

## Small-business employment during the recession in Canada: resiliency amid the global storm

So far, most of the analysis on the job losses during the recession has focused on the types of jobs and industrial sectors that were affected. For example, a Statistics Canada report<sup>1</sup> published in December 2009 analyzed trends in employment from the Labour Force Survey and found that employment fell faster at the beginning of the recent downturn than in previous recessions, with the bulk of employment losses concentrated in the low end of the pay and tenure scale. But were there different employment patterns at small firms compared to large firms? If so, were smaller firms more inclined to cut jobs than larger businesses? The answers will address concerns that small enterprises are more at risk during recessions and, therefore, more likely to let go employees in tough economic times.

Our paper looks at data from the Survey of Employment, Payrolls and Hours (SEPH)<sup>2</sup> – Statistics Canada’s other source of labour statistics – and investigates how employment at small and medium-sized enterprises (SME) fared relative to jobs at large enterprises in Canada during the 2008-2009 recession. Our findings indicate that, for the economy as a whole, jobs at SMEs fell sooner and more significantly than those at larger firms; however, after removing the effect of the public sector – where employment grew continuously during the recession – private-sector employment at SMEs actually fell proportionally less than at large firms. These trends prevailed across provinces except in Manitoba and Saskatchewan, where private-sector SME employment held up and/or even increased during the downturn, and in Alberta and British Columbia, where SME employment fell more than at large firms. Overall, SME employment in Nova Scotia underperformed large firms’, however, the data for this province is not available to distinguish between the private and public sectors.

While the factors explaining greater relative resiliency at private-sector SMEs are difficult to establish with certainty, their lower exposure to external markets (most notably the United States), which saw greater weakness relative to Canada’s domestic economy, likely played a prominent role.

In light of the evidence provided by the private sector data on payroll employment in the past two years or so, we find that Canadian SMEs have seemingly been better able to cope with the recession and have started to recover sooner.

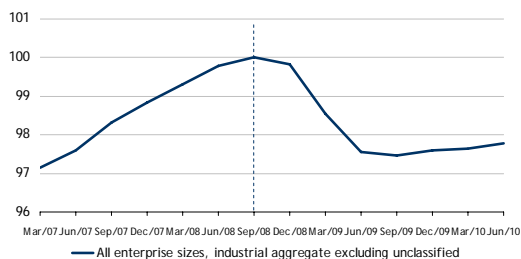
### What’s a small and medium-sized business?

There is no standardized definition of small, medium, or large firms. For the purpose of this study, we use a definition based on the number of employees per enterprise<sup>3</sup>: “small” refers to firms with 0 to 49 employees, “medium” represents those with 50 to 299 employees, and “large” refers to those with more than 300

