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# Canadian Macroeconomic Instability in the Time of COVID-19

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## **Abstract**

Deploying a classical Marxian theoretical framework, I argue that Canadian capitalism became increasingly unstable in the decade following the Great Recession. I demonstrate how troubling patterns in capital accumulation, capacity utilization, employment, and real wage growth are connected to the deterioration of business profitability. I link these patterns to the country's housing bubble and assess the risk of ongoing debt-led growth to Canada's banking system. I show that the global pandemic has only exacerbated the problems faced by Canadian capitalism.

## **Introduction**

While relative financial and industrial stability characterized Canada through the global financial crisis of 2007 and the Great Recession of 2008-09, Canadian capitalism has become increasingly unstable over the last decade and a half. Degrading corporate profitability undermined capital accumulation, especially in machinery and equipment, while historically low interest rates alongside waning profitability in the banking sector encouraged financial intermediaries to expand lending to households, particularly in the form of mortgages. The rapid expansion of credit to households and a significant corporate landgrab inflated new housing prices and improved profitability in the construction sector. In response, business investment in construction accelerated. This contributed to a housing boom in which real estate became the leading contributor to GDP. This process, however, was premised upon growing household debt that appears to have reached its limit as real wage growth slowed and social programs were cut, especially in Conservative Premier Doug Ford's Ontario, home to 39% of the country's population (StatCan 2020u). Poor business profitability alongside the household debt-driven housing bubble pose a significant risk to Canada's highly-leveraged financial sector, whose main assets are mortgages to households, the majority of which are uninsured by the Canadian Mortgage and

Housing Corporation (CMHC).

The Bank of Canada (BOC) and the Office of the Superintendent of Financial Institutions (OSFI) helped to ease the growth of household debt and house prices by raising interest rates and tightening mortgage lending rules. At the provincial level, too, British Columbia and Ontario imposed a foreign buyer's tax in 2016 and 2017, respectively, hoping to control the growth of prices by limiting purchases by foreigners. Ballooning house prices and rents encouraged Ontario's Premier Kathleen Wynne (2013-18) to impose rent control on new housing units in 2017 as well, but this legislation was subsequently eliminated by Premier Ford when he came to office a year later (Sienkiewicz 2017). In response to the growing household debt burden and the actions of federal and provincial authorities, house prices began to stabilize in 2018-19. But by the end of the year, they started rising again. The debt burden continues to grow, and the shock of the new global recession amplified by the COVID-19 lockdown does not bode well for Canadian capitalism.

Here, I deploy a classical Marxian theoretical framework motivated by the work of Grossman (1929), Mattick (1971), Shaikh (2016), and Roberts (2016). This tradition underscores the importance of business profitability and how its deterioration leads to stagnation. In the first part of this article, I examine the relationship between profitability and low economic growth in Canada. I survey the evidence for growing instability and argue that degrading profitability since 2005 underlies it. In the second part, I assess the state of Canada's provincial centers of capital accumulation, Alberta and Ontario. In the third part, I explore the housing bubble and link it explicitly to Canada's profitability problems. In the fourth part, I discuss Canadian bank leverage and argue that the conditions that permitted the banks to withstand the worst of the global financial crisis of 2007-08 and the Great Recession of 2008-09 have eroded. I argue that their largest assets, i.e. loans to households, have grown increasingly unreliable. In the fifth part, I examine recent

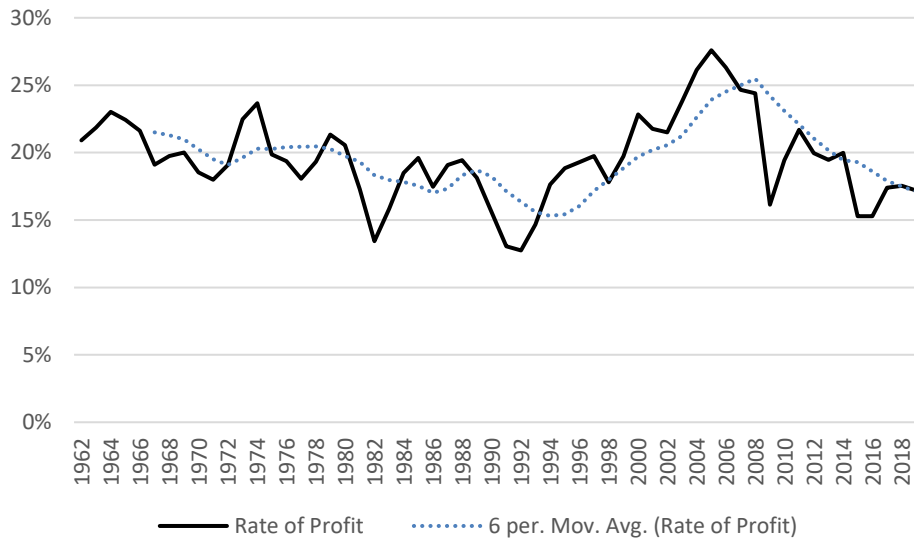
trends in household finances and connect them to these dynamics. Household debt appears to have reached its limit in the context of poor business profitability and lackluster capital accumulation. The shock of the COVID-19 crisis has made matters worse and destabilized Canadian capitalism further.

### **Part 1: Profitability and Low Growth**

In a recent Macdonald-Laurier Institute report, Phillip Cross wrote that Canadian “real GDP growth over the past decade has been as lethargic as the decade after the onset of the Great Depression in 1929” (Cross 2020). Thus, Canadian capitalism had already been experiencing problems for over a decade when the COVID-19 lockdown started. In this section, I examine the evidence for growing instability and argue that it is rooted in degrading business profitability.

Figure 1 shows the average profit rate for Canada between 1962 and 2019. In the 13-year period following the Great Canadian Slump of 1990-92, the profit rate rose from 13% to 28%. After peaking in 2005, it began to fall, reaching 17% in 2019. The downward trajectory of the profit rate during this 14-year period was accompanied by a stagnating mass of profit, depicted in Figure 2.

Figure 1 – Average Canadian profit rate, 1962-2019<sup>†</sup>



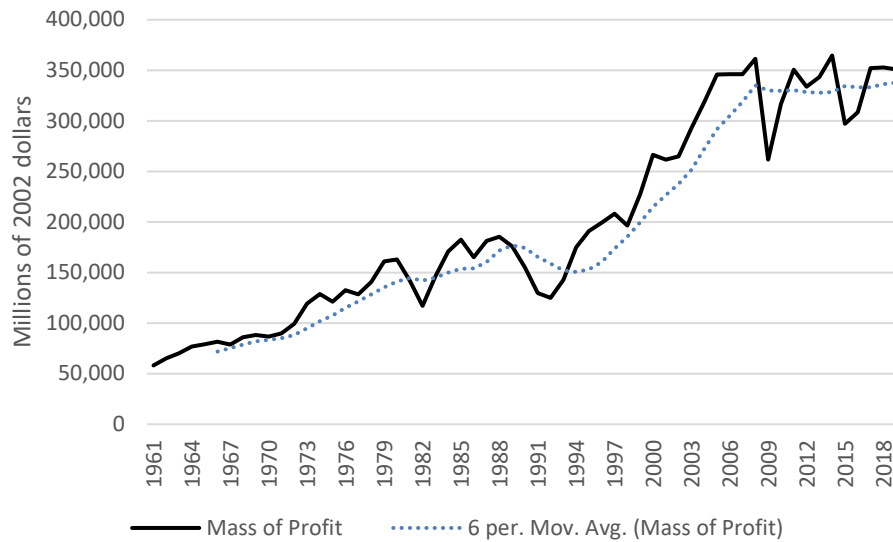
Sources: StatCan 2020r and StatCan 2020v

While the profit rate is an important index of the “health” of the capitalist organism, movements in the mass of profit are critical (Grossman 1972). When the mass of profit stagnates, the incremental profit rate (Shaikh 2016), i.e. the profit rate on the latest investments, is zero. If adding one more unit of capital nets no additional profit, the incentive to invest vanishes, the addition of new machinery and equipment grinds to a halt, and capitalism enters a period of instability and crisis (Shaikh 1992). During the Great Moderation,\* between the years 1993 and 2005, the mass of profit grew by 142%. After 2005 and until 2019, however, it stagnated, having grown by merely 1.5% over the entire period. The last time profit performed as poorly was just before and during the Great Canadian Slump of 1990-92.

<sup>†</sup> The profit rate is calculated by dividing net operating surplus plus half mixed income by the total non-residential, linear end-year net capital stock less the stock of government and non-profit institutions serving households of the preceding year (StatCan 2020r and StatCan 2020v). Half mixed income is assumed to be the profit share of income for the unincorporated sector.

\* The Great Moderation in Canada was the period of relative stability between the Great Canadian Slump of 1990-2 and the Great Recession of 2008-09. While the mass of profit began stagnating after 2005, the period of relatively stability lasted until the recession owing to relatively healthy business balance sheets.

Figure 2 – Canadian mass of profit, 1962-2019

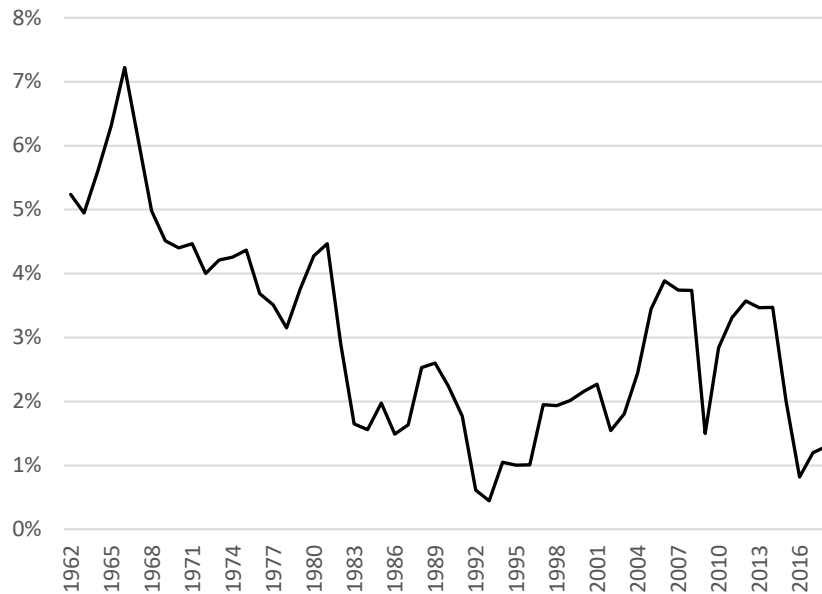


Source: StatCan 2020r and StatCan 2020aj<sup>†</sup>

Paul Mattick relates that stagnation “may ‘sneak’ into existence by a gradual slowing down of economic activity, or it may be initiated by a dramatic ‘crash’ with sudden bank failures and the collapse of the stock market” (Mattick 1971). Canada escaped much of the turmoil associated with the financial crisis of 2007, because businesses had healthy balance sheets and, when the crisis struck, wages were rising. While the Canadian state readily intervened, the key to financial stability was the long period of relatively strong profitability and capital accumulation preceding the crisis, which stabilized bank assets (McCormack & Workman 2015). Already in 2006, however, profitability began to erode. Afterwards, “sneaking” stagnation became increasingly evident in rates of capital accumulation, capacity utilization, employment, as well as real wage and GDP growth.

