Entrepreneurs first

economic LETTER

FEBRUARY 2014

THE CANADA / U.S. PRODUCTIVITY GAP: THE EFFECT OF FIRM SIZE

For many years now, Canada's labour productivity has been weaker than that of the United States. One of the theories put forward to explain this fact is based on two findings. First, in relative terms, the Canadian economy contains a higher proportion of small and medium enterprises (SMEs) than that of the U.S.[1] Second, SMEs are generally less productive than large firms. The latter enjoy economies of scale and, compared to SMEs, have more capital per employee and invest more in research and development. These are advantages that would translate into higher labour productivity.

Recently, Statistics Canada researchers measured the contribution to gross domestic product (GDP) of SMEs and large firms in Canada and the U.S., by industry, from 2002 to 2008.[2] They also calculated the distribution of total hours worked between SMEs and large firms in both countries. According to their estimates, the contribution to GDP of SMEs amounted to 53.4% in Canada and 46.1% in the U.S. in 2008. The proportion of total hours worked that was attributable to SMEs was 70.8% in Canada and 55.6% in the U.S. (Table 1). This data shows that SMEs occupy a much larger place in Canada than in the U.S., and also indicates that Canadian SMEs are relatively less productive than their U.S. counterparts. The share of hours worked by SMEs, relative to their contribution to GDP, is much greater in Canada than in the U.S.▼

Table I: Estimates of contribution to GDP, share of hours worked and labour productivity of SMEs and large firms in Canada and the United States in 2008

	Canada		United States	
	SMEs	Large firms	SMEs	Large firms
Contribution to GDP	53.4%	46.6%	46.1%	53.9%
Share of hours worked	70.8%	29.2%	55.6%	44.4%
GDP per hour worked	$35.7/h	$75.6/h	$40.8/h	$59.9/h
Relative productivity of SMEs	35.7/75.6 = 47.2%		40.8/59.9 = 68.1%	

1 SMEs are defined as businesses employing from 1 to 499 employees.
2 Leung, D. and L. Rispoli. 2014. The Distribution of Gross Domestic Product and Hours Worked in Canada and the United States Across Firm Size Classes. Economic Analysis Research Paper Series, no. 88. Product no. 11F0027M in the Statistics Canada catalogue. Ottawa: Statistics Canada.

BDC's Monthly Economic Letter is prepared by the Economic Analysis team from Marketing and Public Affairs and is based on a variety of public sources of economic data. The information in this letter is drawn from data released prior to February 8. Reliance on and use of this information is the reader's responsibility.

The estimates of contribution to GDP and hours worked of SMEs and large firms can be used to calculate labour productivity according to firm size. Table 1 shows that the labour productivity of SMEs, measured by GDP per hour worked, is lower than that of large firms in both Canada and the U.S.; however, the gap in productivity between SMEs and large firms is far wider in Canada. While SMEs in Canada are slightly less than 50% as productive as large Canadian firms, SMEs in the U.S. are nearly 70% as productive as large U.S. firms.

Using the same data, a second study was carried out to evaluate the extent to which the larger concentration of SMEs in the Canadian economy might explain the labour productivity gap between the two countries.[3] According to the authors of this study, the three following factors could explain a proportion of the gap:

1. SMEs, which are less productive than large firms on average, occupy a larger part of the economy in Canada than in the U.S.
2. The productivity gap between SMEs and large firms is more marked in Canada than in the U.S.
3. The industrial structures of the two countries are different (e.g. Industries in which labour productivity is lower in Canada than in the U.S. could occupy a larger place in the Canadian economy than in the U.S. economy.).

To estimate these effects, the researchers recalculated Canada's labour productivity under each of the following assumptions:

1. The contribution of SMEs to GDP in Canada is the same as in the U.S.
2. The labour productivity gap between SMEs and large firms in Canada is the same as in the U.S.
3. Canada's industrial structure is identical to that of the U.S. (i.e. the share of total hours worked by industry is the same as in the U.S.).

The researchers showed that the first two factors account for a large portion of the productivity gap. In the case of the third factor, the differences between the two countries' industrial structures actually work to Canada's advantage: Canada has a higher proportion of economic activity concentrated in industries in which productivity is higher than in the United States.

