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Canadian Labour Market Developments: Recession Impacts, Recent Trends and Future Outlook

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The *Federal Accountability Act* mandates the Parliamentary Budget Officer to provide independent analysis to the Senate and House of Commons on the state of the nation's finances, government estimates and trends in the national economy.

This note presents an analysis of Canada's labour market that describes some recent trends, summarizes the outlook going forward, and makes comparisons with the experiences of past recessions. The analysis finds the following:

Recent Labour Market Trends and Outlook

- *A variety of economic indicators point to a sharp deterioration in the Canadian labour market that began around October 2008 with the onset of the recession.*

- *The medium-term outlook for the labour market is significantly weaker than expected in Budget 2009. A June 2009 PBO survey of private sector forecasters implies that:*
    - *Employment is forecast to be lower than previously expected by around 190-370 thousand jobs this year and by around 200-500 thousand jobs next year.*
    - *Over 2011-2014, the unemployment rate is expected to be between 0.5 and 2 percentage points higher, increasing unemployment by around 100-380 thousand people per year.*

Labour Market Trends in Canada's Recent Recessions

- *Employment losses have been concentrated entirely in full-time positions, as workers and businesses substitute towards part-time jobs.*

- *The majority of job losses have occurred in the manufacturing, construction, natural resources, and transportation industries.*
    - *Partly because of sex-based differences in the composition of workers in these industries, recessionary unemployment has risen more for males than for females.*
    - *Partly because of regional differences in industrial structure, Ontario, Alberta and British Columbia have typically experienced the largest relative unemployment spikes in recessions.*

- *After recessions end and production recovers, employment tends to rebound, though potentially with a lag. In contrast, the adverse impacts on unemployment are typically much more persistent — more people are unemployed and they remain unemployed for longer periods*.

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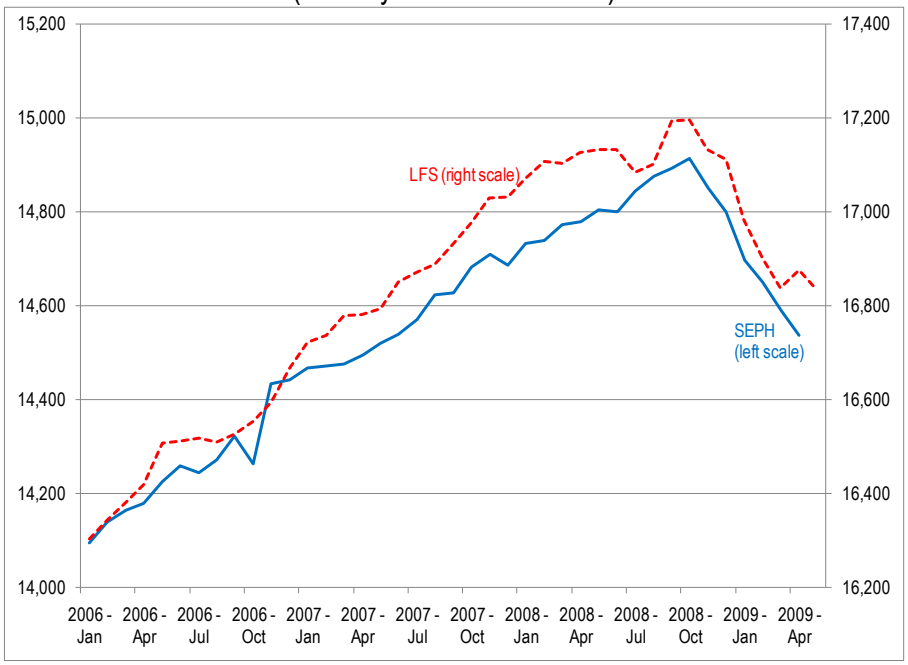
With the global and Canadian economies currently in recession, there is particular interest in labour market developments. A key concern among Canadians and policymakers is how the weaker economy might adversely impact jobs, unemployment and incomes and what governments may do to cushion these effects. This note presents some general background analysis on Canada's labour market. It describes some recent trends, summarizes the outlook going forward, and makes comparisons with the experiences in past recessions.[1]

Section 1. Recent Labour Market Trends

Canada's current recession began to take hold in the fall of 2008. Since October 2008, various labour market measures suggest that Canada's labour market has deteriorated sharply.

Recent trends from both the *Labour Force Survey* (LFS) and the *Survey of Employment, Payrolls and Hours* (SEPH) estimate that the level of employment peaked in October 2008, and has since declined by more than 2%, representing a drop of more than 360,000 net jobs (see Figure 1).[2] In the past seven months: both unemployment and the number of regular Employment Insurance (EI) beneficiaries have risen by over one-third — there are roughly 400,000 additional unemployed people and about 200,000 more regular EI recipients; and Canada's unemployment rate has increased over two percentage points to stand at 8.4% in May 2009. At the same time, growth in average hourly earnings has slowed, but remains above inflation on a year-over-year basis. However, largely because fewer hours are being worked, in the first quarter of 2009, Canadian overall nominal wages and salaries declined for the first time since the 1980s recession.

