



Change in employment at the end of a recession and the beginning of a recovery: what the past can teach us

Although economic conditions have clearly improved, the employment market is still struggling in Canada and the United States. Historically, employment's movement seems to coincide with real GDP movement, but a close look at the last few recessions reveals that the employment market may lag somewhat behind during such episodes. Under these conditions, we can expect to see ongoing (although waning) job losses, followed by a slow, gradual recovery. The employment market will also have to deal with a number of structural changes, as a profound upheaval is now underway in a number of Canadian industries.

EMPLOYMENT IS STILL PULLING BACK EVEN THOUGH ECONOMIC CONDITIONS HAVE IMPROVED

The signs that economic conditions are looking up have been proliferating for some time. Among other things, France, Germany and Japan returned to growth last spring, posting real GDP increases. In the United States, the ISM manufacturing index edged over the 50 mark, suggesting an expansion in manufacturing activity. After it dipped by "just" 1.0% in Q2 of 2009, our latest forecasts are calling for U.S. real GDP to rise by about 1% in the third quarter. Not only are the beneficial impacts of the Obama administration's economic recovery plan increasingly being felt but, in the near term, consumer spending will get a boost from faster auto sales due to the federal subsidy program for energy efficient car purchases. In turn, economic conditions are also looking up in Canada. Note that commodity prices have gone up in the last few months, delivering a positive wealth effect here. Canadian consumer confidence has improved substantially and the leading indicator has turned around. Most economic statistics thus posted growth in June, and real GDP by industry is back in positive territory for the first time since July 2008.

Clearly, the economic recovery is materializing around the world and the recession appears to be either over or almost over in most industrialized countries. There are still some

risks, however. For instance, the possibility of a W-shaped recovery cannot be ruled out completely. In other words, after production temporarily rises, real GDP could go back into negative territory, especially if private demand does not manage to take over the reins following the recent surge in government expenditures.

Despite the improvement in economic conditions, the job market is still deteriorating. Job losses are not as numerous as they were at the peak of the crisis, but clearly many jobs are still being lost and the unemployment rate is still rising. How long will it take for the economic recovery to begin to benefit the job market? This *Economic Viewpoint* will analyze how employment moves in relation to economic cycles. This will allow us to draw some conclusions on how the labour market will behave over the next few months.

CANADA: EMPLOYMENT AND OUTPUT SEEM TO BE SYNCHRONIZED

In Canada, employment movements usually follow real GDP changes quite closely (graph 1 on page 2). An analysis of the correlation between employment and real GDP shows that historically the two variables have moved fairly coincidentally. That said, the correlation between the current quarter's employment and the previous quarter's real GDP is also important, although not quite as strong, showing that

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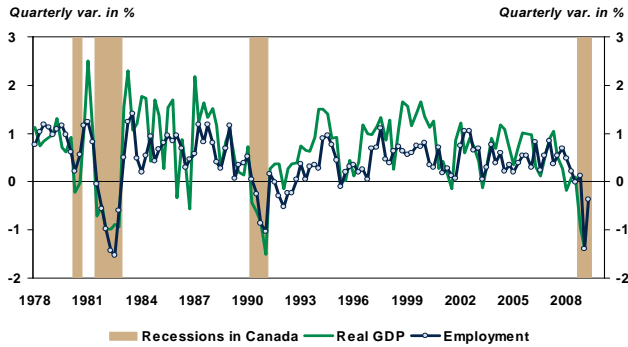
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Graph 1 – In Canada, employment tends to fluctuate in tandem with the economic cycle



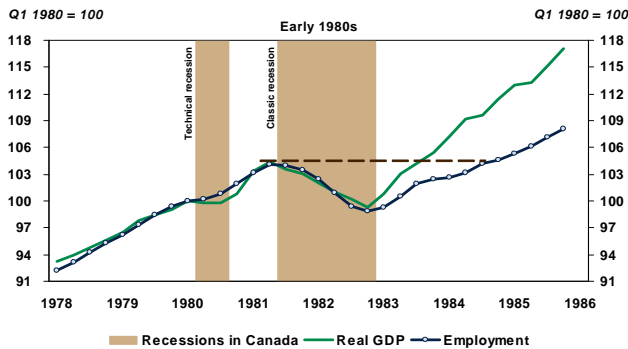
Sources: Statistics Canada and Desjardins, Economic Studies

there is somewhat of a lag between employment and the economic cycle.

