subject to tariffs. For food, drink, tobacco in Column 1a, a 1 per cent increase in the tariff led to a 0.27 per cent decrease in the value of food imported, while for manufactured goods in column 3a, a 1 per cent increase in the tariff led to a 0.71 per cent decrease in the value of manufactured goods imported. That the tariff coefficient is larger than the income coefficient for manufactured goods, suggests that trade costs in the form of tariffs were more responsible for falls in the value of trade than contractions in income.

Table 3.10: PPML gravity estimates of imports by category, 1924-1937

	1a Food, drink, tobacco	1b Food, drink, tobacco, & livestock	2a Raw materials	2b Raw materials, excl. coal	3a Manufactured goods	3b Manufactured goods, excl. textiles & shipbuilding
Log(1+tariff)	-0.268**	-0.274***	0.0459	-0.108	-0.707***	-0.747***
	(0.118)	(0.0987)	(0.650)	(0.734)	(0.139)	(0.156)
Log(GDP)	0.162	0.155	0.0523	-0.125	0.2272***	0.1558**
	(0.182)	(0.178)	(0.288)	(0.239)	(0.0820)	(0.0772)
Observations	720	750	285	251	539	455

Dependent variable is the log of the value of imports, by good, country and year. Good times country, and country times year, fixed effects are controlled for. Computed using poi2hdfe.

Robust standard errors clustered by commodity and given in parentheses.

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

The tariff coefficients being less than one for both food, drink, tobacco and manufactured goods, suggests that the demand for imports of these commodities was inelastic with respect to tariffs, and relatively more so for food than manufactured goods. This inelasticity is contrary to the findings of De Bromhead *et al*. (2019, p.343), where the coefficient for tariffs was negative, significant, but greater than one, meaning elastic demand. This differing result for Northern Ireland's imports may reflect two characteristics. Firstly, as part of Northern Ireland's foreign imports came through Britain indirectly, imports from Britain will contain a mixture of both domestic and foreign imports. This will bias the coefficient for the tariff variable downwards, as it will not be able to pick up this effect for the composition of trade with Britain. Secondly, the demand inelasticity with respect to increased tariffs may reflect that commodities imported directly into Northern Ireland from foreign countries were of a type which were relatively price inelastic, meaning they were not as adversely affected by an increase in their price.

Column 1b, Column 2b, and Column 3b in Table 3.10 repeat the same estimation of Equation 1, but with differences in the commodities included. In Column 1b, livestock is now included with food, drink, tobacco, to see whether the inclusion of this commodity, which saw the most severe UK tariffs on imports from the Irish Free State, affects the tariff coefficient. Including livestock increases the significance to the 1 per cent level of the negative effect of tariffs on food, drink, tobacco imports, but the coefficient remains relatively unchanged. Column 2b excludes coal from raw materials, as this was almost exclusively imported from Britain. While this changes both coefficients from positive to negative, they do not reach even the 10 per cent level of significance. Column 3b excludes Northern Ireland's largest staple industries, textiles and shipbuilding, as these were primarily export driven industries. Doing so sees both coefficients remaining significant at the 1 per cent level, with a slight fall for GDP, and a slight rise for tariffs. This suggests that the effect of tariffs on the staple

industries was weaker than for other manufactured goods, but imports of these was slightly more strongly linked to macroeconomic activity.

The results in Table 3.10 demonstrate that the UK's protectionist trade policy of the 1930s did have a statistically significant effect of reducing Northern Ireland's imports of those goods within food, drink, tobacco and manufactured goods. However, UK tariffs had no statistically significant effect on imports of raw materials.

The second area of analysis is the effect of UK tariffs on Northern Ireland's exports, specifically its exports to Britain. The hypothesis being tested is that the UK's protectionist trade policy benefited those in Northern Ireland exporting to Britain. For purchasers in Britain, UK tariffs would have made imports from foreign countries more expensive relative to goods imported from Northern Ireland. This should have resulted in a redirection of trade, with a shift towards importing goods from Northern Ireland rather than from abroad, benefiting Northern Ireland exporters to Britain. This would be evident by Northern Ireland having an increasing share of Britain's imports.

To test this hypothesis, the method from Fukao, Okubo and Stern (2003) is adapted, to test whether Northern Ireland's exports to Britain, of commodities subject to UK tariffs, grew more quickly relative to Britain's imports of these commodities from foreign countries. The equation to be estimated is given by Equation (2), and is a linear fixed effects model. The dependant variable is the log growth of Northern Ireland exports to Britain, for good g, in year t. This is calculated as the difference between the annual log growth of Northern Ireland's exports to Britain, and the annual log growth of Britain's imports from abroad, calculated for each good g in year t. The dependent variables are: a constant, α; the annual log growth of one plus the UK tariff rate for each good g, in year t; the annual log growth of UK GDP in year t; good g times year t fixed effects; and the error term given by Ɛ for good g, in year t.

Equation (2)

$$\Delta\text{Relative growth NIexports}_{GB\ g,t} = \alpha + \Delta\text{Tariff}_{UK\ g,t} + \Delta\text{GDP}_{UK\ t} + d_{gt} + \varepsilon_{g,t}$$

Where:

ΔRelative growth NI exports$_{GB\ g,t}$ = (ln NIexports$_{GB\ g,t}$ - ln NIexports$_{GB\ g,t-1}$) - (ln GBimports$_{FOR\ g,t}$ – ln GBimports$_{FOR\ g,t-1}$)

$\Delta\text{Tariff}_{UK\ g,t} = \ln(1 + \text{tariff rate}_{UK})_{g,t} - \ln(1 + \text{tariff rate}_{UK})_{g,t-1}$

$\Delta\text{GDP}_{UK\ t} = \ln(\text{GDP}_{UK\ t}) - \ln(\text{GDP}_{UK\ t-1})$

The data required to estimate Equation (2) comes from the same sources as for Equation (1). The difference in the estimation of Equation (2) is that it is not a gravity model, as is instead focusing on the specific relationship between Northern Ireland's exports to Britain and the UK's tariff policy, and excludes trade with the Irish Free State and direct-foreign trade.

For constructing the dependent variable, the first step involved calculating Britain's foreign imports for each commodity, which were calculated as their total UK value minus the value imported through Northern Ireland. The annual log change in imports of each good into Britain was then calculated, and subtracted from the annual log change in Northern Ireland's exports of each commodity in Britain, to give the relative growth of Northern Ireland's exports of each good into Britain. A positive value for this indicates that Northern Ireland was increasing its share of Britain's imports for the good; a negative value indicates that Northern Ireland's share of Britain's imports was decreasing.

For the tariff variable, this was constructed using the effective *ad valorem* tariffs calculated for direct-foreign imports from the *Annual Statement of Trade of the United Kingdom*, with the modification that tariffs from all of the UK's protectionist

trade policies were included, covering 1924 to 1937. This covered the Safeguarding Industries Acts, Import Duties Act 1932, Ottawa Agreements Act 1932, Irish Free State (Special Duties) Act 1932, and all Other Enactments listed in the *Annual Statement of Trade of the United Kingdom*. The total duty raised annually across all the Acts for each commodity was divided by the total annual value of imports for that commodity, to give the effective *ad valorem* tariff rate. The annual log change in the tariff rate was then calculated. If the hypothesis is true that the UK's tariff policy benefited Northern Ireland, with an increase in UK tariffs resulting in an increase in imports from Northern Ireland, then the coefficient on tariffs should be positive and statistically significant. No lags of the tariff variable were found to be statistically significant during estimation, and so none were included in the results reported for estimation of Equation (2).

The inclusion of the variable for GDP is to measure whether increasing economic activity in Britain was associated with a greater share of imports from Northern Ireland. If this were the case, then the coefficient would be positive and statistically significant. No lags of the UK's GDP were found to be statistically significant, and so none were included in the results reported for estimation of Equation (2). Finally, good times year fixed effects are included. A linear fixed effects model was chosen, rather than a random effects model, on the basis of the results of a Hausman test, which showed that the individual errors were correlated with the regressors.

The results from estimating Equation (2) are presented in Table 3.11. The model is estimated across different selections of goods in Columns 1 to 9. Column 1 estimates the model across all goods, while Columns 2 to 9 estimate the model across different combinations of goods, the combinations of which are given in Table 3.B.3 in Appendix B. In Column 1, the coefficient on the UK's foreign tariff is positive, and statistically significant at the 1 per cent level of significance. This means that a 1 per cent increase in the effective *ad valorem* tariff rate saw a 0.8 per cent increase in

Northern Ireland's share of Britain's imports of all goods. The constant was significant at the 5 per cent level, while the coefficient for GDP did not reach the 10 per cent level of significance. This initial result supports the hypothesis, that the UK's tariff policy benefited Northern Ireland exports to Britain, albeit the effect was inelastic.

To test whether this initial conclusion holds across other goods, Column 2 estimates Equation (2) across all goods within the food, drink, tobacco category. The coefficient on the UK's foreign tariff is again positive, and statistically significant at the 1 per cent level. Its coefficient is very similar to that for all goods, and means that a 1 per cent increase in the effective *ad valorem* tariff rate saw a 0.7 per cent increase in Northern Ireland's share of Britain's imports of food, drink, tobacco.