Figure 1: Recent Employment Movements, Comparing LFS and SEPH
(Monthly data in thousands)



[1] See Yalnizyan (2009) for a recent paper that provides related and additional analysis from a historical perspective on Canadian labour market developments.

[2] The LFS is a household-based survey, which includes unemployment measures. SEPH uses a business-based survey and payroll deductions data from the Canada Revenue Agency.

Section 2: Labour Market Outlook

Employment Outlook

Table 1 reports the outlook for employment based on the June 2009 PBO survey of private sector forecasters for the high, low and average of the survey's unemployment rate forecasts, and PBO assumptions about the labour force.[3] This table also reports a PBO estimate of Budget 2009's projected employment level (without stimulus impacts) used for budget planning purposes as of January 2009 — while this was not directly reported, it is possible to provide a reasonable estimate based on the additional analysis contained in the budget.[4] Relative to the implied Budget 2009 expectations by private sector forecasters in January, the employment outlook has worsened, by around 190-370 thousand jobs this year and by around 200-500 thousand jobs next year, based on the range of the annual averages from the high and low projections.[5]

Table 1: Comparison of Employment Forecast Relative to Implied Budget 2009 Assumptions
(Annual averages in thousands)

	2008	2009	2010
PBO June 2009 High		16,841	16,989
PBO June 2009 Average	17,123	16,773	16,859
PBO June 2009 Low		16,658	16,691
Budget 2009 (PBO estimate)	17,130	17,031	17,188
Difference from Budget 2009			
PBO High		-189	-199
PBO Average	-7	-257	-329
PBO Low		-373	-497

Unemployment Outlook

Figure 2 provides a longer-term perspective by plotting the Canadian unemployment rate beginning in 1976, supplemented with forecasts out to 2014 from the June 2009 PBO survey. The series features three clear unemployment spikes associated with each recession. One important feature that distinguishes the current recession relative to the past, is that the unemployment rate at the beginning of 2008 stood at only 5.8 percent — its lowest level in over three decades. This means that a similar unemployment increase would leave the peak unemployment rate lower in this recession than in the previous recessions.

[3] The PBO survey includes 10 forecasters for 2009 and 2010, and five forecasters for 2011 and later.

[4] This is done by using the January 2009 Department of Finance survey of private sector forecasters (Budget 2009 pg. 60-61, annuals for 2009 and 2010 for real GDP and the unemployment rate); the annex on the employment and output impacts of the Economic Action Plan (Budget 2009 pg. 237-242, Table A1.3); and, PBO's assumptions of the labour force.

[5] Based on the PBO June 2009 average projection, the level of employment would be about 320,000 jobs lower by the end of 2009 and 350,000 lower by the end of 2010 than expected at the time of Budget 2009.

Figure 2: Canadian Unemployment Rate, 1976-2014
(Annual Averages)