As the imbalances are greater during recessions, we can expect these relationships to be somewhat different during such periods. We will therefore take a closer look at how employment and real GDP behave in the quarters surrounding recession periods. Note that our sample only includes two recessions in Canada¹ (excluding the 2008-2009 recession), i.e. the recession of the early 1980s and that of the early 1990s.

In general, employment's evolution was fairly coincident with the economic cycle in the recession of the early 1980s (graph 2). Cyclical peaks for employment and real GDP were both reached in Q2 of 1981. This recession's second phase subsequently prompted a substantial contraction in real GDP and employment. Both real GDP and employment reached

Graph 2 – Canadian employment recovered more slowly in the recession of the early 80s

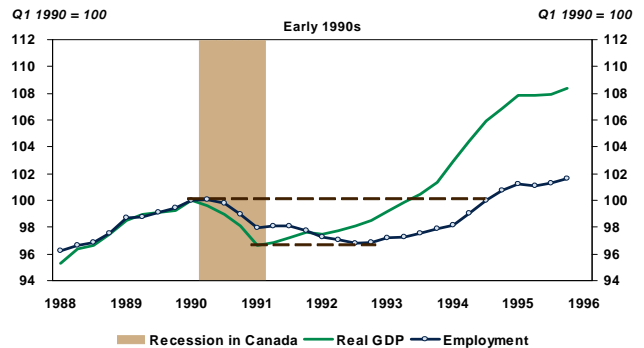


Sources: Statistics Canada and Desjardins, Economic Studies

their cyclical lows in Q4 of 1982. Subsequently, however, output recovered more quickly while the job market's recovery was a much slower process.

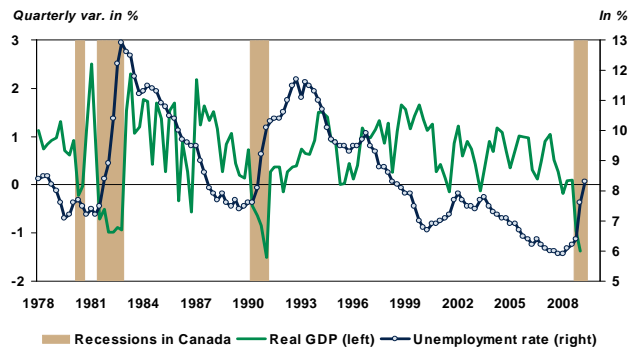
These observations are somewhat different for the recession of the early 1990s (graph 3). Output reached its cyclical peak in Q1 of 1990, while employment hit its peak a quarter later, in the second quarter of 1990. The lag was much larger during the economic recovery. Output reached its cyclical low in the first quarter of 1991, while employment continued to deteriorate steadily until the third quarter of 1992, more than one year behind. This is no doubt partly due to the fact that, during the recession, real GDP contracted more sharply than employment did. Employment therefore had to keep adjusting even after the economic recovery began, causing the subsequent lag. It is also interesting to note that employment's trough was almost identical to the trough for output during these two recessions. Moreover, the jobless rate continued to ascend until the fourth quarter of 1992, peaking at 12.1% in November of that year (graph 4). The jobless rate had thus gone up 4.8 percentage points from its March 1990 low, compared with 6.0 percentage points in the recession of the early 1980s.

