Rethinking Canadian Economic Development: The Political Economy of Canadian Fordism, 1880–1914

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Introduction Starting in the 1880s, intensive development occurred in the organization of capitalist industry in the United States. A new form of Fordist organization of production developed that “spread outwards from the USA and inspired large-scale production everywhere in the twentieth century.” The new form of production involved a range of changes in the organization, scale, and management of industrial production. New state structures also developed to regulate and coordinate the new form of capital. The crucial period of change was between the 1880s and the First World War. As noted by Chandler in relation to the new forms of managerial organization that were integral to Fordist production, “By the time the United States entered World War I, the revolutionary transformation of American industry that had taken off in the 1880s had stabilized.”

Canadian capital also developed its own version of Fordist industry in the same time period. As observed by Acheson, the “period between 1879 and World War I witnessed a revolution in the structure and nature of Canadian industrial entrepreneurship.” Within this period, the key moment of transformation lay between 1900 and 1914. Core sectors of Canadian industry were organized through transnational investments by companies that emerged from the development of Fordist industry in the United States, and Canadian-controlled capital developed forms of business, workplace, and technological organization that borrowed heavily on the new US structures. In this period, particularly in the first decade of the twentieth century,
Canadian industrial firms moved from being small-scale operations run by families or partnerships to the large-scale operations characteristic of Fordist industry. A number of changes occurred in the social background, education, social mobility, and urban location of the Canadian business elite as a result of this transformation. Underpinning the rapid change were various state actions, ranging from the impact the national policy had in creating the expansionary conditions for the growth of large-scale industry, to the actions of Mackenzie King, as Minister of Labour in the first decade of the twentieth century, in developing a bureaucratic apparatus for managing Fordist industrial relations, to the support provided through tariffs and subsidies for the creation of large-scale production.

Within the dominant strands of the Left political economy literature, Fordism's central role in Canadian industrial development in this period has not been recognized. Three key perspectives have emerged that provide one of two conclusions concerning the outcome of Canadian industrialization. Both the approach identified as the New Canadian Political Economy (NCPE), which argues for a commercially defined economy, and the group of approaches that reject this characterization but still accept that Canadian industrial development was limited in various ways, argue that Canadian and American industrialization cannot be seen in parallel terms. Canadian industrialization is differentiated fundamentally by its reliance on staple exports and on imports of capital and technologies from the United States. In contrast to the approaches that stress Canada's limited development, a third perspective argues that the changes in this period represent a form of advanced development that was following the same nationally contained path of development as other advanced economies, including the United States. I argue that none of these conclusions is correct. Contrary to the first view, Canadian development, by building on the new form of capital that emerged in the United States, led to an industrialization process that at its core shared similar structures and indeed was modelled after the American experience. Contrary to the second view, Canadian Fordism was derived from prior changes in the United States and was integrated closely with US-based structures through the organization of key manufacturing
sectors by US transnational capital, the development of managerial practices based on American models of production relations, and the reliance on technological borrowing from the heartland of Fordist development in the United States.

A final set of arguments concerns the location and timing of the development of Fordism. While various advanced economies outside of the United States were marked immediately by the new form of capital through the spread of American transnational investment and attempts at imitation, the initial transnational growth of Fordist capital, as a systematic means of structuring economies, was concentrated in Canada—more specifically in the region of southern Ontario between 1880 and 1914. US-style industries grew in importance, American technologies were integrated into production, and American workplace practices were emulated widely. This early example of the spread of American Fordist structures has not been examined. Attention has focused on the major transfers of American technologies and forms of organization into Europe under “the Marshall Plan, the European Recovery Agency, and its successor the OECC (later OECD),” and the response of European and Japanese domestic capital to American Fordist production structures. A similar focus exists in discussions of “catching-up” and convergence in the post-Second World War period, which do not recognize the earlier example of Canadian industrialization as an instance of the spread of American industrial practices. The Canadian case is also neglected in the work of the French regulation school, which, because of its identification of Fordism with Keynesian welfare state practices and collective bargaining, argues that Fordism as a way of structuring economies existed only after the Second World War. This absence extends to the analysis of Canadian Fordism that follows the approach of the regulationists and places its development only in the period after 1945.

In this paper, I present an alternative view of Canadian economic development that stresses the central role of Fordist practices in the organization of Canadian industry at an early point in the twentieth century. First, I review the dominant approaches within the Canadian political economy literature to understand Canadian economic development before the First
World War and outline how my approach differs from them. I then briefly review the changes that occurred in the United States and discuss how they constituted a new form of Fordist capital. Finally, I examine the development of Fordism in Canada and discuss the political and economic conditions that supported its creation.

**Views of Canadian Economic Development** There are three influential views by Left political economists concerning Canadian economic development in the latter part of the nineteenth and early twentieth centuries. In the first, the NCPE approach argues that the changes in the period confirmed and reinforced a commercially oriented staples economy in which “the Canadian economy never fully made the vital transition from commercialism to industrialism.”\(^{11}\) Indigenous Canadian entrepreneurship in the area of industrial development remained limited, and there was heavy reliance on staple exports and US sources of both capital and technology within the manufacturing sector, leading to an economy that did not reach the kind of mature development in other advanced capitalist economies.\(^{12}\) The role of the Canadian state within this perspective was to support and encourage this commercial orientation, and the impact of the national policy in the latter part of nineteenth and early twentieth centuries was “to increase the benefits from being a staples exporting economy while lining the pockets of the British bond houses that financed the railways and facilitating the entry of American branch plants into Canada.”\(^{13}\)

In a manner similar to the NCPE approach, the second view acknowledges that Canadian industrialization was limited by reliance on staple exports, imported technologies, and weaknesses in indigenous manufacturing development, but argues that this situation did not arise from a separation between commercial and industrial capital or a failure of the Canadian economy to make the transition from commercialism to industrialism. This interpretation gives a variety of reasons for the more limited form of Canadian industrialization in the latter part of the nineteenth and early twentieth centuries: they range from divided agrarian movements to a “high-wage” proletariat, to business and political strategies that gave
primary emphasis to staple exports and supported a narrower form of manufacturing development through import substitution industrialization behind tariff walls. A different view of the state is presented in these narratives as it is seen as mediating between various social forces internal to the Canadian social formation, rather than acting simply as an agent for the elaboration of dependent relations with more dominant economies. But in one way or another, the Canadian state still acts to support a process of industrialization that is quite unlike the one occurring in the United States.