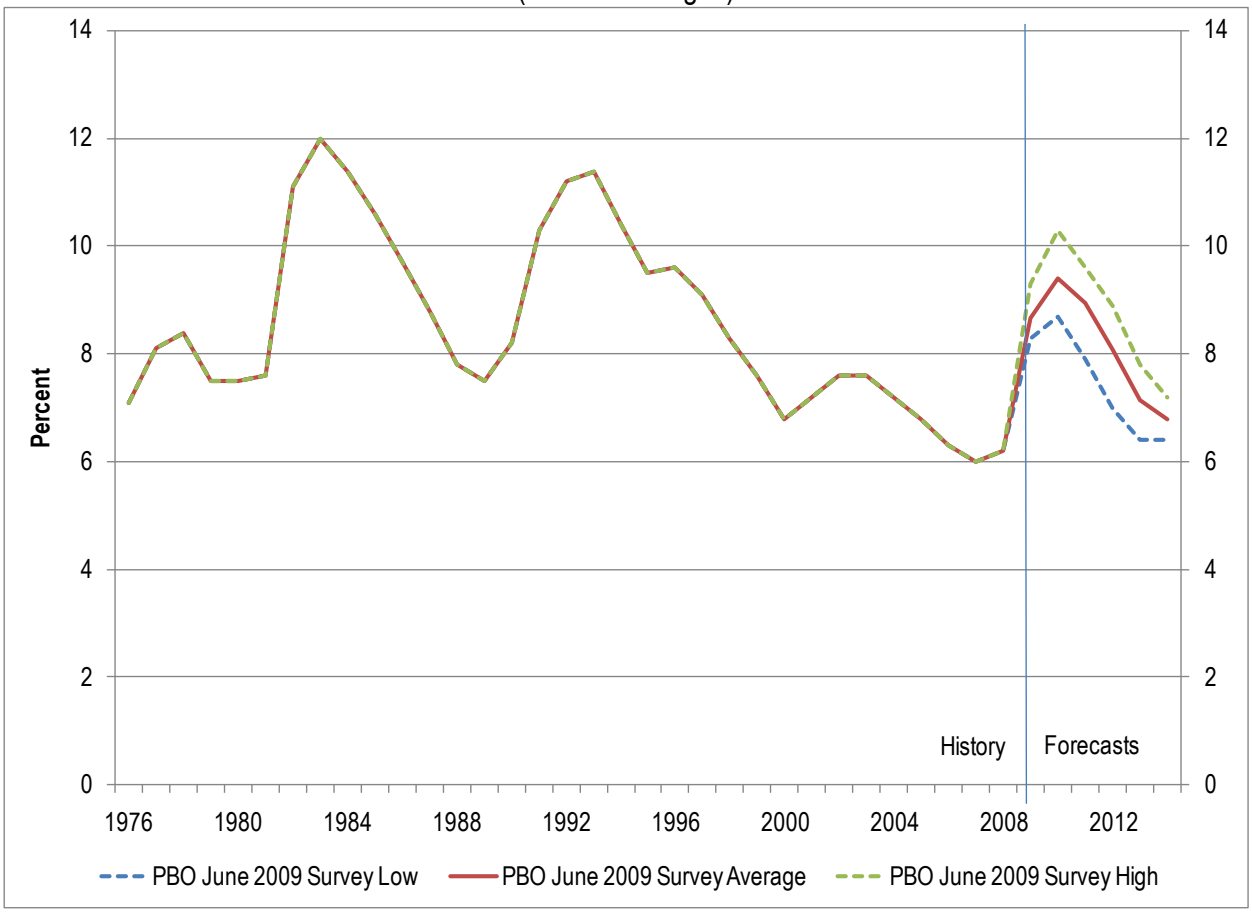


Table 2 shows more details on how the outlook for unemployment has changed since Budget 2009. In the near term, the unemployment rate is expected to be higher, possibly peaking above 10 percent in 2010, according to some forecasters. Over 2011-2014, the unemployment rate is expected to be between 0.5 and 2 percentage points higher than was assumed in Budget 2009. Based on the PBO's projection for the labour force, the private sector unemployment rate forecasts imply an increase in the number of unemployed Canadians of roughly 150-340 thousand in 2009, 190-490 thousand in 2010, and about 100-380 thousand per year over 2011-2014, relative to Budget 2009 expectations.

Table 2: Comparison of Unemployment (Rate) Forecasts Relative to Budget 2009 Assumptions
(Annual Averages)

(unemployment rate in per cent)	2008	2009	2010	Average 2011-2014
PBO June 2009 High		9.3	10.3	8.4
PBO June 2009 Average	6.2	8.7	9.4	7.7
PBO June 2009 Low		8.3	8.7	6.9
Budget 2009	6.1	7.5	7.7	6.4
June 2009 Progress Report		8.6		
Difference from Budget 2009				
PBO High		1.8	2.6	2.0
PBO Average	0.1	1.2	1.7	1.3
PBO Low		0.8	1.0	0.5
Implied unemployment levels (in thousands)*				
PBO High		1,708	1,917	1,601
PBO Average	1,122	1,592	1,749	1,480
PBO Low		1,525	1,619	1,324
Budget 2009 (PBO estimate)	1,117	1,373	1,428	1,225
Difference from Budget 2009				
PBO High		336	489	376
PBO Average	5	220	321	256
PBO Low		153	191	100
* Assumed PBO labour force projection		18,366	18,608	19,146

Section 3: Labour Market Trends in Canadian Recent Recessions

This section compares the results-to-date in the current recession with the recessions of the early 1980s and early 1990s.[6] The figures presented in this section show comparisons using the percentage change in employment and unemployment levels across cycles and not their deviations relative to trend i.e., their gaps. As such, caution should be exercised in interpreting these results given that their underlying trends likely vary over time.

[6] This section uses the Canadian recession dates identified by Cross (2001). The 1980s recession results ignore a short five-month recession during February 1980-June 1980 and instead refer only to July 1981-October 1982. The 1990s recession refers to April 1990-April 1992. The 2008 recession is assumed to have begun October 2008 — the start of 2008Q4.

3A. Employment

Figure 3 plots the employment dynamics in the five years after each recession began. Of the two previous recessions, the 1980s drop was sharper, but the subsequent recovery quicker. Also in the 1980s recession, movements in employment were roughly contemporaneous to output movements, so employment began to recover just after the recession ended (the 1980s recession lasted 15 months). In contrast, the 1990s recession was longer, lasting 24 months, and the recovery in employment did not occur until almost two years after the recession ended.[7]

Figure 3: Labour Force Survey Employment Dynamics After the Start of Canadian Recessions
(Monthly data, percentage change relative to start of recession)