To test whether this holds across different goods, Column 3 re-estimates the model for food, drink, tobacco, but excludes 'exotic' goods, while Column 4 reverses this selection, estimating the model only for exotic goods. These exotic goods include cocoa, coffee, preserved and dried fruit, tea, and tobacco, which are goods Northern Ireland did not produce, although it did produce manufactured food items within these groupings.[286] Across these two estimations, only the coefficient for UK tariffs in Column 4 for exotic goods is statistically significant, at the 5 per cent level, with a similarly sized economic effect as for the overall category of food, drink, tobacco in Column 2. This suggests that the UK's foreign tariff was benefitting trade of exotic goods through Northern Ireland into Britain, rather than more traditional agricultural goods produced in Northern Ireland.

[286] The selection of exotic goods also loosely reflects the colonial goods identified by De Bromhead *et al*. (2019).

Table 3.11: Linear fixed effects estimates of effect of UK tariffs on Northern Ireland's exports to Britain, 1924-1937

	1	2	3	4	5	6	7	8	9
	All goods	Food, drink, tobacco	Food, drink, excluding exotic	Exotic food, drink, tobacco	Staple food, incl. livestock	Staple food, excl. livestock	Raw materials	Manufactured goods	Staple manufactured goods
GDP UK	0.0120	-0.4942	-0.3516	-0.6698	0.0952	0.0231	0.8045	0.5718	1.318*
	(0.3704)	(0.5452)	(0.5121)	(1.562)	(0.5714)	(0.6273)	(1.118)	(0.6374)	(0.5507)
Foreign tariff rate	0.8031***	0.7381***	2.001	0.6993**	2.053	2.036	10.867***	1.290*	3.152***
	(0.2281)	(0.1984)	(1.1950)	(0.1882)	(1.1609)	(1.1542)	(2.1508)	(0.6456)	(0.5859)
Constant	0.0138**	0.0142*	-0.0028	0.0437	-0.0030	-0.0081	-0.0429*	0.0205	-0.0101
	(0.0063)	(0.0078)	(0.0069)	(0.0224)	(0.0070)	(0.0076)	(0.0171)	(0.0165)	(0.0050)
Observations	478	228	169	59	143	130	78	159	78

Dependent variable is the annual log change in the relative growth of Northern Ireland exports to Britain, by good and year. Good times year fixed effects are controlled for. Computed using a linear fixed effects model.
Robust standard errors clustered by commodity and given in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

That the UK's tariffs on agricultural products were not benefiting Northern Ireland's exports to Britain is not what might be expected. The UK's trade protectionist policy targeted a wide variety of agricultural products, and the Economic War saw the Irish Free State's agricultural exports specifically targeted. It might therefore be expected that Northern Ireland would have benefited, by being able to substitute its own agricultural products for those Britain had been importing from the Irish Free State.

To further test the effect of UK tariffs on Northern Ireland's agricultural exports to Britain, Column 5 and Column 6 focus on the goods which were Northern Ireland's staple exports of food, namely: grain and flour, meat, butter, eggs, milk and cream, fish, potatoes, alcoholic beverages, and livestock. Column 6 repeats this selection, but excludes livestock. None of the coefficients in either estimation are statistically significant. This suggests that the UK's tariffs did not benefit Northern Ireland's exports of food to Britain, only its exports of exotic goods.

Column 7 estimates Equation (2) for raw materials. The coefficient on GDP and the constant are not statistically significant, but the coefficient on the UK's foreign tariff is positive and statistically significant at the 1 per cent level of significance. This means that a 1 per cent increase in the UK's effective *ad valorem* tariff rate saw a 10.9 per cent increase in Northern Ireland's share of Britain's imports of raw materials. This is a much larger effect than for food, drink, tobacco, or all goods, and suggests Northern Ireland's exports to Britain benefited sizeably from the UK's protectionist trade policy.

Column 8 and 9 estimate Equation (2) for different combinations of manufactured goods. Column 8 includes all manufactured goods, with the coefficients for GDP and the constant failing to reach any level of statistical significance. The coefficient on the UK's foreign tariff is positive, and means a 1 per cent increase in the UK's effective *ad valorem* tariff rate saw a 1.3 per cent increase in Northern

Ireland's share of Britain's imports of manufactured goods. However, it only reaches the 10 per cent level of significance, and so the effect is very weak.

Column 9 changes which goods are included within manufactured goods, focusing on the staple industries in Northern Ireland, of textiles, engineering, shipbuilding, and tobacco. This includes the categories of: metal manufactures, machinery, textile manufactures and vehicles, locomotives and ships, from manufactured goods; textile manufactures, from raw materials; and tobacco, from food, drink, tobacco. In Column 9, the coefficient on the UK's foreign tariff is positive, and statistically significant at the 1 per cent level. This means a 1 per cent increase in the UK's effective *ad valorem* tariff rate saw a 3.2 per cent increase in Northern Ireland's share of Britain's imports of these staple manufactured goods. The coefficient on GDP in Column 9 is also positive, although only statistically significant at the 10 per cent level of significance. This suggests a weak effect for increases in the UK's GDP increasing Northern Ireland's share of Britain's imports of staple manufactured goods. The constant in Column 9 is not significantly different from zero.

The results from estimating Equation (2) in Table 3.11 demonstrate that the UK's protectionist trade policy did benefit Northern Ireland's exports to Britain, but only for specific goods and sectors. While the coefficient for UK tariffs was positive and statistically significant when the model was estimated across all goods, the strength and size of this effect varied across groups of commodities. Overall in food, drink, tobacco, tariffs had a positive and statistically significant effect on Northern Ireland's exports to Britain, but this was divided between staple goods and exotic goods, where it was only exotic goods where the statistically significant result remained. However, this may reflect that tariffs were placed on exotic goods over a greater period of time, leading to more precise estimation and thus a statistically significant result. If food, drink, tobacco were further disaggregated, the coefficient for UK tariffs may be shown to be statistically significant, as it was not far away from this in Table 3.11. Northern Ireland's recovery in exports of food, drink, tobacco in Figure

3.5 Panel D, was therefore partially aided by the UK's protectionist trade policy, but also reflected a wider recovery in demand.

The largest effect of the UK's protectionist trade policy can be seen for raw materials in Column 7 of Table 3.11. Northern Ireland's exports to Britain of raw materials benefited substantially from UK tariffs, with the largest coefficient of any group of commodities. Therefore, the UK's protectionist policy contributed to Northern Ireland's exports of raw materials returning to their pre-crash level by 1937 in Figure 3.6 Panel D.

Finally, in manufactured goods, not all commodities benefited equally from the UK's protectionist policies. Across the category as a whole, there was only a very weak, positive effect of UK tariffs on Northern Ireland's exports to Britain. However, this result changes when Equation (2) is estimated for the staple industries of textiles, engineering, shipbuilding, and tobacco. Taken together, these commodities in Column 9 of Table 3.11, had a large, positive, and statistically significant coefficient for UK tariffs. Therefore, the UK's protectionist policy contributed to Northern Ireland's exports of staple manufactures to Britain increasing. Apart from tobacco, these staple manufactures were also the commodities which drove the recovery of their respective trade groups. In raw materials, it was textile materials which experienced the largest increase in exports between 1933 and 1937 in Table 3.4. In manufactured goods, it was textile manufactures, vehicles, locomotives and shipbuilding, and machinery, which contributed most to the recovery and growth in exports between 1933 and 1937.

Therefore, Northern Ireland did benefit from the UK's protectionist trade policies, with the resilience of Northern Ireland's exports of raw materials and manufactured goods, driven by the staple industries, the direct beneficiaries. This emphasises the importance national trade policy to regional economic performance. Although it is beyond the control of a devolved government, these results show national trade policy can have differing geographic effects within a country, and in the case of interwar Northern Ireland, it had a positive and economically significant effect.

(iii). Northern Ireland's trade with the Irish Free State

It is evident that the UK's protectionist trade policy affected both Northern Ireland's imports and exports. An area where this can be most clearly seen is Northern Ireland's trade with the Irish Free State. The decline in the Irish Free State's share of Northern Ireland's trade corresponds with the Anglo-Irish Economic War (Economic War). Despite the Economic War having received great attention in its effects on the Irish Free State, there has been little examination of the impact on Northern Ireland. This section therefore examines the impact of the Economic War on Northern Ireland's trade across the Land Boundary with the Irish Free State. This demonstrates the greater vulnerability of Northern Ireland, relative to Britain, from the UK's trade policy in relation to the Irish Free State.

