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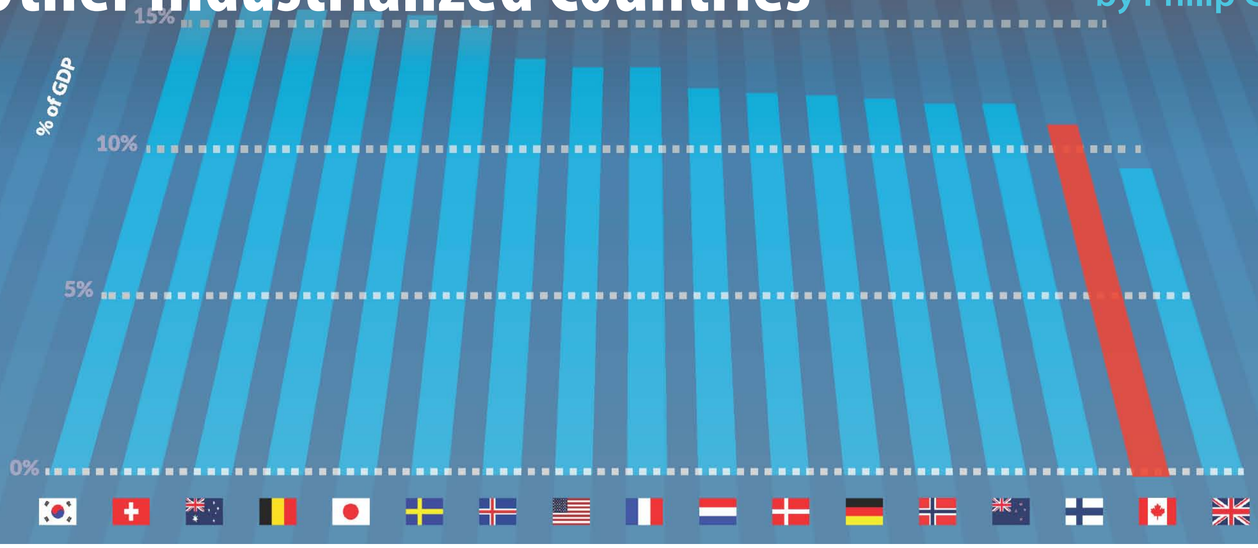
Business Investment in Canada Falls Far Behind Other Industrialized Countries

by Philip Cross



Summary

- This bulletin provides an overview of business investment in Canada: why investment is important, its recent performance, and how it compares with other industrialized countries.

- Business investment is central to long-term economic growth and rising living standards. Investment is also an important determinant of the structure of industry growth in future years, since it provides the capital for firms to grow. Investment embodies new technological developments and innovations, committing firms to expand in a specific direction while providing the tools for employees to work more productively.

- There is a tendency to assume that the weakness in business investment in Canada is simply part of slow growth throughout the OECD following the financial crisis that began in 2008. However, despite strength in the energy sector before 2015, business investment in Canada has lagged behind that in almost all other advanced market economies for which there is comparable data.

- Indeed, business investment in Canada has been relatively low compared to other countries at least since 2000. It improved somewhat between 2009 and 2014 when strength in our energy sector boosted our relative performance. However, the underlying weakness of investment in Canada became apparent again after oil prices slumped, ending the boom in energy investment.

- The persistent weakness of business investment in Canada has been aggravated by several recent government policies including increased tax rates on capital and mounting budget deficits and debt, both of which add to the uncertainty that entrepreneurs and investors feel about the future.

Introduction

One of the most common narratives about Canada's economy centres on hefty investments over the past decade in its energy sector, notably the oil sands. This narrative gives the impression that business investment, while disproportionately concentrated in one sector, has been a driving force in Canada's economic growth. While it is true that energy investment had risen, this narrow focus obscures the fact that business investment as a share of Canada's GDP continues to be at a rate that is among the lowest in the Organisation for Economic Cooperation and Development (OECD). Even during the period of rapidly increasing energy investment before the drop in commodity prices, Canada trailed other OECD countries on measures of business investment. After years of decline, the Bank of Canada foresees little rebound in business investment, which it forecasts to rise by less than 1 percent in 2018 and 2019 (Bank of Canada, 2017: 8). If weak business investment persists, it will be a major contributor to slow growth in Canada in the future.

This bulletin gives an overview of business investment in Canada: why investment is important, its recent performance, and how it compares with other OECD countries. It reviews the broad trends since 2000, focusing particularly on the post-2014 period when the energy sector no longer compensated for the persistent weakness in other industries. It also briefly discusses factors weighing on business investment in Canada, including recent government policies that have made the investment climate less hospitable.

