IN THIS ISSUE:

MONETARY POLICY
THE RISE OF DIGITAL
TRANS MOUNTAIN EXPANSION
ENERGY SECTOR ECONOMICS
About the Authors

Our thought leaders are professionals with years of experience in their fields who strive to help you and your business succeed. Contributors to this issue include:

Joseph Brusuelas
Chief Economist
RSM US LLP

Alex Kotsopoulos
National Government, Health Care and Education Industry Leader
RSM Canada LLP
TABLE OF CONTENTS

Monetary policy: At the intersection of tighter financial conditions and slower global growth

Performance of FCI components

New economy update: The rise of digital

Trans Mountain Expansion could be a boon to the middle market

Energy sector economics
The RSM Canada Financial Conditions Index—a composite measure of risk being priced into financial assets—has been pointing toward a less-accommodative investment climate and subdued growth in the months ahead (see Figure 1). The FCI gauges risk based on the performance of securities and indicators in the commodity, equity, money and bond markets. While this latest sharp drop in financial conditions comes more on a 7 per cent decline in commodities since mid-April than the general tone of the financial markets, the markets are nonetheless pricing in apprehension over endless trade negotiations and the potential impact of global supply chain disruption on an already-slowing global economy.

Research has shown that the level of stress in the financial markets provides an indication of the willingness to borrow and to lend (see Figure 2) and, in turn, the direction of economic growth in future quarters. Based on those composite perceptions, the FCI is pointing toward subdued growth over the course of 2019, centered on sub-2.0 per cent growth year-over-year.

**Figure 1. RSM Canada FCI (with 6-mo. lead) and Canada real GDP growth**

---

**Trade crisis and global slowdown**

The implied assessment of Canadian real GDP growth from the financial markets lines up with median forecasts of economic analysts surveyed by Bloomberg (see Figure 3). Analysts are calling for Canadian economic growth to slow throughout 2019 and into next year, from 2 per cent in the second and third quarters of 2019 to 1.6 per cent by the third quarter of 2020 (at annualized quarter-over-quarter rates).

The forecast for slower Canadian growth coincides with what looks to be a similar decline in growth among Canada’s trading partners. Analyst expectations are for sub-2 per cent U.S. growth in 2019 and 2020, while the major nongovernmental organizations are looking for a slowdown in global growth from 3.6 per cent in 2018 to a range of 2.9 per cent to 3.3 per cent in 2019, and 2.8 per cent to 3.6 per cent next year.
In its recent analysis, the Bank of Canada notes the effect of the trade crisis and the slowdown in global growth, projecting “much softer growth in the first half of the year, before a pickup over the rest of 2019.” The wild cards, of course, are the impact of trade disruptions on “trade-dependent economies like Canada’s,” and the direction of commodity prices.

The Bank of Canada is expecting 1.2 per cent growth for Canada this year and looking for increased productivity, investment and digitalization to produce a pickup in growth after that. However, if that growth is dependent on trade and a healthy global economy, will the slowdown in global growth support commodity prices and Canadian growth? And will Canadian financial conditions improve enough to support investment? Our FCI is showing nearly 1.6 standard deviations below normal levels of stress, approaching statistically significant levels that should raise concern for the monetary authorities.

**So what should the Bank of Canada do now?**

Arguably, interest rates have been too low for too long, which had the unintended consequence of creating an asset-price bubble in housing and aiding and abetting the over-leveraging of the balance sheets of Canadian households. But the slow recovery from the global financial crisis and the near Depression/Great Recession required drastic actions and the prudent unwinding of those actions. Does an economy slipping into the range of 1 per cent growth now require a rate cut?

The financial markets are pricing only a 40 per cent chance that the Bank of Canada will lower rates in 2019. That might be prudent if the economic growth were at normal levels. However, for an economy that is managing to produce growth of only 1 per cent, and one that is dependent on too many exogenous factors, perhaps a rate cut now is a safer choice than multiple rate cuts later.