The third view differs from both of the first two approaches and denies the existence of a limited industrialization process in Canada. The period from the 1870s to 1910 is seen as an important moment of internal development of finance capital by indigenous capitalists which, “by the second decade” of the twentieth century, culminated in “an advanced form of capitalist production, circulation and finance.” The centrality of resource production and the existence of weaknesses in domestic technological capacities are recognized, but these are seen as resulting from the decisions of Canadian capitalists, operating within a distinct context of nationally based finance capital, as they “struggled to realize higher than average profits, whether in the home market or in the world market.” A different view of the Canadian state emerges in this perspective. Rather than reinforcing and supporting a context of dependency or limited industrial development, the actions of the state through the national policy provided the basis for an integrated domestic market and the development of more concentrated “monopoly capital,” which in the ensuing decades would engage in transnational expansion “in both financial and industrial forms.”

There are thus quite different views of economic development and the role of the state in the latter part of the nineteenth and early twentieth centuries that are presented within the Left Canadian political economy literature. Despite the differences, however, they all share an important similarity. The role of Canadian Fordism—as a specific version of the new form of capital developed in the United States and transferred in important ways to the Canadian social formation—in underpinning both Canadian economic development and the actions of the state is neglected. As a result,
the impact of various dimensions of the Canadian economy, particularly the role of staple exports and American capital and technologies, and the orientation of the state in supporting these dimensions, is not adequately considered. Rather than being indicators of an economy that was developing along lines different from the American one, or the result of decisions taken within a nationally contained capitalist formation, the growth of staple exports and the increasing reliance on American capital and technologies were integral to the process through which a similar form of Fordist industrialization, premised on relationships with US structures, was established. In supporting this process of development, the Canadian federal state encouraged both commercial and industrial capital, and was engaged simultaneously in responding to internal forces while assisting with the development of various connections external to the Canadian economy.

**US Fordist Structures** Before discussing the role of Fordism in the Canadian economy, it is first necessary to specify the changes that occurred in the United States and provided the first instance of Fordist capital. Central to the transformations of the US economy in the period from the 1880s to the early part of the twentieth century was a new way of organizing industrial production. Production was concentrated in fewer, larger firms as American capital engaged in “the largest and certainly the most significant merger movement in American history” between 1897 and 1903, and new forms of industrial organization developed that inserted in a more extensive way the “visible hand” of managerial direction and control into the setting of prices and the long-term evolution of industrial capital. As part of this assertion of managerial control, the internal organization of production relations was altered as all aspects of production, including workers, were subjected to new efficiency norms through “systematic and scientific management.” While the new production relations were not applied uniformly, and elements of more skilled and labour-intensive processes involving characteristics of batch production continued to exist within US industrial operations, an identifiably new model of production, defined in a major way by the efforts of Frederick Taylor and other mechanical engineers, had emerged in the United States. As noted by Nelson, “the shop floor manage-
ment movement profoundly changed the early twentieth-century manufacturing plant."  

The new strategies were combined with different energy sources, particularly electricity, more intensive use of resources, and a series of technological innovations centred on the US machine tool sector to generate much larger production volumes. The decisive moment in this transformation was the period between 1880 and the first decade of the twentieth century. An interrelated set of changes were introduced in the workplace relations, scale, physical organization, resource intensity, and technological composition of production that "made the typical manufacturing plant of 1900 or 1910 a far different place from what it had been in 1880." It is these new production structures—particularly as they were manifested in Henry Ford's automobile plants—that formed the core of what came to be identified as American Fordism. Even though Ford was not an admirer of Taylor's notions of scientific management, his plants took to new heights the emphasis on continuous flow processes, sequencing of production tasks, and monitoring of worker movements to ensure maximum efficiency. The rapid development of new production structures led to major increases in productivity and lower prices that, in combination with the higher wages arising from the improved position of labour in a high growth, low unemployment economy, supported higher levels of mass consumption. From 1880 to 1914, both real wages and labour productivity increased considerably (75 percent and 83 percent respectively). This provided the basis for classic Fordist growth as higher real wages were paid for out of the productivity gains derived from systematic and scientific management and a revamped organization of production.

Intertwined with this transformation of US production and consumption was a new role for the US state. There was a shift in the role and importance of the executive branch as the area where the administrative capacities to manage the new form of Fordist capital were created, and the demands generated in the progressive movements concerning the need to regulate big business were mediated. The changes made by the Roosevelt presidency in the first decade of the twentieth century were decisive in this regard because they marked the point at which the power of the executive
to make policy and regulate economic structures relative to Congress and the courts was firmly established. Flanagan observes that “By the end of Roosevelt’s second term in 1908, the questions facing future administrations were how much further the presidency would evolve in this direction and how this would be justified.”

The period from 1880 to the first decade of the twentieth century was thus a momentous one in the United States. A new Fordist articulation of production and consumption developed, and there were important shifts in state structures in support of the new form of industrial capitalism. As noted by several writers, this transformation of US capitalism is completely at odds with the characterization of the US political economy provided by the French regulation school. According to the regulationists, it is only after the Second World War when “unprecedented … growth took place by taming and regulating the market” that the Fordist Capital-Labour Relation (FCLR)—involving Taylorist organization of production, sharing of productivity gains through collective agreements, and the creation of the Keynesian welfare state—was established in various advanced capitalist economies. This neglects the Fordist relations that developed in the United States in the period before the First World War, which, despite the absence of extensive collective agreements or a Keynesian welfare state apparatus, involved all of the central features of Fordism including varieties of Taylorism and mechanization supporting mass production, increased wages, and rising mass consumption paid for out of productivity gains, and expanded state interventions into the market as an integral part of the new structures of mass production and consumption.

**Canadian Case** The systematic development of Fordist capital was not restricted only to the United States, but extended to Canada as well. The regulationist emphasis on Fordist expansion after the Second World War also misses this. In this respect, the regulationists share a common tendency with all of the wider literature on the spread of US industrial practices after the Second World War. But Canada represented an important instance of Fordism by the early part of the twentieth century. In a series of changes that
started in the 1880s and culminated in a process of growth concentrated in the first decade of the twentieth century, new forms of Fordist production and consumption were created that followed the US changes closely.