Chart 1

### Total payroll employment - Canada

Indexed, pre-recession peak = 100



Source: Statistics Canada, RBC Economics Research

**Paul Ferley**  
Assistant Chief Economist  
416-974-7231  
paul.ferley@rbc.com

**Robert Hogue**  
Senior Economist  
416-974-6192  
robert.hogue@rbc.com

**David Onyett-Jeffries**  
Economist  
416-974-6525  
david.onyett-jeffries@rbc.com

Chart 2  
Total employment by enterprise size - Canada

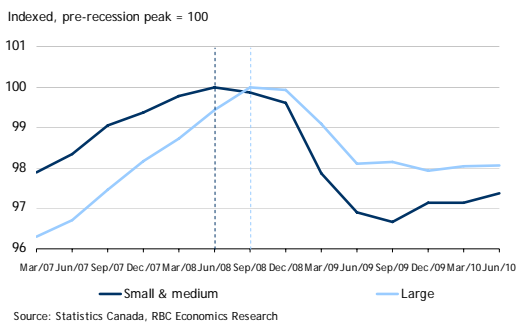


Chart 3  
Private employment by enterprise size - Canada

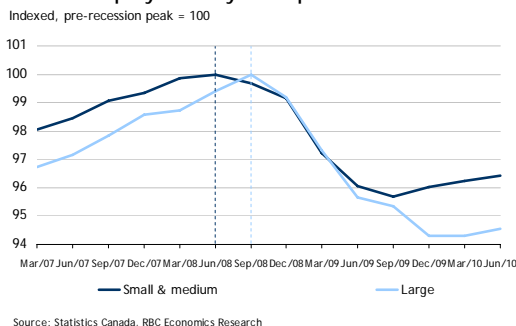
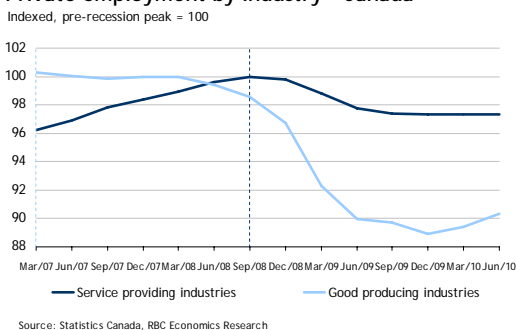


Chart 4  
Private employment by industry - Canada



employees. Small and medium-sized enterprises, therefore, are those with fewer than 300 employees.

### When did the recession take place in Canada?

According to Statistics Canada, the previous expansion peaked in the third quarter of 2008 with the recession continuing until the second quarter of 2009. The effect of the recession reduced total non-farm payrolls in Canada by 2.5%; however, the timing and effect of the downturn varied considerably by firm size, industry, and province.

### Were there differences in employment performance between small, medium, and large firms during the recession?

Yes. For the economy as a whole, jobs at SMEs fell sooner (by one quarter) and more significantly than those at larger firms. Specifically, employment at SMEs peaked in the second quarter of 2008; whereas, for large firms, the employment peak occurred in the third quarter of 2008. From these points on, employment at SMEs fell 3.3% while the loss among large firms was a smaller 2.1%.

### Does the relative performance change when considering the private sector only?

Yes. The relative performance between the two firm categories changes materially when the effect of public employment<sup>4</sup> is removed. SME employment in private industries fell a greater 4.2% from the same peak of second quarter of 2008 relative to the all-industry aggregate. In contrast, the percentage drop in large-firm employees in the private sector from a third-quarter-2008 peak more than doubled to 5.5% and recorded a greater decline relative to SMEs.

It has been the case that public-sector employment has continued to trend higher during the recession with gains largely skewed toward large enterprises. During the period in which private-sector employment at SMEs declined 4.2%, public-sector employment at SMEs rose 2.6%. Meanwhile, hiring was much more pronounced among large public-sector firms, which increased hiring by 4.0% and with notable gains in health care and social services (up 5.3%), and public administration (up 4.6%).

### What were the trends among private industries?

For all firm sizes combined, private goods-producing industries (which include manufacturing, construction, mining and oil and gas, logging and forestry, and utilities) took the biggest hit to employment during the recession with a decline of 11.1% from a peak reached in the fourth quarter of 2007. In contrast, the decline in private-service producing sector jobs began a year later and was much smaller in magnitude at 1.1%. Private-service industries consist of all service industries except public administration, health and social services, and educational services. This divergence between private goods-producing and private service-producing industries is typical during an economic downturn. It is historically the case that the more volatile goods-producing sector shows the greater loss in employment when the economy turns down.

Comparing the relative performance by firm size, however, is not as straightforward. In the **goods-producing sector**, measuring the extent of job losses is problematic because employment in large firms has fallen steadily since the end of 2000, so the

starting point to gauge the recession damage is hard to determine – although the declining trend accelerated significantly at the end of 2008 until the middle of 2009 (the annualized rate of decline quickened almost five-fold relative to the 2001-2007 average). The pattern for SMEs is more easily recognizable: employment generally rose during the 2000s until a peak in the first quarter of 2008, and then dropped 9.1% in the year and a half that followed. Using the same peak-to-trough timeline, large-firm jobs in this sub-sector declined 11.9%.

The greater percentage of decline at large firms in goods-producing industries largely reflects substantial job losses in **manufacturing**, which have been ongoing since 2001 (totalling 37% on a cumulative basis) and of greater magnitude than those at manufacturing SMEs (totalling 21%). While the declining trends in both SME and large manufacturers preceded the recession, the acceleration of job losses during the economic downturn has been faster at larger firms. From the first quarter of 2008 to the second quarter of 2009, the number of manufacturing employees fell 16.3% among large firms compared to 10.3% among SMEs. Similarly, the recession exacerbated longer-term declining trends in the logging and forestry industry, where large firms shed 39% of its jobs while SME firms lost 20%. In the mining and oil and gas industry, employment fell a little harder at SMEs than at large firms by 11.2% compared to 6.6%, respectively. This result follows solid increases in both SMEs and large enterprises prior to the recession.