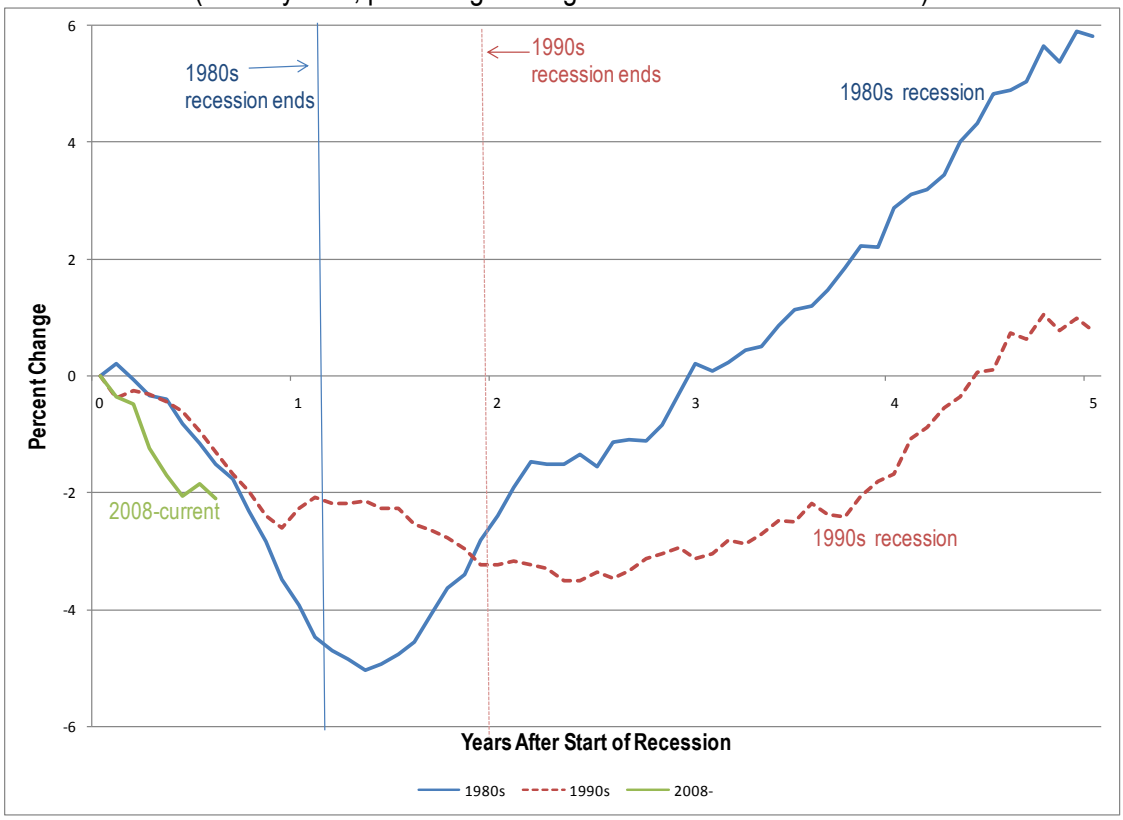


Table 3 reports employment and output losses during past recessions, as well as the results-to-date in the current recession. The table shows a clear distinction between the adjustments of full- and part-time employment during Canadian recessions, with the employment declines concentrated entirely in full-time positions, as there is typically a shift towards part-time workers.

[7] Though there are few recessions to draw conclusions from, the U.S. economy has also experienced so-called 'jobless recoveries' in its past two recessions (in the early 1990s and after 2001) for reasons that have not been well identified.

Table 3: Employment Changes by Type of Work in Canadian Recessions
(Monthly Data)

	Employment						Real Output
	Overall		Full-time		Part-time		
	Level	Percent	Level	Percent	Level	Percent	Percent
Recession	(thousands)						
1980s	-549.4	-4.8	-677.7	-7.0	128.3	7.9	-4.9
1990s	-426.9	-3.2	-568.2	-5.2	141.3	6.4	-2.3
2008 - present*	-362.5	-2.1	-406.1	-2.9	43.6	1.4	-2.3

Source: LFS Employment as of May 2009 (Cansim: V2062811) Real GDP as of 2009Q1 (Cansim: V1992067)

Table 4 separates out the overall employment changes by industry during each recession. The table shows that recessionary employment losses are typically concentrated in four industries: 1) manufacturing; 2) construction; and 3) transportation and warehousing; and 4) forestry, fishing, mining, oil and gas.

Table 4: Employment Changes by Industry in Canadian Recessions
(Monthly Data)