Graph 3 – In Canada, following the recession of the early 1990s, employment's recovery was delayed and more protracted



Sources: Statistics Canada and Desjardins, Economic Studies

Graph 4 – In Canada, the change in the unemployment rate lags behind the change in the economic cycle

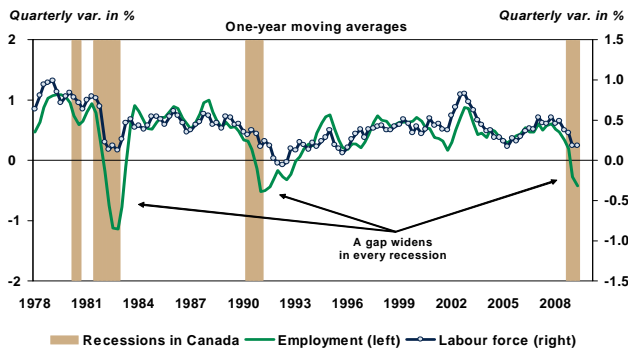


Sources: Statistics Canada and Desjardins, Economic Studies

¹ Not only do the historical data on employment start in 1976, but Canada's economy did not undergo a recession between the recession of 1956 and the one in the early 1980s.

The sustained increase in the jobless rate is also characteristic of recessions. As graph 5 shows, employment fluctuated much more than the labour force did in prior recessions. Proliferating layoffs discourage some workers, translating into a down trend for the labour force, but the drop in employment proved to be much steeper. The increase in the gap between the change in employment and the change in the labour force naturally brings on a large surge in the jobless rate.

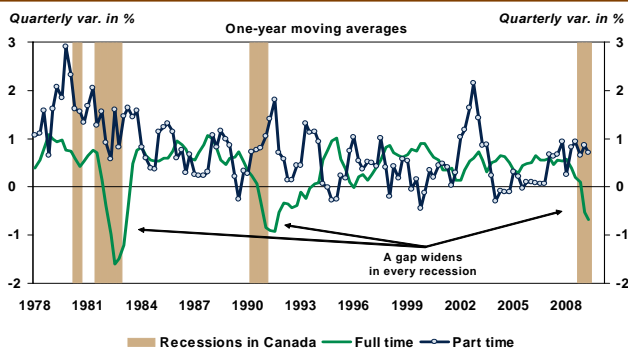
Graph 5 – Downward labour force movements are not as steep as job losses in Canada



Sources: Statistics Canada and Desjardins, Economic Studies

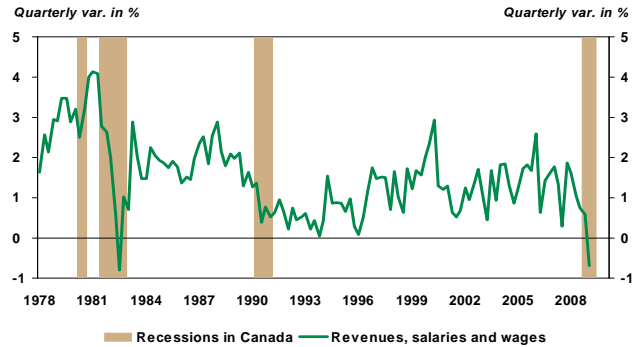
Conditions in the labour market also become much more precarious during recessions. Part-time jobs gain ground to the detriment of full-time jobs (graph 6). Self-employment grows in popularity as many workers create their own jobs when they cannot find work with a business or public entity. Heightened insecurity in the labour market, combined with substantial job losses, encourages household income to slow or even decline (graph 7).

Graph 6 – Part-time employment advances during Canadian recessions



Sources: Statistics Canada and Desjardins, Economic Studies

Graph 7 – Wages decline or wage growth slows during Canadian recessions



Sources: Statistics Canada and Desjardins, Economic Studies

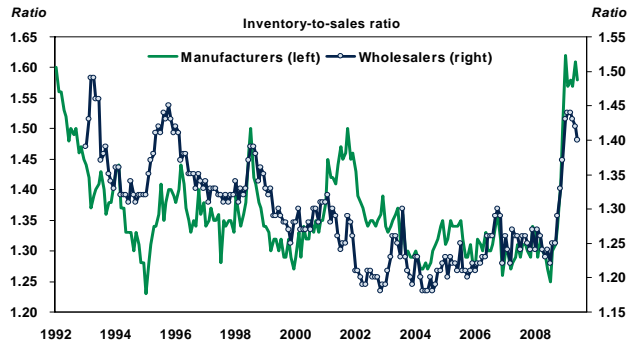
In the end, the outcome of recent recessions shows that movement in employment usually coincides with the economic cycle. But, the job market may sometimes lag behind, particularly in the quarters following the start of real GDP's recovery, which could happen with this recession as well. A lag has already been noted in terms of the cyclical peak. Although the recession only officially began in the fourth quarter of 2008, real GDP nevertheless peaked in Q4 of 2007. The fact is that production stagnated for the nine first months of 2008. Employment continued to rise until October 2008; it was only in November that the initial loss of 63,300 jobs was recorded. Moreover, a remarkable 92,200 jobs were even created in September 2008. The lag in the labour market's adjustment is largely chalked up to a labour shortage in some industries and the commodities boom, with the price of crude oil (WTI: West Texas Intermediate) peaking at US\$147 in July 2008.