In the **private service-producing industries**, the divergence between SMEs and large firms has not been as great, although there have been some timing differences. Small firms cut jobs and re-hired employees earlier than larger enterprises. In fact, employment at large firms is still on a downward trajectory (as of the second quarter of 2010). SMEs in private service-producing industries reduced payrolls by 2.8% from peak to trough (i.e., between the second quarter of 2008 and the third quarter of 2009). They have, however, resumed expanding their payrolls since then. To date, larger-firm employment has dropped 3.2% since its third-quarter 2008 peak.

Looking at subsectors within the private service-producing industries, the effect of the recession on employment has been more severe (i.e., causing a more substantial percentage decline) at larger firms in the majority of cases. These include administrative services, accommodation and food services, real estate, wholesale trade, and utilities. SMEs cut payrolls more significantly (again, in percentage terms) in finance and insurance, retail trade, and transportation services.

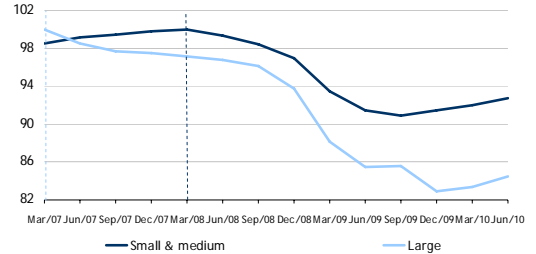
**With private SME manufacturers paring payrolls less than their larger counterparts, does it mean that fears of smaller manufacturing firms being more vulnerable (*vis-à-vis* the rise in the Canadian dollar, the emergence of China, etc.) are overblown?**

Not necessarily. The database used for our analysis could only reveal employment patterns. The fact that smaller manufacturing firms have not laid off as many workers during the recession as their larger counterparts could be a reflection of many things. It might mean that smaller firms have been more nimble and adapted comparatively better than larger manufacturers. Or, it might mean that they have been more inclined to ‘hoard’ labour out of fear that these workers would not be available once business picks up again. At the end of the day, employment trends are a partial