The Economic War lasted from 1932 until 1938, and saw significant trade barriers erected between the two countries. The UK imposed an *ad valorem* duty of 20 per cent on the Irish Free State's main agricultural exports, increased by a further 10 per cent in November 1932, with the Irish Free State's exemption from the UK's Import Duties Act 1932 also revoked (Kennedy, Giblin and McHugh, 1988, p.42). In 1933, specific duties were imposed on cattle, while quotas were imposed from 1934 onwards (Kennedy, Giblin and McHugh, 1988, p.42). The Irish Free State's responded with the imposition of duties on around one-third of goods imported from the UK (Kennedy, Giblin and McHugh, 1988, p.42). The Irish Free State continued to become increasingly protectionist throughout the 1930s: from 68 articles subject to tariffs in 1931, to 1,947 articles by 1937 (O'Rourke, 1991, p.358), making it one of the most protected countries in the world (Johnson, 1985b, p.28). An aspect which mitigated some of the effects of the Economic War was the coal-cattle pacts, which from 1935 saw UK coal exchanged for cattle from the Irish Free State on a pound-for-pound basis, and UK duties on cattle reduced from 1936 onwards (Johnson, 1985b,

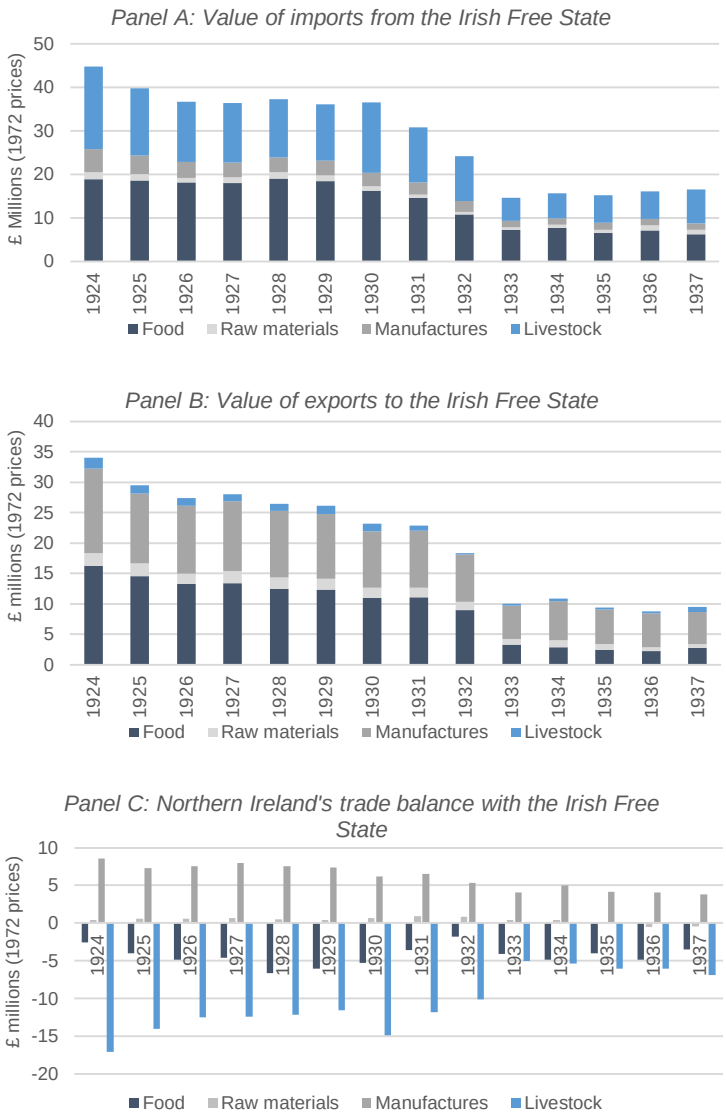
p.17). The Economic War lasted until 1938, when the Anglo-Irish Trade Agreement saw the disputed annuity payments ended, in return for a one-off payment of £10 million by the Irish Free State to the UK (Ó Gráda, 1997, p.6).

During the 1920s, trade across the Irish Land Boundary was a significant part of Northern Ireland's trade. Between 1924 and 1931, the Irish Free State accounted for 11.7 per cent of Northern Ireland's total trade.[287] Outside of Britain, the Irish Free State was Northern Ireland's single largest trading partner throughout the interwar period. However, the 1930s saw a marked decline, to only 5.8 per cent of Northern Ireland's total trade, and it would be a number of decades before it would return to its 1920s share.[288]

Figure 3.12 shows how Northern Ireland's interwar trade with the Irish Free State was disaggregated across the four main categories of food, drink, tobacco, raw materials, manufactured goods, and livestock. Panel A of Figure 3.12 shows imports into Northern Ireland, with food, drink, tobacco and livestock the two main classes of goods imported from the Irish Free State, with imports of raw materials and manufactured goods relatively low in comparison. Panel B shows exports from Northern Ireland, with manufactured goods joining food, drink, tobacco as the main exports, while raw materials and livestock were relatively low in comparison. Panel C uses this information to present Northern Ireland's balance of trade with the Irish Free State by class of good. Northern Ireland was a clear net importer of food, drink, tobacco and livestock from the Irish Free State, and a clear net exporter of manufactured goods, with almost balanced trade in raw materials.

[287] See Table 3.B.2 in Appendix B.
[288] See Table 3.B.2 in Appendix B.

Figure 3.12: Northern Ireland's trade with the Irish Free State disaggregated by class



Sources: See text.

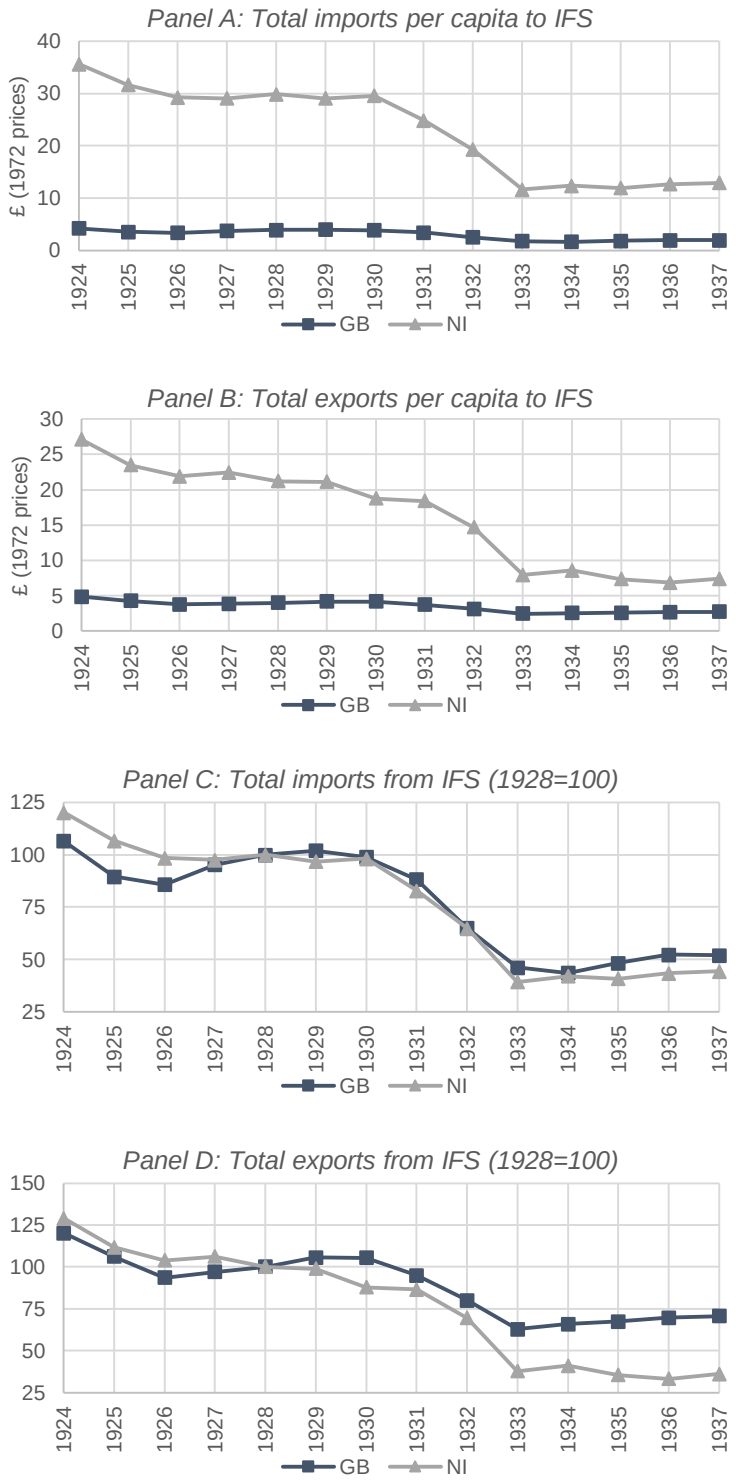
A feature of both Northern Ireland's imports and exports in Figure 3.12, is a distinct change occurring in 1932 after the beginning of the Economic War. In Panel A, imports into Northern Ireland from the Irish Free State begin to fall in 1931, with this continuing into 1932, before levelling out at around half their prior level from 1933 onwards. In Panel B, this pattern is repeated, with exports falling in both 1932 and

1933, after which they again level out at half their prior level. These distinct changes were reflected across every class of good, as shown in Table 3.8 and Table 3.9, where the Irish Free State's share of Northern Ireland's trade fell between 1924-1931 and 1932-1937. This change was most pronounced in food, drink, tobacco, where now less than one-tenth of Northern Ireland's imports came from the Irish Free State, and just one-twentieth of Northern Ireland's exports were to the Irish Free State, a fall in each case of more than half relative to before the Economic War.

Was Northern Ireland's trade with the Irish Free State similarly or more severely affected than Britain's? Figure 3.13 compares the trade of Northern Ireland and Britain with the Irish Free State. Panel A and Panel B show imports per capita and exports per capita respectively, and demonstrate that trade with the Irish Free State was relatively more important to Northern Ireland than Britain. During the 1920s, Northern Ireland's trade with the Irish Free State for imports was around six times greater per capita, and for exports was around five times greater per capita, than Britain's trade with the Irish Free State. Northern Ireland was therefore more exposed to the introduction of protectionist trade policy by both the UK and Irish Free State Governments.

