Failing to Level Up? Industrial policy and productivity in interwar Northern Ireland

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Abstract

Northern Ireland's productivity performance has persistently been the worst of any UK region. This is despite having the apparent benefit of subnational industrial policy since the 1920s. Can institutions – through the interaction between business and local policymakers – explain this longstanding productivity gap? Existing literature focuses on post-war policy in Northern Ireland, but neglects its interwar origins. Using new comparisons of regional and sectoral industrial productivity, and new archival evidence for Stormont's interwar industrial policy, demonstrates regional institutions created barriers to productivity growth, restricting the development of new industries in Northern Ireland. Further UK devolution will not automatically promote regional convergence: its success will depend upon the institutional incentives faced by subnational policymakers.

1. Introduction

The UK's productivity growth has stagnated over the past decade, and it has fallen further behind its peers (NIESR, 2022). This poor performance has increasingly concerned policymakers (Bank of England, 2014; BEIS, 2021), with regional inequalities in productivity highlighted across the UK (Harris and Moffat, 2017; McCann, 2020). Greater devolution of economic policymaking powers – referred to as fiscal federalism or fiscal decentralisation – has been suggested as a potential solution to 'level-up' the UK's regional performance (H.M. Government, 2022).

Northern Ireland presents a unique opportunity to examine the economic benefits of devolution within the UK. The 1920 Government of Ireland Act (1920 Act) partitioned the island of Ireland, and between 1921 and 1972, Northern Ireland's devolved government at Stormont possessed wide ranging powers, including over industrial policy. Yet Northern Ireland also presents a puzzle: despite the apparent benefit of being able to tailor policy to its own economic circumstances, Northern Ireland's economy has persistently underperformed, with a sizeable productivity gap to the UK level, and the worst performance of any region.

This paper asks whether regional institutions can explain Northern Ireland's long-run productivity gap, by examining Stormont's industrial policy between 1921 and 1945. Institutions are the 'rules of the game' governing human interactions, defining incentive structures and resource allocation, and ultimately determining long-run economic performance (North, 1990). Regional institutions, and their shaping of interactions between business and policymakers, are suggested as key to explaining Northern Ireland's persistent economic weakness (Brownlow, 2013). Crafts (1995) suggested institutions as the main source of Northern Ireland's underperformance relative to the UK during the Golden Age. Brownlow (2007) provided evidence of divergence in institutional design promoting rent-seeking, and contributing to this poor performance. However, the role of institutions pre-1945 has not been examined. The interwar period saw Stormont design and implement it first industrial policy interventions, which provided the blueprint for post-war policy interventions. It therefore provides an opportunity to understand how policy was influenced by regional institutions, and to what extent the regional economy's persistent underperformance originates in this earlier period.

To examine the effect of institutions on Northern Ireland's industrial performance, new data is first digitised to measure labour productivity. Data from the UK Census of Production is combined with more detailed data from the Northern Ireland Census of Production. Where Northern Ireland's productivity has previously only been compared against the UK level (Hitchens and Birnie, 1989a; Hitchens et al., 1990), new comparisons across UK regions are made. The results demonstrate that Northern Ireland's productivity gap widened not only relative to the UK level, but also relative to the other lagging UK regions of Outer Britain.

The existing narrative blames Northern Ireland's poor interwar performance on an industrial structure over reliant on the declining staple industries of textiles and shipbuilding (Buckland, 1979, 1981; Johnson, 1985a). Testing the contribution of broad industrial structure shows it was not solely to blame for the productivity gap: instead, within-sector productivity failings were responsible for at least half of the gap. Despite Stormont's introduction of industrial policy to promote the growth of new industries, Northern Ireland failed to see these grow, at a time when they were beginning to expand across the rest of the UK. This slow growth of new, higher productivity industries, with an industrial structure over reliant on the declining staple industries, represented a missed opportunity, and contributed to Northern Ireland's persistent post-war productivity gap.

To understand the contribution of devolved industrial policy to this growth failure and slowing of structural change, new archival evidence for the interwar period is collected and analysed. This spans the introduction of Stormont's first industrial policy intervention, the

Loans Guarantee Acts of 1922-1938, through to the New Industries Acts of 1932-1937 and 1937-1945. These policies are found to have prolonged the life of old industries and constrained the growth of new industries. Crucially, overlapping networks between business and members of the Stormont government allowed existing firms to tailor policy to their own needs. While the sums of money involved were more modest compared to post-war subsidies, the interwar experience defined the 'rules of the game' for interactions between business and policymakers, allowing regional institutions to develop which promoted rent-seeking.

Examining Northern Ireland's interwar industrial performance contributes to the existing literature on the UK's interwar economy (Richardson, 1967; Aldcroft, 1970; Wright, 1982; Pollard, 1992; Crafts, 2018), from which Northern Ireland is almost entirely absent. The UK was not a productivity leader during the interwar period (Broadberry, 1997), with the interaction between institutions and the supply-side creating barriers to productivity growth (Broadberry and Crafts, 1992; Broadberry, 1997). Discussion of the regional dimension of this performance focuses on the location of specific industries in Inner and Outer Britain, with the former seeing the growth of new industries, and the latter experiencing high unemployment and the decline of the staple industries (Broadberry, 1986; Crafts, 2018). Analysis of regional policy interventions considers the Special Areas, but overlooks Northern Ireland's experience (Hoare, 1983; Jones, 1985; Scott, 2000). This paper addresses this gap, by integrating Northern Ireland's experience into the wider UK narrative, and examining the outcomes of subnational industrial policy, rather than regional policy implemented by central government.

This paper provides a re-evaluation of the current interwar narrative for Northern Ireland's economic performance, which concentrates on the experiences of the staple industries of linen and shipbuilding (Beacham, 1944; Buckland, 1979, 1981; Johnson, 1985a; Geary and Johnson, 1989). An industrial structure concentrated in the staple industries experiencing falling global demand, alongside geographic disadvantages, and a lack of government funds to attract new industries, are presented as the main reasons for Northern Ireland's poor interwar performance (Buckland, 1979, 1981; Johnson, 1985a). The new evidence presented here demonstrates Stormont's interwar industrial policy was not irrelevant, as it created barriers to structural change and productivity growth, and provided the foundations for Northern Ireland's underperformance during the post-war Golden Age.

A recurring theme in discussions of Northern Ireland's economy is the ineffectiveness of policy interventions to improve performance (Lee, 1971; Crafts, 1995; Birnie and Hitchens, 2001; Brownlow, 2020). This paper's findings support the importance of regional institutions in determining the success of policy interventions. Examining the post-1945 regional economy, Brownlow (2013) suggests the combination of institutional change, innovation, entrepreneurship, and productivity should form the basis of explaining Northern Ireland's long-run underperformance. Northern Ireland's interwar industrial policy shows the interaction between these factors mattered much earlier than previously thought, with regional institutions affecting the design, implementation, and outcomes from Stormont's very first industrial policies.

These findings contribute to the wider literature on the importance of institutions for regional economic performance. Institutions have been put forward as a key explanation for differing long-run trends economic growth between countries (North, 1990; North, Wallis and Weingast, 2009; Acemoglu and Robinson, 2012). Regional differences in institutions – referred to as institutional geography – are increasingly being recognised as important for explaining divergent regional economic performance within countries (Rodríguez-Pose and Gill,. 2005; Tabellini, 2010; Ganau and Rodriguez-Pose, 2019). Northern Ireland has been provided as an example of institutional geography (Brownlow, 2017), and this paper's findings demonstrate specifically how institutions affected the design and implementation of devolved industrial policy.