The role of investment in the economy

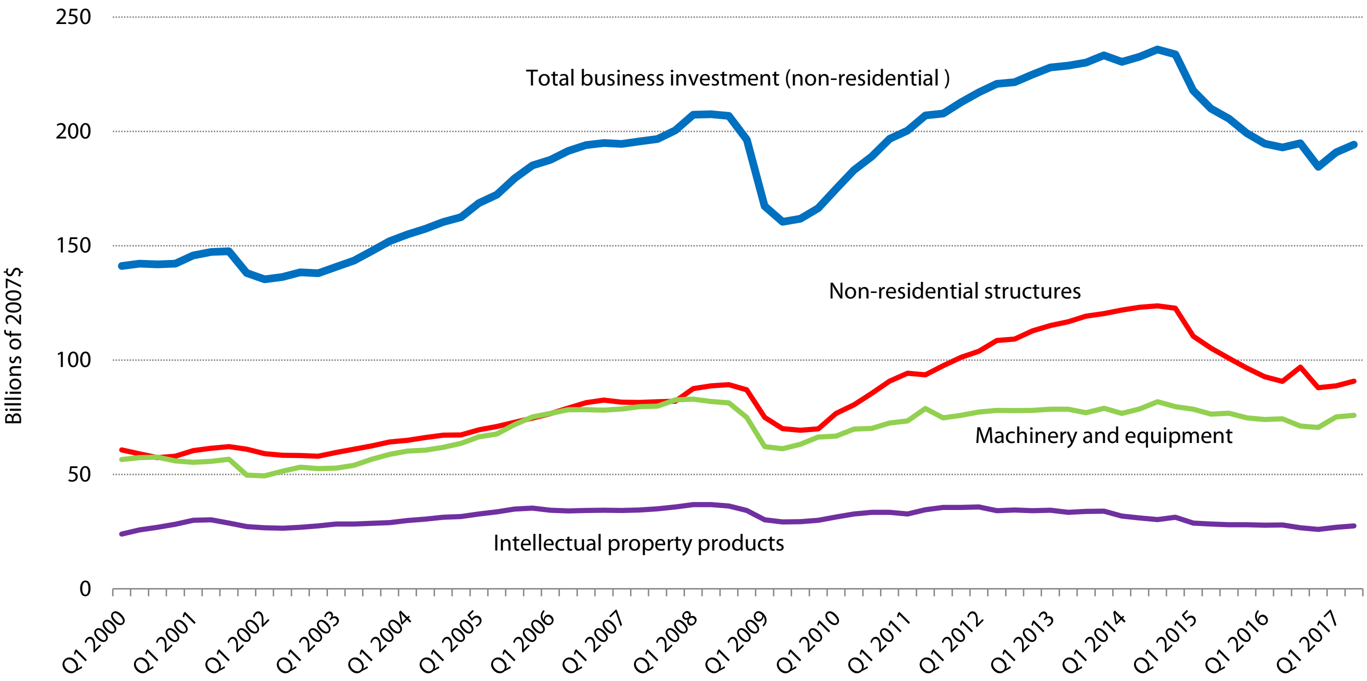
Business investment is central to long-term economic growth and rising living standards. For investments to be made, some current consumption must be sacrificed so that the funds can be spent on assets that will generate higher incomes and ultimately living standards in the future. In the words of Ricardo Caballero, "Investing means trading the present for the future" (1999: 815). Dale Jorgensen and Steven Landefeld concluded that "Capital input is the most important source of economic growth in the postwar period" (2006: 97). For Hyman Minsky, "Investment is the essential determinant of the path of a capitalist economy: the government budget, the behavior of consumption, and the path of money wages are secondary" (1986: 191). Conversely, a dearth of investment can be fatal: the collapse of business investment in North America to below the rate of depreciation in the 1930s, implying an outright decline in the capital stock, was a principal factor making the 1930s recession the "Great Depression."

Investment is also an important determinant of the structure of industry growth in future years, since it provides the capital for firms to grow. For example, the investment Canada has made in energy has been reflected in rapid output growth of energy products as well as the transportation infrastructure needed to carry these products to markets. Investment embodies new technological developments and innovations, committing firms to expand in a specific direction while providing the tools for employees to work more productively.

Investment also plays an outsized role in the cyclical fluctuation of the economy between periods of recession and growth. This large impact reflects that investment is one of the most volatile components of aggregate demand over the business cycle.

As important as investment is to an economy, more investment does not always guarantee sustained income growth. The centrally-planned economies dominated by the Soviet

Figure 1: Business Invesment (Non-Residential) in Canada (billions 2007$)



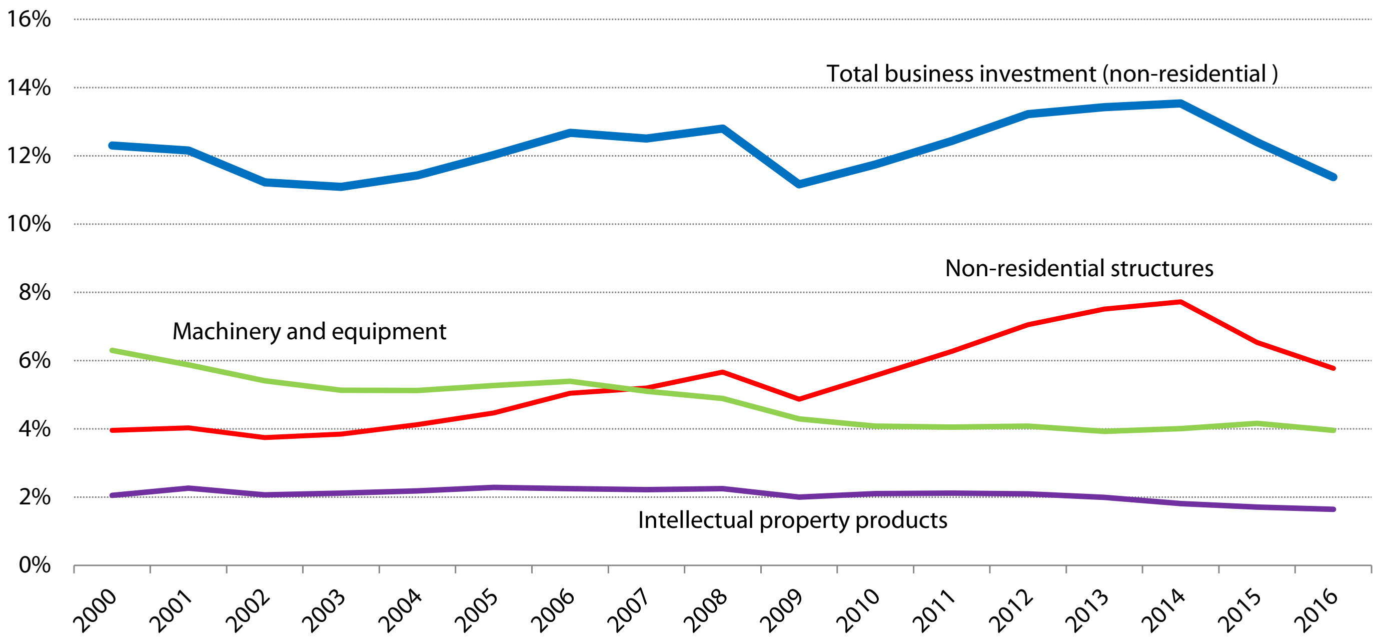
Sources: Statistics Canada, CANSIM Table 380-0064; calculations by author.