At the heart of the parallel development of Canadian industry was an ability to feed off of industrial development in the United States and create a political economic context that absorbed the new form of Fordist capital in an intensive way. Initial movement in this direction occurred in the last two decades of the nineteenth century as, under the impact of the Patent Act of 1872 and the National Policy tariffs of 1879, a variety of Canadian industries expanded to occupy a greater proportion of the Canadian domestic market using technologies that, to an increasing extent, were patented by US residents. As part of this expansion, a consistent upward trend was established in the size of production establishments. Initial, but slower, growth occurred in the 1880s as establishments with an annual product of $25,000 and over increased from 60.6% of all production in 1881 to 63.6% in 1891. More rapid growth was visible in the 1890s as the proportion of manufacturing establishments in this category increased to 81.9% in 1901.

However, the growth in the size of manufacturing plants in the latter part of the nineteenth century did not represent a full movement towards Fordist production and its associated changes in the shape and form of manufacturing plants. A key indicator of the lack of change in this area was the low proportion of establishments in both the mid-range and higher scales of production relative to the US economy. Table 1 shows that, in 1901, establishments with mid-range scales of output between $200,000 and under $1 million, and higher scales of output of $1 million and over accounted for 19.7% and 14.8%, respectively, of manufacturing production. Table 2 shows that these proportions were much lower than the levels in the United States, which, in 1904, equalled 41.3% for scales between $100,000 and under $1 million of output, and 38.0% for scales of $1 million and over. The broad changes in the organization of manufacturing plants that occurred in the United States between 1880 and the early part of the twentieth century, and altered in a dramatic way the scale/intensity of production, had not yet happened in Canada.
### Table 1. Value of Manufacturing Production by Size—Canadian Production Establishments $200,000 and Over

<table>
<thead>
<tr>
<th>Size of Establishment</th>
<th>1901</th>
<th>1911</th>
</tr>
</thead>
<tbody>
<tr>
<td>200,000 to under 1,000,000</td>
<td>391</td>
<td>94,532</td>
</tr>
<tr>
<td>1,000,000 and over</td>
<td>39</td>
<td>71,052</td>
</tr>
<tr>
<td>1,000,000 to under 5,000,000 (1911)</td>
<td>136</td>
<td>261,081</td>
</tr>
<tr>
<td>5,000,000 and over</td>
<td>14</td>
<td>97,939</td>
</tr>
<tr>
<td>Total</td>
<td>14,650</td>
<td>481,053</td>
</tr>
</tbody>
</table>

Note that in the construction of the table for Canada, I have combined the categories for “200,000 to 500,000” and “500,000 to 1,000,000” into one category for “200,000 to under 1 million.” The US census did not provide any separate category for production establishments between 500,000 and 1 million. In 1911, 13.4% of Canadian production was in this category.

Note that the total values are not the sum of values in the columns because the value of production in the lower ranges is not included.

Source: Government of Canada, Census of Canada Volume III, 1901 and 1911, Tables 37 and 38, pp. lxii–lxiv (1901), and Table XV and p. viii (1911).

### Table 2. Value of Manufacturing Production by Size—US Production Establishments $100,000 and Over

<table>
<thead>
<tr>
<th>Size of Establishment</th>
<th>1904</th>
<th>1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>100,000 to under 1,000,000</td>
<td>22,246</td>
<td>6,109,013</td>
</tr>
<tr>
<td>1,000,000 and over</td>
<td>1,900</td>
<td>5,628,456</td>
</tr>
<tr>
<td>Total</td>
<td>216,180</td>
<td>14,793,903</td>
</tr>
</tbody>
</table>

Note that the total values are not the sum of values in the columns because the value of production in the lower ranges is not included.

Source: US Department of Commerce, Abstract of the Census of Manufactures 1914, Table 192, p. 390.
Canadian Mass Production All of this changed with the intensive development of larger scales of production in the Canadian economy in the first decade of the twentieth century. Table 1 shows that between 1901 and 1911 there was a major shift as the proportion of production in establishments with mid-range scales of output between $200,000 and under $1 million increased from 19.7% to 32.2%, while the proportion of production in establishments with output of $1 million and over, which includes the categories of “$1 million to under $5 million” and “$5 million and over,” increased from 14.8% to 30.8%. The proportion of production in establishments with scales of $1 million and over had the highest rate of expansion—growing by 108.1% between 1901 and 1911. By 1911, establishments with output of $1 million and over existed in 46 different industries compared with 18 in 1901. A key contributor to the expansion in this category were 14 establishments with production scales of $5 million and over, which on their own accounted for 8.4% of all manufacturing production. The establishments ranged across several sectors of mass production and included: smelting, iron and steel, flour and grist mill products, slaughtering and meatpacking, cigars and cigarettes, and sugar. These new establishments were created as part of a general shift in the structure of manufacturing as the industries at the centre of the new forms of Fordist production—transportation equipment, electrical appliances, iron and steel, nonferrous metals, and rubber—increased their share of manufacturing output.

The patterns generated between 1901 and 1911 represented the beginning of a long-term process in which Canadian manufacturing capital moved consistently to higher scales of production until the onset of depression in 1929. Larger and larger proportions of manufacturing output were accounted for by establishments with $1 million and over of production. Central to the growth in this category was the expansion of establishments with production scales of $5 million and over. By 1922, the proportions of these two scales of production amounted to 51.1% and 23.2% of all production, while in 1929 they equalled 61.9% and 31.9% respectively. At the end of the process, a clear majority of manufacturing production was located in establishments with $1 million and over in output, with the greatest growth occurring in establishments with production scales of $5 million and over.
The proportion of these latter establishments in manufacturing production increased dramatically—by close to four times in the period from 1911 to 1929. In the same period, the proportion of mid-range scales of production of $200,000 to under $1 million declined moving to 27.9% in 1922 and 23.3% in 1929.