Canada's real GDP is poised to go back into the black: Can we expect the labour market to improve shortly, or will we once again see a lag of several months before employment begins to grow again? The answer could well lie in the change in inventories.

Although Canadian businesses have already started to adjust their inventories in the last few months, the fact remains that the various inventory-to-sales ratios remain unusually high, historically speaking (graph 8 on page 4).

Businesses will need to keep cutting inventories in the coming months. Therefore, even though demand is recovering in Canada, the United States and elsewhere in the world, Canadian businesses will no doubt sell off their inventories before ratcheting up production substantially. This will have

Graph 8 – Canadian business inventories remain elevated



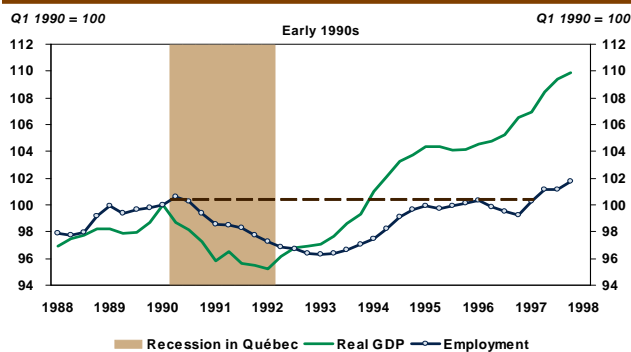
Sources: Statistics Canada and Desjardins, Economic Studies

major repercussions for the labour market. Not only could we continue to see layoffs in the months to come, but the job market could subsequently undergo a sluggish recovery.

QUÉBEC AND ONTARIO: A MAJOR LAG IN THE RECESSION OF THE EARLY 1990S

In both Québec and Ontario, the relationship between employment and economic cycles is similar to what is observed for Canada as a whole. Nonetheless, the recession of the early 1990s resulted in a slightly bigger lag between employment and the economic cycle in Québec (graph 9). After peaking in the second quarter of 1990, employment declined until the beginning of 1993. However, the recession officially ended in Q2 of 1992. Moreover, while it took 16 quarters for real GDP to reach its pre-recession high, employment required 28 quarters to make up the ground lost. The lag is partially due to a number of one-off factors. Among other things, the free trade agreement went into effect in 1989, causing some sectors to restructure. Grappling with record budget deficits, governments made substantial cuts in the early 1990s, greatly reining in public sector employment. Also,

Graph 9 – Québec's labour market underwent a very long convalescence following the recession of the early 1990s

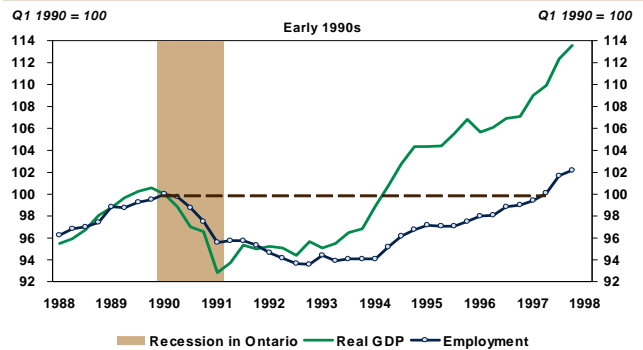


Sources: Statistics Canada and Desjardins, Economic Studies

China was starting to be a bigger player in the global economic landscape, generating greater competition for manufacturers. The jobless rate thus kept ascending for several months after the recession ended, peaking at 14.2% in November 1992.