Union demonstrated that high levels of investment alone were insufficient to generate innovation and growth. That's because the investments were not in the right industries due to a lack of informational guidance from market prices and profits, and the suppression of the entrepreneurial spirit to act on this information. As noted by legendary business management guru Peter Drucker, "It is not how much capital is being invested—or else the Soviet Union would have easily been the world's foremost economy. What's critical is the productivity of capital" (2017: 86). A Keynesian prescription of digging holes and then filling them back up is simply a wasted opportunity to boost long-run productivity.

The structure of business investment in Canada

There are three components to business fixed investment: non-residential structures, machinery and equipment, and intellectual property products. Structures include buildings such as offices, factories, and warehouses, and engineering works such as oil and gas facilities, pipelines, hydroelectricity dams, and transmission wires. Machinery and equipment investments include computers, electronics, and industrial machinery. These investments are critical for boosting individual worker productivity, whereas structures tend to be linked to the expansion of capacity, which helps raise an

Figure 2: Business Investment (Non-Residential) in Canada, as Share of GDP



Sources: Statistics Canada, CANSIM Table 380-0064; calculations by author.

industry's output and productivity.[1] Investment in intellectual property mostly reflects spending on research and development, which tends to fluctuate less over time.

Figure 1 displays total business investment in Canada (adjusted for inflation in 2007 dollars) and its three main components from 2000 through to the most recent quarter of available data in 2017. Total business investment increased from $141.1 billion in 2000 up to $207.5 billion in 2008 before dropping to $160.5 billion in 2009 as a result of the recession. It then began increasing in 2010, peaking at $235.8 billion in 2014 before dropping again in 2015 after the energy price shock. As of the second quarter this year, it currently stands at $194.2 billion—18 percent lower than the quarterly peak in 2014.

Because of the energy boom, Canada saw a surge in the construction of non-residential structures after the 2009 recession. This was dominated by energy projects as capacity expanded in the oil sands and subsequently in the network of pipelines needed to distribute oil and gas, as well as utility generation. However, these gains were not matched by investment in machinery and equipment (figure 1). Put differently, while there was a significant surge in investments in non-residential structures from 2009 to the end of 2014, investments in machinery and equipment did not increase by the same proportion.

Figure 2 displays Canada's annual business investment as a share of GDP from 2000 to

[1] The larger importance of machinery and equipment to labour productivity is documented in Rao, Someshwar, Jianmin Tang, and Weimin Wang (2003).

Table 1: Business Investment (Non-Residential) as a Share of GDP

	2000-2008 avg.		2009-2014 avg.		2015-2017 avg.	
	Percent	Rank of 17	Percent	Rank of 17	Percent	Rank of 17
Australia	14.8%	6	18.9%	2	15.7%	3
Belgium	14.8%	5	14.8%	4	15.6%	4
Canada	11.3%	15	12.6%	8	10.9%	16
Denmark	12.3%	10	11.3%	14	12.1%	11
Finland	13.4%	8	12.0%	12	11.8%	15
France	12.3%	11	12.6%	9	13.3%	9
Germany	12.2%	13	12.0%	11	12.1%	12
Iceland	15.1%	4	8.5%	17	13.6%	7
Japan	15.3%	3	14.4%	5	15.5%	5
Korea	22.2%	1	21.6%	1	21.3%	1
Netherlands	11.5%	14	11.6%	13	12.4%	10
New Zealand	10.9%	16	10.6%	15	11.8%	14
Norway	12.2%	12	13.6%	7	12.0%	13
Sweden	14.0%	7	14.4%	6	15.0%	6
Switzerland	17.5%	2	17.3%	3	18.2%	2
United Kingdom	9.4%	17	8.9%	16	9.4%	17
United States	12.4%	9	12.3%	10	13.3%	8

Notes:

(1) Comparable data is not available for OECD countries not listed here.