The changes in the period from 1901 to 1911 altered not only the size of establishments, but led to a centralization of large-scale production in Ontario. In 1911, Ontario had the largest concentration of production in this category accounting for 51.3% of all establishments with $1 million and over in output, while lesser proportions existed in Quebec (30.6%), Manitoba (6.7%), and Nova Scotia (5.3%). Within the province of Ontario, a further concentration was in the Golden Horseshoe area of southern Ontario, which accounted for 43.4% of Ontario manufacturing in 1911. The moment of transformation in the first decade of the twentieth century thus represented a period when the regional parameters of Fordism in Canada were first established and southern Ontario’s status as the centre of mass production was confirmed. The regional patterns established in this period continued to mark Canadian manufacturing. In 1929, 51.1% of production in establishments with $1 million and over in output was located in Ontario, while 31.4% was located in Quebec.

**Shifting Relative Position** Canadian industry’s movement to mass production led to a process of catching-up and convergence as the difference between the Canadian and American economies in the higher ranges of mass production was substantially reduced, and similar proportions of mid-range scales of production were established. As shown in Table 2, the proportion of US production accounted for by establishments with production scales of $1 million and over equalled 38.0% in 1904 and 48.6% in 1914. After 1914, the proportion moved to 67.8% in 1920 and reached a level of 69.2% on the eve of the Great Depression in 1929. Over time, the difference in the two economies in this range of production narrowed from 23.2% in 1901/1904, to 17.8% in 1911/1914, to 16.7% in 1920/1922, and to 7.3% in 1929. Unfortunately, the US census did not separate out figures for production in establishments with $5 million and over before 1929.
However, a comparison for 1929 is possible and it shows that the Canadian proportion was over three-quarters of the US level of 40.9%. At the same time, in the United States, the proportion of mid-range production in the category of $100,000 to under $1 million fell from 36.1% in 1914 to 24.5% in 1929, leading to a level that was slightly higher than the Canadian proportion in 1929 for scales of production in a narrower range between $200,000 and under $1 million.

Similar patterns can be seen for the distribution of employment. The Canadian employment share for establishments at the level of production of $1 million and over amounted to 18.1% in 1911. This represented a little more than two-fifths of the US level in 1914 of 42.7%. In the 1920s, the reporting of figures changed in the Canadian census and ranges of employees per establishment in the manufacturing sector were provided as an indicator of the distribution of production scales. The US census provided similar figures. Comparing the proportions of employees in establishments with 501 workers and more—the highest level recorded in the Canadian census—in the two economies yields further evidence of catching-up. In Canada, the proportion of employees in establishments with this range of workers equalled 19.9% in 1922 and 27.3% in 1929. In the United States, the proportion equalled 39.6% in 1920 and 37.8% in 1929. Throughout the 1920s, the proportion in Canada increased while the proportion in the United States decreased, leading to a substantial narrowing of the difference between the two economies, from 19.7% in 1920/1922 to 10.5% in 1929. While not strictly comparable in terms of measurements, it is reasonable to conclude, given the trends in other areas and the changes in the 1920s, that this also represented a major reduction from 1911/1914.

Alongside this process of concentration in higher scales of production were growing relative sizes of per capita income compared to not only the United States, but other advanced economies in Europe and the staple-producing economies in Australia and New Zealand—with the period 1896 to 1913 representing the key moment in terms of launching this pattern of relative change. Altman observes that:

It was especially during 1896–1913 that Canada was able to either
significantly catch-up with other countries or pass them by. By 1929, only the United States remained ahead of Canada in terms of per capita GDP, and this by 31 per cent as compared to 70 per cent in 1896.46

This period was also one in which, in contrast to earlier decades, the growth rate of per capita income substantially exceeded that in the United States.47 A process of catching-up occurred not only in terms of per capita GDP, but productivity as well. In 1913, the level of productivity in the Canadian economy was 87 percent of the US level—surpassing the level of 84 percent in Britain, which had been the economic and technological leader earlier in the nineteenth century.48 This reflected rates of productivity growth in the period 1891 to 1911 that were substantially higher than in the period 1871 to 1891, particularly after 1900 “when Canada’s real labour productivity growth took off.”49

At the centre of this burst in per capita GDP and productivity was a transformation of the manufacturing sector. Departing from the views of Bertram and other economists who have argued that there was no significant shift in manufacturing growth between the 1870s and 1880s, on the one hand, and the early twentieth century, on the other, Altman notes that there was “a radical break with the past” between 1900 and 1910 in real levels of gross manufacturing output, manufacturing value added, and manufacturing output per employee.50 Urquhart reached a similar conclusion in terms of the importance of the changes after 1900. He observes on the basis of his research and the work of six other economists that the “Canadian economy developed in a fundamentally different way after 1900 than it had before…. Of particular significance, the level of investment in manufacturing became permanently much higher than it had been.”51

The early twentieth century thus set in motion an important process of change in the Canadian economy—a process of change that occurred alongside the movement by Canadian industry to the forms of mass production characteristic of Fordism. This association was not coincidental. As I discuss in the next sections of the paper, in the period from 1900 to 1914 Canadian industry intensively followed the new frameworks of factory organization that were established in the United States with the development of Fordist
mass production, thereby reproducing the same dynamic of rising output and productivity. The movement by Canadian industry in this direction was supported by a number of economic conditions and forms of state intervention that were central to the introduction of the new production practices in the Canadian social formation, and underpinned the expansion in output and labour productivity in the manufacturing sector.

**Canadian Taylorism** A key part of the transference of American industrial practices to Canada was the application of Taylorist managerial strategies—a process that has been detailed by the labour historians, but not connected to an explanation of Canadian economic development through Fordist industrialization. In their discussion of restructuring in the Canadian steel industry, Heron and Storey observe that a “characteristic mania for ‘efficiency’…swept through industrial Canada in the early twentieth century: meticulous calculation and minimizing of costs, careful planning and scheduling in the front office, centralized job redesign, and so on.” The application of these new methods was concentrated to the greatest extent in southern Ontario, where the largest proportion of Fordist mass production was located and, following the same pattern as in the United States where the “new methods of industrial management undermined the very foundation of craftsmen’s functional autonomy,” led to struggle with craft workers over various dimensions of the work process.