While asset-price bubbles are a concern, a policy partnership with the fiscal authorities that further limits housing speculation, foreign ownership or money laundering, or provides buybacks for households in need of a bailout should be researched. Local authorities can help by insisting on reasonable amounts of low-income housing integrated into the fabric of society.
The RSM Financial Conditions Index is made up of six components; they include the Canadian corporate bond yield spread, the CRB commodity price index, money-market interest-rate spreads, and the performance of the Toronto Stock Exchange and its volatility.

**Bond market**

In the bond market, we now use the option-adjusted spread, or OAS, between corporate and government bond yields. The corporate yield spread represents the compensation that investors require to hold a riskier corporate security rather than a risk-free government bond. As we show in Figures 4 and 5, the corporate spread has tended to mimic the direction of lending conditions and growth since 2003, when data became available, with greater risk priced into the bond market, suggesting a less-accommodative climate for lending.

The corporate spread has been declining since the start of the year as corporate yields dropped 80 basis points, while government bonds dropped by only 45 basis points. While Canadian government yields have tracked their U.S. counterparts lower, the further drop in corporate yields could be attributed to improving sentiment regarding trade and tariffs—sentiment that should be positive for investment and growth, absent further disruptions.

**Equity market**

The equity market is not necessarily the best predictor of economic growth, with investors often paralyzed by inertia or simply unable to detect turning points. And with interest rates so low in the aftermath of the 2007 to 2009 financial crisis, and commodity prices in decline since the Great Recession of 2008 to 2009, the equity market has become the only place to go for substantial returns, regardless of the economic outlook. Still, the behavior of stocks plays an outsized role in public perception, and equity-market performance needs to be part of any model of economic activity.

Because equity market indices have moved higher over the long run, we look at the value of the TSX Index relative to its five-year moving average. As we show in Figure 6, after 18 months of range trading, the TSX began moving higher in the fourth quarter of 2018, which is attributed to improving sentiment regarding trade negotiations with the United States. The TSX Index has gained 15 per cent since the start of the year which, all things being equal, should add to a climate of more accommodative financial conditions and future economic growth, should those gains be sustained.
Commodity market

Since the financial crisis, Canadian economic growth appears to have been held hostage by trends in the global commodity market (so much for moving away from a resource-based economy). As we show in Figure 7, the effects of commodity-price moves can ripple throughout the economy in outsized proportions, having an effect on everything from consumption patterns to the Canadian dollar (see Figure 8).

For instance, during the 2009 to 2014 run-up in oil prices, Canadian consumer sentiment rose as employment opportunities grew, which led to higher spending and a virtual circle that sustained growth throughout the economy. Then there was the 2014 oil-price collapse, when energy supply finally outgrew the diminished demand for fossil fuel; consumer sentiment and the economy lost ground.

In more recent trading, oil prices have shot up 31 per cent to nearly US$60 per barrel from US$45 since the start of the year. But the overall CRB commodity price index—of which oil is a 10 per cent component—has lost 6 per cent since Dec. 31.

Because of what appears to be a shift in structure during the financial crisis—as shown in Figure 7—we look at a moving average of recent monthly changes in the CRB commodity prices to measure the effect of commodity prices on overall financial conditions. As shown in Figure 9, a further decline in the 13-week average of monthly changes will confirm a pattern of lower lows and a resumption of the downtrend in commodity prices in place since April 2016.
Money market spreads act as alarm bells for impending financial crises. During the first days of the 2007 to 2009 financial crisis, money market liquidity dried up at alarming rates, with buyers of nongovernment short-term securities disappearing and spreads between private-issued and government-guaranteed money-market bills ballooning to astronomical levels.

As Figure 10 illustrates, the 2007 to 2009 crisis quickly spilled over from U.S. markets to Canada and the rest of the world. In the Canadian market, commercial-paper money market spreads shot up to astronomical levels (10 standard deviations above normal, see Figure 11). With access to funds virtually shut down, it’s no wonder the Canadian economy fell from 4 per cent growth into a near – 4 per cent depression.