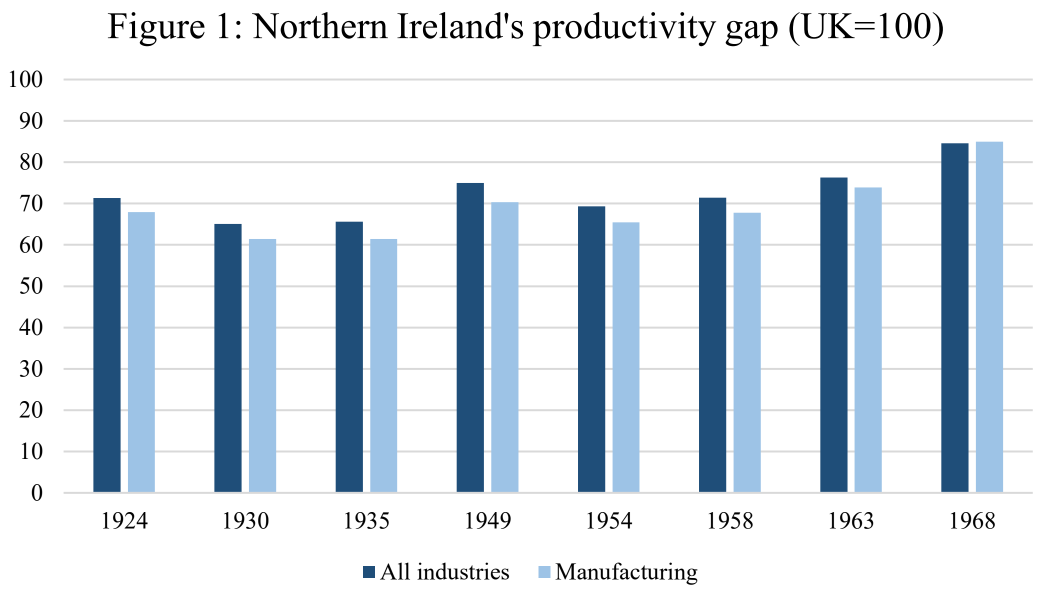
Persistent inequalities in the UK's regional economic performance have led to discussion of greater decentralisation of policymaking powers, as part of efforts to 'level up' lagging regions (McCann, 2020; Tilley et al., 2023). Where first generation fiscal federalism emphasises the potential for welfare gains (Buchanan, 1950; Tiebout, 1956; Olson, 1969; Oates, 1972), more recent second generation theory emphasises the importance of institutions in determining whether these benefits are realised (Oates, 2005; Weingast, 2009, 2014). Examining the puzzle of Northern Ireland's persistent underperformance contributes to the limited literature which considers UK devolution from a second generation perspective (McGregor and Swales, 2005; Pike et al., 2012; Brownlow, 2017).

The paper proceeds as follows. Section 2 examines Northern Ireland's interwar industrial performance, and presents evidence of the failure of new industries to establish. Section 3 discusses how regional institutions provided opportunities for local firms to engage in rent-seeking, motivated by poor trading conditions. Section 4 examines Stormont's policy interventions aimed at the staple industries, and Section 5 analyses the design, implementation, and failure of policy to promote the growth of new industries. Section 6 provides the conclusion, and potential lessons for UK devolution today.

2. Industrial performance

Despite Stormont's powers over industrial policy between 1921 and 1972, industry in Northern Ireland persistently underperformed. Figure 1 shows Northern Ireland had a sizeable productivity gap to the UK level. This averaged 28 per cent for all industries, widening to 31 per cent when both public utilities and the construction and extractive industries are excluded, to leave only manufacturing. The productivity gap varied over time, and was at its widest during the interwar period: for manufacturing, the gap peaked at 39 per cent during the 1930s.

This gap briefly decreased post-war, but by the 1950s it had widened again. It was not until the end of the 1960s that Northern Ireland saw a narrowing of the gap.

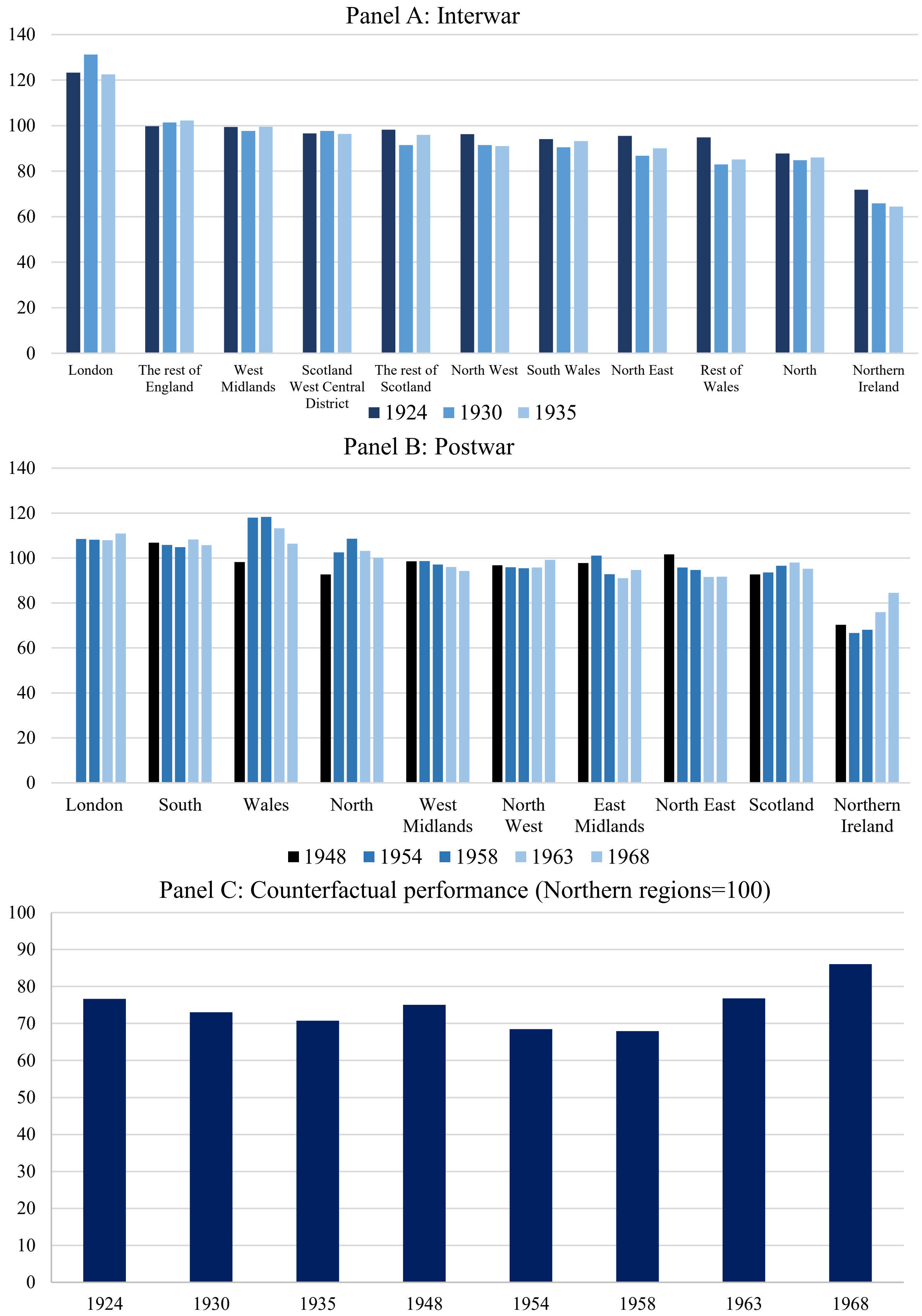


Sources: For UK, *Census of Production UK Report*. For Northern Ireland, *Census of Production of Northern Ireland Report,* 1924, 1935, 1949, 1958, 1968.
Notes: Manufacturing excludes Public Utilities (including government departments) and Construction & Extractive industries. Productivity calculated as net output divided by total persons employed.

Northern Ireland's productivity performance has previously only been compared to the UK level (Hitchens and Birnie, 1989a; Crafts, 1995). Figure 2 uses new data digitised from the Census of Production, to compare regional productivity performance across the UK. This shows there was regional variation in productivity during both the interwar (Panel A) and post-war (Panel B) periods. Northern Ireland lagged substantially behind the regions belonging to Outer Britain (northern English regions plus Scotland and Wales) during both periods. Between 1924 and 1935, Northern Ireland experienced the joint largest decline in relative productivity, falling by 10 per cent, matched only by the Rest of Wales. Post-war, lagging regions generally closed their productivity gap, with London's lead diminishing. Following a brief improvement immediately post-war, Northern Ireland's productivity gap widened during the 1950s, before finally beginning to close to the UK level in the 1960s.

No overarching narrative currently links Northern Ireland's interwar and post-war economic performance. The limited interwar narrative suggests Northern Ireland's poor performance was an experience shared with other poorly performing regions, reflecting the regional concentration of the declining staple industries (Buckland, 1979, 1981; Johnson, 1985a). The post-war literature suggests a divergence in performance relative to the UK during the 1950s, followed by improved performance during the 1960s (Canning et al., 1987). To test this narrative, Panel C in Figure 2 compares Northern Ireland's performance against UK regions that shared similar characteristics. Northern Ireland's net output per head is expressed as a percentage of 'Northern regions', which is the equally weighted average of three regions: North, North West, and Scotland. These regions shared similar characteristics with Northern Ireland, and reflected the performance of Outer Britain, with high concentrations of textiles and shipbuilding. Wales is excluded due to its high levels of employment in extractive industries. Panel C shows Northern Ireland's performance declined relative to the Northern regions during the interwar period, with a gap of around 30 per cent by 1935. Post-war, the 1950s saw a reversion to Northern Ireland's previous interwar performance. Thus Northern Ireland had a substantial productivity gap to the other lagging UK regions, which began to widen during the 1930s, and continued this underperformance post-war.