There was “a marked upswing in industrial conflict” in this centre of production between 1901 and 1914 as employers— informed by extensive coverage of American methods in trade journals such as Industrial Canada and reflecting the increasing numbers of American-trained managers in Canadian industry through branch plant operations and the hiring of Americans by Canadian-controlled firms—moved in an intensive way to apply the new managerial approaches. As was the case in the United States, the specific application of the new methods often departed from strict adherence to Taylorist principles and varied considerably from one industry to another. Again following the US pattern, it was not until the 1920s that the establishment of “highly stratified” workplaces involving a “blending of the principles of scientific management with the practices of personnel...
management and paternalistic welfare programs” was fully realized. But the same emphasis on what Nelson calls “the shop floor management movement” was apparent in Canadian industry.

A central element, then, in the process of catching-up and convergence experienced in Canada was the ability of Canadian capitalists in southern Ontario and other locations of large-scale capital to engage in a similar process of Fordist restructuring of the labour process. In assisting with the movement to these new forms of work organization, the federal state played a key role. Even though the Conciliation Act, passed in 1900, was not intended initially as a means of dealing with disputes in the manufacturing sector, under the leadership of Mackenzie King state interventions into labour struggles under the Act occurred consistently in that area. One half of the 42 interventions by the federal state in the period 1900 to 1907 were in manufacturing, with smaller proportions in transportation (23.8%), mining (16.6%), and construction (9.5%). The federal state’s role in mediating capital-labour relations in a direction that would undercut labour opposition was given greater formal shape, once again under the direction of King, with the passage of the Industrial Disputes Investigation Act in 1907, which provided the basis for a uniquely Canadian labour relations framework. The creation of this framework came directly out of a concern with promoting the new forms of work organization. As noted by Craven, King was an admirer of the new methods of large-scale production, seeing them as reflecting the “organizing genius” of the industrial managers. He believed that they formed part of a general movement in the direction of greater peace and prosperity in which social harmony could prevail if a “responsible partnership” between Capital and Labour was established, paving the way to the more advanced, and less exploitive, stage of production represented by the large-scale factory system.

King’s admiration for the new methods of production extended to the corporate mergers that accompanied the reorganization of industry. Through mergers and consolidations in the period between 1900 and 1912, and new interlocks between financial and industrial capital, Canadian capital engaged in a process of corporate concentration that paralleled the experience in the United States, particularly between 1909 and 1912 “when credit was cheap
and when Canadian financiers had observed their American mentors and had learned from them.”58 King, who in this period was also overseeing anticombines legislation, felt strongly that corporate concentration in most cases increased economic efficiency and, similar to the approach followed by Roosevelt in the United States, did not move against concentrated capital in a significant way. He refused to follow opposition demands to act against the “roster of giant Canadian corporations—Amalgamated Asbestos, National Breweries, Canada Cement, Carriage Factories Ltd., etc.—suspiciously similar to American trusts.”59 The federal state’s alignment with the interests of Fordist capital also included tariffs and state subsidies to key domestic industries, such as iron and steel and textiles, in the period 1896 to 1913 that were central in allowing these industries to achieve larger scales of production.60

All of the Canadian state’s actions in support of Fordist mass production created another important parallel between Canadian and US practices. In both countries, there was growth of executive state structures to support the expansion of Fordist capital and a legitimization of the growing power of the executive by stressing the contribution of large-scale industry to social progress, although with important differences in the context of expansion of executive powers. There was no parallel in Canada to the American shift of “regulatory functions from the hands of the ‘unpredictable’ state legislatures to the safety of Washington,” or the increase in the relative strength of the central state relative to other levels of government.61 Particularly in Ontario, which took on new responsibilities for managing first the publicly owned electrical transmission system and then publicly owned generating stations, the role of the provincial state expanded along with the increasing importance of the federal state.62 Executive dominance in the Canadian parliamentary system, related to party discipline in the legislature and parliamentary supremacy, also meant that there was not the same struggle to establish the regulatory and policymaking capability of the executive in the face of opposition from the legislature and the courts, as occurred in the United States with the Roosevelt presidency and subsequent administrations.

The social opposition that informed the development of new state structures also differed in the two countries. At issue in the rise of American
progressivism were conflicting notions of democratic citizenship and the demands of various reform movements for a new democracy less defined by “the corrupt bargain” between big business and government. The actions of the Canadian federal state did not develop in a similar context of debate over the nature of democracy, but instead came out of an agenda developed internally within the state as a means of managing the tensions arising from the introduction of the new production structures, and of supporting, through tariffs and other forms of assistance, the development of Canadian large-scale production in the face of the more advanced US Fordist structures. There was no counterpart in Canada to the broad-based US movements putting forward a different conception of democracy, particularly in relation to the position of women and racialized groups, despite the impact Canadian mass production had in reinforcing gender-based inequalities and worker divisions arising from different ethnicities and countries of origin.

Further Dimensions of Fordism  As discussed earlier, the complex of American factory production in the latter part of the nineteenth and early twentieth centuries was distinguished not only by the interrelated dimensions of scale and managerial control, but also new forms of technological organization. As the Canadian economy made the transition to mass production in the early twentieth century, the extent of reliance on American technological practices intensified, and the impact of the Patent Act of 1872 in encouraging the importation of US technologies was magnified. In the crucial area of development of large-scale production in southern Ontario, there were decreasing rates of inventive activity “in the major centres of Toronto, Hamilton and London, and in border locations such as Windsor” and increasing rates of patent applications by US residents. Lee observes that the “rate of activity of United States patentees, measured by their patents per 10,000 Canadian population, increased from 2.5 patents per 10,000 in 1881 to 6.8 per 10,000 in 1911.” This was combined with high levels of reliance on imports of machinery from the US machine tool sector that formed the core of the technological organization of US Fordism. The share of imports from these American factories increased from 80% to 85% of machine tools between
1885 and 1900, to 85% to 95% between 1901 and 1914.\textsuperscript{68}

Canadian industry followed American Fordist practices not only in the dimensions of scale, managerial control, and technological organization, but also in the resource intensity of production. Central to the ability of industry in southern Ontario to develop rapidly in the first decade of the twentieth century was the widespread availability of resources for metals production and for energy. Industry in that region drew on coal supplies from Pennsylvania and Ohio as a core source of energy. In addition, “hydro was available over most of southern Ontario at reasonable rates by about 1910”—a development that was related in no small part to the provincial state’s move to support manufacturers through creating a publicly owned transmission system supplying electricity to local, municipally owned utilities.\textsuperscript{69} This was combined with access to various sources of minerals, such as iron ore, nickel, and copper, as the mining industry in Ontario grew “from virtually nothing circa 1890 to major importance in the twentieth century.”\textsuperscript{70} The foundation established by the end of the first decade of the twentieth century then was extended further by 1914 as existing industries reached new levels of production. An example of this process is the development of Stelco in Hamilton, Ontario. By 1913, major new production operations for steel were established using iron ore from the Lake Superior region, coal from Pennsylvania, and electricity from the new hydro sources.\textsuperscript{71}