In light of these results, it appears that to better solve the puzzle of the productivity gap between Canada and the United States, we should start by looking into the reasons for the larger concentration of SMEs in Canada–which could be linked to the difficulty medium-sized firms encounter in becoming large firms–and the weak productivity of Canadian SMEs compared to large firms and to SMEs in the U.S. ■

CANADA

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Although Statistics Canada has not yet published GDP data based on the national accounts, the GDP industry data released to date suggests that economic growth was robust in the fourth quarter of 2013; however, the international merchandise trade figures suggest that fourth quarter growth is not attributable to growth in net exports. The anticipated effects of the depreciation of the loonie in recent months appear to be taking time to materialize.

Healthy real GDP growth by industry

According to industry GDP data, real GDP advanced by 0.2% in November, after a 0.3% increase in October. Production expanded in a majority of the main industries, with the mining and oil and gas extraction sector making the greatest contribution to growth. Four sectors suffered pullbacks in November: wholesale trade, manufacturing, construction, and the agriculture, forestry, hunting and fishing sector. Based on the two months of data observed so far, GDP growth for the last quarter of 2013 promises to be robust. In fact, even if GDP growth were to stall in December, fourth-quarter growth

Real GDP by industry and Real GDP from economic accounts
(quarterly change, at annual rate, from Q2 2007 to Q3 2013)

Source: Statistics Canada

3 Baldwin, J.R., D. Leung and L. Rispoli. 2014. Canada-United States Labour Productivity Gap Across Firm Size Classes. Canadian Productivity Review, research paper no. 33. Product no. 15-206-X in the Statistics Canada catalogue. Ottawa: Statistics Canada.

growth were to stall in December, fourth-quarter growth should still be at least 3.0% (annualized). While the national accounts data may not be exactly equal to industry GDP figures for this quarter, history has shown that these figures usually move in tandem (graph).

Employment wins back some lost ground

After a decline of 44,000 in December, employment expanded by 29,400 positions in January, gaining back some of the lost ground from the month before. January's increase comes entirely from full-time positions, which increased 50,500, more than offsetting the 21,100 part-time jobs that were lost. Transportation and warehousing recorded the sharpest monthly growth of any sector, with a gain of 15,200 positions, while the business services sector suffered the greatest downturn, with 25,400 jobs lost. The unemployment rate dropped by 0.2% in January, reaching 7.0%.

The trade deficit grows

Imports rose more than exports in December (1.2% versus 0.9%), widening the country's trade deficit from $1.53 billion in November to $1.66 billion in December. Energy products led the advance in imports, while metal ores and non-metallic minerals contributed the most to the increase in exports. The trade surplus with the U.S. expanded, from $2.42 billion in November to $2.88 billion in December, while the trade deficit with other countries climbed from $3.95 billion to $4.53 billion. With the December data in hand, we are able to calculate that merchandise exports fell back in the fourth quarter compared with the previous quarter in terms of both value (-1.3%) and volume (-0.3%). Clearly, the loonie's depreciation in recent months has yet to produce the anticipated positive effects on Canada's exports.

Corporate profits should increase

The Conference Board of Canada's Leading Indicator of Industry Profitability recorded a monthly gain of 0.4% in December 2013, reaching 106.7. The outlook for profits, which dipped during the summer when business owners feared a tightening of credit conditions, have improved significantly since the autumn (graph). The depreciation of the Canadian dollar, expectations that the central bank will not raise the overnight rate for many months to come, and anticipations of improving economic growth in the U.S. and Europe are the main factors that contributed to the growth of the index during this period.

Leading Indicator of Industry Profitability
(January 2008 to December 2013)

Source: Conference Board of Canada

UNITED STATES

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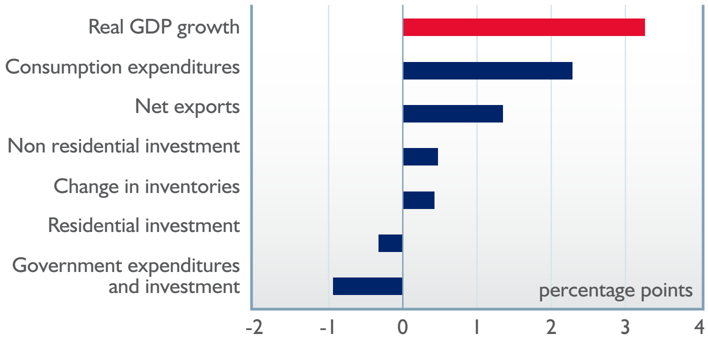
Real GDP growth clearly accelerated during the second half of 2013, which bodes well for the coming year. However, job growth has been disappointing in the past two months and well below the average for 2013. It is reasonable to assume that this slowdown will be merely temporary: if economic growth accelerates as anticipated, the job market should improve as well.