Chart 5

### Employment in goods producing industries by enterprise size - Canada

Indexed, pre-recession peak = 100

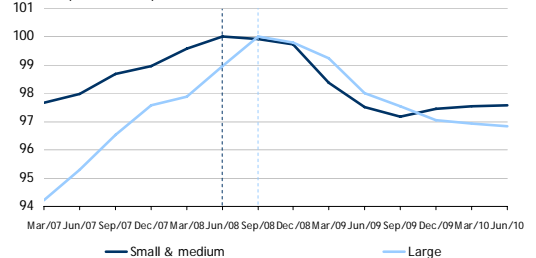


Source: Statistics Canada, RBC Economics Research

Chart 6

### Employment in private service industries by enterprise size - Canada

Indexed, pre-recession peak = 100

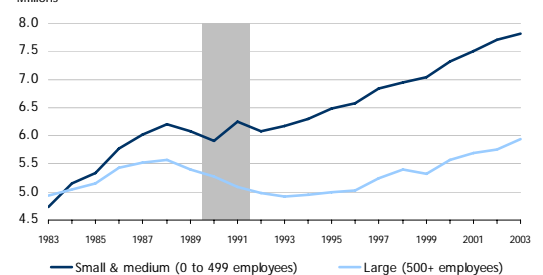


Source: Statistics Canada, RBC Economics Research

Chart 7

### Employment by enterprise size, LEAP data - Canada

Millions

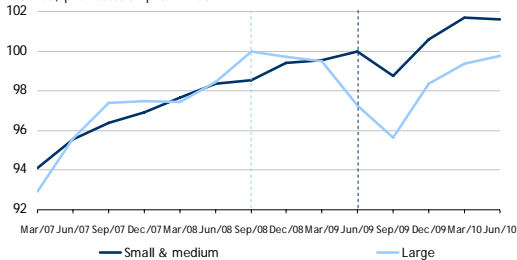


Source: Statistics Canada, RBC Economics Research

Chart 8

**Total employment by enterprise size - Newfoundland & Labrador**

Indexed, pre-recession peak = 100

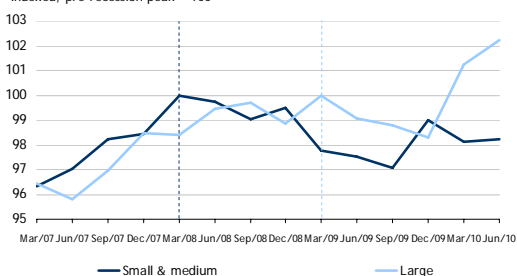


Source: Statistics Canada, RBC Economics Research

Chart 9

**Total employment by enterprise size - Nova Scotia**

Indexed, pre-recession peak = 100

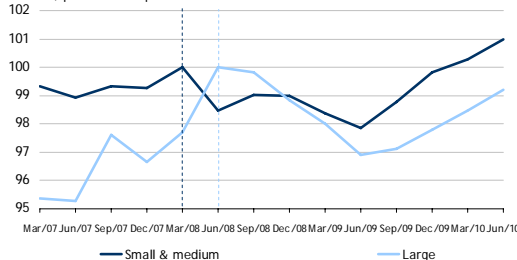


Source: Statistics Canada, RBC Economics Research

Chart 10

**Total employment by enterprise size - New Brunswick**

Indexed, pre-recession peak = 100

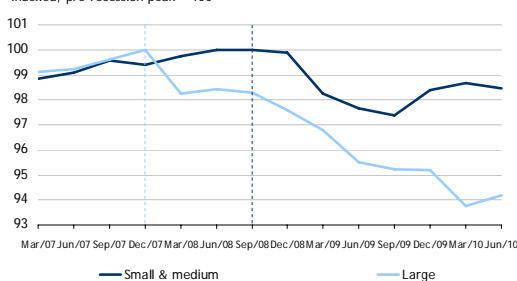


Source: Statistics Canada, RBC Economics Research

Chart 11

**Private employment by enterprise size - Quebec**

Indexed, pre-recession peak = 100



Source: Statistics Canada, RBC Economics Research

and imperfect gauge of business strength. To fully address this question, we need to look at other metrics such as the respective sales, trade, and financial performance. It is unfortunate that the data by firm size on these metrics are not yet available for the most recent period.

**Are the performance divergences observed between small and large firms during this recession typical compared with previous recessions?**

It is unfortunate, but the SEPH dataset by enterprise size only goes back to 2000, so we are not able to compare trends that took place during the 1990-1991 and 1981-1982 downturns.

There is a separate database for employment by firm size, the Longitudinal Employment Analysis Program (LEAP), from which annual numbers have been estimated back to 1983<sup>5</sup>. Although the series are not strictly comparable, this data nevertheless shows that, during the 1990-1991 recession, employment at large firms (private and public sectors combined) took the greater overall hit by falling 11.8% compared to a 4.5% drop in employment at SMEs. While the data are not available on a public compared to a private-sector basis, the overall numbers indicate that larger firms cut payrolls more significantly than smaller firms during the previous recessions.

**Are the employment performance divergences between SMEs and large firms consistent across provinces and regions of the country?**

By and large, the employment patterns of SMEs and large firms at the national level are mirrored across the provinces<sup>6</sup>. With that said, some variation emerges across the nation.

In **Newfoundland & Labrador**, SME employment remained strong during the downturn, and although payrolls declined by 1.2%, they have since surpassed previous peak levels. In contrast, employment at large firms declined more sharply, posting a peak-to-trough decline of 4.3%. Looking at the sectors within the province, manufacturing bore the brunt of the declines, with total employment in the sector falling by 29.2% and accounting for 90% of the overall decline, of which almost all occurred at large firms.

Total employment in **Nova Scotia** held fairly stable throughout the downturn, although employees at large firms managed to make it through in comparably better shape. Large firms reduced payrolls by 1.7% compared to the 2.9% decline seen at SMEs. As well, since a trough in the fourth quarter of 2009, employment at large firms has surged. The performance by large firms, however, is likely distorted by the inclusion of the public sector in the aggregates, because the number of large-firm job losses in each of the manufacturing and trade sectors exceeded the aggregate decline. The domestic-trade sector was the main source of weakness among SMEs, with these industries accounting for 44% of job losses for the category.