Panel C and Panel D in Figure 3.13, present an index of Northern Ireland's and Britain's trade with the Irish Free State, to compare their relative decline in imports and exports, with a base year of 1928. For imports in Panel A, both Northern Ireland and Britain experienced almost identical declines in trade with the Irish Free State until 1932. However, from 1933 onwards, Northern Ireland's imports from the Irish Free State settled at a slightly lower level than Britain's, despite having been slightly higher during the mid-1920s. By 1937, Britain's imports from the Irish Free State were slightly higher, at 48 per cent below their 1928 level, relative to Northern Ireland's imports, which were 56 per cent below.

Figure 3.13: Total value of Northern Ireland's trade with the Irish Free State



Sources: See text.

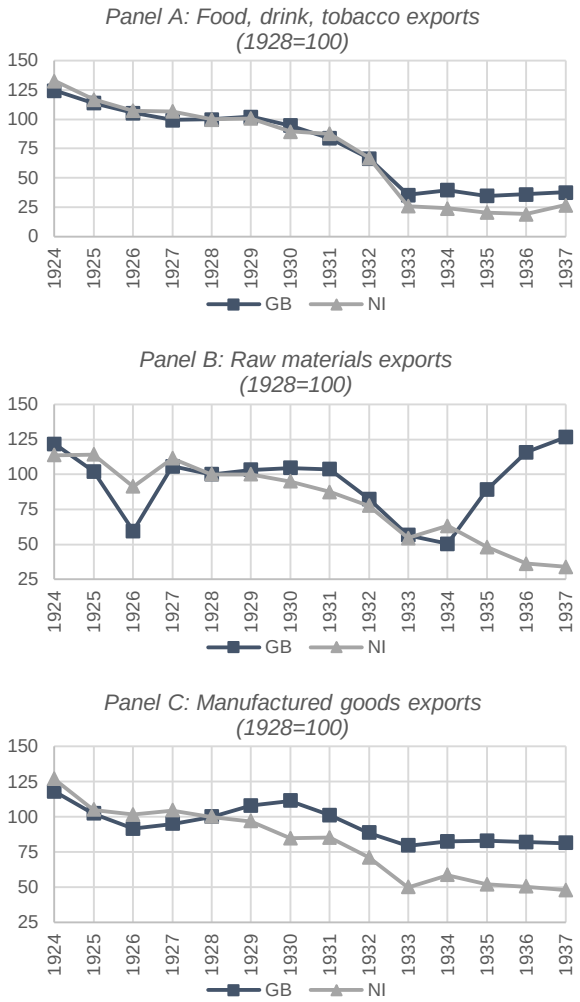
This pattern was repeated more strongly for exports in Panel D of Figure 3.13. Northern Ireland had seen its exports to the Irish Free State decline more quickly after 1928 than Britain, although again this was a continuation of a decline already present during the 1920s. A much steeper decline occurred following the beginning of the Anglo-Irish Economic War, with Northern Ireland's exports falling to 62 per cent below their 1928 level in 1933, while Britain's exports, while also experiencing a steep decline, fell to only 37 per cent below. By 1937, Britain's exports had recovered slightly, to 29 per cent below their 1928 level, but Northern Ireland's had changed little, now 64 per cent below.

Northern Ireland's trade with the Irish Free State was therefore more severely affected than Britain's post-1932, particularly for exports. To understand what was driving this decline in exports, Figure 3.14 compares Northern Ireland's and Britain's exports to the Irish Free State, across the three main classes of goods. This shows that Northern Ireland's exports were hit harder than Britain's across all three classes. Food, drink, tobacco exports suffered most, with Britain's falling to just 35 per cent of their 1928 level from 1933 onwards, but Northern Ireland's falling even further, to just 20 per cent of their 1928 level. In raw materials, both saw similar declines, until the coal-cattle pacts saw Britain's exports recover, reaching to 26 per cent above their 1928 level by 1937, while Northern Ireland's remained 66 per cent below by 1937.[289] In manufactured goods, Northern Ireland's exports also fell more severely, to 52 per cent below their 1928 level by 1937, while Britain's only fell to 19 per cent below.

Thus Northern Ireland's exports to the Irish Free State were particularly harmed by the fall in manufactured goods, but the relative decline in food also contributed. The overall picture was accentuated by the effect of the coal-cattle pacts, which benefited Britain's exports of raw materials.

[289] The decrease for Britain in 1926 for exports of raw materials to the Irish Free State reflects the General Strike that year in the UK, and its effect on coal.

Figure 3.14: Index of exports to the Irish Free State by class



Sources: See text.

6) Conclusion

The existing narrative for the Northern Ireland economy during the interwar period is that it performed poorly, where falling global demand was responsible for the decline of the staple industries and high regional unemployment (Buckland, 1981; Johnson, 1985a, 1985b). By utilising a new archival source for Northern Ireland's trade performance, it has been demonstrated that this existing narrative is incorrect. Northern Ireland's trade was more resilient and not as severely affected by the Great Depression as the existing narrative suggests. This recovery in exports was driven by the staple industries, and by 1936 Northern Ireland's trade had returned to its pre-Great Depression level, in advance of Britain, and far ahead of the Irish Free State.

Despite Northern Ireland's relatively stronger recovery in exports, this did not feed through to the performance of the wider regional economy. Northern Ireland was experiencing higher unemployment and lower economic growth than either Britain or the Irish Free State during the interwar period. Existing regional theory from Thirlwall (1980) suggests these problems of slow growth and high unemployment are a demand-side problem, caused by a weak trade sector. However, Northern Ireland's stronger recovery of exports relative to Britain, demonstrates that the weaknesses in the regional economy were not simply demand-side problems. Instead, the supply-side played an important role in the regional economy's economic performance, linked to the Keynesian regional multiplier. The weakness of links between the tradable and non-tradable sectors, meant Northern Ireland's resilient exports in the staple industries did not feed through to employment in the non-tradable sector or wider economic growth. Combined with the existing supply-side weaknesses of the staple industries prior to the Great Depression, particularly the lack of investment in new, higher productivity areas discussed in Chapter 2, meant this low regional multiplier created a barrier to growth within the regional economy.

The 1930s also saw a change in the direction of Northern Ireland's trade, at a time when protectionist trade policy was being introduced globally, including by the UK. There was an associated increase in the home bias of Northern Ireland's trade, as Britain accounted for an increasing proportion of Northern Ireland's trade. In contrast, the Irish Free State saw its share of Northern Ireland's trade decline steeply, with direct-foreign trade and trade with Britain substituting for this. Examining the effect of the UK's protectionist trade policy, this is shown to have had a statistically significant and negative effect on Northern Ireland's imports of food, drink, tobacco and manufactured goods. Unlike for the UK as a whole, as estimated by De Bromhead *et al*. (2019), the trade elasticities on the UK's tariffs for imports into Northern Ireland were less than one. Demand for imports of goods subject to tariffs was therefore inelastic relative to demand for the UK as a whole.

The redirection of Northern Ireland's trade was not limited to imports. The UK's protectionist trade policy of the interwar period is shown to have benefited Northern Ireland's exports, by redirecting these towards Britain. The tariffs imposed on foreign imports by the UK government, are shown to have had a positive and statistically significant effect on increasing Northern Ireland's share of Britain's imports. This effect was present across all main commodity groups, but was strongest for raw materials and manufactured goods from the staple industries. The staple manufactured goods which saw the strongest recovery following the Great Depression, were also the commodities which benefited most from the UK's tariffs. However, there is not enough evidence to suggest that Northern Ireland's exports of agricultural products to Britain also benefited from the UK's protectionist policy. This is contrary to previous literature on Northern Ireland (Buckland, 1979, 1981; Johnson, 1985a, 1985b), which viewed Northern Ireland's agricultural sector as having benefited from UK protectionist policy.

Finally, Northern Ireland is shown to have been more exposed to the effects of the Anglo-Irish Economic War than Britain, thanks to much higher trade per capita

with the Irish Free State. While the imports of Britain and Northern Ireland from the Irish Free State were affected similarly, Northern Ireland's exports to the Irish Free State were more severely affected. This was particularly for manufactured goods, which fell by around half. However, an increase in Northern Ireland's direct-foreign exports of manufactured goods were able to compensate for this loss.

This Chapter presents a revised and more positive view of Northern Ireland's trade performance during the interwar period. However, there is an apparent dissonance between this Chapter, where exports of manufactured goods helped drive Northern Ireland's more resilient trade recovery, and the findings of Chapter 2, where manufacturing is shown to have performed relatively poorly. That the recovery in exports was driven by the staple industries, should be seen as their returning to the pre-Great Depression level of poor performance, as opposed to any improvement. This recovery took place before, rather than because of, World War II, which means the Great Depression was not the hammer blow for these sectors which existing literature suggests. Instead, the failure of this recovery in demand to translate into improved economic performance can be linked to the supply-side of the regional economy, and the Keynesian regional multiplier. This finding aligns with Chapter 2, which emphasised that it was the characteristics of the supply-side, including regional institutions, which created barriers to improved economic performance. This also places the emphasis onto the post-war period for the final decline of the staple industries. This suggests the recovery in trade prior to the outbreak of war, may have reduced the incentive for the staple industries to undertake more radical changes to improve post-war competitiveness, which is supported by Beacham's (1945) overview of the limited changes contemplated within textiles to improve post-war competitiveness.