Figure 2: Regional productivity (UK=100)



Source: *Report on the Census of Production of the UK,* various years.
Notes: Regions based on 1968 definitions. Figures for Northern Ireland vary from Figure 1 due to differing source and rounding in UK-wide report. 1949 figures for Northern Ireland are used to represent 1948.

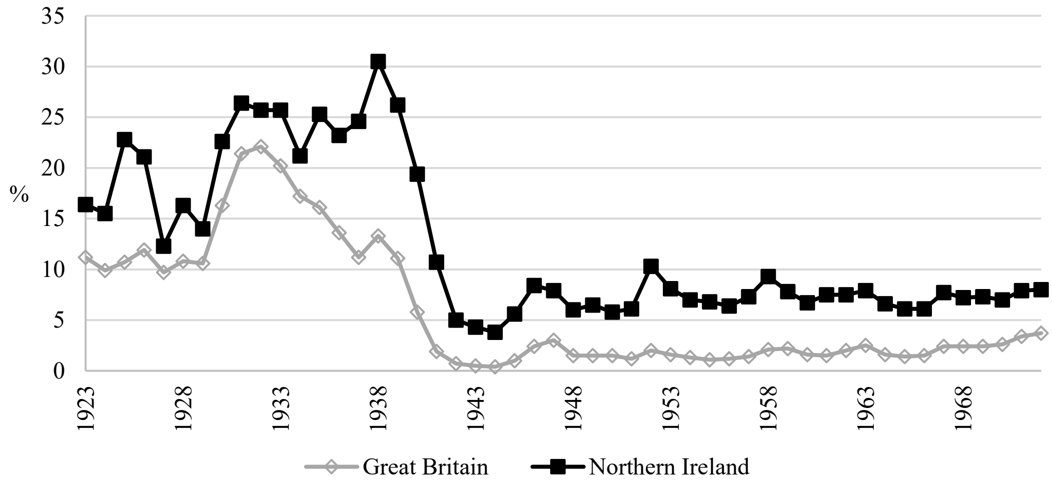
Northern Ireland's productivity gap was not the result of lower unemployment reducing the average net output per employee. Figure 3 compares the rate of unemployment in Northern Ireland against Great Britain (Panel A) and the four other worst performing regions of the UK: North-East, North-West, Wales, and Scotland (Panel B). Unemployment was persistently higher in Northern Ireland than in Great Britain. Compared to the worst performing regions, Northern Ireland was initially similar during the 1920s, but diverged during the mid-1930s, with unemployment failing to decline. This interwar period stands out as a point of divergence, with the resulting gap not beginning to close until the 1970s.

Northern Ireland's persistent underperformance is commonly attributed to industrial structure (Hitchens *et al*., 1990). Discussions of interwar Northern Ireland blame this for its high unemployment (Buckland, 1979, 1981; Johnson, 1985a). Post-war, "Northern Ireland was handicapped by a traditional structure skewed to relatively low productivity" (Crafts, 1995, p.19). For 1950 to 1962, Canning *et al*. (1987) attribute Northern Ireland's underperformance in the growth of manufacturing employment as being entirely structural relative to Great Britain, with this structural effect persisting until 1971.

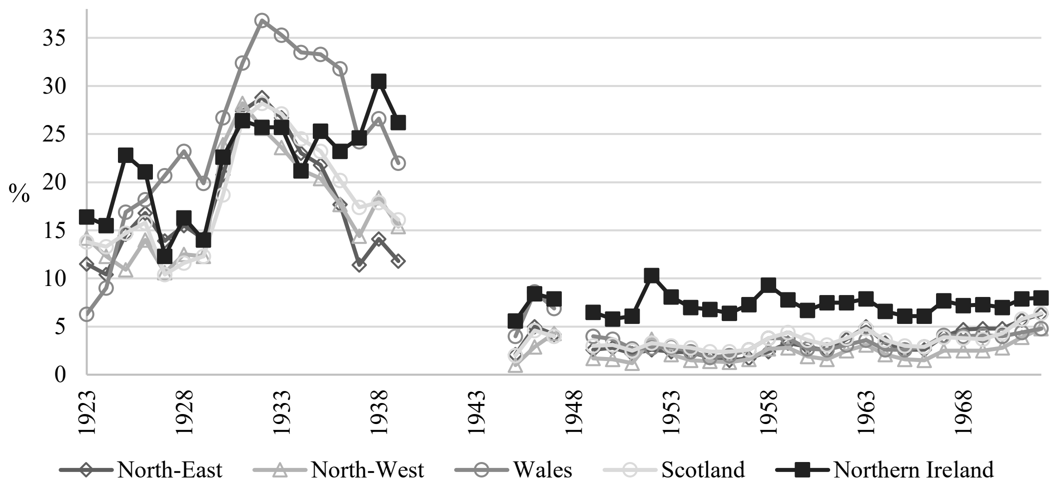
To examine the contribution of structure to the productivity gap over time, Figure 4 first compares industrial employment in Northern Ireland to the UK, using nine broad industry groupings. Employment in Northern Ireland was more concentrated in specific sectors. Textiles and the metal trades (including shipbuilding) were the two largest sectors by employment, particularly during the interwar period, when textiles alone averaged 52 per cent. In contrast, UK manufacturing employment was much more diverse. Northern Ireland did slowly converge towards the UK structure, but it still retained a higher concentration in textiles and clothing post-war.

Figure 3: Unemployment, 1923-1972

Panel A: Average annual unemployment

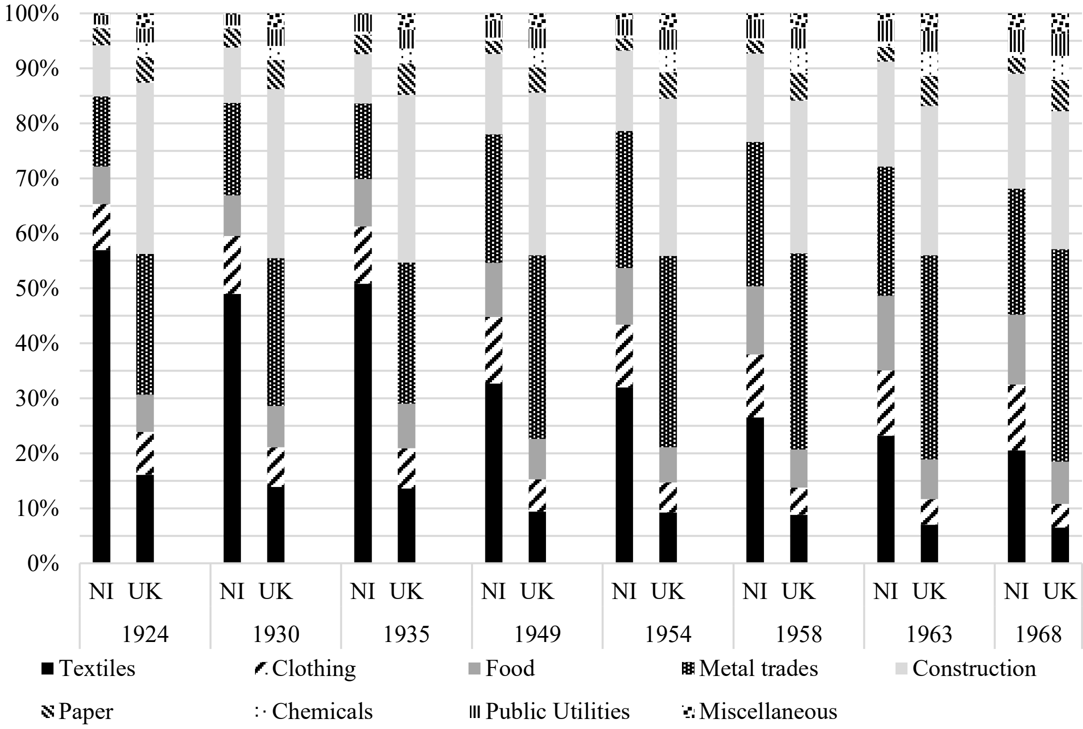


Panel B: Regional average annual unemployment



Panel A Source: For both Great 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). *Panel B Source*: Mitchell (1988, p.125-126).
Notes: Unemployment data are for the insured population. Unavailable for the regions of Great Britain between 1940 and 1944. 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.