In **New Brunswick**, manufacturing was the main source of job loss, because employment in the industry fell by 11.3% from the third quarter of 2008 to the second quarter of 2009, and with employment in SMEs shrinking by 13.2% compared to a 9.6% decline at large firms. The main source of variance between large firms and SMEs came from the administrative and support, waste management and remediation ser-



vices sectors, where large-firm employment declined 25.5% from peak-to-trough while SMEs' payrolls fell by only 1.4% for the same period.

In **Quebec**, weakness in private employment was led by large firms with a peak-to-trough drop of 6.2%, with more than half of the decline coming from manufacturing. The peak in employment in large firms late in 2007 occurred earlier compared to the national numbers. Employment at private SMEs peaked at the end of 2008 and fell a more modest 2.6%, which was also largely driven by a decline in manufacturing jobs (down 13.7%). Larger firms also fared worse than their smaller counterparts in the administrative and support, waste management, and remediation services industries, where employment fell by 18.5%. Meanwhile, employment at SMEs rose by 1.2% within these sectors. General weakness was evident in the transportation and warehousing sector, where 7.3% and 5.7% of jobs were lost at SMEs and large firms, respectively.

In **Ontario**, job losses in manufacturing drove the overall pattern in private payrolls with this industry responsible for half of the decline in total private-sector employment from the third quarter of 2008 to the fourth quarter of 2009. Within manufacturing, job losses were concentrated at large firms, where employment fell by 19.2% during this period and compared to the 10.4% decline at SMEs. Weakness was also recorded in the retail and wholesale-trade sectors, where SMEs reduced payrolls by 4.1% and large firms by 1.3%. Weakness was recorded as well in administrative and support, waste management, and remediation services, where large firm employment fell by 10.7% and employment at SMEs declined by 5.5%.

**Manitoba** had private employment at SMEs hold fairly steady throughout the downturn even as large firms reduced payrolls. As with most of the rest of the country, employment losses were concentrated within manufacturing, with the sector accounting for effectively the entire 1.5% decline in employment at SMEs and one-third of the 8.1% reduction in payrolls at large firms. The bulk of the remainder of large-firm employment weakness was within retail and wholesale-trade sectors, where employment fell by 10.8% while it rose by 0.5% at SMEs.

**Saskatchewan** experienced a similar pattern as we saw in Manitoba, where private employment at SMEs held steady (in fact rising marginally) during the downturn while large-firm employment plunged. Specifically, the peak-to-trough decline in total private employment of 3.4% reflected employment at large firms falling by 10.5%, while employment at SMEs fell by 0.7% and subsequently increased by 1.8%. The large-firm decreases were more broadly based compared to other provinces, and was led by declines in manufacturing (down 20.4%), transportation and warehousing (22.3%), and retail and wholesale trade (3.8%).

**Alberta** was one of two provinces (the other being British Columbia) in which private employment at SMEs broke with the national pattern and underperformed relative to large firms. Specifically, private employment at SMEs in the province dropped 7.4% relative to a decline of 5.6% among large firms. The main driver of comparative weakness in aggregate SME employment appears to be the construction sector, where SME employment fell by 9.0% compared to a gain of 1.1% at large firms. Most other sectors reverted to the national trend of SMEs outperforming large firms. For example, the employment rate in the manufacturing sector of large firms