At present, money market spreads are within normal levels, but have been steadily moving higher since 2010, a sign that liquidity might not be as available as it was immediately after the crisis or that one might expect in an era of low-for-long, near-zero interest rates.
“Advancements in technology and the internet have fundamentally changed how people and businesses interact and how they produce, distribute and consume goods and services,” writes economist Amanda Sinclair of Statistics Canada (StatCan) in a new report.

The report, “Measuring digital economic activities in Canada: Initial estimates,” takes a first crack at identifying the portion of gross domestic product directly attributable to digital enterprise—that is, economic activity that produces or services technology and telecom equipment, or that is involved with e-commerce.

As a component of the New Economy, the digital economy, according to those definitions, grew faster than the economy as a whole between 2010 to 2017 (the last available data) (see Figure 12), and it now comprises 5.5 per cent of the total economy. That’s a larger share than the oil and gas extraction sector. And while not as large at tech, the digital economy is not dependent on the erratic behavior of the global commodity market.

According to the StatCan analysis:

- Between 2010 and 2017, nominal GDP for the digital economy (+40.2%) grew more than the total economy (+28%).
- On an annual basis, the digital economy increased more than the total economy every year except 2011 and 2017, which were years of strong growth in the energy sector.
- The nominal GDP associated with digital economic activities in Canada totaled $109.7 billion in 2017, or 5.5% of the total economy.
- While the digital economy is not an industry (by national accounts standards), it does represent a big chunk of the economy. To give an idea of the scale of its importance, consider the following:

  - In 2015, it was larger than mining, quarrying, oil and gas extraction (4.8%), transportation and warehousing (4.6%), and utilities (2.4%).
  - In 2017, the digital economy produced $207.7 billion of goods and services, an increase of 6.4% from the previous year. This growth was led by increased output of support services (+11.1%), followed by e-commerce (+9.2%).
  - Of all the provinces and territories, Ontario produced the most digital economy goods and services in 2017, while British Columbia saw the largest increase in digital economy output in 2017.
  - In 2017, there were 886,114 jobs associated with digital economic activities, representing 4.7% of all jobs in Canada.

The author notes that the digital economy is not yet a separate industry within national accounts definitions; technology is, nonetheless, a growing part of traditional enterprise. For instance, the GDP gains from tech’s monitoring of pipeline flows or quality control in manufacturing will not be considered as digital output if the products are not fully tech-based or digitally delivered.

Figure 12. Yearly growth rates for the total Canadian economy and the digital economy in nominal terms
Digital competitiveness

How is Canada doing compared to the rest of the world in terms of developing its digital economy? According to an analysis by IMD, Canada is ranked eighth in total digital competitiveness (see Figure 13) and is the third-largest economy ranked in the top 10 after the United States, ranked first, and the U.K., ranked 10th.

The IMD rankings are based on nine variables allocated into three factors: knowledge, technology and readiness (see Figure 14).

1. Knowledge is the intangible infrastructure comprised of talent, training/education investment and scientific concentration. We assume this sector refers to the existing intellectual capital of the economy, the willingness and ability to educate the labour force, and the ability to promote the development of the tech sector.
2. Technology refers to the regulatory framework under which the tech sector is encouraged to develop, the investment capabilities of the economy and the existing technological infrastructure.
3. Readiness examines the level of preparedness of an economy to assume its digital transformation and incorporates adaptive attitudes, business agility and IT integration.

For Canada, the ranking of the readiness component has not kept up with the knowledge base, according to the IMD criteria. And the improving trend in existing technology still needs improvement; the Organisation for Economic Co-operation ranks Canada 27th among countries with fiber connections in total fixed broadband and 12th in terms of average broadband speed among OECD countries.

Acceptance of the digital economy

Does the public accept the rise of the digital economy? It depends largely on demographics. Consider pipe fitters, who may see the acceptance of renewable energy as a threat to their jobs. For households that were affected by the hollowing out of traditional manufacturing to low-wage, offshore locations over recent decades, the prospect of the New Economy and further automation might only add to their alienation, posing another reminder of their forgotten contributions to the “old” economy.