<sup>†</sup> The mass of profit is estimated by adding net operating surplus to half mixed income, adjusted for inflation.

Figure 3 – Rate of capital accumulation in Canada, 1962-2018



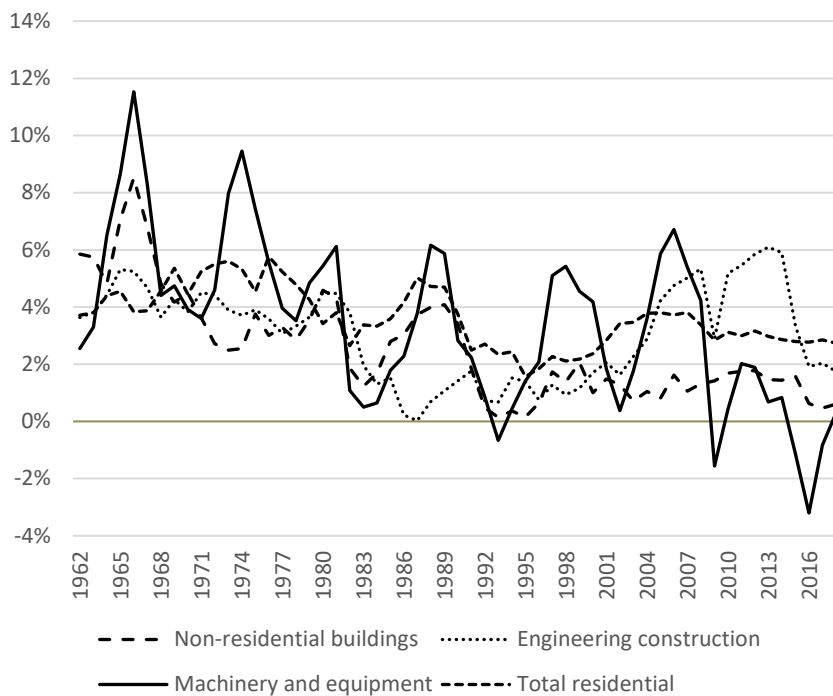
Source: StatCan 2020v, linear end-year net stock, total industries, constant 2012dollars

In the ten-year period preceding the Great Recession, the average rate of capital accumulation was 2.6%. In the eight years following 2010, it averaged 2.4%. At first glance, these figures do not appear to support the “sneaking” stagnation thesis proposed in this article. However, when we examine the disaggregated components of the capital stock, the image of underlying stagnation alongside a housing bubble becomes clearer.

Figure 4 shows a clear decline in the accumulation of machinery and equipment after the Great Recession. The latter reached the lowest level in the 56-year time series when it shrank by 3% in 2016. During the Great Moderation from 1993-2008, the average rate of accumulation of machinery and equipment was 3.3%. In the eight years following 2010, it averaged merely 0.1%. The accumulation of engineering construction reached 5.9% in 2014, its highest level on record. The latter includes infrastructure such as highways, streets, bridges, utility systems, and land subdivision, connecting residential, business, and government buildings. The accumulation of these assets is thus associated with the large infrastructural outlays required in the oil industry and

engineering construction supporting the housing boom. It grew through the entire Great Moderation with a brief drop in 2009 and continued to grow through the period following the Great Recession. The steep fall after 2014 reflects the troubles facing the oil industry when the price of oil collapsed in the context of intense international competition. However, relative to rates of accumulation in other assets, engineering construction rates remain high. In 2018, they were outpaced only by residential construction rates. Thus, sneaking stagnation in the accumulation of machinery and equipment has been offset by the housing boom, whose accumulation of engineering construction has been driven partly by mounting household debt, a point to which I return below.<sup>‡</sup>

*Figure 4 - Rate of Accumulation by Asset Type, 1962-2018*



<sup>‡</sup> As a decline in machinery and equipment investment would imply, labor productivity growth slowed in the period following the Great Recession. The average annual growth rate of business productivity in the Long Depression following 2009 was only 60% of its rate during the Great Moderation of 1993-2008 (StatCan 2020aa). From a classical Marxian perspective, the production of relative surplus value is a function of the productivity of labor and the real wage rate. Thus, lower productivity growth compounds the problems of profitability already facing Canadian capitalism.



Source: StatCan 2020v and StatCan 2020q, geometric end-year net capital stock, chained (2012) dollars<sup>§</sup>

When combined with the industrial capacity utilization rates in Figure 5, the picture of the post-crisis sneaking stagnation begins to emerge more clearly. Of course, if capacity utilization rates are low, the addition of machinery and equipment is not warranted. From this standpoint, the crisis of profitability manifests itself as a problem of the realization of surplus-value.

*Figure 5 – Industrial capacity utilization rate*



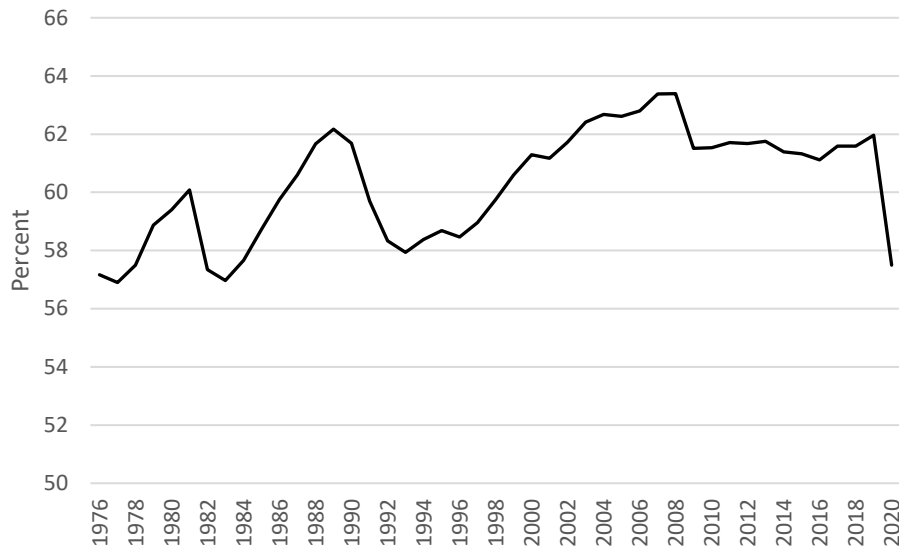
Source: StatCan 2020b

Figure 5 shows the industrial capacity utilization rate for Canada. It evinces the telltale signs of economic stagnation. During the Great Moderation of 1993-2008, the capacity utilization rate averaged 85%. Since the Great Recession, however, it has averaged merely 80%, well below its 2005 high of 86%.

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<sup>§</sup> While the rate of accumulation is elsewhere in this article measured as the growth of the linear end-year net capital stock, it is here measured as the growth of the geometric end-year net capital stock due to data limitations. The data are in chained (2012) dollars.

Figure 6 –Employment rate



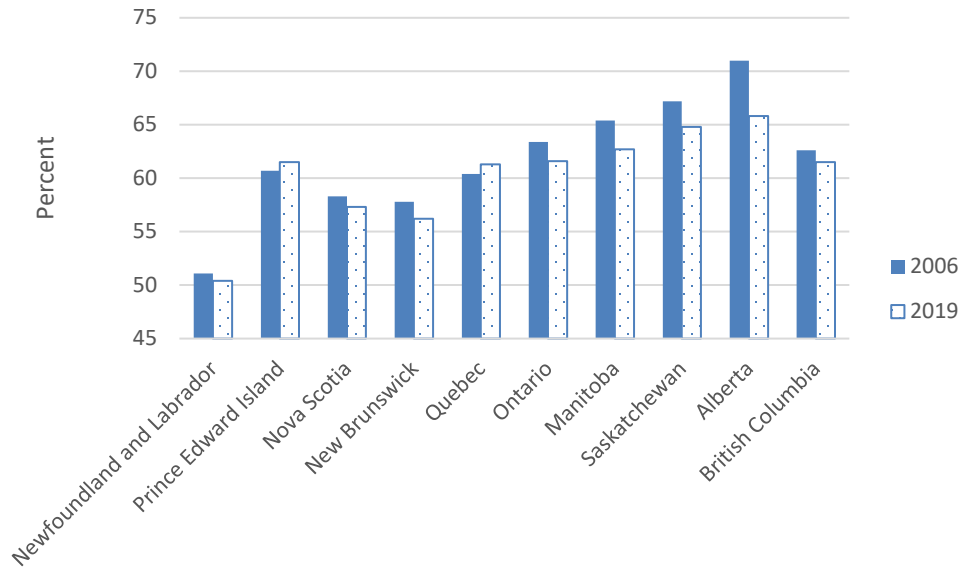
Source: StatCan 2020c

Figure 6 shows the employment rate, which measures all persons employed as a share of the working-age population. \*\* The employment rate following the Great Canadian Slump of 1990-92 did not return to its pre-crisis high until 2003. It continued to grow thereafter until 2007-08 when it peaked at 63.4%, largely due to the Canadian oil and gas boom in the Prairies and Newfoundland and Labrador. During the Great Recession, the employment rate fell to 61.5% and stagnated at that level until 2019. The drop thereafter reflects the COVID-19 crisis and the lockdown measures. Thus, the employment rate grew before the crisis, while shrinking and stagnating thereafter. This is important because of its impact on wages and thus the stability of loans to households. As I show below, these have deteriorated over the last decade.

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\*\* This measure includes all persons of working age including those over 64, with the understanding that an increasing share of seniors have been working over the last two decades. For example, the 2016 census shows that 20% of seniors worked at some point during 2015, the largest proportion since the 1981 census (StatCan 2017).