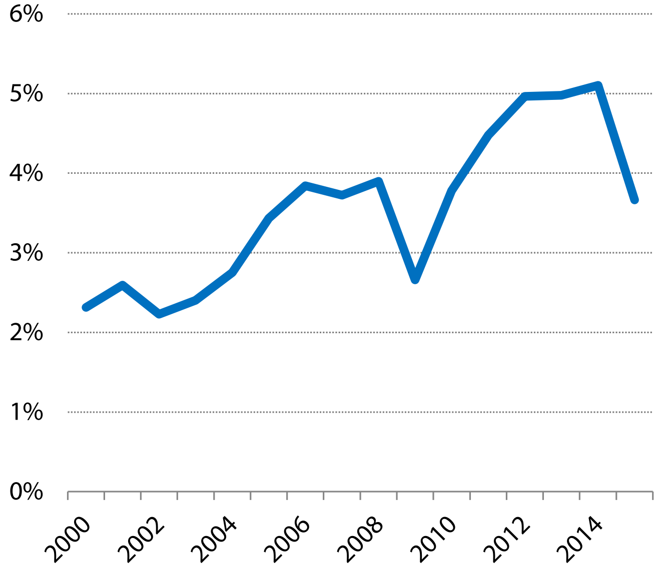
(2) 2016 is preliminary data and 2017 is projected by OECD.

Sources: OECD Economic Outlook, June 2017; calculations by author.

2016. Since 2000, business investment has average about 12 percent, even with the boom in energy investment that lifted spending on structures over much of this period. By 2007, investment in structures had surpassed investment in machinery and equipment in Canada. This source of strength in energy investment was partly offset by persistent weakness in spending on productivity-enhancing machinery and equipment, which as a share of GDP has fallen for most of the past two decades. Canada's reliance on structures is unusual; more typical is the US, where investment in machinery and equipment was twice as high as it was on structures.

The weakness in investment in machinery and equipment over the past decade has been concentrated in three industries. Finance, mostly banks, has posted the largest decline, from

Figure 3: Total Resource Investment (Public and Private) in Canada as a Share of GDP



Sources: OECD.Stat; calculations by author.

$23.2 billion in 2006 to $4.3 billion in 2017 (all industry-level data are in current dollars, not adjusted for inflation).[2] The drop was about equally spread between Quebec and Ontario. Meanwhile, manufacturers, led by firms in Ontario, have cut machinery and equipment outlays from $14.4 billion in the years before the recession to $11.8 billion. Finally, the mining industry quickly slashed spending on machinery and equipment from $7.3 billion when oil prices began to dive in 2014 to just $0.9 billion by 2017. The sudden and precipitous drop in machinery and equipment investment reflects this industry's commitment to finishing megaprojects nearing completion (outlays for structures remain much higher at $11.2 billion in 2017); it therefore urgently searched for cuts in its spending on machinery and equipment to counter its falling cash flow.

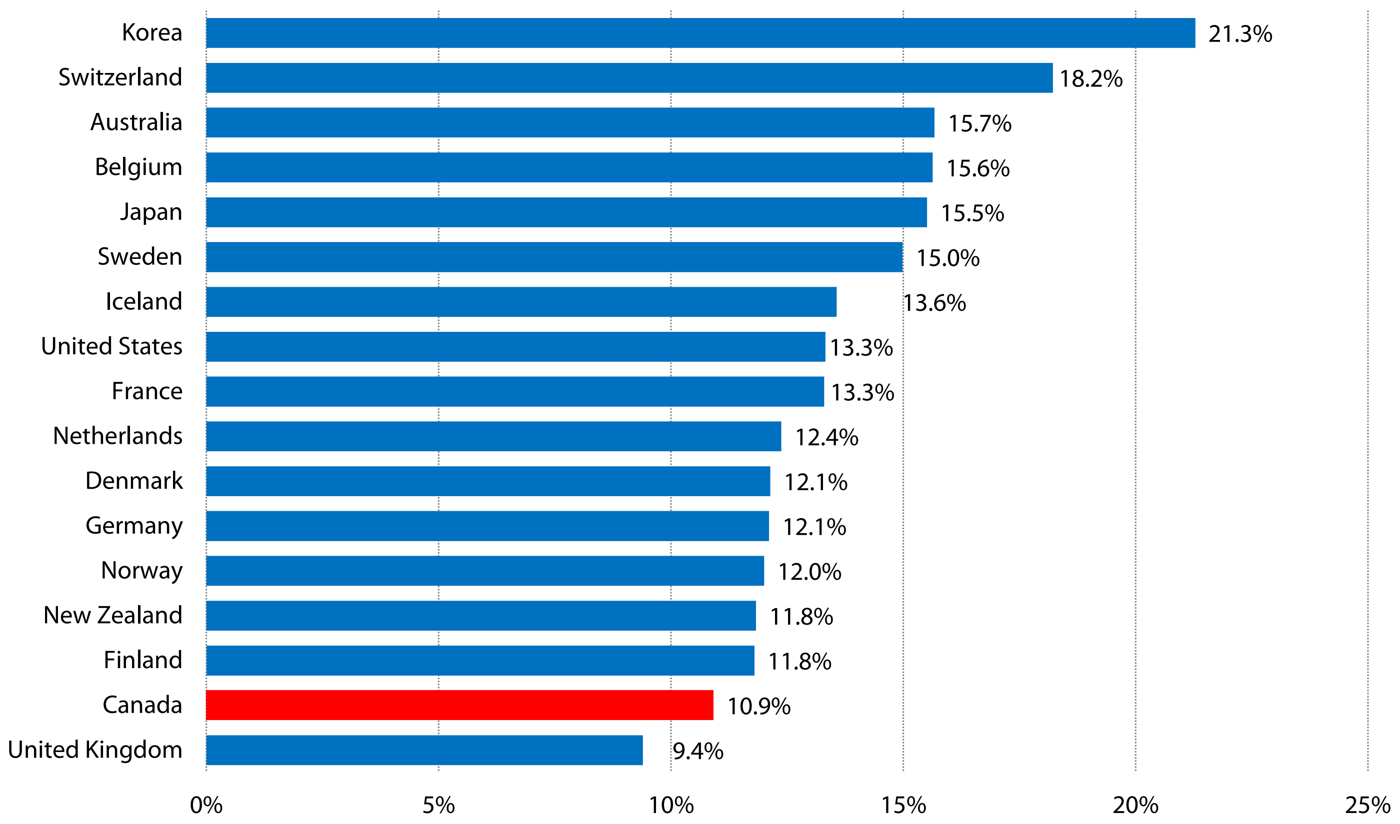
Business investment in Canada compared with that in other OECD countries