In the context of the wider literature examining the effect of the Great Depression on trade, this Chapter presents the first analysis of this at a regional level

within the UK. Given the unique circumstances of Northern Ireland leading to the collection of these trade statistics, this is potentially the only opportunity to do so. The findings confirm the wider international conclusions, that within-country economic activity was the source of the global economy's recovery following the Great Depression (Ghosh, 1940; Aldcroft, 1973; Eichengreen and Irwin, 1995). It also confirms that UK tariffs affected the UK's trade in manufactured goods (Kitson and Solomou, 1990), with Northern Ireland's staple industries increasing their share of Britain's imports. That the UK's tariffs were important for the direction of trade also supports the similar conclusions of De Bromhead *et al*. (2019), only this Chapter demonstrates it for within-country trade.

A limitation of the analysis of Northern Ireland's trade in this Chapter has been the restrictions on the number of commodities available for analysis, and the lack of measures of weight. With more time and resources, it would be possible to digitise the full trade statistics for the period 1924 to 1937, with the addition of further commodities improving the accuracy of the models estimated. This would provide greater detail on the effect of the UK's trade policy at a more disaggregated level. Extensions of this analysis could include not just further comparisons with the UK, but a more detailed comparison between Northern Ireland and the Irish Free State. In particular, if agricultural prices were digitised for both sides of the border, a more detailed analysis of the extent of cross-border smuggling during the Economic War could be undertaken.

This Chapter has also highlighted the apparent weak regional multiplier within the Northern Ireland economy. Future research should explore whether this is a long-run feature of the Northern Ireland economy, and the extent to which this has limited its growth. Links between firms also has a potentially significant role in understanding the effect of the UK and the Irish Republic joining the European Economic Community,

and how this greater economic integration affected the development and growth of the two economies on the island.

7) Appendix A – Constructing a time-series of Northern Ireland's interwar trade

This Appendix discusses in greater detail the sources and issues arising out of the construction of a time-series for Northern Ireland's interwar trade, including the limitations of the data.

The method used for collecting and compiling the trade statistics for the first source of trade statistics for Northern Ireland is outlined in a briefing written to the Minister of State in July 1975, suggesting the scrapping of the collection of these statistics for Northern Ireland.[290] For direct-foreign trade, the quantity and value of commodities traded was compiled from information supplied by H.M. Customs and Excise. For cross-channel trade, only the volume of commodities traded was able to be collected from ships' manifests. Their total value was estimated by the Ministry of Commerce, by using prices from local sources where possible, or using prices taken from those recorded for the UK's imports or exports. There is evidence to suggest efforts were made to be as accurate as possible when estimating the prices of commodities. For example, quarterly prices of butter are recorded in one trade ledger, showing that annual estimates of prices were not simply being used.

There are obvious limitations to this data, with the July 1975 briefing identifying three main weaknesses.[291] Firstly, as only weights were collected for cross-channel trade, the estimated value may not accurately represent the actual value of goods. Secondly, the description of goods given to harbour authorities may not accurately reflect what was being shipped, specifically when commodities are being carried in 'unit load carriers'. Thirdly, inconsistencies can exist in the valuation of unfinished goods.

[290] PRONI: COM/62/1/1426 Collection of Cross Channel Trade Statistics.
[291] PRONI: COM/62/1/1426 Collection of Cross Channel Trade Statistics.

Addressing the first issue, it is not ideal that the value of cross-channel trade was calculated from a combination of local prices and UK trade values. If the quality of Northern Ireland goods were of a different quality, the use of UK prices could bias the value up or down relative to its true value. However, the use of UK prices is the second best option, as it at least ensures consistency with the published UK trade figures, making both based on similar valuation assumptions. The second concern over the use of 'unit load carriers' is not relevant to the interwar period, as container traffic did not exist until the post-war period.[292] Finally, the inconsistencies which can exist in the valuation of unfinished goods are the same issue H.M. Revenue and Excise would have faced for international trade, and so there is no reason to believe that cross-channel records should be biased any differently from direct-foreign trade.

The second source are a series of handwritten trade books for the Irish Land Boundary, covering Northern Ireland's with the Irish Free State for 1924 to 1937.[293] The establishment of a customs land frontier on the island of Ireland was the result of the Irish Free State taking responsibility for Customs and Excise, and from 1st April 1923, border controls were imposed between the Irish Free State and Northern Ireland.[294] H.M. Customs and Excise were responsible for collecting these cross-border trade statistics, and each year it sent Stormont handwritten copies of these detailed trade statistics, used to construct those published in the *Annual Statement of Trade of the United Kingdom*. These annual trade books recorded the quantity and value of around 1,500 individual commodities traded across the Land Boundary each year, across imports, exports, and re-exports.

Digitising and combining these two sources of Northern Ireland's trade statistics provides several challenges. The first is the categorisation of commodities:

[292] Container traffic in Northern Ireland ports did not exist until investment to facilitate its introduction at Larne from 1957 onwards. See Ulster Year Book (1963-1965, p.115).
[293] PRONI: COM/38/1/1A to COM/38/1/14A inclusive.
[294] See Denton and Fahy (1993) for a detailed timeline of events leading up to the imposition of the land boundary.

how individual commodities were allocated across trade classes was neither consistent over time, nor consistent across both sources. The Land Boundary books, being compiled by H.M. Customs and Excise, recorded approximately 1,500 commodities annually, although this varied over time; while the port trade ledgers recorded approximately 500 commodities annually, but not always following the same class structure as H.M. Revenue and Excise. To address these issues, up to 80 subclasses and classes of commodities were digitised from the port trade ledgers and trade books for each year, to create a consistent series of 39 commodities, plus totals for the 4 main classes of commodity: food, raw materials, manufactured goods, and livestock; and an overall total.[295]

Secondly, the information for the Land Boundary distinguished between imports, export, and re-exports, while the port trade ledgers only distinguished between imports and exports, disaggregating this by information by port, but without providing a total value of trade for many years. To address this, exports and re-exports were aggregated, to give total exports across the Irish Land Boundary, while the disaggregated information by port was summed where necessary, to give the total value of both cross-channel and direct-foreign trade.[296] This was then combined with the data for the Land Boundary, to give Northern Ireland's total trade.

Thirdly, occasionally values were missing for the value of goods, even when a quantity was recorded. To address this, where a value was missing from the total value of goods column, but the total quantity of goods was present, the missing value

[295] It was not practical to digitise every individual commodity from both sources, given the limitations of time and resources. To digitise the quantity and value of every single commodity recorded in the trade ledgers for sea trade would have required approximately 22,000 observations per year to be digitised from the handwritten records. For the land boundary books, it would have required 9,000 observations to be digitised per year, again from handwritten records. Together this would have totalled 434,000 observations.

[296] For direct-foreign trade by sea, information for 4 ports was recorded from 1924 to 1935: Belfast, Londonderry, Coleraine, and Newry. For 1936 and 1937, only total foreign trade was recorded. For cross-channel trade, information was recorded for 6 ports: Belfast, Londonderry, Coleraine, Newry, Larne, and remaining ports under the term 'Other'. Foreign and cross-channel trade were calculated by summing across the relevant columns.

was calculated using either the equivalent cross-channel or foreign price information available from other ports' trade, or if this was unavailable, from an average price calculated across all ports' trade. In all cases, if the sum of subclasses did not add up to the class totals as originally recorded, the sum of the subclasses was preferred.

Fourthly, the port trade ledgers and Land Boundary books used a combination of different measures (weight, sizes, and number) to record quantity. Unfortunately, it was not possible to address this issue fully, as there is no way to convert goods being measured by size and number to an equivalent weight. For this reason, my analysis of trade is limited to values.

Finally, a component of Northern Ireland's trade which can not be easily isolated within these sources, is its trade with the Irish Free State via the sea, contained within the direct-foreign trade of the port ledgers. Separate figures for the total amount of sea trade with the Irish Free State are recorded for 1936, 1937 and 1938 in *Summary of the Trade of Northern Ireland*. Across these three years, this trade accounted for a maximum of 1.0 per cent of the total value of foreign imports to Northern Ireland, and a maximum of 6.8 per cent of the total value of foreign exports from Northern Ireland. As a share of Northern Ireland's total trade with the Irish Free State, it accounted for a maximum of 3.8 per cent of the total value of imports from the Irish Free State, and a maximum of 18.2 per cent of the total value of exports to the Irish Free State. The vast majority of Northern Ireland's imports from the Irish Free State did not come via the sea, and over 80 per cent of exports from Northern Ireland to the Irish Free State went via the Land Boundary. While it would be desirable to have these trade figures for trade with the Irish Free State via the sea separated from other foreign trade for the 1930s, it does not fundamentally change the conclusions drawn from the analysis.