Chart 12

## Private employment by enterprise size - Ontario

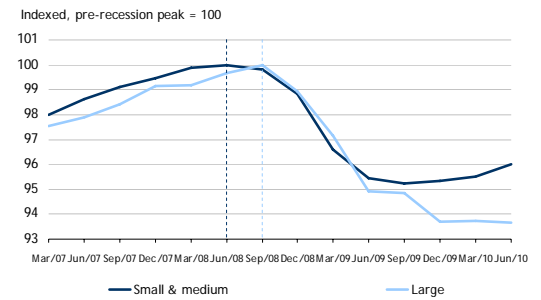


Chart 13

## Private employment by enterprise size - Manitoba

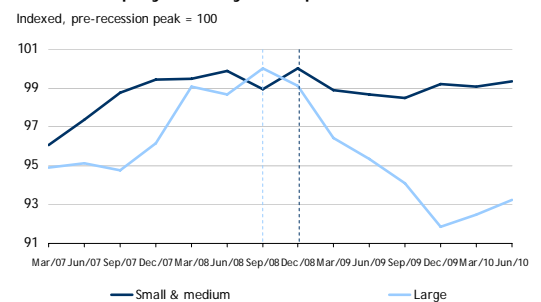


Chart 14

## Private employment by enterprise size - Saskatchewan

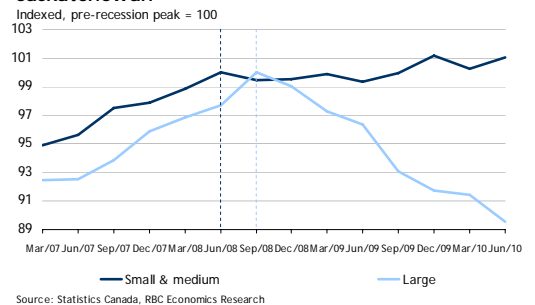


Chart 15

## Private employment by enterprise size - Alberta

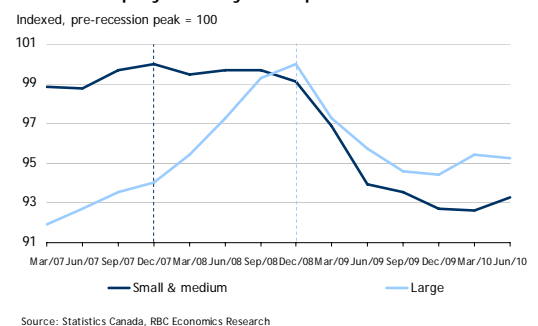


Chart 16

**Private employment by enterprise size - British Columbia**

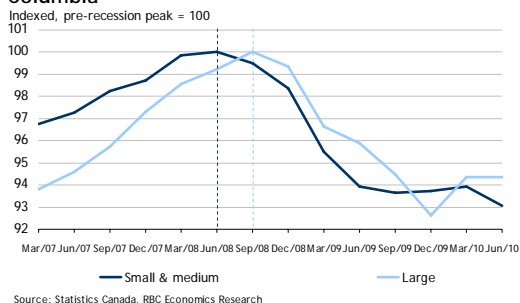


Chart 17

**Proportion of businesses\* that are exporters**

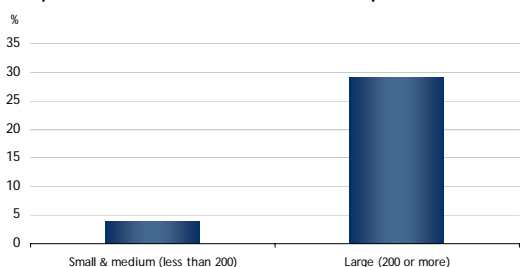
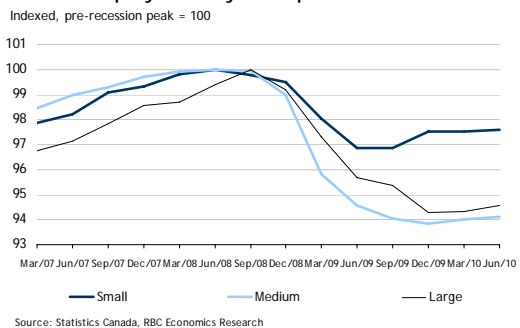


Chart 18

**Private employment by enterprise size - Canada**



fell by 19%, whereas SMEs cut payrolls in the manufacturing sector by a more moderate 13.1%. Mining, quarrying, and oil and gas extraction industries had employment declines at large firms falling by 16.2% compared to 7.7% at SMEs. The professional, scientific, and technical service sector likewise saw significant job losses, possibly reflecting a sharp reduction in drilling activity in the province as employment at large firms declined by 10.4% compared to an 8.6% drop at SMEs.

In **British Columbia** large firms generally outperformed their SME counterparts thus breaking with the national trends as well. A sharp drop in large-firm employment in the fourth quarter of 2009 (that was reversed in the following quarter), however, resulted in private employment at large firms dropping peak-to-trough by a comparably higher 7.4% compared to the 6.9% decline at SMEs. However, employment at large firms is currently down a lesser 5.7% reflecting the recent recovery. The greatest source of comparable weakness in SMEs was in the construction sector, where payrolls fell by 11.6% compared to an increase of 1.9% at large firms. Most other sectors within the province reverted to the national trend of SMEs seeing less weakness relative to large firms. For example, the largest source of weakness overall was in the retail and wholesale trade sectors with employment at SMEs falling 5.1% compared to an 8.3% drop at large firms. Manufacturing in the province was also weak, with SME employment falling by 11.4% although this was outpaced by a 14.3% decline at large firms.