Robust real GDP growth

Real GDP grew at an annualized rate of 3.2% in the fourth quarter of 2013, after a 4.1% increase in the previous quarter. Growth was mainly supported by consumption, which rose by 3.3%, its strongest advance since the fourth quarter of 2010. Thanks to a surge in exports and a slight upturn in imports, net exports were the second largest contributor to GDP

Contribution of the components to real GDP growth in the fourth quarter of 2013

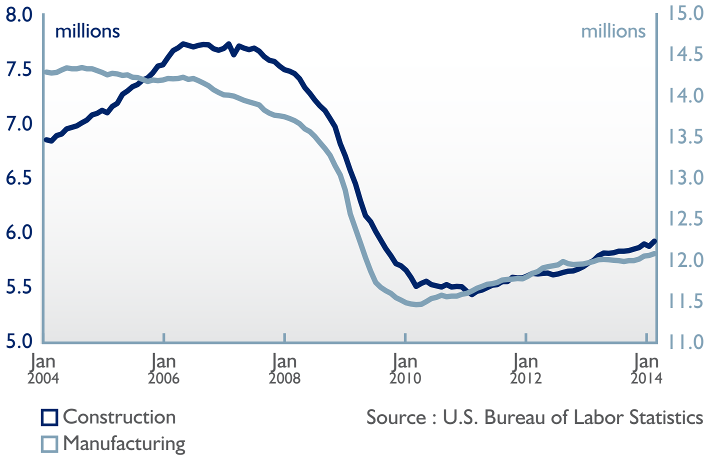


Source: U.S. Bureau of Economic Analysis growth (graph). Private investment increased only moderately, due, in particular, to a downturn in homebuilding investment after several quarters of strong growth. Lastly, government spending declined, again curtailing growth. In annual terms, real GDP advanced by 1.9% in 2013, as expected. After a sluggish start, growth accelerated in the second half of the year, which bodes well for near term growth. Consensus forecasts are calling for an acceleration of real GDP growth in 2014, to 2.8%.

Employment growth is very modest once again

The U.S. economy produced 113,000 new jobs in January, after a weak gain of 75,000 jobs the previous month. This is the second consecutive month of very modest growth, well below the average monthly employment growth of 194,000 that was recorded in 2013. In January, the unemployment rate dipped by 0.1%, reaching 6.6%. There were 48,000 new jobs in the construction sector, and 21,000 in manufacturing. Employment in these two sectors, which were hard hit over the past decade, is making slow headway (graph).

Employment in the Construction and the Manufacturing Sectors
(January 2004 to January 2014)

