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Canadian Labour Market Dispersion: Mind the (Shrinking) Gap



by David Amirault and Naveen Rai

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Abstract

Shocks to a currency area can and often do have asymmetric impacts on its regions that, in the absence of perfect labour mobility, lead to gaps in relative labour market performance. Witness, for example, the effects of the 2008/09 recession and subsequent financial crisis in Europe on the dispersion of employment rates across the euro area – and to a lesser extent the United States. These interregional labour market gaps can persist, as has traditionally been the case for Canadian provinces. From 1976 to 1997, the mean absolute dispersion between any one province and the national employment rate was 5.5 percentage points – significantly higher than the corresponding measure in the United States. Since then, however, the Canadian metric has fallen consistently and in 2015 was not that different than its U.S. equivalent. Despite the impacts of commodity price booms from 2003 to 2008 and 2010 to 2014, the 2008 Great Recession, and the recent sharp decline in commodity prices on the Canadian economy, Canada’s provincial labour markets are less dissimilar today than at any point in at least the past 35 years. We find that reductions in the dispersion of provincial employment rates in the mid-1990s and 2000s are mostly concentrated among women and those in the 25 to 44 age group. Furthermore, evidence suggests that the tighter dispersion of employment rates has not been driven by stronger employment growth in previously weak regions of the country. Rather, it has mostly occurred as regional population growth has increasingly responded to labour market conditions. In other words, labour is being more efficiently reallocated to the regions of the country that have the tightest labour markets and away from those with excess labour supply. The dispersion of both unemployment and participation rates has fallen, contributing to this trend.

JEL classification: J01, R23

Bank classification: Labour markets; Regional economic developments

Résumé

Les chocs peuvent, comme cela a été souvent observé, avoir une incidence asymétrique sur les régions d’une zone monétaire et provoquer des disparités entre les marchés du travail lorsqu’il n’y a pas de mobilité parfaite de la main-d’œuvre : en témoignent par exemple les répercussions de la récession des années 2008-2009 et de la crise financière subséquente en Europe sur la dispersion des taux d’emploi dans la zone euro et, dans une moindre mesure, aux États-Unis. Ces écarts entre les marchés du travail régionaux peuvent persister, ce qui a généralement été le cas au Canada. De 1976 à 1997, la dispersion moyenne, en valeur absolue, entre le taux d’emploi d’une province donnée et celui du pays était de 5,5 points de pourcentage, soit une différence beaucoup plus élevée que l’écart correspondant aux États-Unis. Toutefois, depuis, cet indicateur a constamment

baissé et, en 2015, il était comparable à celui des États-Unis. Malgré les retombées sur l'économie canadienne de la flambée des prix des produits de base durant les années 2003 à 2008 et 2010 à 2014, de la Grande Récession de 2008 et de la récente chute brutale des prix des produits de base, jamais depuis au moins 35 ans les marchés du travail provinciaux n'auront été si peu dissemblables au Canada. C'est principalement parmi les femmes et dans la tranche d'âge des 25 à 44 ans que l'on observe des réductions de la dispersion des taux d'emploi provinciaux au milieu des années 1990 et dans les années 2000. De plus, notre analyse laisse entrevoir que la diminution de la dispersion des taux d'emploi ne tient pas au redressement de la situation de l'emploi dans les régions du pays où elle était antérieurement mauvaise. Elle s'est surtout opérée du fait que la croissance des populations régionales est devenue progressivement plus sensible à la situation du marché du travail. Autrement dit, on assiste à une redistribution plus efficiente de la main-d'œuvre vers les régions du pays où les marchés du travail sont le plus tendus au détriment de celles où l'offre est excédentaire. La dispersion des taux de chômage et d'activité a aussi diminué, accentuant le phénomène.