8) Appendix B – Tables and Figures

Table 3.B.1: Digitised classes and commodities

Class	Commodity
1	Grain and flour
1	Feeding stuffs for animals
1	Meat
1	Butter
1	Eggs
1	Cheese
1	Milk and cream
1	Fish
1	Fruit
1	Potatoes
1	Other vegetables
1	Cocoa
1	Coffee
1	Preserved and dried fruit
1	Tea
1	Alcoholic beverages
1	Remaindered other food
1	Tobacco
1	**Group 1 total**
2	Coal
2	Mining and quarry products
2	Wood and timber
2	Textile materials
2	Hides and skins
2	Paper making materials
2	Misc. raw materials
2	**Group 2 total**
3	Coke and manufactured fuel
3	Earthenware, glass, and abrasives
3	Metal manufactures
3	Machinery
3	Wood and timber manufactures
3	Textile manufactures
3	Apparel
3	Chemical manufactures
3	Oils, fats, and resins
3	Paper and cardboard
3	Vehicles and locomotives, including ships and boats
3	India rubber goods
3	Misc. manufactures
3	**Group 3 total**
4	Live stock (all living animals for and not for food)
TOTAL	**All groups total**

Table 3.B.2: Irish Free State's share of Northern Ireland's trade

	1924-1931	1932-1938	1943-1949	1950-1954	1955-1959	1960-1964	1965-1969	1970-1972
Imports	13.0	6.9	7.2	6.6	7.1	7.7	8.6	11.4
Exports	10.3	4.7	2.5	2.9	3.9	5.7	6.7	9.0
Total trade	11.7	5.8	4.8	4.8	5.8	6.8	7.7	10.2

Sources: PRONI; Northern Ireland Trade Summary; Ulster Year Book (1956, 1957-1959)

Table 3.B.3: Goods included within each model

2	3	4	5	6	7	8	9
Food, drink, tobacco	Food, drink, excl. exotic	Exotic food, drink, tobacco	Staple food, incl. livestock	Staple food, excl. livestock	Raw materials	Manufactured goods	Staple manufactured goods
Grain and flour	Grain and flour	Cocoa	Grain and flour	Grain and flour	Coal	Coke and manufactured fuel	Tobacco
Feeding stuffs for animals	Feeding stuffs for animals	Coffee	Meat	Meat	Mining and quarry products	Earthenware, glass, and abrasives	Textile materials
Meat	Meat	Preserved and dried fruit	Butter	Butter	Wood and timber	Metal manufactures	Metal manufactures
Butter	Butter	Tea	Eggs	Eggs	Textile materials	Machinery	Machinery
Eggs	Eggs	Cocoa	Milk and cream	Milk and cream	Hides and skins	Wood and timber manufactures	Textile manufactures
Cheese	Cheese	Coffee	Fish	Fish	Paper making materials	Textile manufactures	Vehicles and locomotives, including ships and boats
Milk and cream	Milk and cream	Preserved and dried fruit	Potatoes	Potatoes	Misc. raw materials	Apparel	
Fish	Fish	Tea	Alcoholic beverages	Alcoholic beverages		Chemical manufactures	
Fruit	Fruit	Tobacco	Live stock (all living animals for and not for food)			Oils, fats, and resins	
Potatoes	Potatoes					Paper and cardboard	
Other vegetables	Other vegetables					Vehicles and locomotives, including ships and boats	
Cocoa	Alcoholic beverages					India rubber goods	
Coffee	Remaindered other food					Misc. manufactures	
Preserved and dried fruit							
Tea							
Alcoholic beverages							
Remaindered other food							
Tobacco							

9) Appendix C – Regional multiplier

The Keynesian regional multiplier, k_r, is outlined by McCann (2013), and is given by Equation (D1), where Y_r is regional income, $\dot{C}_r$ is regional consumption, I_r is regional investment, G_r is regional public expenditure, X_r is regional exports, and $\dot{M}_r$ is regional imports (McCann, 2013, p.170).

Equation (D1)

$$Y_r = k_r (\dot{C} + \dot{I} + \dot{G} + X_r - \dot{M})$$

where $kr = \frac{1}{1-[(c-m)+(i-g)](1-t)}$

In this income-aggregate demand expression for regional income, the variables for consumption, $\dot{C}$, imports, $\dot{M}$, and the marginal propensity to invest, $\dot{I}$, are all partly exogenous of regional income Y_r, and also partly a function of regional income (McCann, 2013). Government expenditure is also partly dependent on the level of regional income, and in a redistributive system will be inversely related. Finally, regional tax leakages occur (1-t), and the values of regional exports are treated as exogenous, X_r (McCann, 2013, p.167-168).

The regional multiplier, k_r, therefore depends upon two parts. The first is the marginal propensity to consume locally produced goods, (c-m), which is the difference between the marginal propensity to consume domestically c, and the marginal propensity to import from outside the region, m (McCann, 2013, p.169). The second is the regional marginal propensity to invest in the local economy, (i-g), which is the difference between the regional marginal propensity to invest in the local economy, i, and the marginal propensity of government expenditure to be withdrawn as regional income increases, g (McCann, 2013, p.171).

The regional Keynesian multiplier model in Equation (D1), can be related to the effect of growth on employment, through the economic base multiplier model (McCann, 2013, p.172), given in Equation (D2).

Equation (D2)

$$\Delta T = \frac{1}{1-n}\Delta B$$

Equation (D2) shows how total employment (T) in a regional economy, is a function of employment in the basic sector (B), and employment in the non-basic sector (N). The basic sector is the sector whose performance is primarily determined by economic conditions external to the local economy, while the non-basic sector's performance is primarily determined by economic conditions internal to the local economy (McCann, 2013, p.156). Employment generated in the non-basic sector will be related to total employment generated in the regional economy, written as N=nT, where n reflects the sensitivity of employment in the non-basic sector to overall regional employment (McCann, 2013, p.157). Thus in Equation (D2), total regional employment is a function of employment in the basic sector, where n is an expenditure-linkage parameter, showing the strength of demand for local non-basic inputs by the basic sector, which generates employment within the non-basic sector (McCann, 2013, p.158). A certain level of employment in the non-basic sector may occur irrespective of activity in the basic sector, given by N_o (McCann, 2013, p.158), and so Equation (D2) is re-written as Equation (D3) to reflect this:

Equation (D3)

$$\Delta T = \frac{No}{1-n} + \frac{1}{1-n}\Delta B$$

Equation (D3) can be directly related to the regional Keynesian multiplier model, when Equation (D1) is rewritten as in Equation (D4):

Equation (D4)

$$\Delta Yr = \frac{\dot{\mathrm{C}} + \dot{\mathrm{I}} + \dot{\mathrm{G}} - \dot{\mathrm{M}}}{1 - [(c - m) + (i - g)](1 - t)} + \frac{\Delta Xr}{1 - [(c - m) + (i - g)](1 - t)}$$

The left-hand side of Equation (D4) is equivalent to the left-hand side of Equation (D3), which reflects local economic activity's effect on regional income, while the right-hand side of (D4) is equivalent to the right-hand side of Equation (D3), and reflects external economic activity's effect on regional income (McCann, 2013, p.172-173). Thus the employment linkages between basic and non-basic sectors, 1-n, are connected via the expenditure linkages between the two sectors, given by the regional multiplier k_r, and affected either through direct expenditure on local inputs, given by (c-m), or through increases in local investment, given by (i-g) (McCann, 2013, p.173).

CONCLUSION

This thesis has examined the puzzle of Northern Ireland's poor economic performance under devolution, asking whether the devolution of economic policy-making powers is beneficial. A policy of further fiscal decentralisation is being pursued within the UK, including initiatives such as the Northern Powerhouse, City Deals, and further devolution of policy-making powers to Scotland. Growing political populism in the UK, Europe, and further afield, has been linked to regional inequalities in economic performance, highlighting the need for better, place-sensitive policies (Rodríguez-Pose, 2018). Although there is a political willingness to embrace further devolution within the UK as the answer to these problems, little empirical evidence has existed to support this policy prescription. Northern Ireland, between 1920 and 1972, therefore provides an overlooked opportunity to examine the effects of subnational government on regional economic performance within the UK. The evidence presented in this thesis supports the arguments of second generation fiscal federalism (Oates, 2005; Weingast, 2009), that limitations exist on the realisation of the economic benefits of fiscal decentralisation. These limitations provide an explanation for Northern Ireland's poor, long-run, economic performance, and support the argument that institutions, and their interaction with the supply-side of the regional economy, are at the heart of this underperformance. Thus, simply a policy of more devolution can not solve regional economic problems alone, if it does not take into account the institutions present.

To understand the role of subnational government in Northern Ireland's persistent economic underperformance, three aspects of fiscal decentralisation to Stormont are examined in detail. The first is the relationship between Stormont and Westminster, which is shown to have affected the level, composition, and efficiency of public expenditure, creating opportunity costs in the provision of public goods and

services. The second is the relationship between Stormont and existing firms within the region, which is shown to have led to inefficient subnational industrial policy, which created barriers to productivity growth. The third is the relationship between the regional economy and the international economy, which demonstrates how national policy combines with regional supply-side characteristics to affect regional performance. Together, these three relationships had an important role in determining Northern Ireland's regional income, through public expenditure, investment, and the region's trade balance. They emphasise the long-run importance of the supply-side of the regional economy, which existing literature on Northern Ireland has not emphasised.

Chapter 1 used an analytic narrative approach to examine the financial relations between Stormont and Westminster, and understand how this affected the efficiency of public expenditure. Existing literature assumes that institutional structure did not change over time, and reaches no consensus on the importance of these financial relations for the efficiency of devolution (Mansergh, 1936; Lawrence, 1965; Buckland, 1979; Green, 1979; Birrell and Murie, 1980; Wilson, 1989; Gibson, 1996; Mitchell, 2006). This reflects the emphasis given to the post-war period, and a focus on the politics rather than the economics, seeing devolution to Stormont as a prelude to the Troubles. Only Gibson (1996) applies theory from fiscal federalism to Northern Ireland, but this is limited to first generation theory. By combining new data on Stormont's public expenditure with new archival material, this chapter demonstrates how institutions limited the efficiency of fiscal decentralisation. Second generation theory, from Oates (2005) and Weingast (2009), is shown to be key to this explanation. The principal-agent relationship between Stormont and Westminster resulted in moral hazard, affecting the level and composition of public expenditure, and creating opportunity costs in the provision of subnational public goods and services.