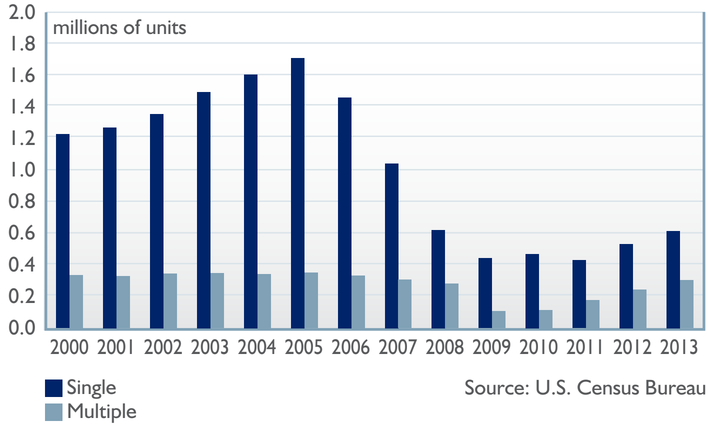


Source : U.S. Bureau of Labor Statistics

Housing starts lose ground but remain elevated

After soaring by 23.1% in November, housing starts fell by 9.8% in December. Declines of 7.0% and 17.9% were observed in the single-family and multiple-unit segments, respectively. Looking at 2013 as a whole, housing starts were up by 18.3% compared with the previous year. The volume recorded in 2013 is well below that which was seen before the financial crisis (graph); however, given that the real estate market was overvalued leading up to the crisis, we should not expect housing start numbers to return to pre-crisis levels anytime soon. The results observed since 2008 remain relatively soft from a historical perspective. The rally that began in 2012 will probably continue in 2014, which is promising for the Canadian lumber industry. ■

Housing Starts
(2000 to 2013)



Source: U.S. Census Bureau

INTEREST RATES

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The central bank leaves the overnight rate unchanged, at 1.0%

On January 22, the Bank of Canada decided to leave its target for the overnight rate unchanged. It has remained at 1.0% for more than three years now, and given the weakness of inflation, it is expected to stay there for many months to come. In its latest Monetary Policy Report, which sets out the Bank's assessment of current economic conditions and its outlook for growth, the Bank expressed concern about inflation, which has been weaker than expected in recent months. The Bank attributes this weakness to the substantial excess supply in the Canadian economy, and to intensifying competition in the retail sector. It expects that inflation, which stood at 1.2% in the fourth quarter of 2013, will gradually move back to the Bank's 2.0% target, but not until the end of 2015. Given these conditions, there is little likelihood that the central bank will raise the key interest rate for quite some time. In fact, forecasters do not anticipate a hike before 2015. ■

OIL AND THE LOONIE

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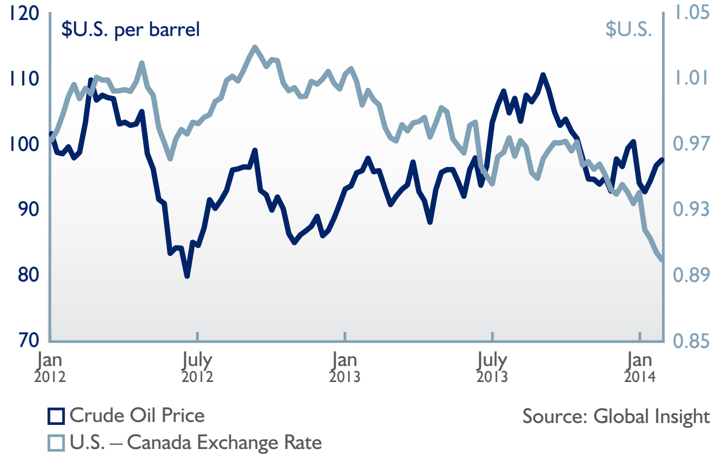
The price of oil heads up, and the Canadian dollar continues to depreciate

A cold snap in the U.S., combined with robust fourth quarter economic growth and the announcement that American oil reserves were much lower than expected, drove the price of crude oil up. Meanwhile, the Canadian dollar continued to depreciate, dropping from US$0.94 at the beginning of January to US$0.90 at the start of February. The Bank of Canada's concern about the weakness of inflation, which suggests that Canadian interest rates will remain unchanged for some time, contrasts with the U.S. Federal Reserve's recent tightening of monetary policy, which saw it scale back its monthly purchases of government securities. This divergence between the two countries' monetary policies has put additional downwards pressure on the loonie against the U.S. dollar. ■

Exchange Rate and Crude Oil Price
(January 2012 to February 2014)



Source: Global Insight

SME CONFIDENCE

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SME owners express more confidence

The Business Barometer Index compiled by the Canadian Federation of Independent Business rose by 1.7 points in January, thereby winning back half of the ground that was lost in the previous month. It stood at 64.0 in January, very close to the average reading of 2013 (graph). Business owners in the western provinces, Ontario, and Newfoundland and Labrador continue to show greater optimism than those in the Atlantic provinces and Quebec. Apart from the agriculture sector, whose index, at 48.9 points, is exceptionally low, the variation in indexes from one sector to another is small. In fact, all the indexes lie between that of the accommodation and food services sector (61.9 points) and that of the business services sector (70 points). ■