A similar lag was noted in Ontario in the recession of the early 1990s (graph 10). On one hand, employment peaked one quarter after output did. On the other, employment did not bottom out until the fourth quarter of 1992, seven quarters after the economy began to recover. Note that the problems in Ontario's labour market were drawn out by a technical recession that materialized in mid-1992. The jobless rate hit its cyclical peak in September 1992, at 11.6%.

Graph 10 – In Ontario, employment stagnated for a long time after the recession of the early 1990s

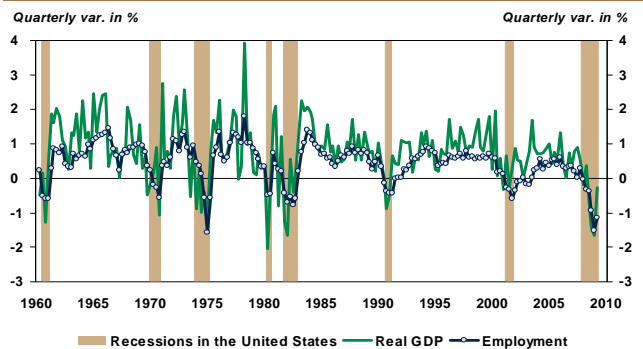


Sources: Statistics Canada and Desjardins, Economic Studies

A BIGGER LAG IN THE UNITED STATES

In the United States, our sample for analyzing the historical relationship between economic cycles and employment² is much bigger. As graph 11 shows, the U.S. economy has undergone eight recessions since the early 1960s (including

Graph 11 – The correlation between employment and the degree of economic activity does not fail in the United States, either



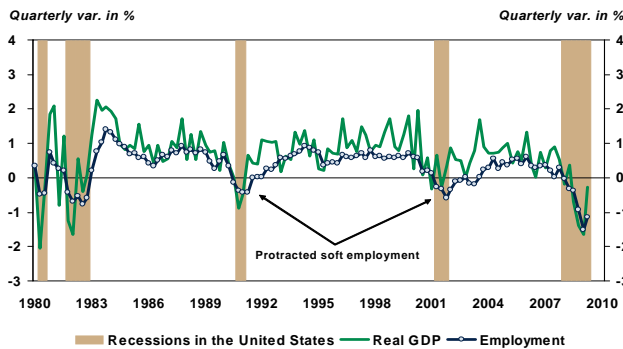
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and Desjardins, Economic Studies

² The American employment data used come from the establishment survey.

the current contraction). The correlation between employment and the economic cycle also seems quite coincidental south of the border. That said, as in Canada, the correlation between one quarter's employment and the previous quarter's real GDP is also fairly strong, attesting to somewhat of a lag between employment and the economic cycle. The lag appears to be bigger in the United States, with a fairly strong correlation with a two-quarter lag.

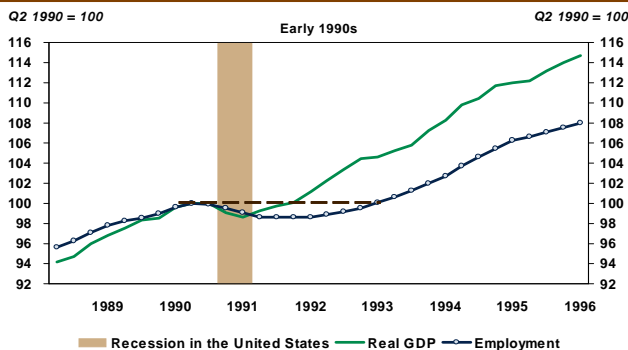
A slower, later recovery in employment was, in particular, noted in the last two recessions (graph 12). While employment and GDP both reached cyclical peaks at the same time, the employment market bottomed out two quarters after the economic recovery began during the recession of the early 1990s (graph 13). Subsequently, job growth was much weaker than output growth. The same observation is true for the recession at the beginning of this decade (graph 14). After peaking almost simultaneously, the employment market continued to pull back for more than two years after the economy started to recover. Employment's tardy, soft comeback meant that the U.S. jobless rate has continued to ascend after most recessions ended (graph 15).