	1980s Recession		**1990s Recession**		**2008-current**	
	Levels	**Percent**	**Levels**	**Percent**	**Levels**	**Percent**
	(Thousands)					
OVERALL ECONOMY	-549.4	-4.8	-426.9	-3.2	-362.5	-2.1
GOODS	-472.1	-12.6	-402.8	-10.6	-321.0	-8.0
Agriculture	19.9	4.5	-2.1	-0.5	-2.0	-0.6
Forestry, Fishing, Mining, Oil & Gas	-75.2	-21.3	-30.6	-9.7	-23.3	-6.9
Utilities	-11.7	-8.6	1.9	1.4	0.8	0.5
Construction	-106.3	-14.8	-120.0	-14.5	-110.4	-8.8
Manufacturing	-298.8	-14.2	-252.0	-12.1	-186.1	-9.4
SERVICES	-77.4	-1.0	-24.2	-0.3	-41.5	-0.3
Trade	-35.5	-2.0	-22.7	-1.1	-43.5	-1.6
Transport and Warehousing	-28.9	-4.7	-38.1	-5.9	-47.5	-5.5
Finance, Insurance, Real Estate	-10.4	-1.5	-20.6	-2.4	-6.8	-0.6
Professional, Scientific & Technical	-27.3	-6.7	14.8	2.6	-11.6	-1.0
Business- Support Services	12.6	6.3	0.7	0.2	17.2	2.6
Education	-5.4	-0.8	38.0	4.5	-24.3	-2.0
Health and Social Assistance	18.1	1.9	46.4	3.6	28.9	1.5
Information, Culture and Recreation	6.9	1.6	-28.2	-5.4	21.8	2.9
Accommodation and Food	1.4	0.2	-12.9	-1.6	2.3	0.2
Other Services	1.9	0.4	-18.7	-3.1	41.5	5.4
Public Administration	-10.8	-1.5	17.1	2.0	-19.5	-2.0

Sources: Overall employment V2062811, All Goods V2057604, Agriculture V2057605, Forestry etc. V2057606, Utilities V2057607, Construction V2057608, Manufacturing V2057609, All Services V2057610, Trade V2057611, Transport etc. V2057612, Finance etc. V2057613, Professional Services V2057614, Business Services V2057615, Education V2057616, Health V2057617, Information etc. V2057618, Accommodation etc. V2057619, Other Services V2057620, Public Admin. V2057621

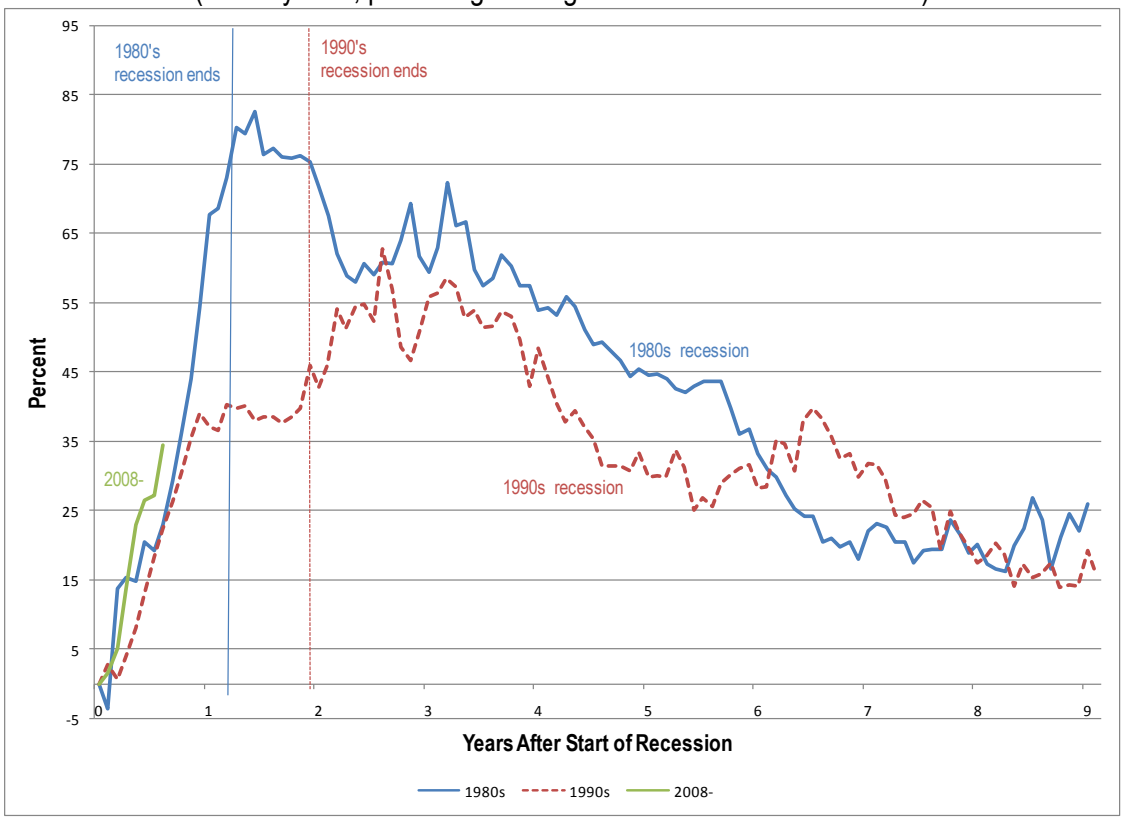
3B. Unemployment

There is not a one-to-one correspondence between the fall in employment and the rise in unemployment because workers move in and out of the labour force. To give one example, someone who loses their job would not increase the number of unemployed if they returned to school full-time because they would be classified as moving from 'employed' to 'not in the labour force'. To be counted as unemployed, a person must be without a job and actively looking for work.