Figure 4: Industrial 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 1 examines the relative contribution of structure to Northern Ireland's productivity gap over time, following the method outlined by Birnie and Hitchens (1989a). This calculates a value for Northern Ireland's overall productivity, as if it had the UK's industrial structure. A limitation of previous comparisons is the changing definitions of industrial sectors, which limits the ability to compare the contribution of structure over time. To address this issue, nine broad industrial sectors are used, which provide the greatest disaggregation while maintaining constant sectoral definitions. The results show that the contribution of structure averaged 31 per cent of the productivity gap, peaking at around 50 per cent during the 1930s. These results are similar to previous estimations: Isles and Cuthbert (1957) calculated structure's contribution as 55 per cent in 1935 (with 37 sectors), and Birnie and Hitchens (1989a) calculating it as 27 per cent in 1968 (with 143 sectors).

Table 1: Relative industrial productivity performance

Year	Relative output per person employed NI/UK (UK=100)	Contribution to the productivity gap (%) Structure	Within-sector
1924	71	27	73
1930	65	50	50
1935	66	49	51
1949	75	9	91
1954	69	21	79
1958	71	25	75
1963	76	30	70
1968	85	35	65

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

Table 2: Industrial 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	72	67	65	72	69	72	71	71
Food, drink & tobacco	79	66	88	83	85	88	93	111
Metal trades, engineering & shipbuilding	80	87	75	72	75	74	78	76
Construction & extractive industries	90	91	86	79	76	78	83	85
Paper & printing	77	79	76	69	71	75	70	83
Chemicals	58	76	76	84	78	98	140	164
Public utilities	73	59	60	97	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: 'Miscellaneous' category of firms excluded, as represented less than 1 per cent of employment during the interwar period.

No single industry was to blame for Northern Ireland's productivity gap. Table 2 shows a within-sector productivity gap existed across all sectors relative to the equivalent UK sector. Geographic peripherality, through higher costs, has been suggested as harming Northern Ireland's competitiveness throughout this period (Isles and Cuthbert, 1957; Buckland, 1979). Measuring total costs of production as a percentage of gross output demonstrates these were not uniformly higher in Northern Ireland relative to the UK.[1] While transport costs can not be

[1] See Table A.2 in Appendix.

specifically measured, Northern Ireland's lower productivity was not driven by overall higher production costs. This supports Hitchens and Birnies' (1989b) later rejection of transport costs as an explanation for the productivity gap.

The divergence in performance between Inner and Outer Britain during the interwar period has been linked to the growth of new, high productivity industries, although the extent of their contribution to overall interwar productivity has been much debated (Richardson, 1961, Aldcroft, 1970; Broadberry, 1997; Crafts, 2018). While the impact of new industries on structural change was constrained by their small size relative to the staple industries, they did contribute to productivity growth within sectors (Crafts, 2018, p.68-70). Their interwar establishment also provided the basis for post-war manufacturing growth (Broadberry, 1997). The interwar narrative for Northern Ireland has ignored the role of new industries. This is despite a lack of new, high productivity industries contributing to Northern Ireland's post-war productivity gap (Hitchens *et al.*, 1990).

While the Census of Production for Northern Ireland provides greater detail, the ability to identify new industries is limited. Disaggregation by industry was not consistent across Northern Ireland publications of the Census of Production. Categories were tailored to reflect the relative size of each sector, and details of specific sectors were sometimes suppressed to avoid disclosure of information where there was a small number of firms. Nonetheless, two examples from Northern Ireland's largest sectors, textiles and metal trades, provide evidence of the failure of new industries to establish during the interwar period.

Within textiles, the interwar period saw the expansion of high productivity rayon (man-made fibres) in Great Britain. Expansion began during the 1920s, with output almost nine times greater in 1929 than 1920, and tripling again between 1929 and 1939, 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, p.188). By 1935, productivity in UK man-made fibres was 77 per cent higher than Northern Ireland's linen industry, accounting for 8 per cent of total UK textile employment, and employing 81,825 people in Great Britain.[2] In contrast, man-made fibres failed to develop on any notable scale in Northern Ireland: it remained so small that even by 1935, it was combined into the 'Other textile' category in the Northern Ireland Census of Production, which totalled just 4 per cent of textile employment.[3] Table 3 shows that production of man-made fibres in Northern Ireland remained almost non-existent in 1937, at just 3.1 per cent of output. Its later rapid growth reflected an earlier transition being technologically feasible: experiments during World War II demonstrated rayon yarn could be spun on existing flax machinery in Northern Ireland (Beacham, 1944, p.207), but there was no meaningful production until after the war ended (Ollerenshaw, 1991, p.75).

Table 3: 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

Northern Ireland's metal trades was another sector to miss out on the interwar growth of new industries. This is most evident for electrical engineering. In 1935, output per person in

[2] Calculated from *Report on the Census of Production*, 1935, and *Census of Production of Northern Ireland Report*, 1935.
[3] Calculated from the *Census of Production of Northern Ireland Report*, 1935.

UK electrical engineering was 49 per cent higher than in Northern Ireland shipbuilding.[4] Electrical engineering accounted for 3.2 per cent of total manufacturing employment in the UK, but only 0.7 per cent in Northern Ireland.[5] This was no better than other regions of Outer Britain: in the North West, electrical engineering accounted for 4.8 per cent of total manufacturing employment, while in the West Riding of Yorkshire (part of the North East), it accounted for 1.0 per cent.[6] Instead, Northern Ireland saw shipbuilding increase 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).[7] In contrast, both Scotland and Northumberland (the North) saw a respective 59 per cent and 61 per cent decrease in shipbuilding employment, between 1924 and 1935.[8] By 1935, Northern Ireland accounted for 14.7 per cent of all workers in UK shipbuilding, significantly above its share of UK manufacturing employment of 1.7 per cent.[9] Northern Ireland was therefore expanding in an industry experiencing decline elsewhere, but with much lower productivity.

3. Regional institutions

Why did Stormont's industrial policy not lead to improved industrial performance during the interwar period? Existing literature views Northern Ireland's poor performance as solely demand-driven, unrelated to the supply-side or Stormont's industrial policy (Buckland, 1979, 1981; Johnson, 1985a). In contrast, theory from first generation fiscal federalism suggests devolved industrial policy should lead to improved performance, through policy interventions better tailored to subnational circumstances (Oates, 2005). Yet the evidence for interwar

[4] Calculated from UK *Report on the Census of Production*, 1935 and *Census of Production of Northern Ireland Report*, 1935.
[5] Calculated from UK *Report on the Census of Production*, 1935, and the *Census of Production of Northern Ireland Report*, 1935 and 1949.
[6] Calculated from UK *Report on the Census of Production*, 1935.
[7] Calculated from the *Census of Production of Northern Ireland Report*, 1935 and 1949.
[8] Calculated from UK *Report on the Census of Production*, 1930 & 1935.
[9] Calculated from the *Census of Production of Northern Ireland Report*, 1935.

Northern Ireland shows it performed no better relative to Outer Britain. This suggests a potential role for theory from second generation fiscal federalism to explain why the benefits of devolved industrial policy were not realised. The following analysis considers how regional institutions shaped the supply and demand for what Stigler (1971) describes as economic regulation from government, which governs both the benefits governments are willing to provide through policy interventions, and the benefits businesses seek to receive.

There are four main factors which encouraged Stormont to provide economic regulation which would benefit existing firms. First, Northern Ireland's subnational government at Stormont was dominated by the Unionist Party, 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). This can lead to rent-seeking, subsidies for uncompetitive enterprises, and benefits conferred upon special interest groups (Weingast, 2009). With no electoral competition, the incentive for the Unionist government at Stormont to align industrial policy with the electorate's preferences was weakened, increasing the relative importance of other incentives it faced.

Second, the fiscal structure faced by a subnational government can create incentives which affect policy decisions, particularly when a soft budget constraint is present (Weingast, 2014). High interwar unemployment saw Stormont's unemployment fund repeatedly on the verge of collapse, prevented only by bailouts from the UK government at Westminster (Lawrence, 1965). This fiscal structure created the incentive for Stormont to focus on preserving short-run employment, to minimise expenditure on unemployment benefits, and maintain political support amongst its followers. However, Westminster's bailouts meant it did not face the full cost of long-run unemployment, reducing the incentive to implement policies which might promote structural change and strengthen the regional economy. Stormont was therefore unlikely to prioritise productivity when implementing industrial policy, and more likely to choose short-term policies which provided benefits to special interest groups that might maintain existing employment.