**The Wheat Boom and Fordism** A final important condition supporting the development of Fordism was the growth of wheat production in the western region of Canada. Starting at the end of the nineteenth century and gathering momentum from 1900 to 1913, the growth of wheat exports sparked a boom in the Canadian domestic market. In the period of intensive growth from 1896 to 1913, “wheat exports grew by 15 per cent per year” and per capita GDP increased “by almost 5 per cent per year.”\textsuperscript{72} Investment spending increased in the Canadian economy to finance not only expanded production of the wheat staple in the western region, but also construction and railway building that were undertaken in anticipation of the growth of wheat exports and new western settlement—leading to what Urquhart terms “a classic investment boom, a major part of it related
directly or indirectly to the settlement of the west.” All of this growth was reinforced by the new investments undertaken to establish Fordist production structures, with the result that the share of investment in GNP increased from 11.5% in 1896 to a peak of 34.1% in 1912. Not only investment spending rose, but labour income did as well. In the key area of large-scale production in Ontario, labour income per employee in constant dollars increased from $385 to $528 between 1890 and 1910—an increase of 37.1%. A substantial increase also occurred in Quebec: labour income per employee grew by 50.6% from $320 to $482 in the same period.

Along with increases in employment in the expanding industries of mass production, the increase in labour income provided the basis for the same Fordist dynamic that developed in the United States. Rising wages were paid for out of the productivity gains derived from the application of varieties of Taylorism, and the expanded demand from these wages supported new forms of mass consumption and distribution, signified by the massive retail complex established by Eaton’s in Toronto at the beginning of World War One. Again paralleling the United States’ experience, the growth of advertising campaigns by the large stores encouraged a new consumerist culture that formed another part of the “dramatic transformation in … consumption, production and distribution in the late nineteenth and early twentieth centuries.” Within this transformation, the Fordist interaction in the US economy (in which higher volume production led to lower prices and rising consumption) was repeated in the Canadian economy. In the quintessential Fordist industry (automobiles), the price of a Model T Ford in Canada fell from $1,150 in 1909 to $650 in 1914 after the assembly line, first established in the United States in 1913, was introduced. It declined again to $450 by the end of the First World War as production volumes continued to increase.

Not only did the boom in the Canadian domestic market make it particularly suitable for the new Fordist production structures and the much higher volumes of output that they involved, it also made the Canadian economy an attractive location for the new forms of American transnational capital that were coming out of the Fordist arrangements that had developed in the United States. There was a surge of American direct investment in
the Canadian manufacturing sector in the period 1900 to 1914, which was driven by substantial markets.\textsuperscript{79} As noted by Wilkins, the key reason for this investment was the “expanding population and prosperity” of Canada.\textsuperscript{80} By 1914, the largest amount of American direct investment was located in Canada. Of that amount, the “largest single sector of US direct investment was in manufacturing.”\textsuperscript{81}

Because the connection between Fordism and Canadian economic development has not been examined, the link between Fordism, the wheat boom, and American foreign direct investment (FDI) has not been recognized either. Attention has focused on the National Policy tariffs of 1879 as a key source of the growth of American transnational investment, but it was not until the development of new Fordist structures in the United States and the surge in growth of the Canadian domestic market after 1900—along with all of the other supportive conditions for Fordist change—that substantial amounts of American FDI began to flow into Canada.\textsuperscript{82} As these flows increased, key sectors of mass production, such as automobiles and electrical products, were organized by American transnational capital. In its reliance on transnational flows of FDI at an early point in the twentieth century, Canadian Fordism provided an early example of the movement of American capital that occurred later with the expansion of Fordism to Europe in the post-Second World War period; another point that has been missed because of the failure to see Canadian development in this period as part of a wider spread of US Fordist practices.

A similar limited perspective arises concerning the role of the Canadian state in supporting economic development. Discussion has focused on how the federal state, through the various dimensions of the national policy (e.g., the National Policy tariffs, settlement of the west, the Pacific railway, and the Confederation arrangements), supported the creation of east-west economic ties and a new regional distribution of industry in which the Canadian West was established as a hinterland region for central Canadian capital, particularly with the growth generated by the wheat boom in the first decade of the twentieth century.\textsuperscript{83} This framework emphasizes economic ties with Britain, through exports of the wheat staple to British markets and the use of British portfolio capital in the development of the railways. But
economic development in this period involved much more than the internal growth of a domestic market on the basis of an expansion of wheat exports transported on railways financed by British capital. It also involved the establishment of Canada as a regional centre within the international diffusion of Fordist arrangements from the core area of development in the United States. The federal state was a key actor in supporting this change, either directly through actions such as state-mediated labour relations or indirectly through the impact of the national policy in supporting the intensive period of growth represented by the wheat boom. Because the connection between Canadian economic development and US Fordism has not been considered, this dimension of the state’s actions has also been missed.

**Conclusion** In the period from the 1880s to 1914, the Canadian political economy was transformed in a Fordist direction as Canadian industry followed explicitly the new forms of corporate and industrial organization that were developing intensively south of the border. In their detailed comparison of Canadian and American industry from the turn of the twentieth century to the early part of the 1930s, Marshall, Southard and Taylor noted that:

> The organization of industry is very similar in the two countries, possessing very largely the same virtues and the same vices—vigorous expansion, restless mobility, giant corporations, coast-to-coast organizations, colossal advertising, high pressure salesmanship, chain stores, concentration of financial control. 84

This parallel development of Canadian and American industry has not been sufficiently theorized in the existing Left political economy approaches to understanding Canadian economic development. Explanations have either argued for a process of limited industrial development quite unlike the American one, or have located Canadian development within an autonomous national formation. Both of these perspectives neglect the integrated process involving both manufacturing capital and the Canadian state through which a similar form of Fordist industrialization, deeply connected to US Fordist capital, was established in Canada.