**What could explain the employment divergences between small, medium and large firms during the recession?**

There were probably many factors exerting an influence. As we speculated, on the upside smaller firms might have been better at adapting their business strategies though more negatively it may reflect a greater inclination to hoard workers. However, the very nature of this recession and the policy response to pull out of it undoubtedly played a prominent role. The fact that this recession originated from weakness in the U.S. economy and that it hit the manufacturing sector disproportionately (the auto industry in particular) likely accounts for much of the employment performance divergence. Firms that depend on the U.S. export market have faced greater adversity than those more focused on the domestic market, which was not hit as hard by the recession.

Larger firms tend to be more export-oriented, and manufacturers tend to be bigger employers than private service enterprises, so the negative hit to the export and manufacturing sectors posed greater challenges to larger organizations. This theory can be clearly seen in trends in the forestry, mining and oil and gas, and manufacturing sectors – all relying heavily on export markets – where job losses have been much more significant at large firms during the recession (see charts 19 to 21).

The way policymakers responded to the recession in drastically cutting interest rates and launching major spending programs on public infrastructure not only provided support to the domestic economy at large but also had particular benefits to specific sectors in which small firms dominate the landscape. The real estate and construction industries took advantage of the snapback in Canada's housing market during 2009, arising from exceptionally low interest rates and, to a lesser extent, the home renovation rebate. This situation helped moderate job losses at SMEs during the

downturn for these sectors. Stronger infrastructure spending at all levels of government also contributed to softening the blow for non-residential construction firms, although this might have sparked a sharper jobs recovery at larger firms.

### Could it be the fact that downsizing at larger private firms caused them to change size categories and become medium-sized enterprises?

At the margin, this type of dynamic probably took place, but it is unlikely to have been a significant reason for the relatively steeper employment losses at larger private firms during the recession. Employment at medium-sized firms actually fell even more than at larger enterprises during the recession, so the ‘downsizing’ of large firms did not swell the ranks of the next sized downward category. Among private SMEs, it was those with fewer than 50 employees that showed the most resilience against the general-employment decline.

### What about the recovery - any sense as to which of small, medium, or large firms will do better?

What we know is that, so far, employment at SMEs is recovering a little faster overall. Projecting trends by firm size into the future, however, is quite difficult because there are complex forces at play that can have a wide range of outcomes on firms. One of these forces is the changing composition of growth as the recovery matures. We expect that the U.S. economy will gain strength (albeit gradually) and boost demand for Canadian exporters, benefiting larger private firms more directly. We also expect that the need for policy stimulus will diminish. On the monetary policy front, the Bank of Canada will proceed with normalizing its monetary policy – we anticipate that it will resume raising its overnight rate some time in the second quarter of 2011. This increase in the rate will weigh on the housing market and diminish prospects of construction and real estate firms that are more skewed to smaller-sized firms. In fact, a significant cooling in home-resale activity has already taken place. In terms of fiscal policy, governments at all levels will start turning off the tap for infrastructure spending in 2011 once work on Action Plan-related projects is completed, although the final cessation of funding has been extended until the fall from the previous March 31 termination date. This reduction in funding will likely affect both small and large construction and engineering firms.

Another force during the medium term will be governments focusing more aggressively on balancing their budgets, which will require a fair degree of belt tightening. This budgetary austerity could cause some reductions in public-sector employment and, thus, a disproportionate hit to larger enterprises overall.

Generally, given the diversity of the Canadian economy, there is neither one size nor one type of firm that is best able to outperform others. What we believe to be more important is that there are as few barriers as possible impeding the creative destruction process, entrepreneurship, and business dynamism in Canada. On that front, pursuit of low inflation and better fiscal discipline have contributed to lower nominal interest rates and have helped create a more stable and predictable environment in which Canadian businesses can plan and invest. As well, the lessening of regulations, in the past couple of decades or so, certainly has improved our economy’s ability to adapt to changing circumstances.