Third, strong, overlapping networks between business and politics in Northern Ireland increased the likelihood of special interest groups influencing policy. These links existed pre-partition, with business and the political leaders of Ulster Unionism being closely linked (Ollerenshaw, 1991; Bew, Gibbon, and Patterson, 2002). The presence of overlapping networks within regions can benefit productivity growth, as demonstrated by the example of Cleveland, USA, during the second industrial revolution: here, transition into higher productivity areas of manufacturing was promoted by overlapping networks between business and finance, often facilitated by family connections (Lamoreaux *et al*., 2006). However, while having higher survival rates, businesses with strong political connections have been shown to have lower labour productivity growth (Akcigit, Baslandze, and Lotti, 2022).

Table 4 outlines the extent of Unionist MPs' business interests between 1921 and 1945. Over one-third of both MPs and Cabinet members recorded a direct business interest. Of MPs with direct business interests, over one-third was in textiles. A notable example is the Minister of Commerce between 1925 and 1941, John Barbour, who was responsible for industrial policy, and was also the managing director of several textile firms (Harbinson, 1974). This reflected the view that being a Stormont MP or Minister was a part-time occupation, with Ministers not having to give up their business interests on entering office (Birrell and Murie, 1980, p. 40). Northern Ireland's system of devolved government was renowned for providing easy access to government Ministers (Brownlow, 2012, p.294), with this accessibility making them responsive to the lobbying of special interest groups (Buckland, 1979, p.17).

Table 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). See Harbinson (1974) for a detailed list of MPs business interests

Fourth, the electoral dominance of the Unionist Party, and a lack of turnover in Ministers, saw an ageing leadership structure, with their views and preferences deeply ingrained into subnational policymaking. Between 1921 and 1939, only 12 individuals served in the Stormont Cabinet (Buckland, 1979, p.10). The 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 1941; the Minister of Labour, John Andrews, was in office from 1921 until 1940; and the Minister of Finance, Hugh Pollock, was in office from 1921 until 1935 (Harbinson, 1974). 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), and sensitivity to any form of criticism meant the government often avoided unpopular actions (Buckland, 1979, p.14).

Together these factors made policymakers at Stormont vulnerable to pressure from special interests. Where a national government might face several competing interests from across industry, the high concentration of employment in textiles and shipbuilding, and their overlapping networks with politics, amplified the incentive for Stormont to aid these industries.

On the demand-side of Stigler's (1971) theory of economic regulation, business seeks to acquire regulation designed and operated primarily for its own benefit. From a firm's perspective, it will face the decision between investing in skills and knowledge, or devoting resources to changing the institutional constraints it faces, based on the expected payoff: 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). Already having the necessary influence, the poor trading conditions of the interwar period, combined with supply-side characteristics of the regional economy, increased the relative expected payoff from rent-seeking for firms in Northern Ireland.

This is most evident for Northern Ireland's linen industry. Until the 1950s, textiles were a key influence on Northern Ireland's economy (Ollerenshaw, 1991, p.60), with linen accounting for over 80 per cent of interwar employment in textiles.[10] No other manufacturing industry could match linen on either scale or geographic dispersion (Beacham, 1944; Isles and Cuthbert, 1957; Ollerenshaw, 1991). Linen shared similar characteristics with cotton in Great Britain: both were dominated by small firms, exporting the majority of their output, but they suffered from prolonged levels of excess capacity (Beacham, 1944; Ollerenshaw, 1991; Bowden and Higgins, 2003, 2015). Table 5 shows both cotton and linen saw their output fall substantially between 1912 and 1937, by 55 per cent and 21 per cent respectively. The less severe decline for linen firms meant lower pressure to exit relative to cotton, allowing less efficient firms to survive. Falling demand would also have reduced the expected payoff from investment, and combined with linen's already low productivity, meant less money available for investment.

[10] Calculated from the *Census of Production of Northern Ireland Report*, 1924, 1930 and 1935. See Table A.3 in Appendix.

Table 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 Great Britain.

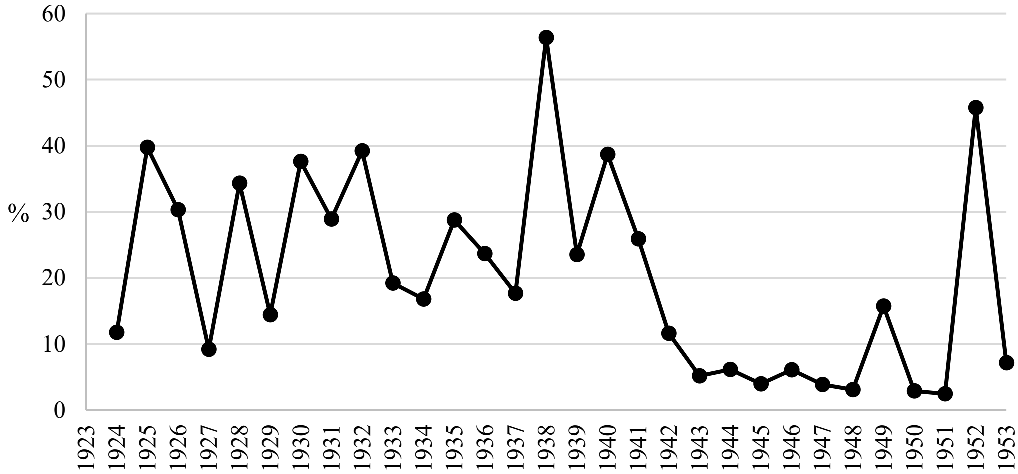
While both linen and cotton saw levels of capital and employment fall between 1912 and 1937, linen had much lower levels of capital per worker, approximated in Table 5 by spindles and looms per person. The available evidence for linen suggests it can be described using the Lewis Model, where access to a plentiful and cheap labour supply reduces the incentive to invest in capital (Lewis, 1954; Ranis and Fei, 1961; Stafford, 1981). Linen relied on cheap, unskilled labour, a situation reflected across Northern Ireland's wider labour market, where wages for unskilled workers were also generally lower than in Great Britain (Isles and Cuthbert, 1957). This allowed firms to expand production when needed, but without driving up wages. Evidence for this can be seen in Figure 5, with large year-to-year variation in employment. Wages in textiles also support this interpretation in Table 6, as these were lower, and grew more slowly, in Northern Ireland compared to the UK. This suggests the labour demand curve was on the more elastic part of the supply curve for Northern Ireland, facilitated by a higher share of agricultural employment providing an almost perfectly elastic labour supply curve for the industrial sector.[11]

Faced with falling demand, these supply-side characteristics meant firms could pursue a survival strategy of varying labour inputs without capital investment. Small textile firms,

[11] See Table A.1 in Appendix.

particularly those outside Belfast, survived adverse trading conditions by paying low wages and producing inferior products (Beacham, 1944, p.205). A common occurrence in textiles during the interwar period was excess capacity, which allowed the cannibalisation of spare machinery (Sandberg, 1974, p.130). The closure of firms likely provided a further source of cheap capital, as documented for Northern Ireland's textile industry during the 1950s (Bew, Gibbon, and Patterson, 2001, p.108). By 1948, the machinery in many flax mills was on average forty or fifty years old (Ollerenshaw, 1991, p.77).

Figure 5: Unemployment rate in linen



Source: Calculated using Isles and Cuthbert, 1957, p.578 and p.583.
Notes: Per cent unemployed is for insured workers in July each year.

Table 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.

The incentives created by falling demand and supply-side conditions were reinforced by evidence of satisficing behaviour amongst firms. Satisficing sees firms set a minimum acceptable level of achievement, rather than maximising profits (Simon, 1959), with owner-controlled firms more likely to display this behaviour (Hornby, 1995), but this ownership structure is associated with lower productivity (Bloom and Van Reenen, 2010). Family owned firms dominated the linen industry in Northern Ireland until the 1950s (Ollerenshaw, 1991). These small, family-run 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" (Beacham, 1944, p.205). They survived adverse market conditions by paying lower wages, producing inferior goods, and selling below the costs of production (Beacham, 1944, p.205). With few alternatives, "the temptation to plod on regardless was one to which most firms succumbed" (Ollerenshaw, 1991, p.65). 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).

These characteristics facilitated firms' survival, but further reduced the incentive to invest, and increased the relative payoff from changing institutions to acquire benefits. It was therefore in local firms' interest to engage in rent-seeking behaviour, to try and acquire financial benefits to aid survival. Yet there was also an opportunity for local policymakers to introduce policies which supported investment, to help firms escape a low wage-investment-productivity equilibrium, rather than reinforcing these existing poor incentives.