The Canadian version of Fordism was not the same as the American one.
Fordism in Canada depended on external connections to a greater extent than the more nationally contained American social formation. In addition, Canadian Fordism did not have an outward orientation in terms of manufacturing exports because they were not necessary for the establishment and expansion of Fordist mass production in the context of the vigorous growth associated with the wheat boom, and, as is noted by Williams, the licensing agreements entered into by Canadian manufacturers with US firms often did not allow exports to occur. These differences, however, did not change the fact that within the Canadian domestic economy a similar Fordist accumulation process, heavily reliant on wheat production, was established in the early twentieth century. It provided an ongoing framework for economic growth until the disruptions of the Great Depression halted the expansion of production and income. As noted by Urquhart, “growth of GNP in Canada exceeded that in the United States from 1900 to 1910 and again from 1920 to 1926.” In both of these periods, which cover key moments of expansion in mass production, wheat provided a major stimulus through “the enormous induced investment of the 1900–1915 years and then in the 1920s with the export flow of wheat.” By providing an ongoing source of economic growth, staple exports were built into the fabric of Canadian Fordism and were an integral part of the development of advanced production structures—a point that has been missed in the tendency to use staple exports as an indicator of Canada’s limited economic development.

The new framework of accumulation that was constructed after 1900 altered not only Canada’s position in relation to the US economy, but all of the other advanced economies outside the United States. Among these latter economies, the Canadian economy stood alone in its commitment to Fordism in the early twentieth century. In the case of Germany, there was little development of Fordist capital in mass production industries. In his comparison of German and American firms in the first decade of the twentieth century, Kocka observes that “Most of the large United States firms—but not those in Germany—produced goods for the mass or high-volume market.” A similar restricted development of mass production is evident in British industry, which did not move in a Fordist direction.
even in technologies and areas of production that were pioneered in Britain.  

The experiences in the two largest European economies outside the United States were repeated elsewhere, including the “late-follower” economies in Japan and Sweden that some writers argue provided a more robust example of industrialization compared to Canada. In Sweden, the key areas of large-scale advanced production in the export-oriented engineering products industries—associated with the development of Swedish transnational firms such as SKF, AB Separator, and Ericsson—stood out from other industries in their mass production orientation. They also expanded on the basis of exports, particularly to Russia after 1905, rather than through linkages to the Swedish domestic market, which remained very limited in size. In Japan, by the mid-1910s, industrial production in a narrow group of “steel, machinery, chemical, and other heavy industries” was established. But the kind of wide-ranging development across various industries, particularly consumer goods industries, in the rapid growth of Fordist industries in Canada after 1900 was not present in either country. It was Canada’s unique position that explained its rapid movement up the hierarchy of advanced economies in the period before 1914 and its continued high relative standing afterward—a source of differentiation that was eroded only with the intensive adoption of Fordist methods by other advanced economies after the Second World War.

Notes


12. As claimed by Watkins in his classic formulation of the staples thesis, the “notion of a discontinuity in Canadian economic development in the early twentieth century, though superficially attractive, is difficult to maintain…. The manufacturing sector appears to have been filling in slowly over a long period of time, without passing through any critical stage of economic maturity…. The basic determinants of Canadian growth are the volume and character of her staple exports and the ability to borrow, adapt, and marginally supplement foreign technology.” Mel Watkins, “A Staple Theory of Economic Growth,” in G. Laxer, (ed.), Perspectives on Canadian Economic Development (Toronto: Oxford University Press, 1991), pp. 95–96.


14. Laxer emphasizes the consequences of weaker and more divided agrarian movements in leading to lower development of indigenous banks that would finance industrial companies, in contributing to delayed settlement of the prairies, and in supporting excessive and misplaced investments in railways. All of these led to greater imports of capital and manufactured products, particularly from the United States. Gordon Laxer, Open for Business: The Roots of Foreign Ownership in Canada (Toronto: Oxford University Press, 1989), pp. 197–198. Panitch emphasizes the effect of a "high-wage proletariat" in limiting the ability of indigenous capital to use higher rates of absolute exploitation of the working class to compete with stronger and more established American manufacturing capital, leading to greater involvement of American capital in the Canadian economy and a marginal form of "dependent industrialization" closer to the development in "countries on the periphery of Europe such as Spain or Greece, or certain countries in Latin America such as Brazil or Argentina." Leo Panitch, "Dependency and Class in Canadian Political Economy," in G. Laxer, Perspectives, pp. 281, 285. Finally, Williams argues that the source of dependent industrialization was the strategies followed by political and economic elites in an economy that was oriented primarily towards staple exports to Britain. A limited manufacturing economy with technological dependency and low manufacturing exports was acceptable when the primary source of exports and of economic growth more generally lay elsewhere. Glen Williams, Not for Export: The International Competitiveness of Canadian Manufacturing (Toronto: McClelland and Stewart, 1994), pp. 49–50.

15. William Carroll, Corporate Power and Canadian Capitalism (Vancouver: University of British Columbia Press, 1986), p. 52. There are differences within this literature concerning when a more autonomous indigenous business class was created. Carroll argues that, by the second decade of the twentieth century, “an advanced form of capitalist production, circulation, and
finance was in place in Canada. At the apex of this bloc of finance capital was a small elite of Canadian capitalists..." Carroll, Corporate Power, pp. 52–53. Philip Resnick, on the other hand, emphasizes changes that began to occur only in the 1970s. Philip Resnick, The Masks of Proteus: Canadian Reflections on the State (Montreal: McGill-Queen's University Press, 1990), pp. 179–204; and Philip Resnick, "The Maturing of Canadian Capitalism," Our Generation 15/3 (1982), pp. 12–13. But this analysis, while placing the development of mature capitalism in a later period, still claims that Canada shared, in the initial period of industrialization, substantial similarities with core economies in terms of the relative size of the manufacturing sector and the growth rates of GNP and per capita income in a manner that distinguishes it from the other approaches. Resnick, The Masks of Proteus, pp. 183–184.