How does business investment performance in Canada measure up against other advanced economies? Table 1 compares Canada's business investment as a share of GDP over three time periods to 17 other OECD countries for which there is comparable data. In the first period, from 2000 to 2008, Canada ranked 15th overall with business investment averaging 11.3 percent of GDP. Canada's average business investment rate rose to 12.6 percent in the subsequent 2009 to 2014 period, improving the country's ranking to 8th, partly as a result of the energy boom and the accompanying rise in resource-related investments. However, business investment is projected to fall to 10.9 percent, on average, from 2015 to 2017, and Canada's ranking is set to fall to 16th, lower than its pre-energy boom position. While Canada lagged internationally on business investment before the recession and made some progress in the immediate years following it, the country has slid back following the energy price shock. In other words, Canada's long-standing problem with weak business investment was partially masked by improved performance due to a robust energy sector (see figure 3, which displays data on total resource investment data (public and private) in Canada over time).

Despite large investments in the energy sector over the years, Canada still devotes less of its GDP to business investment than most major OECD countries. Even after years of slow

[2] All investment data in this paragraph are from Statistics Canada, Cansim Table 029-0045. Industry data on investment are only available in current dollars.

Figure 4: Non-Residential Business Investment as Share of GDP in OECD Countries, 2015-2017 Average



Notes:
(1) Comparable data is not available for OECD countries not listed here.
(2) 2016 is preliminary data and 2017 is projected by OECD.
Sources: OECD Economic Outlook, June 2017; calculations by author.

growth and turmoil in their financial markets, most developed countries still invest markedly more of their GDP than Canada's 10.9 percent (see figure 4). South Korea invests nearly twice as much as Canada, while most European countries and the US invest between 12 percent and 15 percent. Only the United Kingdom invests less, partly reflecting the winding down of investments in North Sea oil and the withering away of its industrial base (see Driver and Temple, 2013).

The persistent weakness of business investment, especially for machinery and equipment, means that Canadian workers have one of the lowest amounts of capital equipment to help them do their jobs productively. Table 2 compares total business investment per worker in the OECD (using Purchasing Power Parity rates to convert each national currency into 2010 US dollars) over the same three time periods. It shows Canada consistently ranks poorly rela-

Table 2: Business Investment (Non-Residential) per Worker, $US 2010

	2000-2008 avg.		2009-2014 avg.		2015-2017 avg.	
	$US 2010	Rank of 17	$US 2010	Rank of 17	$US 2010	Rank of 17
Australia	11,679	5	15,955	2	13,913	6
Belgium	13,786	3	14,214	4	15,359	2
Canada	8,911	15	10,263	11	9,290	15
Denmark	10,398	12	10,088	14	11,037	11
Finland	10,885	8	10,159	13	10,182	14
France	10,697	9	11,323	8	12,434	8
Germany	10,265	13	10,227	12	10,437	13
Iceland	10,614	10	6,409	17	10,607	12
Japan	10,555	11	10,324	10	11,435	10
Korea	11,647	6	13,817	5	14,538	4
Netherlands	10,117	14	10,397	9	11,558	9
New Zealand	6,458	17	6,744	16	7,599	16
Norway	13,873	2	15,524	3	14,122	5
Sweden	11,273	7	12,371	7	13,566	7
Switzerland	15,934	1	16,477	1	17,423	1
United Kingdom	7,047	16	6,906	15	7,478	17
United States	12,244	4	13,367	6	14,889	3

Notes:

(1) Comparable data is not available for OECD countries not listed here.