4. Support for old industries

Stormont's industrial policy initially followed Westminster's example. From 1921 until 1927, Westminster introduced a series of Trades Facilities Acts, to assist export industries with access to finance, during a period of relatively high interest rates (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 firms in Northern Ireland applying to this scheme,[12] Stormont introduced equivalent legislation with the Loans Guarantee Acts, beginning in 1922 (Buckland, 1979, p.116). Stormont's justification for introducing its own guarantees was the view that applicants from Great Britain might receive preferential treatment by Westminster over those from Northern Ireland.[13] Where Westminster's primary stated motivation was to reduce the cost of borrowing for firms, Stormont's was creating employment.[14]

Where Westminster's legislation ended in 1927, Stormont extended its Loans Guarantee Acts annually until 1938. Stormont almost exclusively prioritised shipbuilding during this time. Of the 37 guarantees, 26 were for shipbuilding, which received £21.9 million, or 98 per cent of the total value of guarantees, compared to only 47 per cent in Great Britain.[15] Stormont's guarantee per worker in shipbuilding was also more generous, at £2,230, compared to Westminster's £320 per worker.[16] Support given to Northern Ireland's largest shipbuilder, Harland and Wolff, demonstrates Stormont's generosity. By 1930, it had £4.1 million of liabilities guaranteed by Stormont, but only £1 million guaranteed under Westminster's Trade Facilities Acts (Geary and Johnson, 1989, p.56).

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[12] TNA: T 190/26, Letter from Spender to Upcott, 16th February 1926.
[13] TNA: T 190/26, Letter from Spender to Upcott, 16th February 1926.
[14] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, Minutes to Minister, 17th August 1937.
[15] See Loans Guarantee Acts (Northern Ireland) 1922-1938, H.C. 654, 1945
[16] Calculated as an average of employment for both the UK and Northern Ireland, taken from the UK and NI *Report on the Census of Production*, 1924, 1930, and 1935.

Stormont's significant financial commitment to shipbuilding far exceeded that received by any other industry during the interwar period. As Stigler (1971) predicts, the support for shipbuilding was not proportional to its size, but rather its political influence and the limited number of beneficiaries. The proposal for Stormont to replicate Westminster's loan guarantees was proposed by Viscount Pirrie, Chairman of Northern Ireland's largest shipbuilder, Harland & Wolff, and a businessman with strong political connections to Stormont.[17] Pirrie was involved in the legislation's design, and vetted the ministerial speech which introduced the legislation (Buckland, 1979, p.116). Industry gained the ability to influence the distribution of support under the Acts, as Stormont's Minister of Finance nominated an Advisory Committee, composed of "prominent business men", to advise on applications for support and the terms of any guarantee.[18] Shipbuilding also had a limited number of beneficiaries, with only two firms – Harland & Wolff and Workman, Clark & Co. – compared to other industries, such as linen, with a high number of small, family owned firms, where it was more difficult to restrict the number of beneficiaries.

The Loans Guarantee Acts created a barrier to productivity growth in two ways. First, there was a direct financial cost to Stormont. Over the life of the Acts, Stormont had to pay out 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.[19] This money had to be found from within Stormont's budget. Covering these guarantees also raised Stormont's cost of borrowing, as the sources of finance used for the guarantees were also those accessed by Stormont for its own purposes (Buckland, 1979, p.117).

[17] PRONI: FIN/30/D/72: Notes on the administration of the Loans Guarantee Acts (Northern Ireland), 1922-1933. See also Buckland, 1979, p.116.
[18] PRONI: FIN/30/D/72: Notes on the administration of the Loans Guarantee Acts (Northern Ireland), 1922-1933.
[19] Loans Guarantee Acts (Northern Ireland) 1922-1938, H.C. 654, 1945.

Second, the Loans Guarantee Acts presented an opportunity cost, as it directed Stormont's limited financial resources away from supporting other industries. Policymakers were aware of the opportunity cost of supporting shipbuilding. 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".[20]

During the interwar period, employment in shipbuilding rose in Northern Ireland relative to its peers in Great Britain, at a time of global falling demand, increasing foreign competition, and excess capacity (Geary and Johnson, 1989). Belfast saw its output in gross tons fall by 26 per cent between 1921-29 and 1930-38, but this was much less than the 43 per cent fall experienced across the UK, leading to Belfast's share of world tonnage increasing (Geary and Johnson, 1989, p.55). Even with the closure in 1935 of Belfast's second largest shipbuilder, Workman Clark, shipbuilding increased both its level of employment and share of manufacturing in Northern Ireland during the interwar period.

From this perspective, the Loans Guarantee Acts met Stormont's objective of supporting employment levels. Yet their extended implementation, beyond that in Great Britain, reinforced the existing industrial structure, and coincided with a decline in the productivity of shipbuilding in Northern Ireland. Table 7 compares the interwar levels of gross output, costs, and net output in shipbuilding in Northern Ireland relative to the UK. In 1924, costs were equal, and net output per person in Northern Ireland higher than the UK. 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. By 1935, gross output had fallen to below the 1924 level, and despite costs falling slightly, net output remained 20 per cent below the UK

[20] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, Minutes to Minister, 17th August 1937.

level. Post-war, shipbuilding was one of the main contributors to low productivity in Northern Ireland (Hitchens et al., 1990). Concentrating large amounts of financial support on a declining industry, where productivity was relatively lower, prolonged its life, but created a significant barrier to productivity growth.

Table 7: Shipbuilding output and costs, where NI/UK (UK=100)

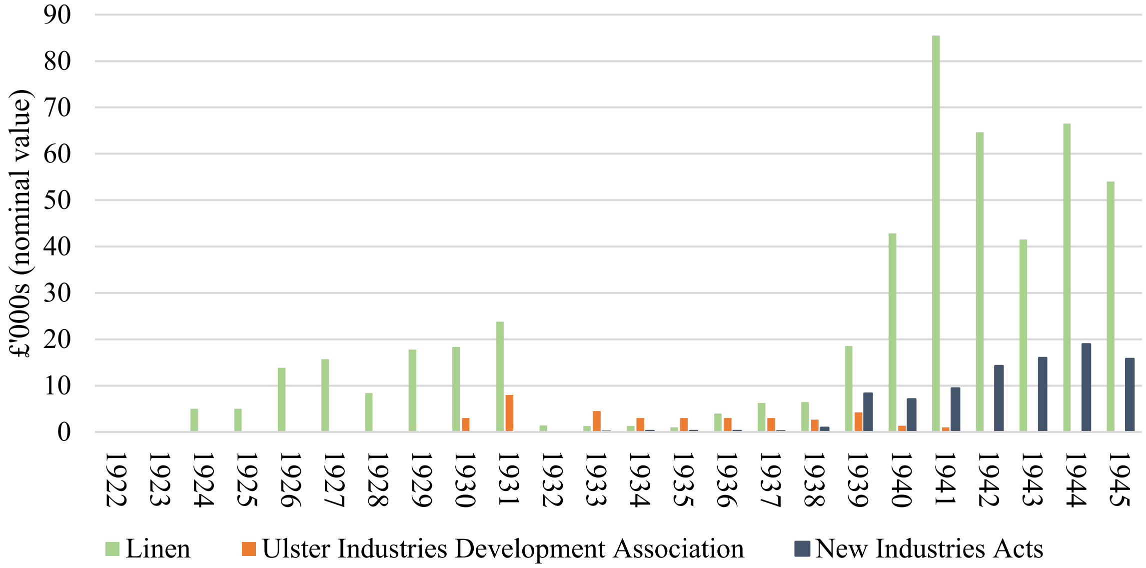
Year	Gross output per person employed	Costs as a per cent of gross output	Net output per person employed
1924	113	100	113
1930	117	125	80
1935	109	121	80

Source: For Northern Ireland: *Census of Production of Northern Ireland Report* 1924, 1930, 1935, 1949. For the UK: *Report on the Census of Production of the UK* 1924, 1930, 1935.

Where shipbuilding was the main beneficiary under Stormont's Loans Guarantee Acts, Northern Ireland's largest employer, textiles, received only 0.2 per cent of total guarantees.[21] However, linen was the main beneficiary of Stormont's direct industrial expenditure, shown in Figure 6. Expenditure on linen far exceeded that on either the New Industries Acts of the 1930s (discussed in Section 5), or the Ulster Industries Development Association (discussed below). Following Stigler's (1971) predictions, linen benefited from its strong overlapping networks with Stormont, including the Minister of Commerce. Yet despite being Northern Ireland's largest employer, the high number of potential beneficiaries – due to the proliferation of small, family-owned firms – explains its more modest financial support relative to shipbuilding.

[21] Calculated from Loans Guarantee Acts (Northern Ireland) 1922-1938, H.C. 654, 1945.

Figure 6: Stormont's direct industrial expenditure



Source: Northern Ireland House of Commons Papers, 1-775, Appropriation Accounts.
Notes: Linen includes expenditure on the Linen Research Association and Flax Development.