Figure 7 - Employment rate by province, 2006 and 2019 compared



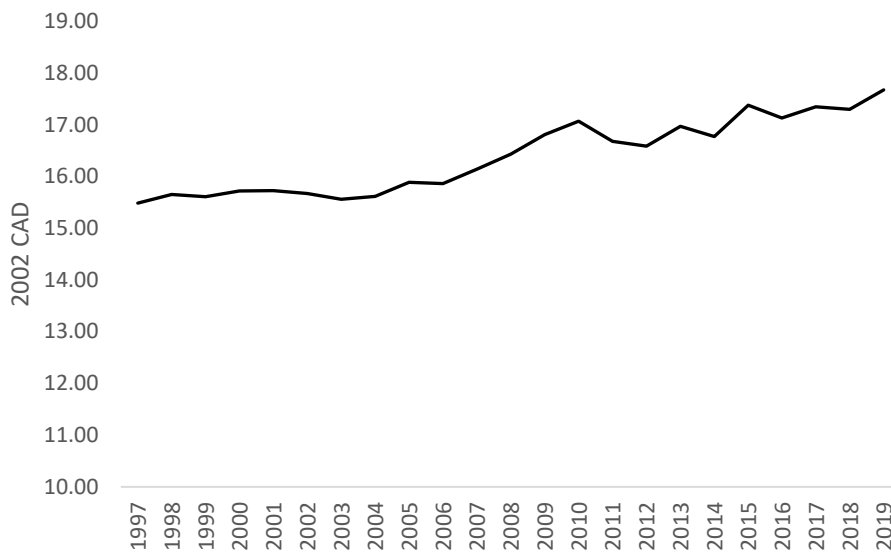
Source: StatCan 2020t, 15 years and older

The employment rate by province reveals the unevenness of the Canadian labor market. Figure 7 shows the levels for each province in the years 2006 and 2019, pre- and post-crisis. First, the employment rate was highest in Alberta both before and after the crisis. However, like seven other provinces, the employment rate in Alberta was below its pre-crisis level in 2019. Alberta exhibited the largest decline, from 71% to 65.8%. Only two provinces showed rates of employment higher than their pre-crisis levels, i.e. Prince Edward Island (from 60.7% to 61.5%) and Québec (from 60.4% to 61.3%). Thus, the general picture is one of lower employment, consistent with the overall data analyzed so far. Critically, however, the labor market continued to slacken in the two provinces in which the housing bubble reached critical levels, namely Ontario and British Columbia.

Since the COVID-19 health crisis, however, matters have become worse. Between March and April of 2020, the employment rate plummeted by 6.4 percentage points, from 58.5% to 52.1%. In a single week in March, employment fell by 2.6% — the sharpest decline ever, surpassing the

worst month of the Great Depression of the 1930s in percentage terms, which was 2.5% in July 1932 (Wajzman 2020). Moreover, the impact of the shock is likely to be long lasting. According to University of Chicago researchers, 42% of the jobs lost in the US during the pandemic are expected to be gone forever (Barrero, Bloom, and Davis 2020). The face of economic life in Canada is undergoing significant changes.

*Figure 8 – Canadian real median wage, 1997-2019*



Source: StatCan 2020z & 2020aj

Relatively lower levels of employment over the last decade have been accompanied by slower wage growth. Figure 8 shows the median real wage over the period 1997-2019. After growing by merely 0.1% on average annually between 1997 and 2004 due to neoliberal wage suppression, the median real wage grew by 1.5% annually between 2005 and 2010. In the years following the Great Recession, real wage growth slowed substantially, averaging just 0.4% per year (StatCan 2020z & 2020aj). In the four years before 2010, the real median wage grew by \$1.20. But in the five years after, it grew by only half as much, \$0.60. While the employment rate fell after 2008, continuing real median wage growth until 2010 can be accounted for by the oil boom,

the lower than expected inflation rate, and delays in wage adjustments, the result of institutional factors such as cost of living adjustments written into collective agreements. For example, unions locked in an average first-year pay increase of 3.7% for 680 thousand employees in 2008, and the average duration of a contract at that time was 3.5 years. Union agreements tend to raise the standard for non-unionized workers as well (StatCan 2020ao). Furthermore, collective agreements registered an annual average increase that was higher than inflation in the three years after 2007 (Table 1).

*Table 1 - Collective Agreement (CA) Average Wage Increases and Inflation, annual*

<i>Year</i>	<i>CA Average Increase</i>	<i>Inflation</i>
2008	3.3%	2.3%
2009	2.4%	0.3%
2010	2.0%	1.8%

Source: StatCan 2020ao and StatCan 2020aj

While the rate of inflation was 2.3% in 2008, it had fallen to 0.3% in 2009. In 2010, it was 1.8%. In those same years, the average annual increase written into collective agreements was 3.3%, 2.4%, and 2.0%, respectively. Thus, collective agreements were an important factor in real wage growth in those years. This even more so because the union coverage rate in Canada was 31.2% in 2008 (StatCan 2020ap). It took five full years for the real median wage to return to its pre-crisis level. It then stagnated again for another three years, growing modestly in 2019. Thus, the real median wage evinces a pattern of stagnation from 1997-2004, growth from 2005-2010, stagnation until 2014, and slow growth thereafter.

Table 2 shows the evidence by province. It reveals an uneven picture geographically. The ten-year period 2009-19 saw relatively higher wage growth for Newfoundland and Labrador, PEI, Québec, Saskatchewan, Alberta, and BC, each of which had median real wage rates above the median real wage for the country. Wages stagnated in Nova Scotia, New Brunswick, Manitoba,

and Ontario. In more recent years, 2014-19, Newfoundland and Labrador as well as Alberta experienced significant wage stagnation, owing to the oil slump. There, wages grew by merely \$0.06 and \$0.15, respectively. The significance of wage stagnation in Ontario and Alberta should not be understated. The latter was Canada’s engine of growth until recently and the new center of capital accumulation, while the former is the traditional center of capital accumulation, the largest province by population (39%), and the center of the housing bubble (StatCan 2020u). It is in this province that wages *shrank* by 11 cents over the last decade. This is significant because wage growth underlies the stability of loans to households. Stagnant wages do not bode well for the financial assets of Canada’s banks. The impact of COVID-19 and “the Great Lockdown” on employment and wages is sure to be significant and long lasting. I return to this point below.

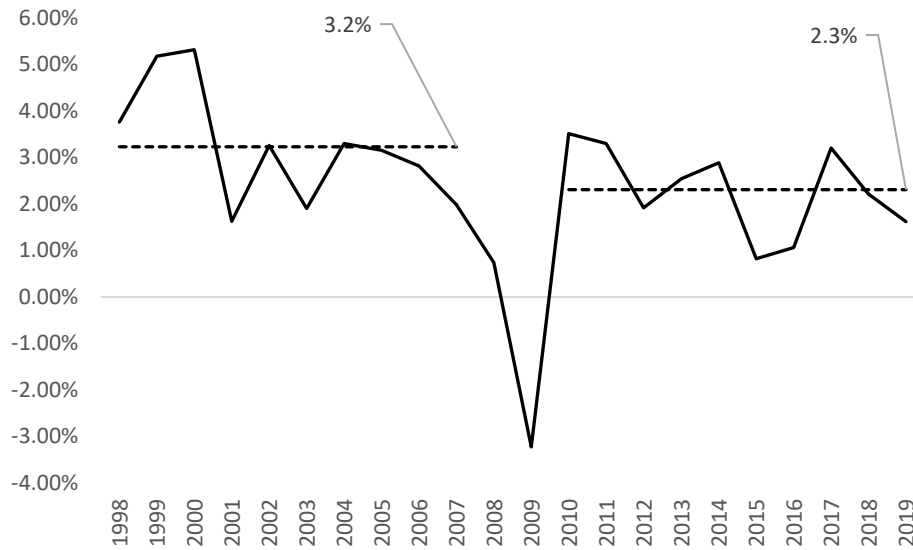
*Table 2 - Median real wage growth by province (2002 dollars)*

<i>Province</i>	<i>2009-19</i>
<i>Newfoundland and Labrador</i>	\$1.83
<i>Prince Edward Island</i>	\$1.37
<i>Nova Scotia</i>	\$0.54
<i>New Brunswick</i>	\$0.61
<i>Québec</i>	\$1.43
<i>Ontario</i>	-\$0.11
<i>Manitoba</i>	\$0.59
<i>Saskatchewan</i>	\$1.36
<i>Alberta</i>	\$1.34
<i>British Columbia</i>	\$1.22

Source: StatCan 2020z

Given poor profitability, lackluster capital accumulation, truncated capacity utilization, low employment, and low real wage growth, it is unsurprising that real GDP growth, too, was weak. Between 2010 and 2019, it averaged 2.3%, almost a full percentage point below its ten-year pre-crisis average of 3.2% (Figure 8). In 2019, real GDP grew by merely 1.6% (StatCan 2020m). And even before the COVID-19 crisis, sluggish growth was forecasted well into the future (TCBC 2019). In 2020, the country was in a full-blown recession (Evans 2020).

Figure 9 - Real GDP growth rate



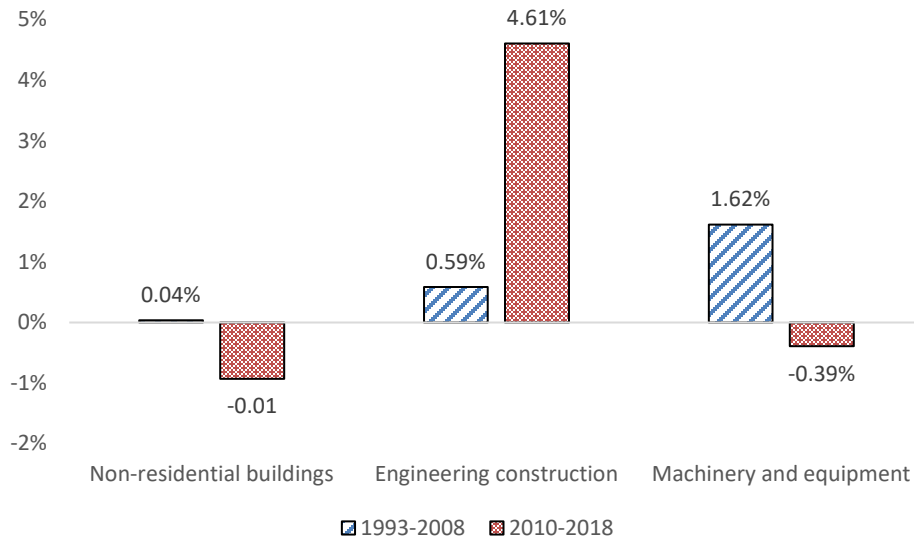
Source: StatCan 2020m

To sum up, while Canadian capitalism weathered the Great Recession relatively well owing to strong corporate balance sheets and a brief period of growing real wages in the final years of the Great Moderation, the decade since 2009 has been characterized by sneaking stagnation, rooted in profitability problems that began after 2005. This has manifested itself in the stagnant accumulation of machinery and equipment, low industrial capacity utilization rates, low employment levels, as well as low real wage and GDP growth. In Part 3, I link the crisis of profitability to Canada's housing bubble. First, however, it is important to assess Canada's two centers of capital accumulation.

## Part 2: Canada's Centers of Capital Accumulation

What is the evidence for slowing capital accumulation in Canada's provincial centers, Alberta and Ontario? Together, these jurisdictions host 56% of the country's capital stock, worth over \$3 trillion, and their respective rates of capital accumulation over the last decade demonstrate revealing patterns. These are presented in Figures 10 and 11.