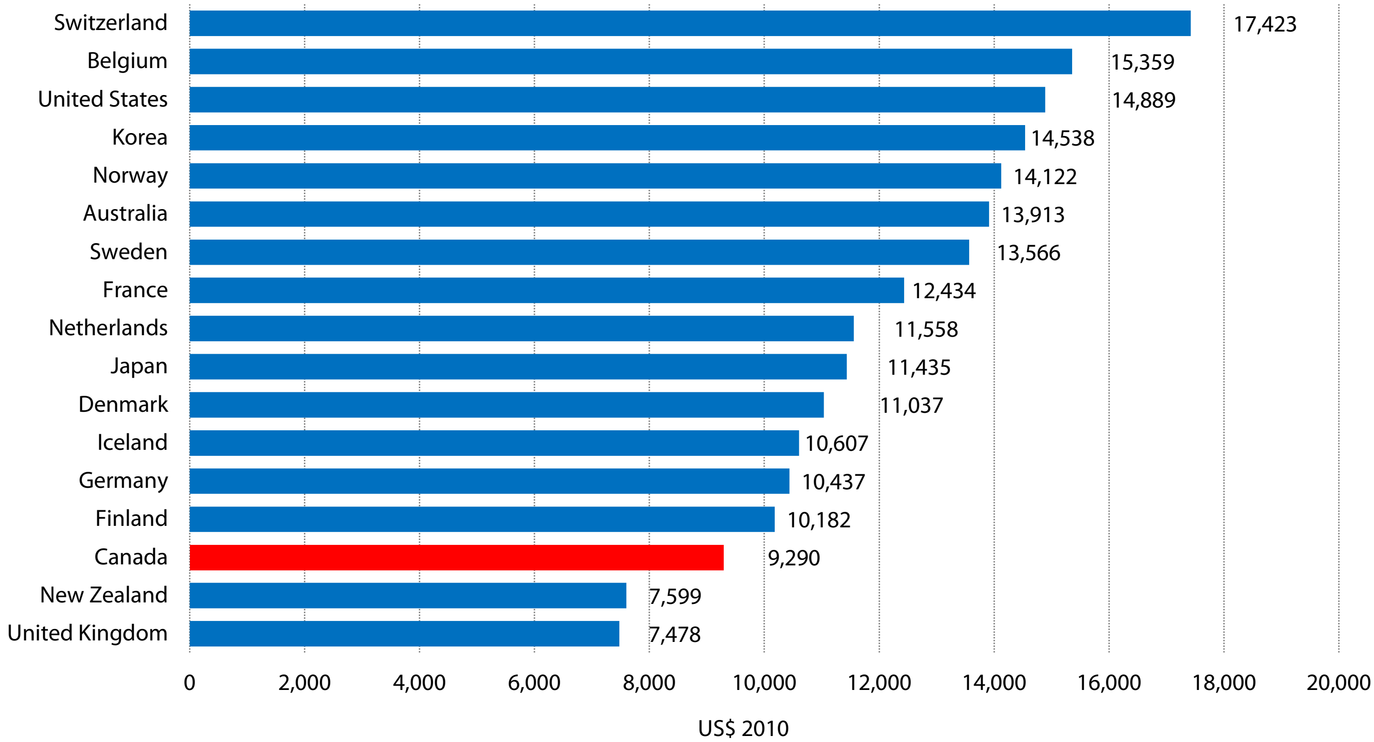
(2) 2016 is preliminary data and 2017 is projected by OECD.

Sources: OECD Economic Outlook, June 2017; calculations by author.

tive to its OECD competitors, including energy dependent countries such as Australia and Norway, on providing its workers comparable levels of investment. In the latest period, 2015-2017, Canadian workers are projected to have less than US$10,000 of capital to do their jobs (figure 5). This is far below the US$14,000 each American worker possesses and the average of about US$12,000 in most EU countries (with the UK being a notable exception at less than US$8,000). It is also greatly below the average for both Australians and Norwegians, which hovers close to US$14,000.

The preponderance of investment in our resource sector also reflects that Canada invests relatively little in both its services and manufacturing sectors. While it is not surprising that Canada invests less in manufacturing than do industrial powerhouses such as Germany, it is shocking that Canada invests less of its GDP in services and about the same in

Figure 5: Non-Residential Business Investment per Worker in OECD Countries, 2015-2017 Average (in $US 2010)



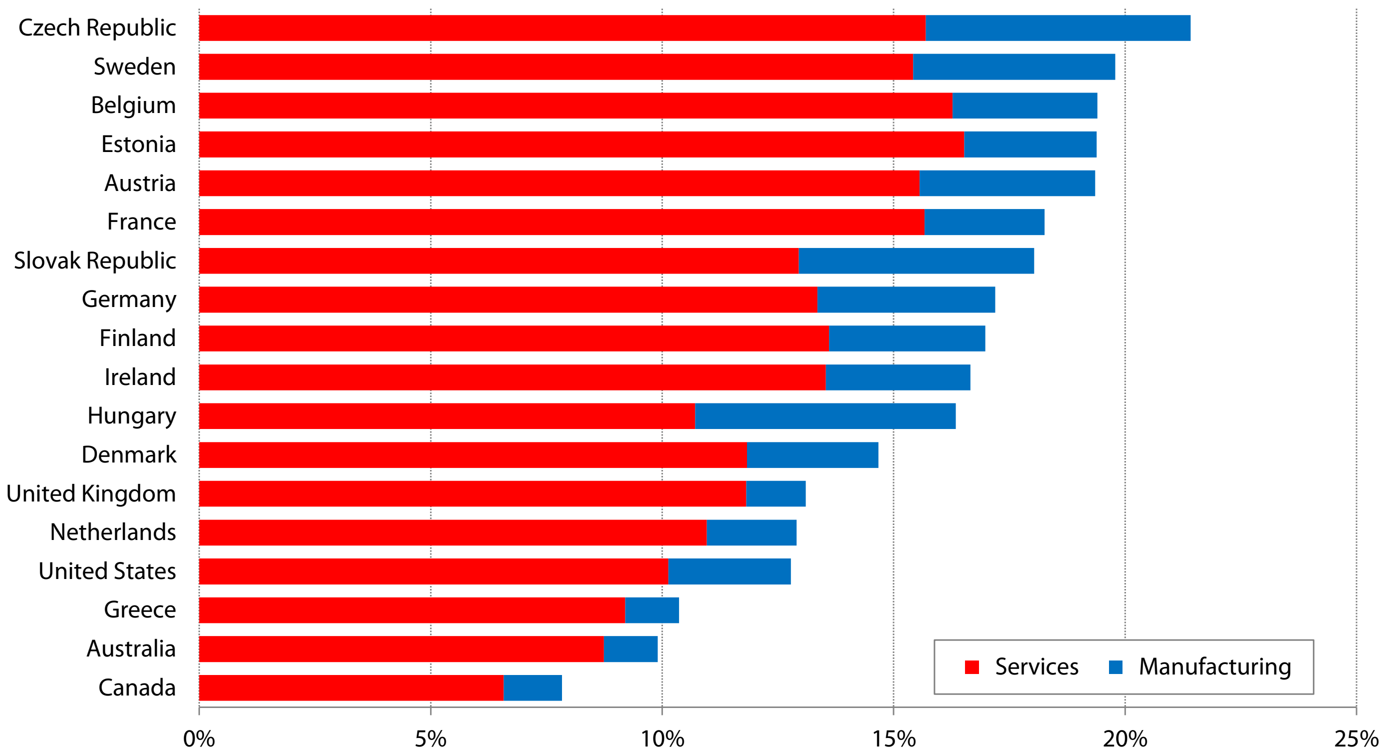
Notes:
(1) Comparable data is not available for OECD countries not listed here.
(2) 2016 is preliminary data and 2017 is projected by OECD.
Sources: OECD Economic Outlook, June 2017; calculations by author.