Graph 12 – Employment got off to a slower start in the last two recessions in the United States



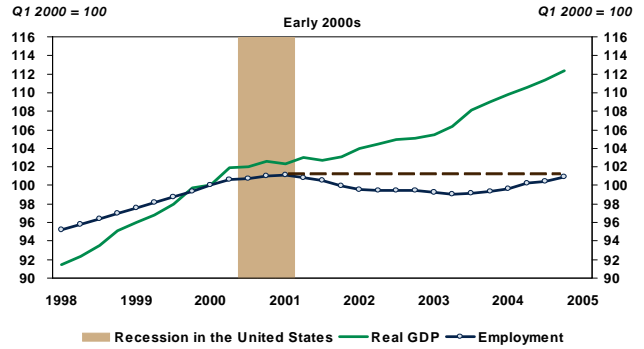
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and Desjardins, Economic Studies

Graph 13 – A two-quarter lag between employment and real GDP in the 1990 recession in the United States



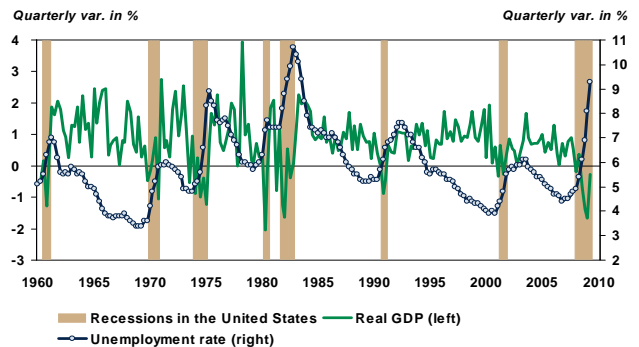
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and Desjardins, Economic Studies

Graph 14 – The short recession in 2000 was especially painful for U.S. employment



Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and Desjardins, Economic Studies

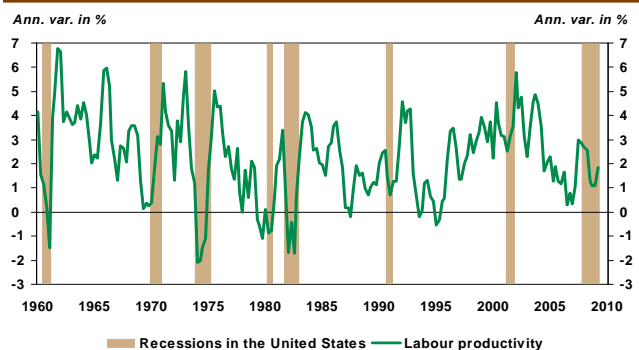
Graph 15 – The U.S. jobless rate usually peaks at the end of the recession or afterward



Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and Desjardins, Economic Studies

In the end, the lag between the change in employment and the economic cycle seems, overall, to be slightly bigger in the United States than in Canada. This reflects larger productivity gains in the United States at the end of a recession, as well as in the quarters that follow the start of recovery (graph 16).

Graph 16 – Productivity gains accelerate following a U.S. recession



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

LESSONS FOR THE CURRENT SITUATION

Caution is of course required with this kind of historical comparison. Our sample contains too few recession periods, especially in Canada, to abstract a shared trend model with certainty. That said, the fluctuations in employment and real GDP in the last few quarters have some similarities with previous recessions which may give us some insight on labour market conditions over the next few months. Among other things, employment and real output posted similar levels for peaks and troughs in previous recessions, whether or not there was a lag.

In Canada, the job market’s correction emerged somewhat behind real GDP’s cyclical peak. As graph 17 shows, in the second quarter of 2009, the drop in employment was well behind the drop in real output. This situation is similar to that of the recession of the early 1990s. Thus, even though real GDP could rebound shortly, ongoing adjustments in the labour market should prompt further job losses in the next few months. This outlook is bolstered by the situation with business inventories. Business inventories are exceptionally high in relation to production, which will require further corrections in the coming quarters, no doubt putting the brakes on employment growth. Under these circumstances, we can expect job losses to keep mounting until early 2010, even though economic conditions have improved recently. Of course, job losses should gradually scale back and the worst of the corrections are probably over. Finally, the jobless rate will continue to rise and could hit a cyclical peak between 9.5% and 10.0%.