Unemployment Dynamics in Recessions

Figure 4 shows the movements in unemployment after the start of each recession. In both previous recessions unemployment spiked quickly and did not fall back to its pre-recession level for several years — often close to a decade. The unemployment impacts, therefore, tend to persist longer than the employment impacts. There are a few factors that could contribute to this result. First, as the recovery takes hold, the economy improves and jobs are easier to find, as a result, more workers may enter the labour market to search for jobs (increased movements from non-employment into unemployment). Second, typically more workers quit after the economy recovers as workers feel more confident to leave their previous job to look for new work (increased movements from employment into unemployment).

Figure 4: Unemployment Dynamics After the Start of Canadian Recessions
(Monthly data, percentage change relative to start of recession)

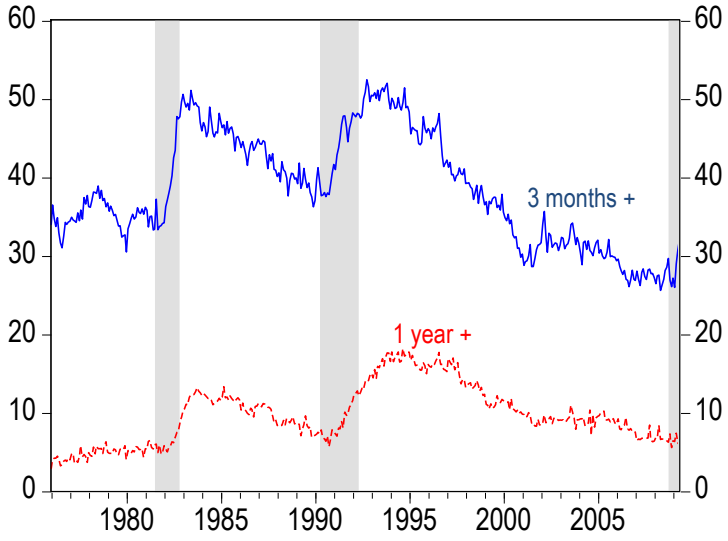


Unemployment Duration

In recessions, not only does the number of unemployed people increase, but people tend to remain unemployed for longer periods of time (i.e., there is an increase in unemployment *incidence* and *duration*).

Figure 5 plots the percentage of all unemployed who are unemployed for three months or longer, and the percentage of unemployed that remain so for one year or longer.[8] In recessions, because it becomes harder to find a job, the proportion of the unemployed that are enduring longer unemployment spells increases. The shaded areas show that in recessions roughly half of the unemployed had spells that lasted three months or longer, and more than 10 percent of all spells lasted one year or longer. Notice also that these unemployment duration measures tend to lag the economic cycle, peaking after the recession ends — again demonstrating the persistence of recessionary unemployment effects.

Figure 5: Increased Longer-Term Unemployment in Canadian Recessions
(Monthly Data)



Source: PBO seasonal adjustment and calculations based on Statistics Canada supplementary unemployment data 'R1' and 'R2' measures, unemployed 1 year or more V2440386; unemployed 3 months or more V2440387

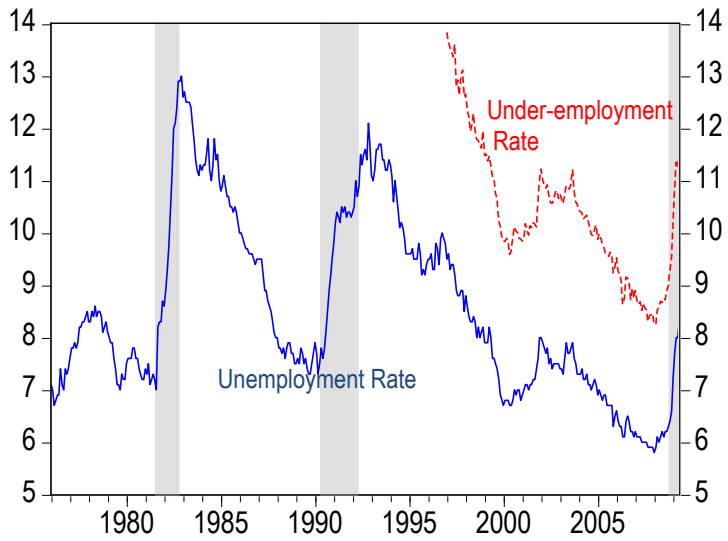
Under-Employment

Not only do unemployment incidence and duration rise during recessions, but the amount of so-called under-employment can increase even more dramatically. [9] Figure 6 graphs the unemployment rate and Statistics Canada's 'R8' measure of so-called, under-utilized labour. The figure shows that the under-utilized labour measure has increased faster in this recession than the official unemployment measure — while the official measure of unemployment was 8.4% in May 2009, the under-utilized labour measure is estimated at 11.6%, which is roughly its level during the economic slowdown in the earlier part of this decade (associated with the U.S. recession in 2001).

[8] In several parts of the following sections Statistics Canada's supplementary unemployment measures have been seasonally adjusted to remove the seasonal variation in the monthly data to make the series comparable over time.