You could argue that in the long term, the output gains attributed to tech will result in increased output, with increases in productivity leading to higher standards of living and higher wages for all. But you could also posit that society should not expect one sector to wait for those changes to benefit all households.

In fact, the government’s 2019 budget appears to address those concerns, offering plans to sponsor the retraining of the existing labour force, as well as to boost the tech savvy of gradeschoolers, with a public–private partnership in increasing the knowledge base for all households.

As in all endeavors, it can sometimes take a nudge for someone to take advantage of a growth opportunity. Considering the enormity of a transformation from an economy dependent on traditional manufacturing and natural resources to one that is digitally based, the budget at least lays out a plan for households to access those opportunities.

Becoming the center of North American tech development

Based on the continuation of government support for science—from Prime Ministers Jean Chretien to Paul Martin, Stephen Harper and Justin Trudeau (see Figure 15)—we should expect to see something as basic as the expansion of broadband availability leading to the development of tech skills and the acceptance of a New Economy model of industry and digital daily living.
Most important, perhaps, is the acknowledgment that, like the United States, Canada is a nation of immigrants and out of that immigration comes expanded perspectives and a continued flow of energetic new workers. Compare this to Japan, which, after a post–World War II growth spurt, has been a willing tech expansionist; since the early 1990s, however, that has been difficult given its aging, homogeneous demographic. One could argue that Canadian society’s willingness to welcome immigrants should continue the expansion of its knowledge base, particularly now that the United States has taken a more protectionist stance.

Canada’s culture of openness is helping to foster Toronto’s establishment as the physical—and perhaps eventual intellectual—center of the North American tech-based economy. Toronto is the fastest-growing North American metropolitan area and home to many New Economy corporations. And with the ascension of Vancouver as a tech center, there is now a geographic arc of tech resources, from Austin to North Carolina’s Research Triangle in the southern United States to the Washington–New York–Boston I–95 corridor in the Mid–Atlantic region, to Chicago and Toronto in the Great Lakes, then stretching westward to Vancouver and dipping south to Seattle and San Francisco.

Perhaps the most encouraging sign of the acceptance of online shopping is shown in Figure 18, which indicates that while the growth of overall retail sales has fallen from a nearly 7 per cent year-over-year rate to about a 3 per cent pace, e-commerce sales have remained within an annual growth rate of 15 per cent to 20 per cent.

Canada is ranked eighth by Invespcro (see Figure 16) with about 8 per cent of retail sales attributed to online purchases. While that probably speaks more to Canada’s existing technology than the willingness of consumers to shop from home for everything from cat food to cars, it suggests the need for Canada to continue upping its tech game, and to shift its networks from DSL to fiber access.

Data from StatCan suggests (1) a pattern of higher proportion of online shopping at the year-end holidays, and (2) a rising trend of online sales over time (see Figure 17). [Note that StatCan data on online sales is only available from 2015 and indicates that online sales account for roughly 3 per cent of total retail sales, according to its calculations.]
The longstanding Trans Mountain Expansion Project, which would expand the existing 1150-kilometer oil pipeline, made another important stride toward completion, winning re-approval from the Canadian government in June. The TMX promises to enrich Alberta, British Columbia and the broader Canadian economy, including many middle market firms.

The TMX is expected to carry nearly a million barrels of oil from Alberta through BC to the tidewaters of Vancouver. By some measures, its economic benefit would be substantial. The Conference Board of Canada, an independent think tank, estimates that on a holistic basis, it will generate and support 40,000 jobs and a staggering $164 billion in gross domestic product—in the form of wages and salaries, corporate profits and government revenues.

But the project, which has been in development since 2013, is not yet out of the woods. In the past six years, oil prices have dropped by about 40 per cent to about US$60 per barrel, as global supply has increased. At the same time, demand in developed countries such as Canada has fallen, in part, due to the rise of sustainable energy alternatives and social trends, as younger generations attempt to reduce their energy footprint.