Figure 10 - Rate of capital accumulation in Ontario, by asset type



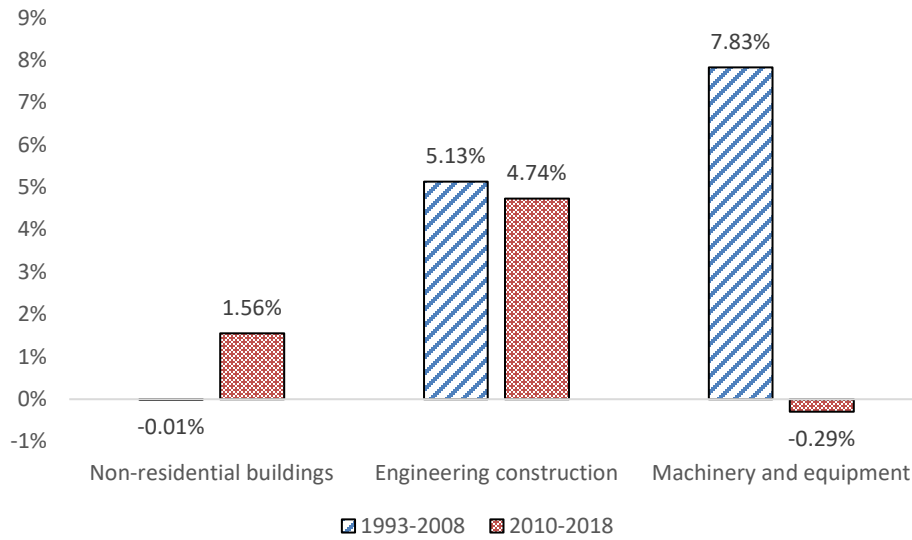
Source: StatCan 2020a<sup>††</sup>

Figure 10 shows that the average rate of capital accumulation in non-residential buildings and machinery and equipment was negative in the period following the Great Recession, while that for engineering construction grew by 4.61% over the same period. These data are consistent with my thesis of the growing importance of the housing boom in the context of otherwise weak profitability. Investment in machinery and equipment ground to a halt in Ontario, while highways, streets, bridges, and utility systems were built to support housing development.

<sup>††</sup> The rate of accumulation in Figures 10 and 11 are the rates of growth of fixed non-residential capital of all industries less the fixed non-residential capital of non-profit institutions serving households and the government sector in 2012 constant prices.



*Figure 11 - Rate of capital accumulation in Alberta, by asset type*



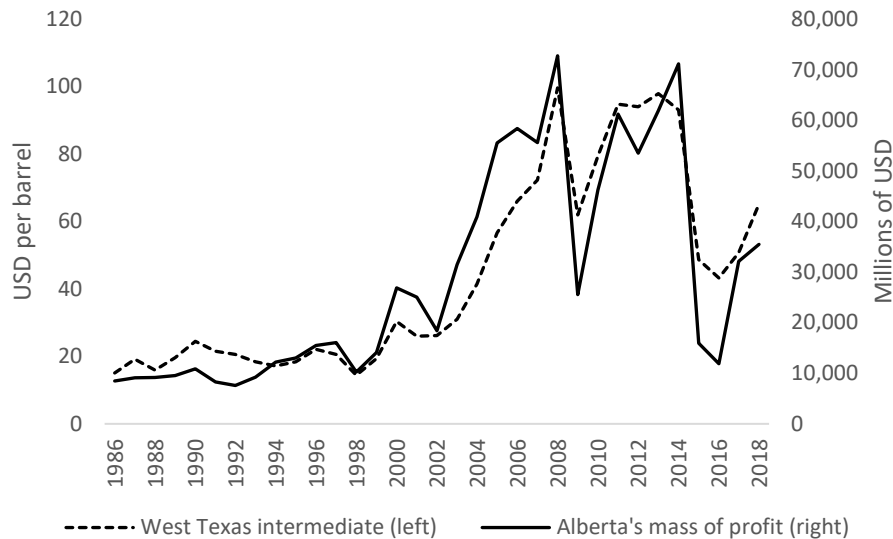
Source: StatCan2020a

While capital accumulation in all three asset types was slower immediately following the Great Recession in Alberta, it was still positive. Only in 2015, after the world slump in oil prices, did investment in machinery and equipment turn negative. The other two asset types continued to grow, but at a more modest pace. Figure 11 shows these growth rates for the period of the Great Moderation, 1993-2008, and the post-recession period.

In 2018 the largest contributors to GDP in Alberta were mining, quarrying, and oil and gas extraction. In second and third places came real estate and rental and leasing, just before construction. Oil, of course, is the leading industry in Alberta, while the former industries are connected to it through backward and forward linkages. Equivalent to 24% of provincial output, the value of the oil industry's output was \$81.5 billion in 2018 (StatCan 2020ac, chained 2012 dollars). Alberta's oil and gas sector is the single-most important source of profit in the province and, indeed, the country (StatCan 2020ae). Given the weightiness of the industry and the significant slowdown in capital accumulation in the province in recent years, we would expect

there to be a correlation between the price of oil and provincial profitability.

*Figure 12 – International oil price and Alberta’s mass of profit, compared*



Sources: StatCan 2020w, EIA 2020 & FRED 2020

Figure 12 plots Alberta’s mass of profit in US dollars alongside the price of crude per barrel (West Texas Intermediate, WTI). As expected, the patterns match closely. The volatility of Alberta’s profit is due to the relative importance of the oil industry, which is subject to fluctuations in the price of crude internationally. The mass of profit shrank dramatically in 2009 during the Great Recession and almost recovered to its pre-crisis high in 2014 before the following year’s oil glut saw the WTI price drop and the province’s mass of profit along with it. Realization problems, i.e. trouble getting crude to market profitably, continue to plague the sector as transportation bottlenecks have weighed heavily on prices, related in no small part to the resistance of provinces and indigenous land defenders. Alberta’s GDP therefore rises and falls with the international price of crude oil and, critically, the cost of getting it to market.

While profits tend to move with the international price of oil, it is on the cost side that the Canadian state can exercise a degree of control, especially through infrastructure investment, and

continues to do so in its ongoing effort to optimize the conditions for capital accumulation. To this end, the Trudeau government, following its Conservative predecessor, has sought to facilitate profitability in the oil industry by, for example, offering \$3 billion in tax subsidies and purchasing the \$4.5 billion Trans Mountain Pipeline from Kinder Morgan to ensure it gets built.

In 2020, however, the headwinds facing the oil and gas sector grew stronger. As the pandemic and accompanying shutdown of undermined the global economy, the intensification of interstate rivalry made things more difficult for the oil and gas sector. Two of the world's leading oil producers, Saudi Arabia and Russia, engaged in a price war with dire consequences for other oil-producing countries. This is important, because Canada's strategy to optimize the conditions for capital accumulation in the country rests on its ability to export oil to Asian markets profitably. In less than a month, between February and March of 2020, however, the West Texas Intermediate price per barrel fell from \$53.77 to \$31.72, undermining US shale and Canadian oil sands production. In late April of the same year, negative oil prices in Canada's oil sands became a reality as unsold crude overflowed storage capacity and firms were forced to pay buyers to take it off their hands (Bakx 2020). On April 20 of 2020, oil prices plunged to USD -\$37 per barrel, rising above USD \$0 shortly thereafter and averaging just USD \$15 per barrel thereafter (FRED 2020c). Long gone are the days of USD \$100 per barrel. The price drop, storage issues, and, critically, poor profitability, have contributed to deep cuts to oil production in Western Canada (Healing 2020), thereby undermining one of the Canadian state's important economic stabilizers and an important source of state revenue. Of course, the problems facing business in the oil industry have been compounded by the growing anti-pipeline sentiment and resistance on the ground.

It is worth noting that the drop in oil prices could have a contradictory effect on the Canadian economy considered as a whole. While it undoubtedly negatively impacts Alberta's

economy, which is heavily invested in the oil, it could positively impact the GDP of the provinces of Ontario and Québec, whose manufacturers would benefit from a lower exchange rate and lower costs of production that a drop in oil prices entails. The manufacturing sectors in both Ontario and Québec have seen precipitous declines in their respective stocks of capital over the last two decades and have lost much of their former importance for the Canadian economy. Between 1999 and 2018, the manufacturing sector's capital stock in Québec shrank by 25% (-\$11.3 billion) and in Ontario by 40% (-\$33.3 billion) (StatCan 2020a, chained 2012 dollars). Similarly, manufacturing as a share of provincial GDP fell from 20% in each province in 2000 to 13% in Québec and 12% in Ontario in 2019 (StatCan 2020ac). While it is true that a lower exchange rate and lower oil prices could facilitate business investment in the manufacturing sector and offset some of the instabilities of Canadian capitalism, at the time of writing (October 2020) sustained capital accumulation and employment growth in this industry had yet to take place — and the COVID-19 crisis had only made matters worse.

The greatest contributors to GDP in Ontario, on the other hand, are real estate, manufacturing, finance and insurance, public administration, and construction. Contrary to Alberta, the leading sector in Ontario is not in production, but in trade, i.e. the buying and selling of land and buildings (transfers of ownership). The fate of real estate and that of the construction industry is tied to the demand for housing, the clear majority of which is financed by the banks through mortgages to households. In turn, houses are insured by insurance companies. This is the housing bubble, whose limit is determined by the interplay of disposable income, the household debt level, and the interest rate. I return to this in Part 3. Next to the housing bubble, Ontario's manufacturing industry, the traditional center of capital accumulation in Canada, has been in decline for 15 years and is highly dependent on exports to the US. Nevertheless, manufacturing is

still the second-most important contributor to GDP in Ontario. The takeaway is that growth has been largely tied to the housing boom through household debt and to the manufacturing sector through exports to the US. Given the centrality of Ontario's economy to Canadian capitalism, this leaves the country particularly vulnerable to the global downturn that began before the COVID-19 crisis and has been amplified by it.

To sum up, the two centers of capital accumulation in Canada are Alberta and Ontario. In the former, oil and gas is the principal source of growth. In the latter, real estate and manufacturing. In both jurisdictions, profitability and capital accumulation have been stagnating or waning over the last decade and a half. Furthermore, both are tied to developments in the world economy, making these economies highly susceptible to the global crisis. The first is linked through oil exports and the second through manufacturing exports. In the context of generalized stagnation and the worldwide recession, one of the biggest risks to Canadian macroeconomic stability is the housing bubble. Whether the Canadian state will be successful in mitigating the impact of the global crisis has yet to be seen, but the magnitude of the rescue package is unprecedented in Canadian history. Canada's revenue and expenditure measures designed to deal with the global financial crisis and COVID-19 are the largest in the G20 as a percent of GDP after Australia, Japan, and the US. In Canada, 5.2% of GDP is dedicated to the effort (Battersby, Lam, and Ture 2020).