The financial support linen received was intended to promote research and development, through the Linen Industry Research Association (LIRA). This was formed in 1919 to pool resources for research, where individual firms were perceived to lack necessary facilities (Ollerenshaw, 1991, p.68-69). Instead, the vast majority of Stormont's support went on advertising for the industry. 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. This expenditure presents an opportunity cost, as it might otherwise have been used to facilitate an earlier transition to man-made fibres.

Outside linen and shipbuilding, smaller industries received much more limited financial support, reflecting not only their relatively small size, but also their lesser political influence, and high number of potential beneficiaries. What political influence they did have was used to maintain and strengthen their overlapping networks with Stormont. 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 outside textiles and shipbuilding.[22] 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.[23] Stormont did not want to give local chambers of commerce these new responsibilities, thinking they would oppose firms which competed against their own.[24] A single body would reduce this problem, and maximise Stormont's control and oversight. Stormont funded the UIDA, but this was on a much smaller scale than for linen (Figure 7).

Part of the UIDA's remit was to attract new industrial undertakings to Northern Ireland, but there is no evidence the UIDA had any success. Although it raised the idea of growing the man-made fibre industry in Northern Ireland, this was rejected by the Ministry of Commerce, which thought it was more important to keep "existing factories going full time rather than developing new ones".[25] Instead, the UIDA focused its activities on "the practical interpretation of the slogan, 'Push Ulster Goods'", allocating its funding to advertising and publicity to the benefit of existing firms.[26]

The main non-financial benefit of the UIDA to smaller industries was influence over the operation of Stormont's industrial policy to promote new industries. The President of the UIDA was appointed to the Advisory Committee for Stormont's New Industries Act of 1932, discussed in Section 5, gaining influence over which applicants would receive financial support. Ultimately, the UIDA's limited influence, and inability to acquire greater financial support for smaller industries, is exemplified by a letter of complaint from the UIDA's President to the Minister of Commerce, blaming the organisation's lack of success on the

[22] See *Ulster Year Book*, 1938, p.87
[23] PRONI: COM/63/1/232: Letter from the Association of Northern Ireland Chambers of Commerce, 6th February 1929.
[24] PRONI: COM/63/1/232: Letter to the Prime Minister's Secretary, 17th April 1929.
[25] PRONI: COM/63/1/232: Meeting of the new industries committee, 2nd December 1929.
[26] *Ulster Year Book*, 1935, p.74

Ministry of Commerce, who favoured linen and shipbuilding, and showed a disinterest towards Northern Ireland's smaller industries.[27]

5. Support for new industries

During the 1920s, as Stormont focused on preserving existing employment with the Loans Guarantee Acts, its attitude towards assisting new industries can be inferred from a private response by the Secretary to the Ministry of Commerce, to a letter suggesting government support for the creation of new industries:

> *I really do not see how a government department can initiate new industries short of putting public money into them. If the capital is forthcoming… it is up to the people of Enniskillen to get one or more of the suggested industries going.*[28]

This attitude changed with the arrival of the Great Depression. The political implications of the dramatic rise in unemployment forced Stormont to act, but it continued to focus on the level of employment. At an election rally 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 led to the first New Industries Act (1932 Act) in June 1932. To be eligible, applicants had to be a new industrial undertaking, defined as not already existing in Northern Ireland as of October 1931, and provide "employment within Northern Ireland to a substantial extent".[29] 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, to give a non-binding

[27] PRONI: CAB/9F/126/1: Letter sent to the Minister of Commerce by J. Cleland, President of the UIDA, 26th November, 1937.
[28] PRONI: COM/62/1/176A: Memo by Secretary to Ministry of Commerce, 11th May 1928.
[29] New Industries (Development) Act (Northern Ireland) 1932.

recommendation on whether an application should be accepted, along with any conditions to be imposed, such as the amount of working capital to be raised by the applicants.[30]

Stormont's 1932 Act was notable for it being the first example within the UK of a subnational policy intervention to promote the growth of new industries. Unlike the earlier Loans Guarantee Acts, it was a genuine innovation from Stormont, introduced before Westminster's first Special Areas Act in 1934, which would not support profit-making enterprises until 1936.

Despite this innovation, the 1932 Act failed to promote the growth of new industries, and did not meet Stormont's aim of providing substantial employment. During its five-year lifespan, only eleven applications were made, of which eight received 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).

Table 8 ranks successful applications under the 1932 Act by size of site grant. Four of these were approved in 1937, in the final year of the 1932 Act's life. The largest site grant was awarded to Short & Harland to produce aircraft, but the archival files relating to its application appear to no longer exist. However, its decision to locate in Belfast appears not to have been influenced by the 1932 Act. Rather it was the combination of a strategic decision to develop aircraft production in "relatively safe areas", and Westminster's encouragement of shipbuilders, such as Harland & Wolff, to work with existing aircraft manufacturers (Ollerenshaw, 2013, p.111). The remaining grants were much smaller, with only two grants going to firms outside Belfast, and only one going to a new, higher productivity industry

[30] PRONI: COM 63/1/222: Appointment of Advisory Committee.

producing chemicals. By May 1939, 6,552 persons were estimated as being employed by firms supported under the 1932 Act, but just 279 persons were at firms other than Short & Harland.[31]

Table 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.

Buckland (1979) attributes the 1932 Act's failure solely to Stormont's lack of funds, reflecting the financial pressure it was experiencing at this time, and thus leading to the low level of financial support being offered. In reality, the 1932 Act put no pressure on the public 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.[32]

The 1932 Act's failure was instead the result of two features, shaped by the preferences of existing business interests. First, the design of the 1932 Act was flawed. The low level of financial support offered was shaped by Stormont's desire not to be too generous towards new

[31] PRONI: COM/20/1/1: Ulster Development Council, Minutes of Council Meetings.
[32] Calculated from *Northern Ireland House of Commons Papers, Appropriation Accounts*, various years.

firms at the expense of existing firms, who might feel aggrieved or unfairly treated.[33] This led to the financial support made available being too restrictive in its potential use, and unsuitable for establishing new firms. 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 factory and acquiring machinery. New industries would also struggle to meet the requirement to provide substantial employment, as they would be growing from a small size, and not immediately provide significant employment.

Second, even if more funds had been available, the influence given to existing industries over who received support is significant in explaining its failure. While officially Stormont's Ministers of Commerce and Finance together had the final say on decisions, in practice their decisions were a rubber stamping of the recommendation made by the 1932 Act's Advisory Committee. Writing on the expiry of the 1932 Act, the Minister of Commerce emphasised that every recommendation made by the Committee was accepted.[34] This influence over applications gave members the opportunity to act in the interests of their respective industries and networks, and create a barrier to entry for new firms.

Table 9: Advisory Committee under 1932 New Industries Act

Name	External responsibilities	Location
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.

[33] PRONI: CAB/9F/126/1: Attraction of new industries to Northern Ireland.
[34] PRONI: COM 63/1/222: Appointment of Advisory Committee: Letter to Advisory Committee from Minster of Commerce, 6th October 1937.

The Advisory Committee consisted of eight members, shown in Table 9. They were drawn from the local business community, with their backgrounds strongly reflecting the staple industries, including linen, engineering, and shipbuilding. The majority of members were from Belfast, chaired by a Stormont Senator from the ruling Unionist Party. Archival evidence demonstrates members were selected for their contacts and networks, rather than their ability to fulfil the role of an independent adjudicator on the merits of an application. 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".[35] 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. Two members were directly linked with two of the main newspapers in Northern Ireland, including one at the personal suggestion of the Prime Minister, suggesting a desire to garner favourable coverage in the press for Stormont's efforts.[36]

Six meetings of the Advisory Committee took place between 1932 and 1937. Possibly due to the small number of applications, the minutes outline their detailed reasoning behind each decision, providing insight unavailable for either the earlier Loans Guarantee Acts, or the later 1937 New Industries Act. The minutes demonstrate the influence of existing business interests over Stormont's industrial policy, and their ability to tailor its operation to match their preferences, providing the opportunity for rent-seeking.

The first meeting saw the Committee consult with the Minister of Commerce on guidelines for accepting applications.[37] 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 was allowed discretion on how to implement these criteria: on

[35] PRONI: COM 63/1/222: Appointment of Advisory Committee, 23rd Feb 1932.
[36] PRONI: COM 63/1/222: Appointment of Advisory Committee.
[37] PRONI: COM/63/1/223 New Industries Advisory Committee: First meeting proceedings, 21st June 1932.

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 given discretion if they viewed an application as possessing potential for growth.