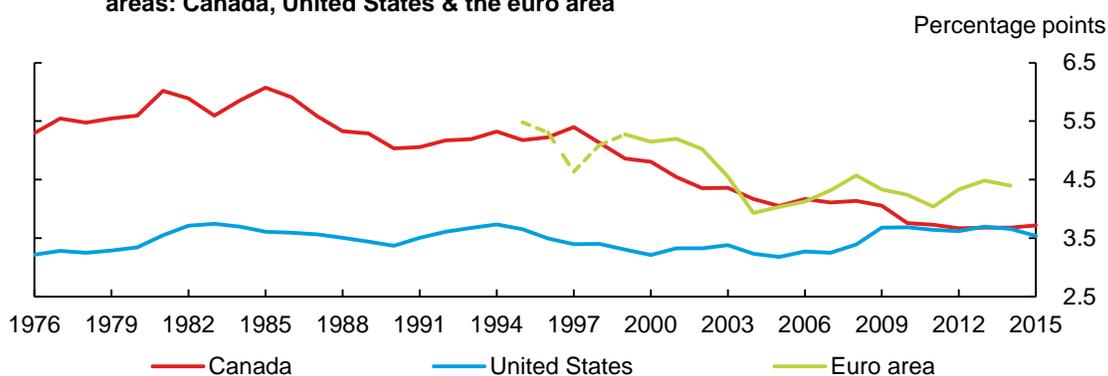
Classification JEL : J01, R23

Classification de la Banque : Marchés du travail; Évolution économique régionale

Labour Market Flexibility: International Comparison

Large and persistent gaps in regional labour market performance were a feature of the Canadian economy for many decades. These gaps reflected insufficient growth in lagging regions and/or a lack of incentives for excess labour to migrate toward faster-growing regions.¹ Furthermore, these gaps compared unfavourably to outcomes in the more flexible labour market in the United States, as illustrated in Chart 1.²

Chart 1: Mean absolute dispersion of employment rates within three currency areas: Canada, United States & the euro area



Notes: In Canada and the United States, data shown are mean absolute dispersion of provincial or state employment rates away from the national average. The euro area data show country employment rates differenced from the currency area average, taking into account when countries entered the monetary union. For the euro area, dates prior to the birth of the euro are shown with a dotted line. Sources: Eurostat, U.S. Bureau of Labor Statistics and Statistics Canada

Last observation: 2015

Since the mid-1990s, however, the dispersion of Canadian provincial employment rates has continually declined and by 2010 was no different than that of the 50 American states, suggesting Canadian labour markets have become more flexible. Unlike the United States and the euro area, Canadian convergence has not been hampered by the recent terms-of-trade shock, the 2008 recession or the commodity price super cycle that started in the mid-2000s.³ Provincial labour market performance is more similar today than at any time in the past 35 years.⁴

¹ Barro et al. (1991); Lefebvre and Poloz (1996); Lefebvre (1997).

² The mean absolute dispersion ($MAD = (\sum_{i=1}^n ER_i - ER_{national})/n$) is similar to the standard deviation in that it is a measure of dispersion around a mean – in this case the national average. We chose to use this statistic because it has an economic significance, namely how far the provinces, on average, vary from the national employment rate. The MAD and standard deviation both show a similar convergence in employment rates. In addition, we have looked at dispersion of employment rates in Canada at the economic region level, which also show a similar convergence. These charts are available from the authors upon request.

³ Commodity price booms and busts might be expected to generate more dispersion in employment rates across provinces given the unequal distribution of resources across Canada.

⁴ The employment rate time series from Statistics Canada begins in 1976.

Employment rate dispersion in both the euro area and the United States, by comparison, hit a trough in the mid-2000s and is now modestly higher, reflecting the uneven impacts of the global recession on regions in both currency areas. The U.S. data show no long-term trend but a clear cyclical pattern which peaks in the years following the 1981, 1991 and 2007 recessions. This procyclical nature has been noted in previous research on U.S. regional business cycles (Wall and Zoëga 2004), but the ossifying effects of the U.S. housing crisis on labour mobility may have also played a role in the increase.⁵ In the euro area, dispersion receded quickly after the formation of the single currency area but has since re-emerged as labour markets in the periphery deteriorated quickly relative to their stronger euro area partners.