### **Part 3: The Housing Bubble**

When he was governor of the Bank of Canada in 2012, Mark Carney deplored corporate Canada's \$660 billion hoard of "dead money" and chastised the business community for not putting it to work: "If they can't think of what to do with it, they should give it back to their shareholders," he said (Carmichael 2012). Corporate managers responded with a shrug. Profitable avenues for active

investment were few and far between, and they had other plans. In 2019 corporate cash and deposits amounted to \$1.3 trillion. Corporate cash hoards amounted to 25% of GDP in 2005. By 2019 they reached 43%. Non-financial and financial corporations held 56% and 44% of this reserve, respectively. In 2020 corporate cash holdings and deposits grew to \$1.5 trillion and, owing to the recession and the dramatic decline in output that accompanied it, they reached 74% of GDP (StatCan 2020f).<sup>‡‡</sup>

Retained earnings are distributed unevenly across industries. Table 2 presents the data. “Dead money” is concentrated in 10 industries, which hold 69% of all retained earnings. The remaining 57 industries hold the other 31%. The top 10 industries are listed below in order of their share sizes. The remaining industries hold between 0.1% and 2.9% each. Importantly, retained earnings of corporations involved in the oil and gas industry were -\$84 billion in 2018 after shrinking since 2014. Those industries that fared well during the long period of stagnation hoarded cash, while those that did not increasingly borrowed to remain afloat.

*Table 3 - Retained earnings shares by industry*

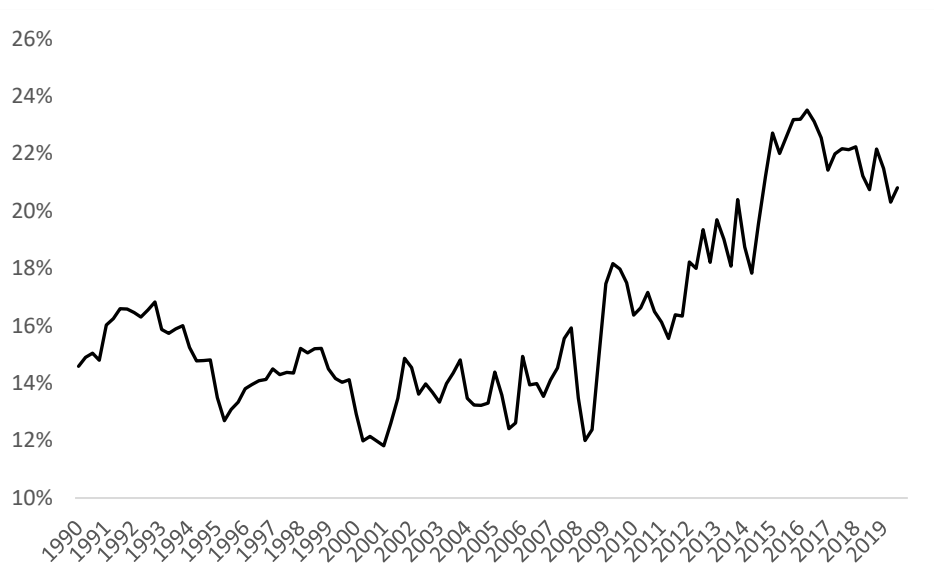
<i><b>Industry</b></i>	<i><b>Share</b></i>
<i>Securities and commodity exchanges and other financial investment activities</i>	14.8%
<i>Banking and other depository credit intermediation</i>	13.6%
<i>Real estate</i>	10.8%
<i>Construction</i>	6.7%
<i>Educational, health care and social assistance services</i>	4.9%
<i>Agriculture, fishing, hunting, trapping and support activities</i>	3.9%
<i>Professional, scientific and technical services</i>	3.9%
<i>Property and casualty insurance carriers</i>	3.7%
<i>Utilities</i>	3.2%

<sup>‡‡</sup> If the mass of profit stops growing, i.e. if the mass of profit in the current period is the same as or less than the previous period, then any new investments from the previous period were wasted — they contributed no additional profit. In this context, firms stop investing in additional machinery and equipment and, as a result, retained earnings grow while employment stagnates. Firms may then use retained earnings to consolidate their competitive positions in various ways, including the purchase of land, stock buybacks, etc. These are the manifestations of an underlying profitability problem and the failure of valorization that accompanies it.

Source: StatCan 2020k

In addition to moving “dead money” into cold storage, corporate managers have significantly increased their land holdings (Figure 13). As a share of non-financial assets, these grew from 15% in 2006 to 24% in 2016. In 2019, they stood at 21%. In dollar terms, corporate land holdings increased from \$418 billion in 2008 to \$875 billion in 2019, an increase of \$457 billion or the equivalent of 39% of GDP (StatCan 2020f).

Figure 13 - Corporate land holdings as a share of non-financial assets



Source: StatCan 2020f

Increased demand for land, of course, has little impact on supply. Thus, the scramble for land has helped to push up its price. Farmland prices, for example, have almost quadrupled since 2005, with the largest increases in Saskatchewan and Manitoba. The land grab has also significantly impacted the real estate sector. Between 2006 and 2019, the price of new houses

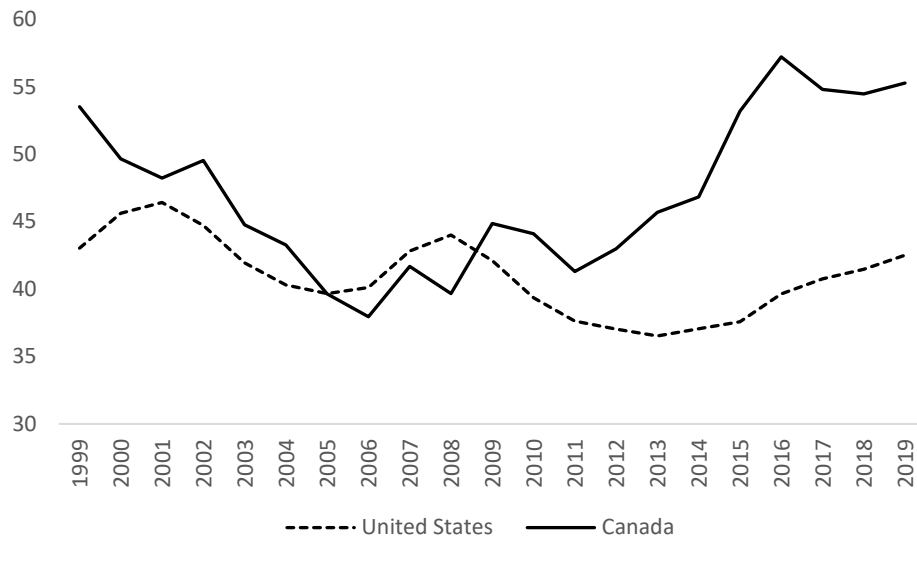
increased by 25%, while the price of land on which they were built increased by 54% (StatCan 2020g). Below I demonstrate how this has helped to inflate a housing bubble, which has become a looming threat to Canadian macroeconomic stability.

While cash and land hoarding occurred in certain industries, non-financial corporations increased leverage overall. During the Great Moderation, Canadian non-financial corporations deleveraged. And while relatively healthy balance sheets helped to stabilize corporations against the financial crisis of 2007-08, these same balance sheets have since deteriorated. Over the period through and following the Great Recession, corporate leverage increased dramatically. The corporate debt-to-GDP ratio stood at 118.7% in the second quarter of 2019, the third highest level among the G20 countries, after China and France (Baystreet 2020). Debt is greatest in real estate, manufacturing, and the oil and gas industries, which account for 45% of corporate debt (Ibid). According to analysts at the Bank of Canada, the non-financial corporate debt-to-GDP ratio is at an “all-time high” (Grieger & Lipsitz, 2018). And the OECD notes that Canada has the largest non-financial corporation debt-to-surplus ratio among the G7 countries (OECD 2020b). High leverage in the context of generalized stagnation and an economic shock like that of the COVID-19 crisis could significantly undermine the ability of firms to service their debts.

The Bank for International Settlements collects debt service ratios for non-financial corporations for select countries. These are useful for cross-country comparisons. In Canada in 2020, 55% of corporate income went to paying interest and principal payments on loans, whereas it amounted to 43% in the US. Figure 14 shows that the debt service ratio increased from 38% in 2006 to 57% in 2019 as economic stagnation wore on business balance sheets.



Figure 14 - Debt service ratios of non-financial corporations

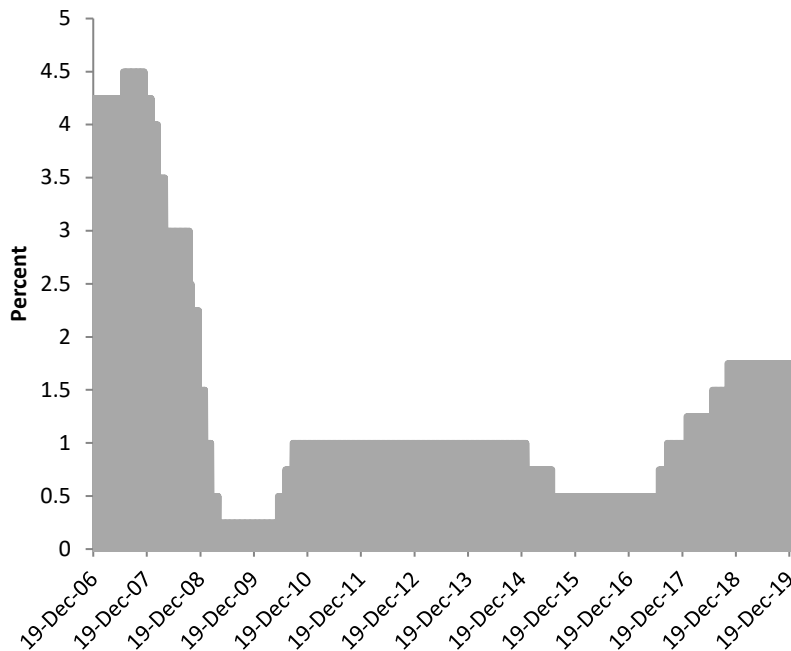


Source: BIS 2020

In addition to growing debt levels overall, analysts at the Bank of Canada have classified 25% of Canada's publicly traded companies as zombie firms (Grieder and Ortega 2020). These enterprises persistently do not earn enough revenue to cover interest payments on their outstanding debts. Two-thirds of these firms are exposed to fluctuations in commodity prices, directly or indirectly, in their business dealings. The majority of these operate in the metal, coal, mineral mining, and oil and gas industries. While the study's last observation was in 2018, there is good reason to believe the share of zombie firms has grown in recent years, owing to the ongoing weakness of commodities prices, the global lockdown following the outbreak of the coronavirus, and state supports keeping otherwise unviable firms on life support. While these firms hold only 3% of all debt, these developments add to the abundance of problems Canadian capitalism already faces.