This discretion gave the Committee the opportunity to implement its own preferences, with decisions instead being based on two of its own, unofficial criteria. The first was whether the applicant would compete against existing firms. Superficially intended to ensure applications were for new industries, this saw the Committee reject applications when any potential for competition existed, no matter how indirect. The Committee’s second priority was whether the applicant would be a commercial success, with detailed financial information requested and analysed before a recommendation was given, allowing the Committee to reject applications when desired.

Two rejected applications from within the high productivity paper sector provide evidence of this. At the Committee’s second meeting in 1932, it considered an application by Cartons Ltd, which had started a factory in Larne producing a new product, cardboard milk cartons.[38] Despite this being successfully manufactured in Great Britain, the Committee rejected the application, as it did not think it would be a commercial success. The second rejected application was from the Lurgan Boxmaking Company in 1933. The owner had purchased a factory to produce corrugated cardboard egg containers, and had successfully patented the machinery used to produce the corrugated cardboard.[39] Despite this again being a new product not already manufactured in Northern Ireland, the application was rejected. In both cases, the Committee’s rejection was influenced by Mr Cleland, owner of a firm in the paper and cardboard sector, and representative of existing firms as President of the UIDA.

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

Even where application were eventually approved, the Committee was slow to provide a recommendation until it was proven that no competition with existing firms would take place. For applications from two textile firms, the Committee considered in great detail the potential for competition, and evidence collected included interviews with owners of existing firms producing related products.[40] Applications were only approved once enough evidence had been gathered to finally satisfy members there was no remote possibility of any competition with existing firms. With discretion given to the Committee over how they assessed applications, and particular weight given to the views and objections of existing firms in the same industry, applications could be easily blocked.

This process, and the networks and connections of Committee members, meant self-selection in applicants was likely commonplace. The Loans Guarantee Acts had similarly used an Advisory Committee, and in an internal Ministry of Commerce minute in 1937, the reason given by the owner of a textile firm for not previously applying for support, 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".[41] Stormont's use of Advisory Committees, with well-connected members, reinforced the influence of existing firms, creating a barrier to the growth of new industries.

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

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[40] PRONI: COM/63/1/228: New Industries Advisory Committee: Sixth meeting proceedings, 1st March 1937.
[41] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 4th August 1937 – New Industries Development Act.

While the effectiveness of the Special Areas at reducing overall unemployment was limited (Lee, 1971; Jones, 1985), innovations such as the creation of trading estates are credited with promoting 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,[42] two pieces of legislation were passed as part of the New Industries Acts of 1937, both increasingly generous in their financial support for firms. In July, the first part of new legislation saw financial support extended to grants covering the cost of acquiring or renting a site, and interest free loans 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 total value of interest bearing loans Stormont would cover increased from £200,000, to £750,000, and these could now cover capital costs such as machinery. Firms could now also be exempted from income tax for the first five years of operation, subject to the recommendation of the Advisory Committee. Crucially, Stormont continued to prioritise the level of employment, with eligibility extended to existing firms, who only had to establish an undertaking would be "likely to provide and maintain additional employment", with the criterion of the industry being 'new' to Northern Ireland being scrapped.[43]

The overlapping networks between business and Stormont were responsible for the 1937 Act being even more financially generous than initially planned. This was the direct result of lobbying by two local textile firms, which wanted to avail of both the Loans Guarantee Act, for a guarantee to cover the cost of machinery, and the New Industries Act, for a loan to cover the cost of their factory premises.[44] However, the first 1937 Act contained a clause which

[42] PRONI: FIN/30/AA/97: New Industries Legislation. Memorandum by the Minister of Commerce, 26th February 1937.
[43] New Industries (Development) Act (Northern Ireland), 1937.
[44] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 4th August 1937– New Industries Development Act.

prevented applicants from simultaneously receiving support from both Acts. After discussion within the Ministry of Commerce, the Minister agreed that a second 1937 New Industries Act would remove this clause.[45] This also saw the Minister of Commerce decide to increase the initial loan ceiling from £200,000 to £750,000, and firms only expanding their existing premises would now be eligible.[46]

The 1937 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 these remained well-connected within Northern Ireland business.[47] One member was the accountant to some applicants, vouching for their suitability when their application was being considered.[48] The Committee's minutes unfortunately omit the detail of the 1932 Act, preventing a similar depth of insight into their reasoning. In addition to the Advisory Committee, Stormont created a parallel Ulster Development Council, with members drawn from across the business community.[49] It focused on publicising the 1937 Act, but it also sought to lobby the Ministry of Commerce to make the financial support available more generous, while expressing concern about potential competition between applicants and existing firms.

Using surviving Ministry of Commerce files, Table 10 constructs a database of all the 146 applications made under the 1937 Act, between 1937 and 1945.[50] Comparing the distribution of support under the 1937 Act to the existing structure of manufacturing in Northern Ireland, demonstrates Stormont's industrial policy was ineffective at promoting new, higher productivity industries, and was weighted towards low productivity sectors. Clothing

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[45] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 20th August 1937.
[46] PRONI: FIN/18/17/371: Unemployment Inter-Departmental Committee, 26th November 1937.
[47] See Table A.4 in Appendix.
[48] PRONI: COM/63/1/28-30: New Industries Advisory Committee.
[49] PRONI: COM/20/1/1: Ulster Development Council, Minutes of Council Meetings.
[50] Of the 146 applications made, 42 have incomplete details, due to either their location or industry being unrecorded.

was a low productivity industry, but its share of applications both made and accepted was much higher than its share of employment in 1935. Similarly, for the low 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 both chemicals and paper saw a lower share of applications accepted 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. 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 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.

By October 1943, the 1937 Act had only provided employment for 2,639 persons.[51] The employment relating to firms which received loans totalled only 1,605 persons. Despite this low number, 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.[52] This compares to a cost per job under the Loans Guarantee Acts for shipbuilding of £455.91.[53] While neither cost per job takes into account whether employment may have occurred in the absence of government subsidy, it demonstrates that Stormont's focus on supporting the staple industries, particularly shipbuilding, created an opportunity cost in the creation of employment in other sectors. If Stormont's new industries legislation had been better designed and

[51] PRONI: FIN/18/19/245: New Industries (Development) – Monthly statements of loans authorised and employment returns, 1939-1945.
[52] 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.
[53] 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.

implemented, it suggests there was a missed opportunity to support the initial establishment of new, higher productivity industries which would drive post-war productivity growth.

Table 10: Distribution of support by manufacturing sector, New Industries Act 1937

Manufacturing sector	Existing share of employment 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.

Notes: No single record of all the applications made and accepted under the 1937 Act was kept. To construct the database, minutes of Advisory Committee meetings were used, alongside Ministry of Commerce records.

6. Conclusion

Despite the apparent benefit of being able to tailor industrial policy to its own specific circumstances, Northern Ireland's interwar productivity performance worsened. This paper rejects the existing interwar narrative that poor industrial performance was simply a demand-side story, and that Stormont's industrial policy was irrelevant. Instead, regional institutions –

through overlapping networks between business and politics – were crucial in creating barriers to productivity growth. Northern Ireland's post-war problems of an industrial structure overly concentrated in low productivity industries, a lack of new industries, and ineffective industrial policy, originated in this interwar period. This finding supports the view that institutions play a key role in explaining the persistent underperformance of Northern Ireland economy, and the ineffectiveness of policy in helping the local economy escape its low-wage-investment-productivity equilibrium.

Northern Ireland's interwar experience acts as a warning when considering further devolution as the solution to the UK's current regional inequalities. While advocates of greater fiscal decentralisation assume first generation benefits, it is the presence of the risks outlined by second generation theory which will determine its success. Northern Ireland's interwar experience demonstrates the informational signals received by a subnational government are influenced by the industrial structure and political influence of incumbent firms. Subnational policy is therefore just as likely to amplify poor quality signals. This is a particular problem for a lagging region facing problems of low growth, cheap but low skilled labour, and low levels of investment. For subnational policymakers, this can result in a bias towards reinforcing the existing industrial structure and prioritising short-term employment levels, but at the expense of long-term economic renewal. This supports the institutional geography view, that the economic outcomes of devolution will be influenced by their specific contexts.

7. Appendix

Table A.1: Percentage of population by occupation

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

Source: Constructed from Mitchell, 1988, p.105-107 & p.109
Notes: Excludes defence. Population figures for Great Britain in 1926 were estimated as an average of the values from the 1921 and 1931 population censuses in Great 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 A.2: Total production costs by industrial 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).
Notes: Total production costs total measured as a percentage of gross output, and include wages, transport costs, and cost of raw materials,

Table A.3: 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 A.4: 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.

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