In Canada, convergence in employment rates has been a mix of both previously strong regions such as Ontario slowing toward national employment rates, and lagging regions such as Quebec and the Atlantic provinces improving toward the average. Newfoundland and Labrador, furthest away from the national average, is the most striking example of this convergence, moving from 16 percentage points below the Canadian employment rate in 1987 to 8 percentage points below in 2015. The Prairie provinces, on the other hand, continued to diverge away from the Canadian average until recently as lower commodity prices impact the region's labour markets. British Columbia's contribution to this trend is fairly mixed. These movements are shown in the charts in Appendix A.

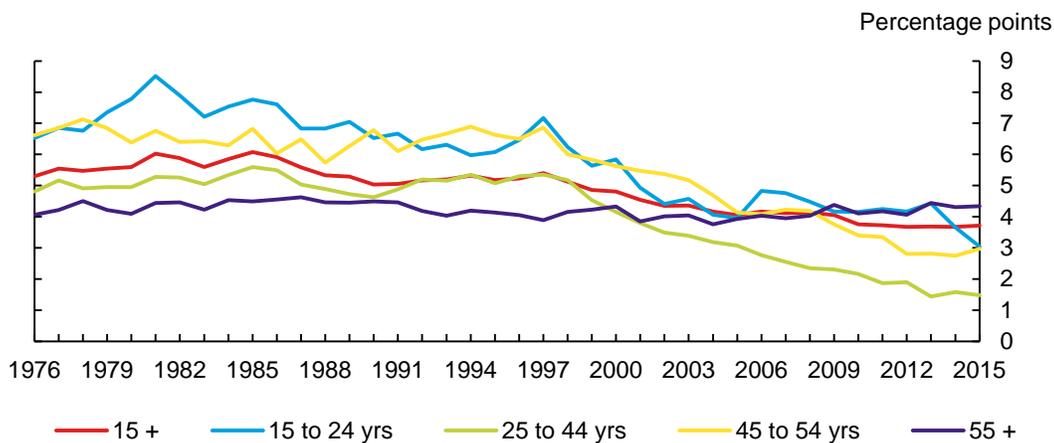
The remainder of this note focuses on the Canadian evidence on employment rate dispersion by age and gender, and provides a decomposition of the employment rate gap into employment and population growth. A final section offers some conclusions and identifies areas for further research.

Dispersion of Provincial Employment Rates by Age

The strong Canadian convergence illustrated in Chart 1 has not been shared equally across age groups. For example, the dispersion of employment rates among the largest age cohort, young prime-aged people (the 25 to 44 age group), has improved significantly faster than for other age cohorts. For this group in 2015, a fairly small 1.5 percentage point gap separated any one province, on average, from the national employment rate – the gap for this group peaked in 1985 at 5.6 percentage points. This significant convergence potentially reflects younger workers delaying household formation and home ownership, child rearing, and other life-cycle decisions that may impinge on mobility. The dispersion metric for the 45 to 54 age group has also declined from the mid-1990s onward, suggesting that other factors, not related to delayed life-cycle choices, may also be at play.

⁵ Evidence on this is conflicting. See, for example, Herkenhoff and Ohanian (2011), Ferreira, Gyourko, and Tracy (2011), and Kaplan and Schulhofer-Wohl (2012).

Chart 2: Average dispersion of employment rates across provinces, by age group



Source: Bank calculations using Statistics Canada data

Last observation: 2015

Chart 2 shows that the dispersion for the youngest age cohort, 15 to 24 years of age, is typically much higher than for any other age group – their labour market experience is the most dissimilar across the 10 provinces. This should not be surprising: many in this cohort are living with family or focused on education. Others are likely to be credit constrained, reducing mobility. Therefore, they remain in locations that may not provide decent employment opportunities. Despite this, dispersion for this cohort has also fallen significantly since 1997 – even the youngest Canadians in the working age population participated in the recent convergence. Only among the 55+ age group has the dispersion of labour market experiences across provinces been fairly stable over time.⁶ In 1976, these workers had the most similar labour market experience across the country, but by 2015 they had the most dissimilar.