manufacturing as a poor nation such as Greece (figure 6). In fact, Canada invests less of its GDP in services (6.6 percent) than any of the other OECD countries (Australia is the next lowest at 8.7 percent). Note that the data in figure 6, like the data in figure 3, include both private and public investment, since the OECD does not distinguish between the two sectors.

Factors weighing on business investment in Canada

Business investment has lagged throughout the current recovery compared with previous cycles. The Bank of Canada noted that "the recovery in business investment is anticipated to remain below what would normally be expected based on historical experience" (Bank of Canada, 2017: 15). Weak investment reflects that the stimulus from central banks has failed to spark growth in the overall economy giving firms little means and few incentives to invest. Record low interest rates and improved balance sheets should have made investment more attractive but has not done so. In particular, very high rates of capacity utilization have not elicited more manufacturing investment, notably in Ontario where a loss of competitive-

Figure 6: Total (Public and Private) Services and Manufacturing Investment as Share of GDP in OECD Countries, 2010-2015 Average



Notes:
(1) Total investment includes investment by governments.
(2) Italy is excluded due to a lack of industry level data for 2015.
(3) Services includes industries other than: agriculture, forestry and fishing; mining and quarrying; manufacturing; public administration and defence, compulsory social security; education; human health and social work activities.
Sources: OECD National Accounts at a Glance; OECD.Stat; calculations by author.

ness plays a role. The Bank of Canada also cites structural factors such as slower labour force growth and uncertainty over US economic policy for low business investment levels. Instead, whenever business firms in North America need to expand output, they have done so by boosting labour and not capital inputs, as reflected in weak productivity growth.

While the macroeconomic determinants of business investment are complex and not very well understood,[3] some broad parameters

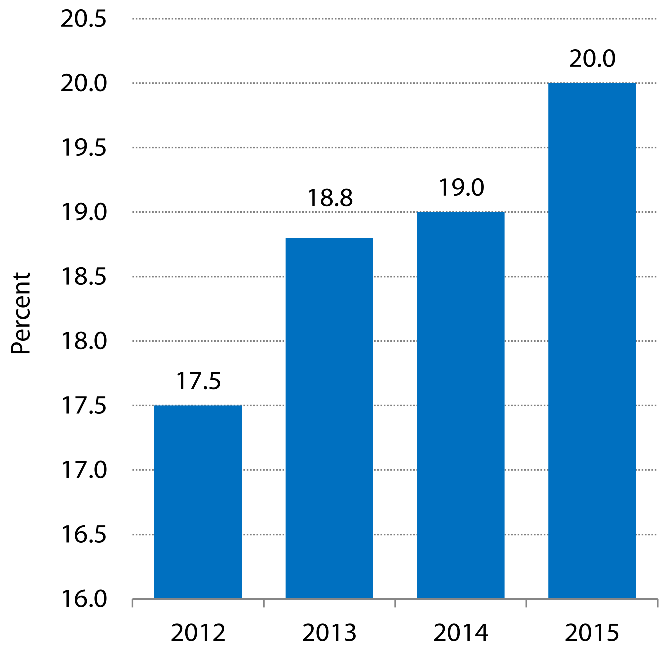
[3] While well-developed theories of consumption, housing, and international trade exist, business investment has always been somewhat of a black box for economists, partly because so few have attempted to explain and test their theories beyond basic tenets such as the importance of the after tax rate of return on investments and the role of capacity utilization (concerning whether firms do not have the capacity to raise output or have excess capacity). For recent evidence on how increased uncertainty

are known to affect why business investment is high in some countries and low in others. Clearly the rate of return on investments is an important variable. So the rate at which capital is taxed is important. In terms of taxes on corporate income, Canada took some important steps starting in the 1990s to improve its competitiveness by lowering corporate income taxes (especially while the US maintained one of the highest corporate tax rates in the world, although its effective tax rate was lower than its punishing statutory rate of 35 percent). However, recently the overall tax rate on capital has started to creep up again in Canada. The marginal effective tax rate on capital (which measures all taxes on capital, not just corporate income taxes) rose from 17.5 percent in 2012 to 20.0 percent in 2015 (figure 7). The higher tax rates on capital continued after profits began to fall precipitously after mid-2014.