Business Barometer
(September 2008 to January 2014)

Source: Canadian Federation of Independent Business

BUSINESS CREDIT CONDITIONS

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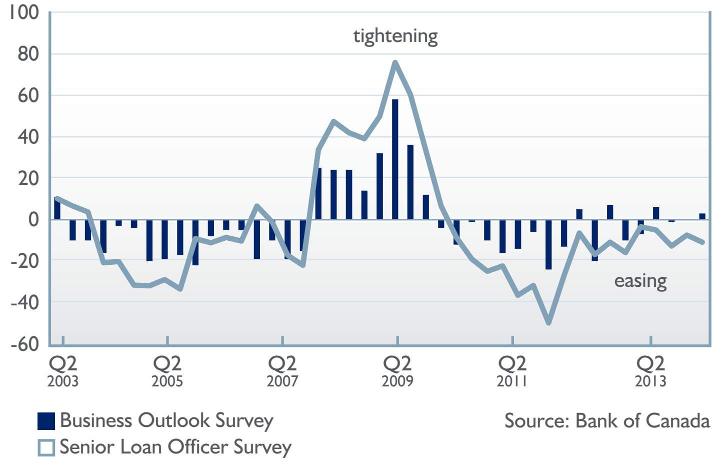
Credit for businesses remains available and affordable

The credit conditions faced by businesses did not change much in the fourth quarter of 2013 from the previous quarter, according to the Bank of Canada's Business Outlook Survey. The majority of respondents consider that it is relatively easy to obtain the credit they need. According to the central bank's Senior Loan Officer Survey, lending conditions for non-financial businesses relaxed further during that period (graph). Short-term credit granted to businesses by the chartered banks, which accounts for 87% of bank credit to businesses, rose by 3.9% in December 2013 compared with the previous month, and by 8.7% compared with December 2012. As for long-term bank credit, it expanded by 12.4% month over month and by 9.4% year over year. ■

Business Credit Conditions
(2003 Q2 to 2013 Q4, balance of opinions, %)



KEY INDICATORS – CANADA

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Key indicators – Canada

	Historical[1]				2013[2]				Latest		Forecast	
	2009	2010	2011	2012	Q1	Q2	Q3	Q4			2014	2015
Real GDP (% growth)	-2.7	3.4	2.5	1.7	2.3	1.6	2.7		Nov	0.2	2.2	2.5
Machinery and Equipment Expenditures (% growth)	-21.2	10.6	8.6	5.2	0.7	-0.2	2.5				4.2	5.9
Pre-Tax Corporate Profits (% growth)	-45.4	61.6	16.6	-8.2	9.4	-39.9	66.7				5.1	5.5
Industrial Production (% growth)	-11.0	6.0	3.9	0.9	6.1	-2.9	2.8		Dec	0.7	2.3	2.6
Industrial Product Prices (% growth)	-3.5	1.5	6.9	1.1	3.8	-2.7	1.7		Dec	0.7	1.4	2.1
Non-Residential Construction (% growth)	-19.4	17.3	12.9	6.9	1.9	-1.9	2.1					
Housing Starts (' 000 units)	148	191	193	215	170	190	195	195	Dec	188	179	176
Personal Expenditures (% growth)	0.3	3.5	2.3	1.9	1.1	3.6	2.2				2.2	2.2
Consumer Price (% growth)	0.3	1.8	2.9	1.5	1.6	0.0	1.5		Dec	0.0	1.5	1.9
Employment (% growth)	-1.6	1.4	1.5	1.2	0.9	1.2	0.8	0.9	Jan	0.2		
Unemployment Rate (%)	8.3	8.0	7.4	7.3	7.1	7.1	7.1	7.0	Jan	7.0	6.9	6.6
SMEs Confidence Index (CFIB)	57.7	66.7	66.4	63.9	64.9	61.3	64.8	64.4	Jan	64.0		
Manufacturers Confidence Index (CFIB)	56.0	68.5	67.3	66.7	65.6	58.3	65.4	65.8	Jan	63.9		

1. Annual growth rate
2. Quarterly growth. at annual rate
3. Month-over-month growth

Sources: Statistics Canada. Consensus Economics and Canadian Federation of Independent Business.