Alongside cash and land hoarding and growing corporate debt, there has been a significant decrease in interest rates. When the Bank of Canada lowered its target rate to mitigate the effects of the global financial crisis and the Great Recession that followed it (Figure 15), mortgage rates followed closely behind. The average 5-year term mortgage rate fell from 6.4% in 2008 to 5.1% in 2009. In 2010, it crossed an historical threshold of 5% for the first time in over seven decades. In 2016, it fell to 3.7%, the lowest level in the dataset. It has since averaged 4.2% (StatCan 2020i and 2020j). Since the COVID-19 crisis in Canada, the Bank of Canada's dropped its target rate to 0.25% and the 5-year term mortgage rate fell to 3.95%.

Figure 15 - Bank of Canada target interest rate



Source: BOC 2020

Interest payments make up 63% of bank revenue in Canada. Thus, as the interest rate fell, so too did the banking profit rate. It sank from an annual average of 15% in 2000-08 to 11% in

2010-18 (Figure 16). Thus, banks had a significant incentive to make up the difference by increasing the volume of loans and redoubling their efforts to sell consumer and homeowner credit to working-class families. Mortgages continue to make up the bulk of household credit, the largest and fastest growing part of bank loans (Figure 17).

Figure 16 - Banking profit rate<sup>§§</sup>

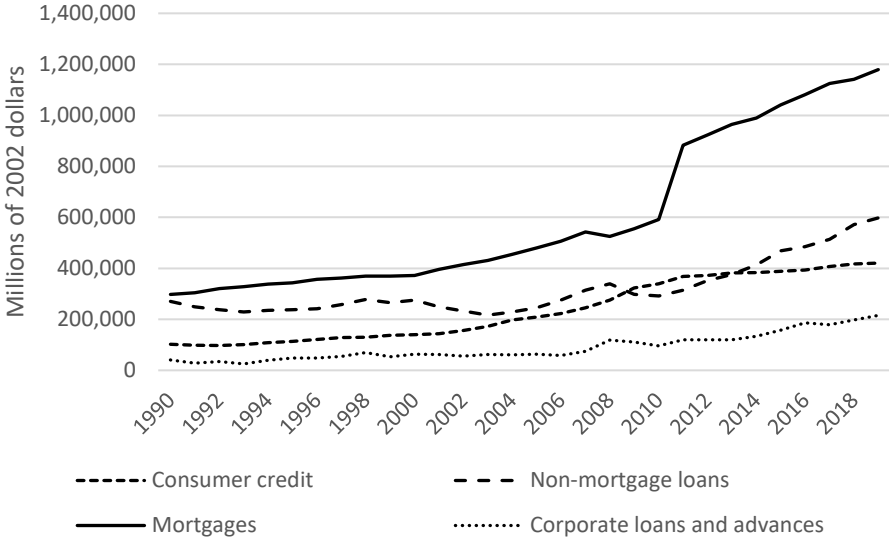


The pileup of loanable funds alongside record-low mortgage rates and a significant incentive on the part of the banks to issue interest-bearing loans to households, taken together with the decades-long assault on working class incomes, precipitated growing household debt. This grew to 101% percent of GDP in 2016 and stayed at that level thereafter (FRED 2020b). The impact of the COVID-19 crisis and state measures to stabilize the financial system, including measures allowing borrowers to defer loan payments, could lead to an increase in this ratio over the coming period, especially as GDP shrinks by its projected 6.2%. While the expansion of

<sup>§§</sup> To calculate the profit rate by industry, a different dataset is required than the one used to calculate the average rate of profit. The banking profit rate is defined as profits before income tax divided by inventories, net capital assets, and other assets of the preceding year (StatCan 2020k). The dataset includes data from 1999-2018 only.

mortgages and the growth of new housing prices preceded the Great Recession, it continued thereafter, albeit at a slightly slower rate (Figure 14). Between 1993 and 2009, the value of outstanding mortgages increased by 180% (or \$308 billion). Our measure for the post-crisis rate of growth of mortgages must start in 2011 when new standards for financial reporting were adopted (StatCan 2011). In the post-crisis period (2011-18), using the 2011 financial reporting standards, mortgages increased overall by \$386 billion to \$1.2 trillion (StatCan 2020f). The rate of growth slowed slightly from 7.6% in the pre-crisis period to 5.5% in the post-crisis period. Mortgages were and continue to be the largest and fastest growing of chartered bank assets.

Figure 17 - Chartered bank and quasi-bank loans

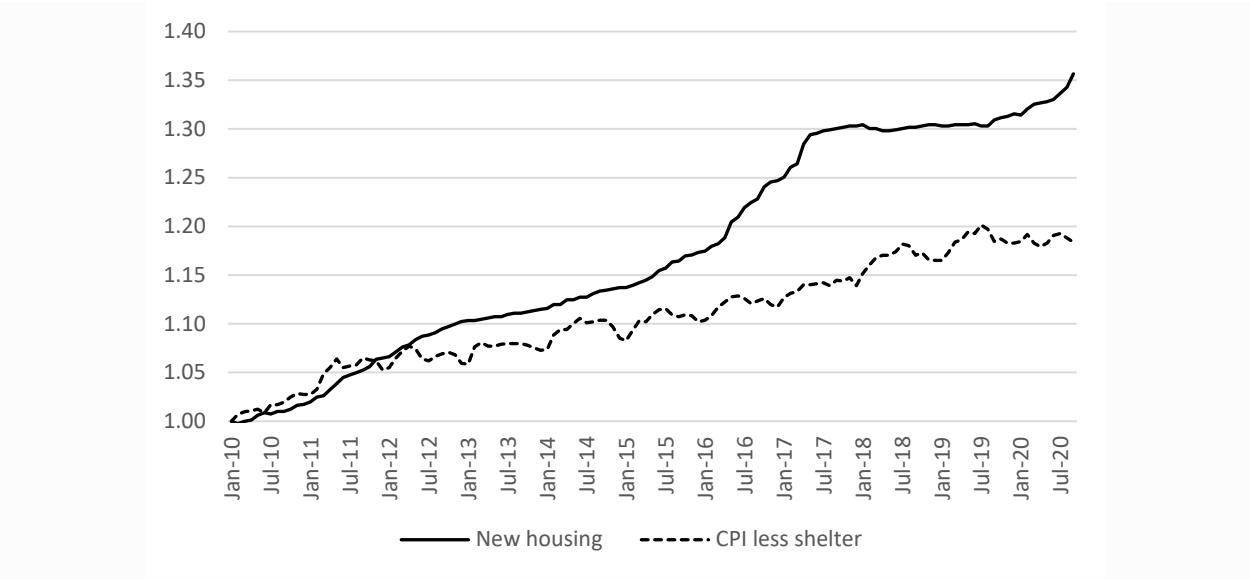


Source: StatCan 2020f and StatCan 2020aj

In the period after the Great Recession, the mainstay of the Canadian economy was the housing boom, centered in Ontario. Money flowed from the banks and private lenders to households. Growing mortgages alongside corporate land grabs helped to pump up house prices (Figure 18), making real estate and construction highly profitable avenues for money capital in the

context of otherwise weak macroeconomic profitability. House price inflation was greatest in Ontario, where prices increased by 36% after 2010. By contrast, prices excluding shelter increased by only 18% over the same period. (StatCan 2020g and StatCan 2020d).

Figure 18 - Canadian price indices



Source: StatCan 2020g and StatCan 2020d

The real estate sector has therefore assumed an important role in the Canadian economy over the last decade. After the Great Recession, it rose from the sixth- to the fourth-most profitable industry in Canada, after securities and commodity exchanges, non-depository credit intermediation, and banking. Over that time, its operating profit margin rose from 20% to 27%, while that of the non-financial sector stayed between 6% and 7%, touching 8% just twice (StatCan 2020k). The return on capital employed and the return on equity in real estate, too, exceeded non-financial sector averages. By contrast, the oil-sector profit margin fell from 18.2% in 2008 to 7.1% in 2009, falling again to -12.2% and -13.7% in 2015 and 2016, respectively (StatCan 2020k).

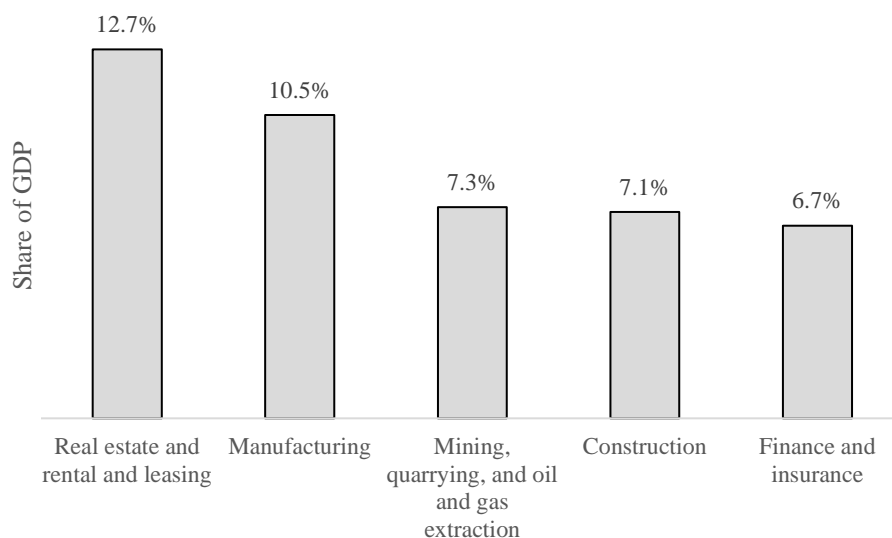
Rising house prices have also contributed to extraordinary profits in the construction

industry. In 2006, the construction-sector profit rate rose from 14.1% to 16.6%, above the industrial average of 15.1%, and stayed there until 2017 when it fell below the industrial average of 10.4% to 9.2%.<sup>\*\*\*</sup> Before the COVID-19 crisis, the construction sector employed almost 1.5 million people, making it the fifth largest employer in the country. It feverishly churned out over 200 thousand new housing units per year (StatCan 2020m). In 2019, it became the fourth largest private sector contributor to GDP, not far behind real estate, finance, and insurance. During the busiest period, 2012-15, it contributed 7.9% to GDP annually on average. In the period 2007-19, the sector generated 7.1% of all new income (Figure 19). In early 2020, however, the construction sector began losing jobs owing to COVID-19 and the new global economic crisis. In one month, from March to April of 2020, the sector lost 314 thousand jobs, a monthly decline of 21%. The worst hit province was Québec, where construction employment fell by an unnerving 39%, or 108 thousand. In Ontario, it fell by 16.8%, or 94 thousand. In magnitude, these two provinces together lost 202 thousand jobs, 64% of all losses in Canada (StatCan 2020l).