Devolution to Stormont was characterised by a sequence of key events, which led to the problem of moral hazard developing in the financial relations between Stormont and Westminster. The Government of Ireland Act 1920 (1920 Act) reflected political rather than economic priorities, and its economic weaknesses quickly became apparent. Rather than address these weaknesses with new legislation, Westminster sought to manage the situation and maintain the *de jure* institutional structure. However, these attempts weakened the institutionalised authority of the 1920 Act, and softened Stormont's budget constraint, creating the expectation of further financial support. This problem of moral hazard defined the interactions between the two governments, with Westminster seeking to limit is financial liability, by exerting increasing control over subnational public expenditure.

Westminster's desire to limit moral hazard came at a cost for efficiency. Despite Stormont's initial public deficit being plugged by one-off payments from Westminster, and subsequently followed by financial support for unemployment, this was not enough to equalise fiscal pressure during the interwar period. The Northern Ireland economy remained relatively weaker than the UK average, meaning it required above average public expenditure, but this did not take place. Westminster's concern over moral hazard meant a lack of fiscal transfers to Stormont, creating opportunity costs in areas of public expenditure. These included a lack of expenditure in housing, education, and industry and infrastructure, areas of investment which are crucial for long-run growth, but where Stormont's expenditure lagged behind that in Britain. The softening budget constraint also led to inefficient policy interventions, such as in industrial policy, and the failure of the Northern Ireland Transport Board, as Stormont focused on maximising political support, and engaged in rent-seeking. Political priorities therefore took precedence over policies which might improve long-run economic performance.

These opportunity costs persisted into the post-war period, with Stormont sacrificing subnational autonomy to receive greater financial support. Despite Westminster gaining greater oversight over Stormont's expenditure, Northern Ireland did not experience the same ratchet effect in post-war expenditure as Britain. This was the result of the structure of financial relations which had developed. Westminster had gained greater oversight of Stormont's finances during the war, but this created a barrier to rapid expansion of public expenditure. Meanwhile, Stormont remained concerned with the political symbolism of making the Imperial Contribution, while Westminster's focus on the total value, rather composition, of public expenditure, opened the door to discriminatory subnational policies. It was only when greater transparency was brought to Stormont's finances, during the mid-1950s, that public expenditure became more efficient. However, by this stage increased public expenditure was simply making up for the lost ground of the interwar period.

Applying an analytic narrative demonstrates the shortcomings of existing literature in its understanding of devolution to Stormont. Institutional structure did change over time, reflecting changes in the *de facto*, rather than the *de jure*, position. It was not simply the case that Westminster pursued a policy of benign neglect during the interwar period, as suggested by Buckland (1979) and Johnson (1985a), or that post-war it was willing to set aside constitutional niceties to provide extra support, as suggested by Lawrence (1965). Westminster had been managing its financial relations with Stormont in response to the *de facto* institutional structure which had evolved, and it was the tension between subnational autonomy, but ultimate national responsibility, which placed constraints on subnational public expenditure. The key events of the first few years set the path for the remainder of devolution, with agreements between Stormont and Westminster playing catch-up to the realities which developed. The failure to address the flaws of the 1920 Act, and the desire on

Westminster's part to limit its interventions to the financial, ensured the efficiency of devolution was always going to be limited.

The limitations on efficiency can be most clearly seen in the opportunity costs for housing, education, industry, and infrastructure, which were harder for the electorate to benchmark against equivalent services in Britain. Stormont's commitment to benchmarking easily comparable social services with those in Britain, mainly unemployment benefit, limited the resources available for other public services. The lack of electoral competition, and the dominance of the constitutional question, meant there was no regional check from the local electorate on this policy. However, greater electoral competition would not have solved this problem, as fundamental problems associated with the institutional structure would still have been present. Ultimately, it was the political priorities of both governments which shaped how devolution developed, with economic considerations a secondary concern. The opportunity costs in housing, education, industry and infrastructure, meant little chance of regional convergence, storing-up problems for the post-war period. It is not a coincidence that issues which defined the lead up to the Troubles, were those which had experienced underinvestment until the 1950s. Scarcity, followed by an expansion of public expenditure, provided the opportunity for inequalities to arise, with Westminster's focus on total expenditure, rather than its composition, opening the door to discriminatory subnational policies.

Theory from fiscal federalism, particularly more recent second generation theory such as Oates (2005) and Weingast (2009), has seen little testing in the real world. The fifty years of devolution to Stormont demonstrate this theory is applicable to a non-federal institutional structure, in the form of UK devolution. Weingast's (2009) comparative federalism framework provides an important method to assess the efficiency of fiscal decentralisation. A fundamental issue that arose in the financial relations between Stormont and Westminster was the weakening of institutionalised

authority. Weingast (2009, p.281) describes this as the “glue” which holds the subnational system of government together. Northern Ireland’s experience demonstrates that in the context of devolution, institutionalised authority is the central condition required for the remaining efficiency conditions to be fulfilled. Without institutionalised authority, the further conditions of subnational autonomy, hard budget constraints, and common markets, are eroded irreversibly.

Chapter 2 examined the efficiency of Stormont’s industrial policy during the interwar period, and demonstrated the importance of regional institutions in limiting the efficiency of subnational policy interventions. Northern Ireland possesses a long-run productivity gap to the rest of the UK (Hitchens and Birnie, 1989a; Mac Flynn, 2016), but the causes of this gap have not been fully understood. By focusing on the interwar period, this chapter provides long-run evidence to support the view of Crafts (1995) and Brownlow (2013), that institutions provide an explanation for the persistent nature of Northern Ireland’s productivity gap. New data for interwar manufacturing productivity shows Northern Ireland’s productivity failings were not simply the result of industrial structure, as the existing narrative of Buckland (1979) and Johnson (1985a) suggests. Instead, within-sector productivity failings explain the majority of the productivity gap, with Northern Ireland missing out on the development of new, higher productivity industries. These within-sector productivity failings are linked to regional institutions, which created barriers to productivity growth, and helped lock the regional economy into a low-wage-investment-productivity equilibrium.

Strong, overlapping networks existed between business and politics in Northern Ireland. These gave existing firms influence over the design and implementation of Stormont’s interwar industrial policy. This allowed existing firms to create created barriers to productivity growth, with old, low productivity industries able to capture government subsidies at the expense of new, higher productivity industries. Combined with satisficing behaviour amongst the management of existing firms, this

financial subsidy aided the survival of the old industries, particularly shipbuilding and linen. Stormont's industrial policy interventions, intended to promote the growth of new industries, failed as a result of these regional institutions. Stormont's New Industries Act of 1932 (1932 Act) was poorly designed, reflecting a desire not to be more generous to new firms than existing firms. Its implementation also gave existing firms influence over which applicants received financial support, through an Advisory Committee. The 1932 Act failed to support the establishment of new industries, and its replacement, the New Industries Act of 1937, did no better. Instead, it provided financial support to existing firms, the scale of which increased following lobbying from these existing firms. It was therefore low productivity sectors which benefited most from Stormont's industrial policy, aiding their survival, but locking the regional economy into a low-wage-investment-productivity equilibrium.

This chapter is a rejection of the existing, demand centred narrative for the interwar period of Buckland (1979) and Johnson (1985a). The poor performance of Northern Ireland manufacturing was not the inevitable result of falling global demand in the staple industries, and a subnational government without funds to intervene. This chapter also adds to the existing post-war literature on industrial policy in Northern Ireland (Hitchens and Birnie, 1989a; Crafts, 1995; Brownlow, 2007), by linking these post-war findings to the earlier interwar period, and its importance in shaping post-war interventions. This chapter also introduces Northern Ireland to the wider UK narrative on interwar manufacturing productivity, where it has otherwise been broadly ignored (Richardson, 1967; Aldcroft, 1970; Pollard, 1992; Broadberry, 1997; Crafts, 2018). Northern Ireland shared the same external environment as Britain, but its regional institutions exacerbated the UK's supply-side problems. When Lee (1971, p.201) noted that despite all the public expenditure on industrial policy in Northern Ireland, it had little effect on the regional economy, the reasons for this can be seen

in the interwar period. Regional institutions therefore pose a limit on the efficient decentralisation of industrial policy.

Chapter 3 examined how Northern Ireland's trade was affected by the Great Depression. It found that Northern Ireland's trade was not as severely affected as the existing narrative of Buckland (1979, 1981) and Johnson (1985a, 1985b) suggests. The focus of literature examining the effect of the Great Depression on trade, and the associated rise in protectionism, has focused on the national, rather than the regional, experience (Aldcroft, 1973; Kitson and Solomou, 1990; Eichengreen and Irwin, 1995; Klasing and Milionis, 2014; De Bromhead *et al.*, 2019). Trade policy and Customs and Excise were not devolved powers, and Stormont had no influence over the UK's trade policy. However, the provisions of the 1920 Act led to trade statistics for Northern Ireland being collected. These provide a previously unexploited archival source to construct a new, disaggregated dataset for Northern Ireland's trade between 1924 and 1937. This provides not just new insights into Northern Ireland's interwar trade, but fills in a missing piece of the regional effect of the Great Depression on trade.