[9] Under-employment includes the unemployed; plus discouraged searchers —i.e., those who have stopped looking for work; those who are working part-time but would prefer full-time work; plus those who are awaiting recall, replies, or will start work in the future.

Figure 6: In Recent Months 'Under-Employment' has Risen Faster Than Unemployment
(Monthly Data)

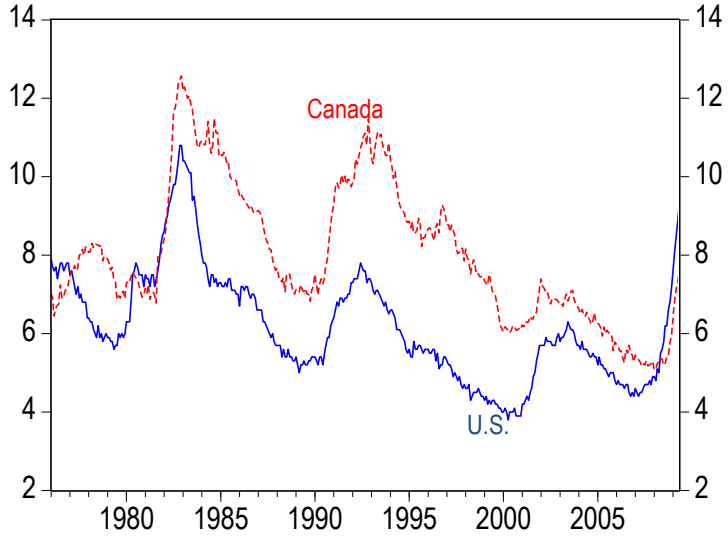


Source: PBO seasonal adjustment and calculations based on Statistics Canada supplementary unemployment data 'R8' measure V2440393

Canada-US Unemployment Comparison

Comparisons can also be made between the unemployment rate movements in Canada and the U.S. Because of differences in how the data are measured across the two countries, Statistics Canada produces a supplementary measure of unemployment that is comparable to the U.S. definition. Figure 7 shows that the recent deterioration in the U.S. labour market has been significantly worse than in Canada.

Figure 7: Comparable Canadian and U.S. Unemployment Rates, 1976-2009 (Monthly data)



Sources: PBO seasonal adjustment and calculations based on Statistics Canada supplementary unemployment data 'R3' measure V2440388; U.S. Civilian Unemployment Rate, age 16 yr +, Bureau of Labor Statistics

3C Unemployment Distributional Analysis

The labour market impacts of recessions are spread unequally across the population. This subsection reviews the differential regional, age, and gender impacts.

3C.1 Regional Dimensions to the Recession

Table 5 reports the changes in unemployment by province in each recession. The table shows that the current recession has seen the largest relative increases in unemployment in Alberta, British Columbia, and Ontario. In fact, Ontario's relative rise in unemployment has exceeded the national average in each Canadian recession, mainly due to its relative large share of employment in manufacturing. Conversely, some of the recent fall back in the western-most provinces reflects a return to more normal levels after very strong labour market experiences in recent years, as these unemployment rates remain below the national average.

Table 5: Unemployment Changes by Province in Canadian Recessions

(Monthly Data)

	1980s Recession		1990s Recession		2008-current	
	Levels	Percent	Levels	Percent	Levels	Percent
	(Thousands)					
CANADA	711.1	80.4	459.5	42.8	396.9	34.5
British Columbia	119.3	134.7	31.4	22.5	58.8	46.8
Alberta	76.4	174.8	34.2	37.7	64.0	82.3
Saskatchewan	17.9	106.5	1.9	5.6	5.8	27.2
Manitoba	16.1	48.3	13.5	36.8	3.4	12.3
Ontario	267.2	93.4	290.4	100.8	191.9	40.1
Quebec	174.5	55.4	66.4	19.0	63.4	21.0
New Brunswick	11.3	35.1	3.0	7.2	-1.0	-2.8
Nova Scotia	14.9	42.9	10.3	24.2	6.4	17.0
Prince Edward Island	0.9	15.0	2.7	29.7	1.3	14.3
Newfoundland and Labrador	12.8	45.2	5.8	14.5	2.8	8.0

Note: Shading denotes provincial unemployment increase above the national average.

Sources: Canada V2062814; Newfoundland and Labrador V2063003; Prince Edward Island V2063192; Nova Scotia V2063381; New Brunswick V2063570; Quebec V2063759; Ontario V2063948; Manitoba V2064137; Saskatchewan V2064326; Alberta V2064515; British Columbia V2064704

3C.2 Age Impacts

While the level of the unemployment rate is generally higher for younger workers, Table 6 shows that in recessions the *relative* increase in unemployment is larger for workers 25 years and older, than for younger workers (age 15-24). This implies that the unemployment gap between younger and older workers tends to narrow in recessions. One would need to perform detailed demographic analysis to explain why this is the case, however, there are some implications, or particular challenges and opportunities posed by the age dimension of recessions.