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<sup>\*\*\*</sup> The construction profit rate is defined as profits before income tax divided by inventories, net capital assets, and other assets (StatCan 2020k).

Figure 19 - Share of GDP by industry, 2019



Source: StatCan 2020n

The leading sectors of Canadian capitalism are intimately tied together. The ensemble of real estate, finance, insurance, and construction constitute the housing boom. Insofar as real estate firms take a cut of sales, i.e. funds flowing from households to households or from households to construction firms, profit in real estate is profit on transfer as opposed to profit on production (Shaikh 2016). Wealth moves from the circuit of revenue into the circuit of capital. Finance, too, is profit on transfer insofar as revenue is transferred from households to the circuit of capital through interest payments on mortgages. The construction boom, therefore, largely depends upon transfers from households to real estate firms and, critically, to banks. While real estate agents facilitate the transfer of ownership title, banks lend mortgages to households, which drives demand for housing. Mortgages to households alongside corporate land grabs and speculation drove up new house prices and bolstered construction profits. As I have shown, these encouraged building companies to produce more homes. The whole process, however, is limited by the ability of households to finance their debts. This, in turn, depends upon the interest rate, the magnitude of

household debt, disposable income, and, critically, employment. The latter, of course, is linked to capital accumulation and, ultimately, macroeconomic profitability. The general conditions for business profitability, “the fundamentals,” therefore, feed into the dynamics of household debt, the housing market, real estate, finance, and construction. Today, however, there is a growing discrepancy between “the fundamentals” and the housing boom as “debt levels continue to grow faster than incomes, reflecting how household and government spending remain dependent on debt-financing” (Cross 2020). This household debt-led growth poses a risk to Canada’s highly leveraged banking sector. The result of COVID-19 and the “Great Lockdown,” therefore, is increased financial strain, part of which has been offset by the state’s efforts to optimize the conditions for capital accumulation by bolstering demand. I return to the question of household debt in Part 5. In the next part, I examine the status of the Canadian banks.

#### **Part 4: The Canadian Banks**

The Basel II Accord, adopted by the Bank for International Settlements’ (BIS) Basel Committee on Bank Supervision (BCBS) in 2004, established recommendations for national policymakers regarding bank capital requirements, which were designed to keep banks solvent in case of financial stress. The preferred indicator of bank leverage and thus stability was the capital adequacy ratio, measuring a bank’s capital over its risk-weighted assets. Bank assets were assessed by rating agencies and weighted accordingly. This measure, however, was severely flawed. As is now well established, rating agencies misunderstood the hazards associated with certain assets, especially derivatives, and this undermined their risk assessments. Therefore, during the global financial crisis many bankers abandoned the Basel II Accord measures of leverage in favor of the tangible common equity (TCE) ratio. This measures tangible common equity to total tangible assets. The numerator is a bank’s book value minus its retained earnings, disclosed reserves,



preferred stock, and innovative capital instruments, while the denominator includes only tangible assets, excluding intangibles (such as goodwill). It is the most conservative measure of bank leverage.

The TCE ratio was adopted as the “worst-case scenario” measure for bankers and is used in this study to measure bank leverage. For this measure, the lower the percentage, the higher the leverage, and *vice versa*. I sampled 540 North American banks in 2019 and found that they had an average TCE ratio of 9.84%. Amongst these, Canadian banks were among the most highly leveraged. Together, Canada’s top banks had an average TCE ratio of 4.21%. Thus, they were more leveraged than many of their North American counterparts. Canada’s biggest banks were within the top 14 of the 540 cases examined. National Bank of Canada came in seventh place, followed by Laurentian Bank of Canada in eighth, Canadian Imperial Bank of Commerce in tenth, Bank of Montreal in eleventh, Bank of Nova Scotia in twelfth, Royal Bank of Canada thirteenth, and Toronto-Dominion Bank in fourteenth. The banks and their respective TCE ratios are listed in Table 4.

Table 4 – Canadian bank TCE ratios, 2019

<b>Bank</b>	<b>TCE</b>
National Bank of Canada	3.42%
Laurentian Bank of Canada	4.09%
Canadian Imperial Bank of Commerce	4.29%
Bank of Montreal	4.37%
Bank of Nova Scotia	4.40%
Royal Bank of Canada	4.41%
Toronto-Dominion Bank	4.47%
<b>Average</b>	<b>4.21%</b>

Source: Bloomberg

Table 5 shows TCE ratios by world region alongside the sample size. For example, I

sampled nine Australian banks and found they had an average TCE ratio of 5.83%. For 1,611 banks sampled around the world, the average TCE ratio was 10.70%. This should help to put Canada's top banks into perspective, whose average TCE ratio was 4.21% at the time of sampling in 2019. By international standards, Canada's big banks were highly leveraged.

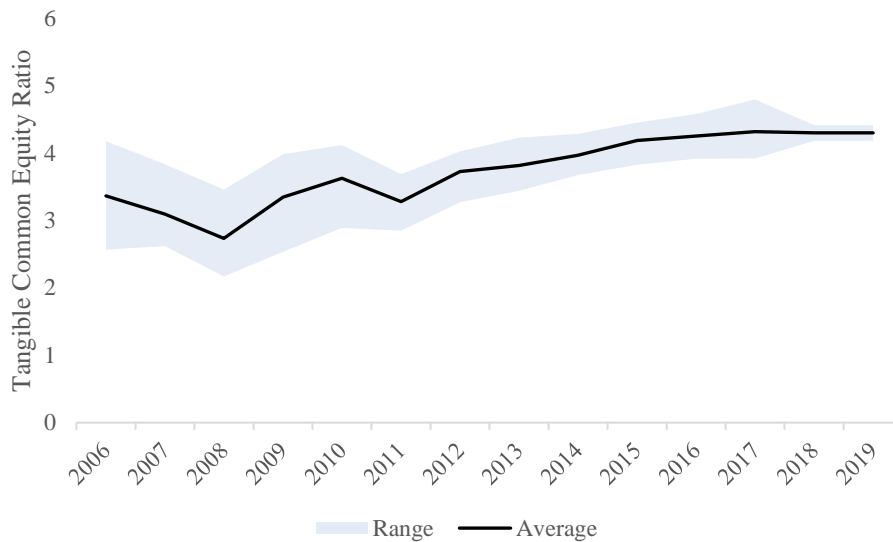
Table 5 - TCE ratios by region, 2019

<b>Region</b>	<b>TCE</b>	<b>Sample</b>
Australia	5.83%	9
Western Europe	9.75%	215
North America	9.84%	540
Asia Pacific (developed)	10.19%	148
Asia Pacific (emerging)	11.45%	232
Middle East and Africa	12.40%	192
Latin America and the Caribbean	12.54%	112
Eastern Europe	13.59%	163
<b>Average</b>	<b>10.70%</b>	<b>1,611</b>

Source: Bloomberg

Figure 20 shows the evolution of the average TCE ratio of Canada's Big 5 banks since profitability began to erode in 2006. The data show that Canada's big banks deleveraged somewhat over the last decade. During the global financial crisis of 2007, at 3.09%, Canadian banks were the most highly leveraged in the world after their European counterparts. The principal source of their stability through the crisis lay in the soundness of their underlying assets (McCormack 2019). In 2009, however, they began deleveraging modestly. In 2019, the average TCE ratio for Canada's Big 5 banks was 4.30%. Still, by international standards, Canada's banks remained highly leveraged and their assets, especially loans to households, appear increasingly unstable.

Figure 20 – Big 5 bank TCE ratios, 2006-19

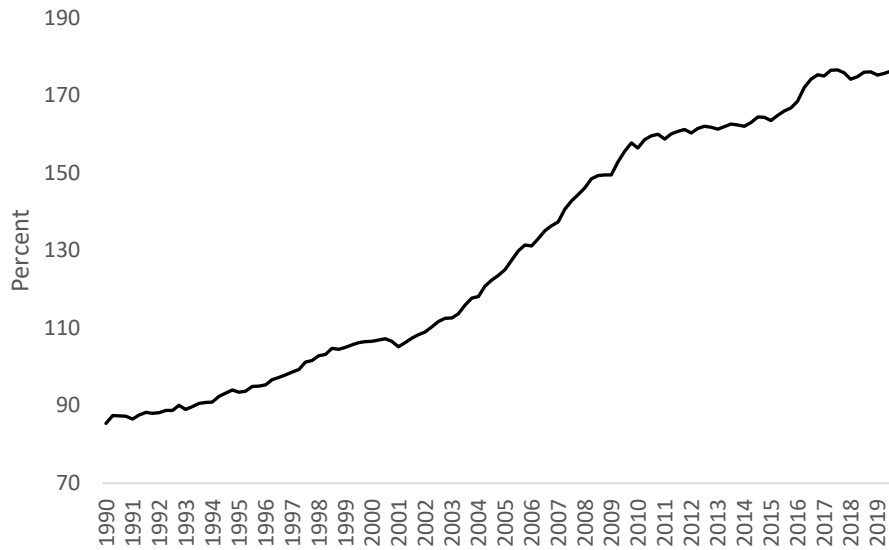


Source: Bloomberg

### Part 5: Household Debt Limit

If households start missing monthly payments, it spells trouble for the banks. As I have shown in above, Canadian banks are highly leveraged, mortgages are their biggest asset, and economic growth, especially in Ontario, is linked to the housing boom. The stability of the Canadian financial and industrial system, therefore, depends upon reliable and timely mortgage payments. The massive blow to employment in Canada due to the COVID-19 and the attendant lockdown sent a shockwave through the industrial and financial system, and the state intervened in a significant way by propping up incomes, relaxing debt servicing payments, and lowering interest rates. However, the situation had become unstable *before* the COVID-19 shock — and this financial instability warrants closer examination if we are to understand the full implications of the unfolding health and economic disaster.