Dispersion of Provincial Employment Rates by Gender

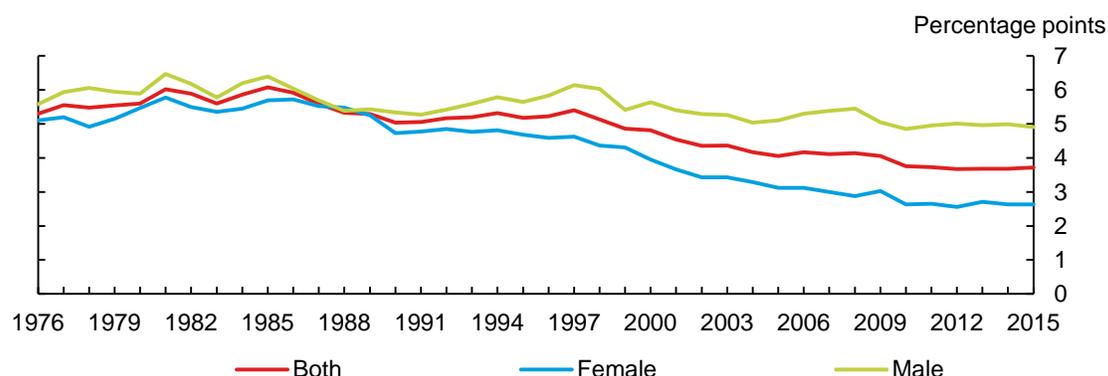
Gender seemingly plays an even larger role than age in the convergence of labour market performance across Canadian provinces. Female employment rates have always been less dissimilar across provinces than those for men (Chart 3). This may reflect a gender bias in less cyclical and/or more mobile sectors and occupations. For example, women represent a larger portion of the public sector and service sector workforce – both of which are generally less cyclical. Men represent a larger portion of goods sector jobs, which are more cyclical and where barriers to mobility in specific occupations are potentially more important.⁷ For example, males in Alberta have seen the majority of the negative employment impacts from the recent sharp decline in oil prices.

⁶ The dispersion in the 65+ age group has actually increased, offsetting reduced dispersion among those aged 55–65.

⁷ See Grady and Macmillan (2007) and Brydon and Dachis (2013).

This gender gap has widened significantly from 1990 onward. Women, therefore, play a disproportionately large role in the convergence documented in Chart 1. Improvements in the dispersion metric for men have been very modest by comparison. Women’s labour force participation and employment in the mid-1970s was very different across the provinces, but was increasing. Between the early 1990s and the mid-2000s, women’s employment rates plateaued in most provinces at a fairly similar level, driving much of the convergence. Other demographic and life-cycle factors may also be at play in this trend.

Chart 3: Average dispersion of employment rates across provinces, by gender group



Source: Bank calculations using Statistics Canada data

Last observation: 2015

Decomposing Employment Rate Gaps

By construction, changes in the dispersion of employment rates occur through two channels: employment growth or population growth. For example, all else equal, faster relative employment growth in lagging provinces — a “catch-up” in the numerator of the employment rate — would reduce dispersion. This could potentially result from successful regional development policy, a shift toward diseconomies of agglomeration⁸ or the development of new fast-growing sectors in previously weak regions. Alternatively, weaker source population growth in lagging provinces, affecting the denominator of the employment rate, would also cause dispersion to decline. The question is which of these channels is more important?

The data suggest that convergence in Canada has occurred largely because of the second channel. Convergence in employment rates has occurred primarily as population growth has become more sensitive to economic conditions. An important part of this stems from people moving out of lagging areas toward stronger ones or as immigrants settling in stronger areas. Overall, labour supply has become more responsive to economic conditions. Over the long term, this is particularly the case in the eastern half of the country.⁹

⁸This could potentially be a result of increased costs of living, longer commute times or pollution, for example.

⁹Detailed calculations are available from the authors upon request.

Concluding Remarks and Areas for Further Research

Canada's economy is undergoing a complex set of adjustments in response to lower oil and commodity prices. The evidence presented here suggests that regional labour markets are more flexible and therefore more able to respond to these adjustments. Specifically, our work finds that the labour market performance of Canada's 10 provinces has converged in the past 15 years and that improved labour mobility has likely had a strong influence on these developments. The factors driving these changes are potentially numerous and this note makes no attempt to weight one over another. Nevertheless, some of the evidence suggests that labour market convergence for women and young prime-aged workers, rather than for men and older workers, plays a disproportionate role in these developments.