A challenge for older workers in recessions — particularly those with longer job tenure who lose their jobs from layoffs — is that they can incur larger earnings losses which can persist for some time.[10] A challenge for younger workers is that recent graduates who enter the labour market in recessions can also incur significant and persistent earnings losses.[11]

At the same time, recessions can present an opportunity for workers to improve their education and training because workers forego less income by exiting the labour market when jobs are harder to find or of lower quality. One potential silver lining of recessions then, is that for some, it could result in their becoming more highly-educated and better-trained workers for the future.

Table 6: Unemployment Changes in Canadian Recessions by Age (Monthly Data)

	Overall Unemployment		Young Workers (age 15-24)		Workers 25 and over	
	Level	Percent	Level	Percent	Level	Percent
Recession	(thousands)					
1980s	711.1	80.4	253.4	64.4	457.7	93.1
1990s	459.5	42.8	105.4	32.9	354.1	47.1
2008 - present*	396.9	34.5	72.8	20.2	324.1	40.9

Source: Overall unemployment (age 15+) V2062814, unemployment age 15-24 V2062841, unemployment age 25 and over calculated residually.

3C.3 Sex-Based Differences in Unemployment Impacts

Table 7 reports the overall changes in unemployment during past recessions, disaggregating by sex, and Figure 8 plots the difference between the male and female unemployment rates, where the shading indicates recessions.

In this recession, as in past recessions, the male unemployment rate has risen more quickly than the female unemployment rate. This is related to the nature of recessions, whose adverse impacts are typically concentrated in specific sectors, as shown above. These particular sectors (manufacturing; construction; transportation and warehousing; forestry, fishing, mining, oil and gas sectors) typically employ more male workers while less cyclical-sensitive sectors in services (such as health and education) generally employ more female workers.[12]

[10] Morissette et al. (2007) find that high-seniority Canadian workers who lost their jobs through firm closures or mass layoffs experienced long-term earnings losses of around 18-35% of their pre-displacement earnings.

[11] Oreopoulous et al. (2005) find that for Canadian graduates entering the labour market in a typical Canadian recession (proxied by increasing the unemployment rate by five percentage points) suffer initial earnings losses of about 9%, which disappear fully only after 10 years. Kahn (2008) finds similar impacts for the U.S. economy.

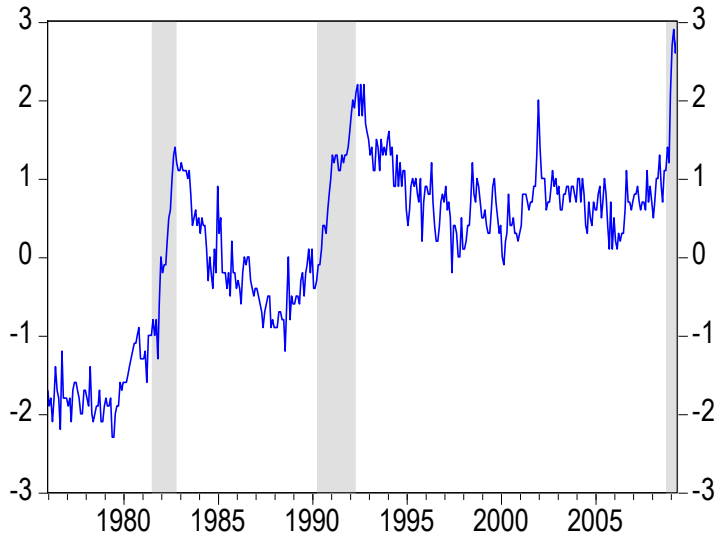
[12] For example, in 2007, 33% of employed men worked in goods-producing industries versus 12% of employed women (Statistics Canada, 2007).

Table 7: Unemployment Changes in Canadian Recessions by Sex
(Monthly Data)

	Overall Unemployment		Male		Female	
	Level (thousands)	Percent	Level	Percent	Level	Percent
Recession						
1980s	711.1	80.4	496.3	100.3	214.7	55.1
1990s	459.5	42.8	312	52.7	147.6	30.7
2008 - present	396.9	34.5	285.5	43.5	111.4	22.5

Source: Overall unemployment V2062814, male unemployment V2062823, female unemployment V2062832

Figure 8: Male Unemployment Rate Minus Female Unemployment Rate, 1976-2009
(Monthly Data)



Section 4: Conclusions

Thus far, the broad labour market trends of the current recession have been similar to those of the past. Job losses have been concentrated in Ontario and the western-most provinces, and in industries that typically employ more male workers (i.e., at durable goods related businesses).

Based on the experiences of past Canadian recessions and a recent PBO survey of private sector forecasters, the net employment losses should begin to moderate and finally turn around as output recovers, or somewhat thereafter. The increase in unemployment, however, will likely prove more persistent — and those who become unemployed in the recession will remain so for longer periods, as jobs are harder to find. Finally, until a sustained recovery is established, the Canadian economy will remain less productive than usual because of an increase in under-utilized labour.

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