Comparing Northern Ireland's trade per capita with Britain and the Irish Free State, shows that Northern Ireland's trade was not as severely affected by the Great Depression. The overall value of both Northern Ireland's imports and exports did not fall as far as Britain's or the Irish Free State's. This resilience was not simply limited to cross-channel trade with Britain, but was also thanks to a significant recovery in direct-foreign exports during the mid-1930s. Northern Ireland's trade had therefore recovered to its pre-crash level by 1936, earlier than nationally for Britain, and far ahead of the Irish Free State. This evidence for a UK region therefore supports the existing view, that recovery from the Great Depression was driven by within-country, rather than international, trade (Ghosh, 1940; Aldcroft, 1973; Eichengreen and Irwin, 1995). However, contrary to the existing narrative for interwar Northern Ireland

(Buckland, 1979, 1981; Johnson, 1985a, 1985b), it was the staple industries of textiles and shipbuilding which drove this recovery.

The resilience of Northern Ireland's trade demonstrates the limited applicability of Thirlwall's (1980) model to the regional economy, and instead emphasises the importance of the supply-side. Despite a recovery in demand for its exports, and relatively lower balance of payments pressures stemming from its tradable sector, Northern Ireland continued to experience slow economic growth and persistently high unemployment. This failure to see the resilience in trade be translated into the wider regional economy, can be linked to the region's supply-side characteristics, and a weak Keynesian regional multiplier. Weak linkages between the tradable and non-tradable sectors, with a high marginal propensity to import, meant the overall level of unemployment remained persistently high, despite increases in employment in the sectors which saw the strongest recovery in exports.

Examining the role of the UK's protectionist trade policy, demonstrates it did affect Northern Ireland's interwar trade performance. UK tariffs are found to have had a statistically significant effect for both Northern Ireland's imports and exports. UK tariffs on imports had a negative effect, reducing Northern Ireland's foreign imports, and explaining the increasing home bias in imports from Britain, and fall in trade with the Irish Free State. UK tariffs are also shown to have had a positive and statistically significant effect on Northern Ireland's share of Britain's imports, for those commodities subject to external UK tariffs. This effect was greatest for raw materials, and for manufactured goods from the staple industries. The recovery in exports of Northern Ireland's staple industries can therefore be linked to the UK's interwar protectionist trade policy, contrary to existing literature's view that tariffs did not contribute to the recovery of specific industries (Kitson, Solomou and Weale, 1991). This also extends the previous literature of Kitson and Solomou (1990) and De Bromhead *et al*. (2019), which found that tariffs only had an effect at redirecting trade,

instead showing that a regional level, national trade policy could benefit the level of a region's trade.

While Chapter 3 demonstrates the limits on a subnational government's powers, it also shows that Northern Ireland's economy was not as badly affected by the Great Depression as the existing narrative suggests. This has implications for how we view the importance of institutions in Chapter 1 and Chapter 2 for the region's overall economic performance. That external demand did not fall as far as the existing narrative suggests, means the economic cards Stormont was dealt were not as poor as they have often been viewed. The Great Depression was not the hammer blow for industry as has been previously suggested (Buckland, 1979; Johnson, 1985a), and it instead emphasises that Stormont played its cards particularly poorly. The regional economy was experiencing decline, but it was not doomed. Instead, institutions and their interaction with the supply-side of the regional economy, led to inefficiencies in resource allocation, creating barriers to long-run growth. That Northern Ireland's interwar trade performance was recovering prior to World War II, places greater emphasis on post-war policy failings for industry's decline. This was when an expansion in public expenditure took place, but the efficiency of these post-war policy interventions was constrained by the path taken in the development of institutions during the interwar period, and the inefficiencies this had created.

The Northern Ireland experience of devolution demonstrates the limits which exist for efficient fiscal decentralisation as a result of institutions. While British institutions are viewed as the best template for long-run economic growth (North, 1990; North, Wallis and Weingast, 2009; Acemoglu and Robinson, 2012), Northern Ireland reinforces that the context to these institutions is key. This supports the argument of Rodríguez-Pose and Gill (2005), that fiscal decentralisation can take many forms, and the form it takes is fundamental to its success. For Stormont, it was institutional failings associated with UK institutions which led to inefficiencies,

reinforced by the focus on political rather than economic priorities. This can be clearly seen in Chapter 1 and Chapter 2. This suggests the UK has limited institutional capacity to cope with further devolution. Without clearly defined institutional structures, which fulfil the comparative federalism framework of Weingast (2009), further devolution will fail in its attempts to address the issues of rising populism and growing regional inequality.

This provides implications for today's policymakers, if they are to avoid the pitfalls of past devolution to Northern Ireland. The need to maintain institutionalised authority within Weingast's (2009) comparative federalism framework, can be seen as supporting Bell's (2016) suggestion for an independent body to arbitrate between national and subnational government. The Joint Exchequer Board (JEB) failed to fulfil this role, as the *de facto* institutions meant its operation was at the discretion of Westminster. A body which is independent of both levels of government is therefore required, and could be modelled on the current Office for Budget Responsibility, which provides independent analysis of the UK's public finances. Such a body would provide balance to the financial relations between national and subnational government, by helping remove moral hazard, providing transparency, and removing the discretion which a national government has within a devolved institutional structure. This would be particularly relevant for the introduction of any needs-based replacement for the Barnett Formula.

As powers are devolved to lower levels of government, the policy-making process becomes ever more local. This is evident for Northern Ireland, demonstrated particularly for Stormont's interwar industrial policy in Chapter 2, where strong overlapping networks between business and politics created barriers to productivity growth. From a policy perspective, this emphasises the relatively greater need to manage conflicts of interest at a subnational level, and as Chapter 1 highlights, greater transparency is an important ingredient for efficient policy interventions.

Electoral competition can be seen as a way to provide transparency, and provide a check on subnational policy. However, greater electoral competition in Northern Ireland would not have solved all the problems relating to institutions. Thus electoral competition alone can not be relied upon to solve the weaknesses of the institutional structure present.

Using an historical case such as devolution to Northern Ireland to apply economic theory, also shows the value of economic history to current literature when trying to solve contemporary policy problems. By combining newly digitised data with extensive archival material, it demonstrates the complexity of the issues at work, but that theory can provide explanations for these issues. Today's policy-makers should therefore ensure they take a long-run perspective when addressing economic problems, as economic history can often provide greater opportunities to test theory than is possible with contemporary material.

There are a number of areas where future research could expand on the areas examined in this thesis. Chapter 1 has emphasised that institutions, and how the form these take changes over time, has important implications for the regional economy. The analysis of this Chapter ends with Stormont being prorogued in 1972, but the Direct-Rule which followed provides a further area of study. Under Direct-Rule, Ministers were appointed from Westminster to run subnational government in Northern Ireland, and was in effect another form of fiscal decentralisation. This provides an opportunity to examine how regional policy implemented by a national government compares with full fiscal decentralisation. Was this new institutional structure able to solve the issues which had previously hampered efficient fiscal decentralisation, or did these issues persist?

Chapter 2 highlighted the importance of regional institutions to the implementation of Stormont's industrial policy. Future research should continue to examine the role of regional institutions in industrial policy, as Advisory Committees

continued to be a feature of regional industrial policy in Northern Ireland throughout the twentieth century. It could also consider how Westminster's increasing influence over Stormont after 1939 shaped industrial policy interventions. Institutions also played an important role in Ireland during the nineteenth century (Ollerenshaw, 1985). Future research should therefore consider what role institutions have in linking together the long-run economic performance of Northern Ireland and pre-partition Ulster, as well as for the wider island. Further research could also undertake a comparative study between the industrial policy implemented in Northern and the Irish Free State. Both governments introduced industrial policy modelled on Westminster's, and comparing the outcomes of this would provide an insight into the different experiences of devolution versus independence.

Chapter 3 examined Northern Ireland's interwar trade, and further research could look at this in greater detail. With more time and resources, the trade data for Northern Ireland could be digitised to a much lower level of disaggregation, allowing the performance of individual commodities to be more accurately tracked, relative to both the rest of the UK, but also the Irish Free State. A comparative study could further explore how the introduction of a customs border on the island affected the prices of commodities in the two jurisdictions, particularly those within the agricultural sector. Further research could also investigate more closely the linkages within the regional economy, including the effect of the border on links between firms, and the barriers this may have created to greater economic growth. Finally, a constraint in the analysis undertaken in this Chapter, and across the wider thesis, has been the lack of estimates of regional GDP for Northern Ireland before the late-1960s. Constructing annual estimates of GDP for Northern Ireland would provide greater insight into the performance of the regional economy, particularly relative to the UK and Irish Republic, and facilitate more accurate analysis of areas such as trade.

In closing, this thesis has aimed to explore the period of Stormont devolution by focusing on the economics of this experience. While the political narrative for this period is important, and has received the greatest attention, this has left the economic narrative underdeveloped. Northern Ireland's history is complex, and often contentious, but if it is to be fully understood, it needs to take into account its economic history. The region's persistent economic weaknesses clearly predate the Troubles, and were the result of complex interactions within the regional economy. By gaining a greater understanding of these interactions, it not only provides an insight into the long-run performance of the Northern Ireland economy, but also the policies needed to improve this performance for the future.

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