Meanwhile, representatives from First Nations groups have vowed to continue to challenge the TMX, citing concerns that include the handling of potential oil spills and their effects on wildlife, according to The Vancouver Sun. And risks surrounding project approval, permitting and execution remains.

The TMX boasts in its own project update that 43 indigenous groups have already signed impact benefit agreements to participate. Moreover, the CBC has reported that some indigenous communities are even considering developing a consortium to acquire the TMX; the federal government purchased the TMX from Kinder Morgan, its original owner, last summer. The existing pipeline dates to 1951.

**Project beneficiaries**

While Alberta’s employment stands to fare best under the TMX with an estimated 55 per cent of the impact, BC will also do well, gaining nearly a quarter of the expected jobs, the CBC has estimated. The remaining 20 per cent of new positions will be spread throughout the rest of the country. From this perspective, TMX is rightly considered to be in the national interest.

Small- and medium-sized enterprises—generally defined in Canada as companies with fewer than 500 employees—would be among the largest beneficiaries of TMX. (The following table shows the average GDP contribution of small, medium and large businesses by industrial sector from 2010 to 2014.) Sectors expected to benefit the most include construction; professional, scientific and technical services; and manufacturing, where 81.5 per cent, 69.5 per cent and 44.6 per cent of GDP is generated by small to medium enterprises, respectively.

Accordingly, SMEs across Canada are likely to be critical to the success of the TMX if it is ultimately developed. Furthermore, Alberta’s unemployment rate currently stands at 6.7 per cent (May 2019), substantially higher than the national unemployment rate of 5.4 per cent; this indicates that the Alberta economy has enough slack to accommodate increased demand for labour brought on by the project.
To be sure, not everyone agrees on TMX’s positive economic impact. Some analysts have suggested that the existing pipeline capacity is currently underutilized by heavy crude oil producers, despite being able to transport up to 346,000 barrels per day. The most that has been shipped through the existing Trans Mountain Pipeline was 120,000 barrels per day in April 2010, according to The Vancouver Sun. This suggests there is limited demand for Alberta’s heavy crude in East Asian markets.

Despite the project’s headwinds, the economic benefits associated with the TMX could be significant, and distributed broadly across Canada, if demand for oil can be sustained globally. Last month, the federal government took an important step to making the TMX’s economic benefits a reality.

### Figure 19. Contribution to GDP by business size and industrial sector, average from 2010 to 2014

<table>
<thead>
<tr>
<th></th>
<th>Small businesses (1–99 employees)</th>
<th>Medium businesses (100–499 employees)</th>
<th>SMEs (500+)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goods-producing sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>30.9</td>
<td>12.7</td>
<td>43.6</td>
</tr>
<tr>
<td>Forestry, fishing, mining, quarrying, and oil and gas extraction</td>
<td>5.5</td>
<td>6.3</td>
<td>11.8</td>
</tr>
<tr>
<td>Utilities</td>
<td>4.2</td>
<td>3.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Construction</td>
<td>67.7</td>
<td>13.8</td>
<td>81.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>25.0</td>
<td>19.6</td>
<td>44.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63.3</strong></td>
<td><strong>11.2</strong></td>
<td><strong>25.5</strong></td>
</tr>
<tr>
<td><strong>Service-producing sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>38.2</td>
<td>17.9</td>
<td>56.1</td>
</tr>
<tr>
<td>Retail trade</td>
<td>47.7</td>
<td>10.7</td>
<td>58.4</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>33.1</td>
<td>11.3</td>
<td>44.4</td>
</tr>
<tr>
<td>Finance, insurance, real estate and leasing</td>
<td>32.2</td>
<td>7.4</td>
<td>39.6</td>
</tr>
<tr>
<td>Professional, scientific and technical services</td>
<td>56.0</td>
<td>13.5</td>
<td>69.5</td>
</tr>
<tr>
<td>Business, building and other support services</td>
<td>45.1</td>
<td>15.4</td>
<td>60.4</td>
</tr>
<tr>
<td>Educational services</td>
<td>75.9</td>
<td>13.6</td>
<td>89.5</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>84.2</td>
<td>6.0</td>
<td>90.2</td>
</tr>
<tr>
<td>Information, culture and recreation</td>
<td>10.6</td>
<td>7.8</td>
<td>18.4</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>63.5</td>
<td>15.9</td>
<td>79.4</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>83.9</td>
<td>5.1</td>
<td>89.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38.4</strong></td>
<td><strong>11.8</strong></td>
<td><strong>50.2</strong></td>
</tr>
</tbody>
</table>