Large government deficits and debts are another factor that depresses business investment. They do so by creating uncertainty about the future among entrepreneurs and investors who expect the run up in government debt to eventually lead to higher taxes. Moreover, a recent study for the National Bureau of Economic Research found in the US “robust evidence of ‘crowding out,’ a tendency for higher levels of government debt to reduce the level of corporate borrowing” (Dwyer, 2017). This is a significant finding since the US has much deeper and more diversified capital markets than in Canada. Rising government borrowing by federal and provincial governments may have an even greater crowding out effect in Canada’s thin capital markets if firms do not have ready access to US capital markets.

about economic policies (i.e., taxes, government spending, regulations, and monetary policy) adversely affects investment, see Baker, Bloom, and Davis (2016, March 10).

Figure 7: Canada’s Marginal Effective Tax Rate on Capital Investment, 2012-2015



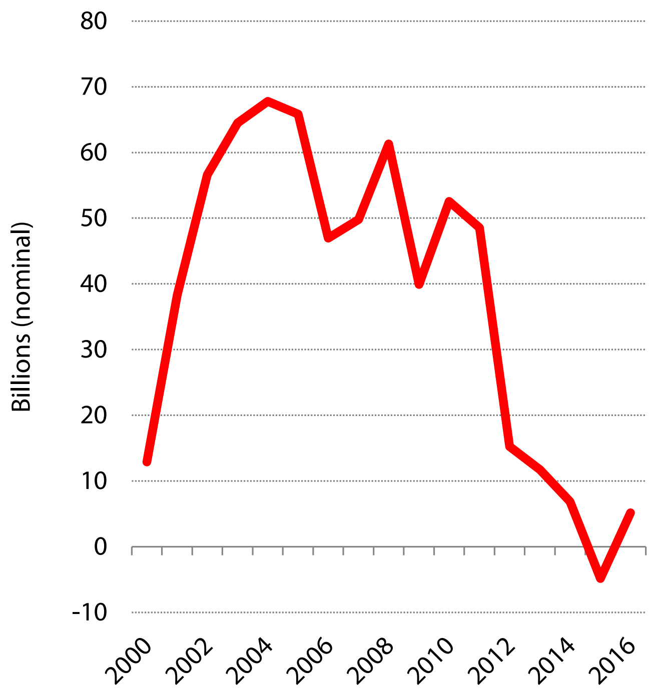
Source: Bazel and Mintz (2016).

As noted, the reluctance to invest more is especially surprising for manufacturing, where high capacity utilization and a lower dollar should have stimulated investment. There is an important regional dimension to the weakness in manufacturing investment, with persistent slack in Ontario where industry faces a host of competitive challenges resulting from high costs imposed by the provincial government for labour, electricity, and regulation (see Cross, 2017). The giant auto parts maker Magna provided a visible example of the real-life effect of these costs. In July 2017 Magna testified at a government hearing on the proposed overhaul of labour legislation that the high cost of operating in Ontario had led it to reconsider future investments and production in the province, especially as neighboring states in the US are pursuing policies to attract investment. If Keynes was right and animal spirits are important to investment, it is important to understand that businesses are quite dispirited in Ontario with the lowest business confidence in the country.

Falling corporate profits have been another factor constraining business investment in recent years. While the popular image is that corporations are sitting on large profits, the reality is that profitability has never returned to its pre-recession peak in 2008 and more recently substantial declines were posted after the oil price crash. According to data on net profits from Statistics Canada's National Accounts, profits peaked at $294.2 billion (at annual rates) in the second quarter of 2008. Profits hovered around $280 billion in 2011 and again in 2014, but then plunged by one-third to $190.5 billion in the second quarter of 2016. Moreover, firms spent what little profit they made in 2015 and 2016, unable to cut investment spending as fast as incomes fell. Corporations became net borrowers in 2015 (see figure 8) to sustain even the low level of investments in those years because they could not cut investment spending as fast as profits were falling. This reality is sharply at odds with the false picture of firms sitting on large piles of "dead money" waiting to be spent. The fact that firms had to borrow funds to sustain investment also means they were in direct competition with governments to raise funds in financial markets, increasing the importance of crowding out in Canada.

More broadly, the shrinking profitability of investments in Canada, especially in the oil and gas sector, appears to be discouraging foreign investment in Canada. Most of the large foreign-controlled multinationals operating in the

Figure 8: Net Lending by Canadian Corporations, Billions (Nominal)



Source: Statistics Canada, CANSIM Table 380-0076.

oil sands have sold their interests to Canadian companies. More recently, Malaysia's Petronas announced it would not pursue a $36 billion investment in liquefied natural gas in BC. The withdrawal of investments in Canada by foreign companies removes an important source of funding and signals fewer new energy projects will be undertaken in the future.

However, not all the reasons for weak business investment are readily understood. As noted at the start of this section, economists have relatively few theories of the behaviour of investment and this applies to Canada. For example, it is hard to explain why investment in Canada's finance industry has been very weak in recent years despite a sterling international reputation and a proliferation of technological innovation.

Conclusion

Anemic business investment has contributed to the weak recovery of Canada's economy after 2009. More importantly, low levels of investment inhibit productivity growth, one of the key determinants of living standards in the long-run. Investment has been weak in most of the OECD. Nevertheless, Canada's investment rate and its investment per worker were both among the lowest in the OECD despite the pre-2015 boom in the energy sector.

Is Canada investing productively, to answer Peter Drucker's challenge? It was appropriate to expand capacity in the energy sector during a decade of high oil prices. But Canada has failed to invest in productivity enhancing machinery and equipment for decades. Meanwhile, the oil price crash in 2015 did lead to a sharp cutback in investment in the oil sector, especially from foreign-owned firms. However, there was no sign of an accompanying shift in investment into manufacturing and services, which should have picked up some of this slack, even in industries such as finance where profitability is high, or manufacturing where capacity use is elevated.

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