25. Of all of the American factories, the Ford factories received the greatest attention. These plants were recognized internationally as the epitome of Fordism and mass production. Tolliday and Zeitlin, “Between Fordism and Flexibility,” p. 232. On the production structures established in the Ford plants at Highland Park between 1910 and 1914, see Fred Colvin, “Building an Automobile Every 40 Seconds,” in Tolliday, Rise and Fall of Mass Production, pp. 33–42.

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27. While the relationship between industrial production and structures of mass consumption was established earlier in the US economy between 1840 and 1860, when iron and machinery production was organized “to meet the demand of the agricultural sector, as well as the mechanized consumer-goods sector, for tools,” this relationship moved to a new level by the early twentieth century as the number of sectors that were characterized by mass production and consumption increased, and the Taylorist/Fordist dynamic became established in American industry. Brenner and Glick, “The Regulation Approach,” p. 73. See also Charles Post, “The American Road to Capitalism,” *New Left Review* 133 (1982), pp. 48–49.

28. The rise of new administrative responsibilities in the US state was particularly intensive in the first decade and a half of the twentieth century, when a range of new administrative functions were developed, such as the Federal Reserve Board (regulating the money supply) and the Federal Trade Commission (regulating monopoly pricing). Under Roosevelt a new administrative department, the Department of Commerce and Labor, was created “to oversee the practices of corporations engaged in interstate commerce.” The Department of Agriculture was given new powers “to inspect and set standards in meat packing” (Flanagan, *America Reformed*, p. 104). Existing administrative organs, such as the Interstate Commerce Commission, also began to be rejuvenated. Concerning the rising administrative capacities of the American state as they gradually took shape through to the 1920s, see Skowronek, *Building a New American State*, pp. 248–284.


32. There is an assumption in the work of the regulation school that collective bargaining and nonmarket supports, such as those of the Keynesian welfare state, are essential for tying wage increases to productivity gains and supporting the development of mass consumption. But this is not the case, as wages can rise in concert with productivity in an environment of high growth and tight labour markets, creating the same effect. The state can also play an important role in regulating and supporting the institutions of mass production and consumption without taking on Keynesian or welfare state functions.

33. Williams, *Not for Export*, p. 34.


35. Government of Canada, *Census of Canada 1911* Volume III, Table XV, p. 384. The US census did not disaggregate production figures for establishments with more than $1 million in annual output and therefore the proportion of establishments with $5 million or more in the two economies cannot be compared in this period.


44. Dominion Bureau of Statistics, The Canada Year Book 1924 (Ottawa: King’s Printer, 1925), Table 9, p. 396; Dominion Bureau of Statistics, Canada Year Book 1932, Table 28, p. 364.

45. US Bureau of Commerce, Manufactures 1919, Table 20, p. 90; US Bureau of Commerce, Manufactures 1929, Table 5, pp. 72–73.


62. Concerning the development of the public power movement, see Nelles, Politics of Development, pp. 256–306. The same expansion of executive power also occurred in Ontario as leaders of the Ontario government made their decisions, without legislative scrutiny, to promote large-scale industry in mining, forests, and hydroelectric power. Nelles, Politics of Development, pp. 382–426.


64. Phillips notes that US “monopoly capital” was more advanced than Canadian capital, and that the tariffs were essential in supporting stable markets for large-scale industry “given Canada’s proximity to United States sources of competing supply.” Paul Phillips, “Staples, Surplus and Exchange: The Commercial-Industrial Question in the National Policy Period,” in D. Cameron, (ed.), Explorations in Canadian Economic History (Ottawa: University of Ottawa Press, 1985), p. 35. The tariffs played an important role in allowing Canadian capital to sustain its prolonged process of development in the first three decades of the twentieth century in the face of the highly developed US production structures south of the border—a reality that was recognized by Canadian capitalists, particularly in the first decade of the twentieth century, as they became increasingly unified in supporting tariff structures after the early 1900s. Michael Bliss, A Living Profit: Studies in the Social History of Canadian Business, 1883–1911 (Toronto: McClelland and Stewart, 1974), p. 96.

65. Mercedes Steedman, “Skill and Gender in the Canadian Clothing Industry, 1890–1940,” in Heron and Storey, On the Job, pp. 156–168; Heron and Storey, “Work and Struggle in the Canadian Steel Industry,” in Heron and Storey, On the Job, pp. 220–225. See also Yasmeen Abu-Laban and Christina Gabriel, Selling Diversity: Immigration, Multiculturalism, Employment Equity, and Globalization (Peterborough, ON: Broadview Press, 2002), p. 38. As the development of large-scale organizations continued, the demand for labour in clerical work, trade, and finance also increased, and women, who were slotted into particular positions as typists and stenographers and paid lower wages than their male counterparts, provided an increasingly large proportion of paid employment in these areas. Marjorie Cohen, Women’s Work, Markets, and Economic Development in Nineteenth Century Ontario (Toronto: University of Toronto Press, 1988), pp. 148–151.


68. Williams, Not for Export, p. 36.


76. David Monod, Store Wars: Shopkeepers and the Culture of Mass Marketing, 1890–1939 (Toronto: University of Toronto Press, 1996), p. 120.

77. Monod, Store Wars, p. 146.


79. On the growing number of American branch plants after 1900, see Herbert Marshall, Frank Southard, and Kenneth Taylor, Canadian-American Industry: A Study in International Investment
Concerning the connection between Canadian markets and American FDI, see Panitch, “Dependency and Class,” pp. 280–281.

81. Ibid., p. 144 and Table V.2, p. 110.
82. In relation to Naylor’s argument that the 1879 National Policy tariffs were intended to attract American branch plants, Phillips observes that the “development of the transnational corporation was a byproduct of the rise of monopoly capitalism in the US, which really postdated the National Policy by a decade or so.” Paul Phillips, “Introduction to the Carleton Library Edition,” in Naylor, History of Canadian Business, p. xxxiii.
85. Williams, Not for Export, p. 35.
87. Ibid., p. 41.
90. For Laxer, the period between 1899 and 1913 is actually a period of “regression in development” in Canada when compared with the “spectacular breakthrough” in manufactured exports in Sweden and the growth in manufactured exports in other countries such as Japan and Italy. Laxer, Perspectives, p. 49. A similar assessment is made by Williams, who argues that both Sweden and Japan were able to generate more substantial forms of industrial development through export-led strategies. Williams, Not for Export, pp. 47–49.