Graph 17 – Employment was late in correcting in Canada...

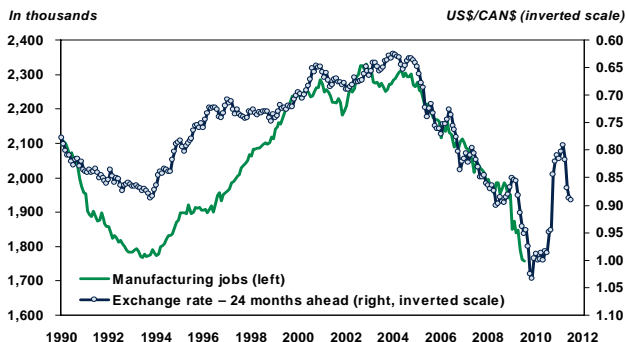


Sources: Statistics Canada and Desjardins, Economic Studies

The strength of the job market’s comeback will subsequently depend on a number of factors. If the euphoria seen in natural resources development in the last few years returns, we can expect job creation to post a more sustained pace. Moreover, the Canadian dollar’s former deterioration could, for a while, play in favour of employment in the manufacturing sector

(graph 18). The loonie’s renewed uptrend in the last few months could slow down manufacturers’ hiring and even eventually lead to further job losses in this sector. Lastly, we must also mention the impact of demographics on the labour market, especially in Québec. Labour force aging will no doubt rein in layoffs and foster a lower jobless rate in the years to come.

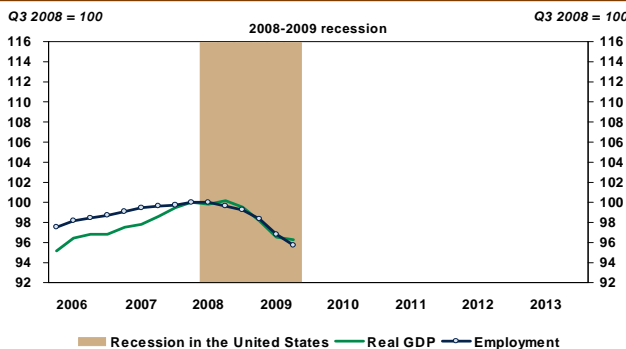
Graph 18 – Heading for a temporary rebound in Canadian manufacturing employment?



Sources: Statistics Canada and Desjardins, Economic Studies

In the United States, the experience of previous recessions shows that the labour market’s recovery tends to be slightly later and less sustained. As graph 19 shows, employment has moved fairly closely with real GDP since the beginning of the 2008-2009 recession. Although real GDP is expected to rise in the third quarter, we can expect the problems in the labour market to last until early 2010. Even though job losses have been dwindling in the last few months, the fact remains that they are still relatively high. This gradual improvement in the situation should still continue, making way for slow employment growth in 2010.

Graph 19 – Employment corrected promptly in the United States



Sources: Statistics Canada and Desjardins, Economic Studies

However, in both Canada and the United States, we cannot rule out the possibility of a W scenario, i.e. a temporary recovery in real GDP, followed by a swing back into negative territory. If this alternate scenario materializes, it goes without saying that the difficulties in the job market will be more drawn out.

In addition to the abovementioned cyclical considerations, we must also note the potential impact of structural changes in the Canadian labour market given the profound upheaval that is now underway in a number of industries. This is true of the auto sector, given the restructuring by North American automakers and heightened environmental considerations. The liquidity problems seen in the financial markets in the last few quarters could also prompt substantial changes in the finance sector. Lastly, greater competition in international markets combined with decreased resource availability has caused Canada's forest industry to decline. These structural changes could result in softer demand for labour in these industries. It remains to be seen whether the gains recorded in other industries will make up for the losses.

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