*The Trans Mountain Expansion Project which would expand the 1,150-kilometer Trans Mountain Pipeline, promises to enrich Alberta, British Columbia and the broader Canadian economy, including many middle market firms.*
The energy sector’s role in Canadian growth

Canada’s energy sector role has an outsized role in the overall Canadian economy, particularly since the emergence of shale production in Alberta. As such, changes in the price of oil have affected employment opportunities that appear to ripple throughout the greater economy, providing at one extreme, the disposable income and incentive for leveraged spending by consumers, and at the other, retracement in spending patterns and investment.

Growth and recent decline of Canada’s crude oil export market

Amid reports that the growth rate of U.S. production of shale oil peaked last year, cooled by investors demanding financial returns over increased oil output, the growth rate of Canadian production and export of crude oil has decreased from a 10 per cent growth rate in 2018 to near zero this spring. The growth rate of Canadian exports of crude also fell to near zero.

Shift in production and tastes, and the price of crude oil

Oil prices are determined in a global market by demand factors, including the rate of economic growth, and by supply factors, including changes in technology (shale production), and by external constraints imposed by OPEC producers.
As the chart indicates, increased demand during the 2001–2009 dot-com boom era pushed crude prices from SUS20 per barrel to SUS140 shortly leading up to the 2007–2009 financial crisis. Prices fell precipitously during the crisis, and then recovered to over SUS100 during the 2010–2014 economic recovery. An oil glut created by the development of shale production in Alberta and the United States, and the simultaneous development of alternate sources of energy, occurred just as a generational shift away from automobiles for city dwellers transpired across the developed world. Crude prices quickly fell from SUS100 to a range of SUS50–SUS60 at present.

Prices of WTI and Western Canada Select crude oil

WTI prices are considered the benchmark for North American crude oil. Alberta’s shale is heavier and not as versatile than WTI crude and therefore more expensive to process. Because of the additional production costs, Western Canada Select crude sells at a discount that has averaged S17 per barrel, with that discount subject to local factors such as inventory buildup.
This document contains general information, may be based on authorities that are subject to change, and is not a substitute for professional advice or services. This document does not constitute audit, tax, consulting, business, financial, investment, legal or other professional advice, and you should consult a qualified professional advisor before taking any action based on the information herein. RSM Canada LLP, RSM Alberta LLP and RSM Canada Consulting LP, and their affiliates and related entities are not responsible for any loss resulting from or relating to reliance on this document by any person. This communication is being sent to individuals who have subscribed to receive it or who we believe would have an interest in the topics discussed.

RSM Canada LLP is a limited liability partnership that provides public accounting services and is the Canadian member firm of RSM International, a global network of independent audit, tax and consulting firms. RSM Alberta LLP is a limited liability partnership and independent legal entity that provides public accounting services. RSM Canada Consulting LP is a limited partnership that provides consulting services and is an affiliate of RSM US LLP, a member firm of RSM International. The firms of RSM International collaborate to provide services to global clients, but are separate and distinct legal entities that cannot obligate each other. Each firm is responsible only for its own acts and omissions, and not those of any other party. Visit rsmcanada.com/aboutus for more information regarding RSM Canada and RSM International.

RSM, the RSM logo and The power of being understood are registered trademarks of RSM International Association, used under licence.

© 2019 RSM Canada. All Rights Reserved.