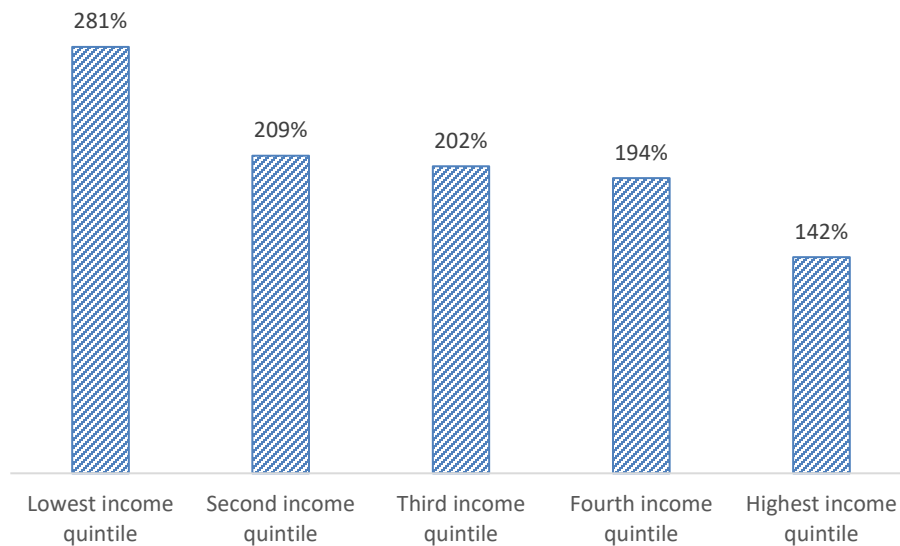
Figure 21 - Household debt to disposable income ratio



Source: StatCan 2020af

Figure 21 shows that the household debt to disposable income ratio reached an all-time high of 176% in 2019. This, in combination with low growth, suggests that even before COVID-19, households were already having difficulty meeting their financial obligations. Figure 22 breaks these data down by income quintile. The latest available data are for 2016. In that year, the lowest income quintile had a debt to disposable income ratio of 281%. The second quintile's ratio stood at 209%, while those of the third, fourth, and highest quintiles stood at 202%, 194%, and 142%, respectively (StatCan 2020s). The difference between the poorest 20% of households and the rest ranged from 72 to 139 percentage points, highlighting that poorer households are significantly worse off than the rest. This has been compounded by the fact that employee compensation growth in the period 2013-18 was negative for the lowest quintile. While real median employee compensation rose by 6.31% and by 5.40% for the second and third quintiles, it fell for the lowest, fourth and highest, by 1.72%, 0.05% and 1.65%, respectively (StatCan 2020i and StatCan 2020j).

Figure 22 – Household debt to disposable income ratio by quintile, Canada, 2016



Source: StatCan 2020s

Furthermore, debt ratios were higher in the centers of the housing boom, Vancouver and Toronto (Younglai 2018). In a recent global housing affordability survey, Vancouver was listed as the second-least affordable city in the world after Hong Kong. Toronto came sixth place, after Sydney, Melbourne, and LA. The cities within the Golden Horseshoe, a densely populated and highly industrialized area in Southern Ontario encompassing 25% of Canada’s population, have also become relatively unaffordable (Demographia 2020). This is important, because this region depends on exports to the US, and a global slowdown would impact those working in this region, further undermining their ability to service their loans. In fact, it is precisely here where wage growth has been weakest in Canada since 2005 (StatCan 2016, see Appendix).

Figure 23 - Total debt to total after-tax income ratios by census metropolitan area

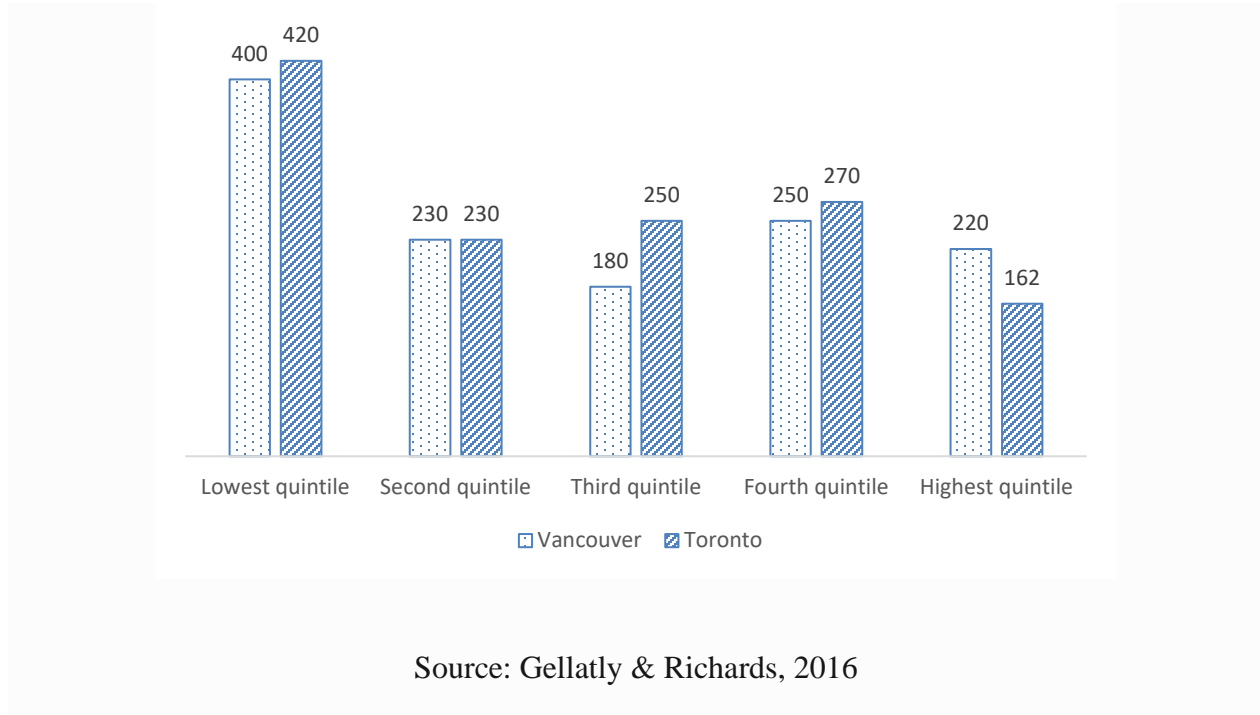


Figure 23 shows the debt to disposable income ratios by income quintile for the centers of the housing boom. In Vancouver and Toronto, the heart of the housing boom, the lowest income quintiles had debt to income ratios of 400% and 420%, respectively, i.e. 170 and 190 percentage points higher than the second income quintile. The lowest home-owning quintile in Vancouver had a total family median income of just \$28,600 in 2018, while those of the second, third, fourth, and fifth quintiles had median incomes of \$59,900, \$92,600, \$133,000, \$213,000, respectively. In Toronto, the numbers were \$33,200, \$65,300, \$99,000, \$142,000, and \$231,000 (StatCan 2020ah).

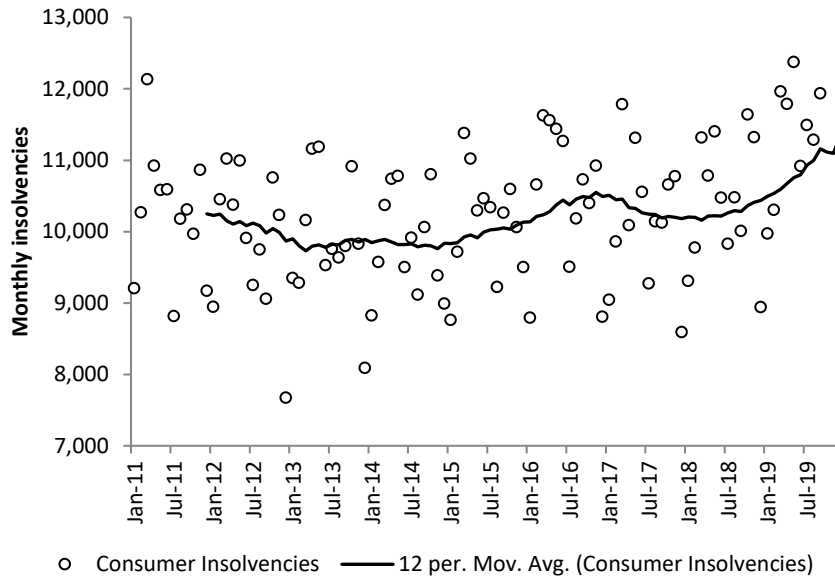
Figure 24 – Household debt-service ratio



Source: StatCan 2020o

The mortgage debt-service ratio measures mortgage payments, including interest and principal, as a share of disposable income. The higher the ratio, the more difficult it is for households to meet their financial obligations. While the mortgage debt-service ratio remained below its 20-year average through the global financial crisis of 2007-08, it rose significantly afterwards. In fact, at 6.54% in 2019, it had returned to levels not seen since 1989, preceding the worst recession in Canada since the Great Depression of the 1930s (excluding, of course, today's economic meltdown). The combined debt-service ratio (mortgage and non-mortgage), however, is at the highest level on record (Figure 24). While remaining stable at 11.84% on average between 1990 and 2005, it increased by 3% to 14.87% by the end of 2018. In the fourth quarter of 2019, it reached 14.98%, the highest level in the dataset. These levels are highest in British Columbia and Ontario, respectively. In these provinces, interest payments alone make up 7.3% and 7.1% of disposable income, respectively (StatCan 2020o and 2020p).

Figure 25 - Consumer insolvencies

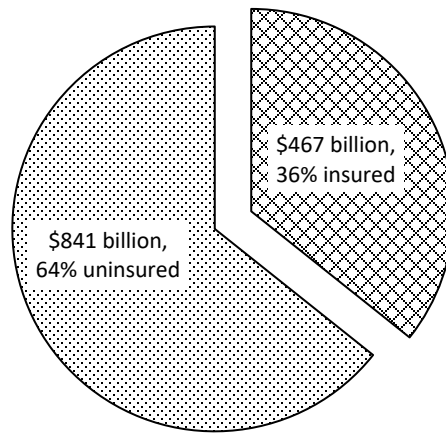


Source: OSFI 2020

Figure 25 shows the Office of the Superintendent of Financial Institutions' data for consumer insolvencies alongside the 12-month moving average. The data show that the number of insolvencies increased over the course of 2019. These data are in keeping with a recent poll, which suggests that 48% of Canadians are \$200 or less away from insolvency every month (Ipsos 2019). While the Canadian Mortgage and Housing Corporation insures many of these mortgages, most of them remain uninsured, highlighting the fragility of the Canadian industrial and financial system even before the current crisis (Figure 26). This problem is likely to be exacerbated by the job losses induced by the global recession and the COVID-19 crisis.



Figure 26 – Share of Canadian mortgages insured by CMHC



Source: OSFI 2020

## Conclusion

Over the last decade, the housing boom propped up an otherwise stagnant economy. Poor business profitability, growing household debts, a real estate bubble, and high levels of bank leverage based upon unsound assets created new risks for Canada’s financial system. Real wages stagnated or grew slowly for a decade and debt grew to historic levels. In 2019, debt service payments reached an all-time high with Canadian households spending 15% of their disposable income on debt obligations and half of households just a couple hundred dollars away from insolvency. While the economy was robust enough to withstand the shock of the Great Recession in 2008-09, the situation has changed. Debt-led growth began to unwind before COVID-19, while the average profit rate had already reached an historic low. Thus, unless the incomes of households are sufficiently supported, the housing boom is likely turn bust, and there will be few investment opportunities upon which businesses can fall back. Job losses and shrinking real wages would

mean falling demand for new houses, missed mortgage payments, and rising consumer insolvency rates, a trend already recorded in the data. While the state has attempted to remedy the situation, Canadian capitalism's future remains uncertain.

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# Appendix