Chart 19

#### Employment in forestry by enterprise size - Canada

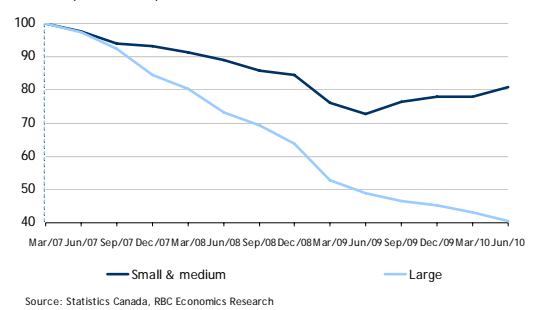


Chart 20

#### Employment in mining and oil and gas extraction by enterprise size - Canada

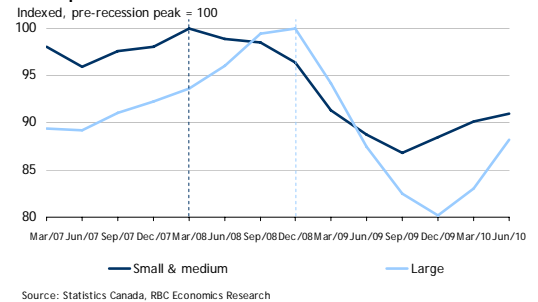
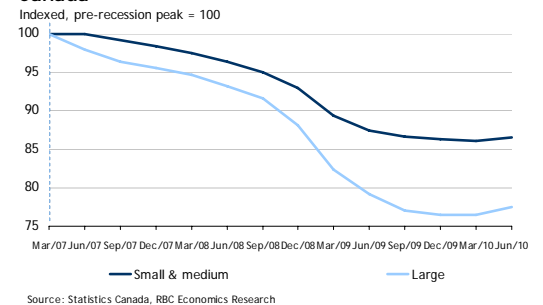


Chart 21

#### Employment in manufacturing by enterprise size - Canada



**Notes:**

<sup>1</sup>“Canada’s employment downturn”. *Perspectives on Labour and Income*. Statistics Canada; December 2009.

<sup>2</sup>The Survey of Employment, Payrolls & Hours differs from the Labour Force Survey (LFS) in that it provides information pertaining to non-farm payrolls based on a survey of businesses whereas the LFS provides information on the employment characteristics of individuals based on a survey of households. SEPH is the timeliest data-set available by firm size, with the most recent data point being the second quarter of 2010. Specifically, the data of interest are the quarterly estimates of employment by size of enterprise, which are available for each province and major industries on an unadjusted basis. These data are obtained from Statistics Canada’s publication catalogue no. 72-002-X. In order to facilitate comparison on a period-over-period basis, the data are seasonally adjusted using the U.S. Census Bureau’s X12 seasonal adjustment process.

<sup>3</sup>Statistics Canada defines an enterprise as any business or institution whether incorporated or not; it comprises sole proprietorships, partnerships, companies, and other forms of organizations. An enterprise is considered to be simple if all its establishments operate in the same province or industry classification; otherwise, an enterprise is classified as complex.

<sup>4</sup>For the purpose of this analysis, the public sector is defined by NAICS codes 61 (educational services), 62 (healthcare and social assistance) and 91 (public administration).

<sup>5</sup>These data are obtained from Statistics Canada’s *Business Dynamics in Canada*, publication catalogue no. 61-534-XIE.

<sup>6</sup>It is unfortunate, but employment data by enterprise size and by industry for Prince Edward Island are suppressed; therefore, the province has been excluded from this analysis. For Newfoundland & Labrador, Nova Scotia, and New Brunswick, total employment is used instead of private-sector employment since employment by enterprise size for the educational services, healthcare, social assistance, and/or public administration industries are suppressed in order to meet the confidentiality requirements of the Statistics Act or deemed too unreliable to publish. These data make calculations of private-sector employment by firm size unavailable for these regions.

The material contained in this report is the property of Royal Bank of Canada and may not be reproduced in any way, in whole or in part, without express authorization of the copyright holder in writing. The statements and statistics contained herein have been prepared by RBC Economics Research based on information from sources considered to be reliable. We make no representation or warranty, express or implied, as to its accuracy or completeness. This publication is for the information of investors and business persons and does not constitute an offer to sell or a solicitation to buy securities.