A compelling area for further research would be to assess these trends at a subprovincial level of analysis. Amirault, de Munnik and Miller (2013) suggest that migration between largely rural areas and urban areas in the same province is an important source of labour reallocation. Another area of research would be to examine the role that wage dispersion and employment insurance reforms play in motivating migration. Finally, Blanchard and Katz (1992) suggested that migration in the United States was a very important source of labour when shocks to regional employment led to different employment outcomes in different states. A similar study using Canadian data would be interesting.

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Appendix A: Provincial employment rate movements relative to the Canadian average

Charts A1 to A3 show the difference between provincial employment rates and the Canadian employment rate. Chart A1 shows the Atlantic provinces converging toward the national average. Chart A2 illustrates the convergence down toward the national average in Ontario and up toward the national average in Quebec. Chart A3 shows the lack of convergence in the Western provinces.

Chart A1: Atlantic provinces

Difference from Canadian employment rate

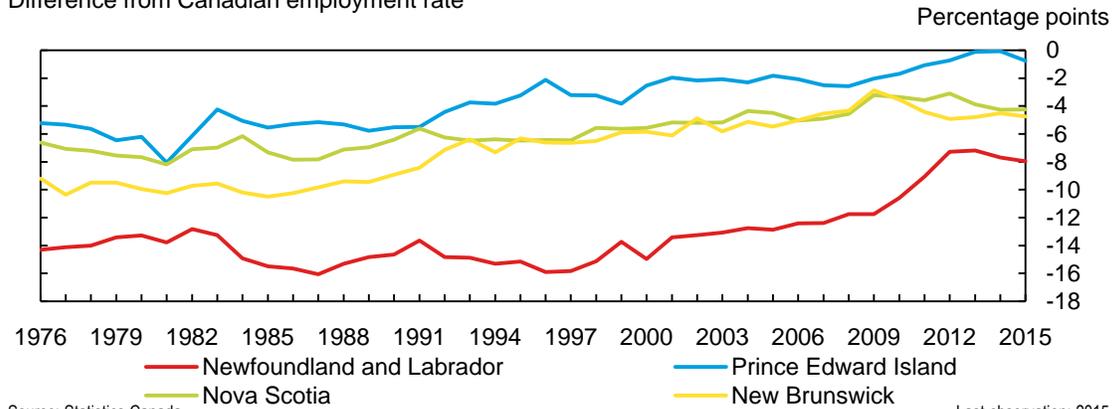


Chart A2: Quebec and Ontario

Difference from Canadian employment rate

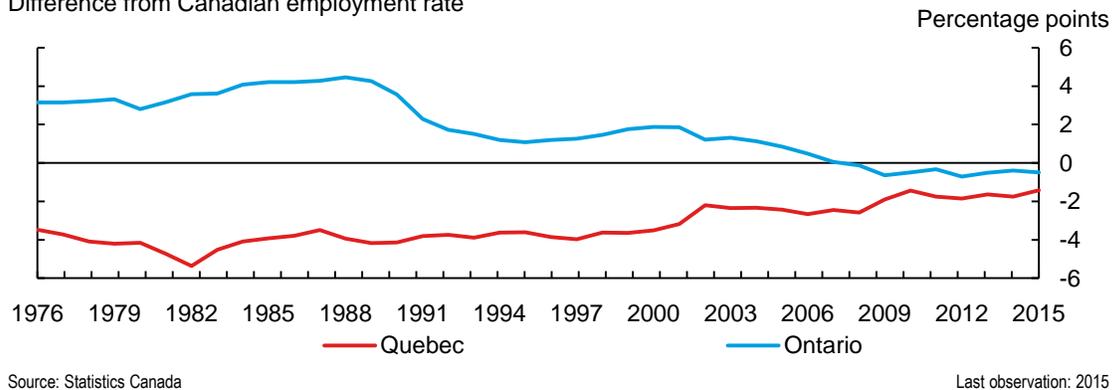
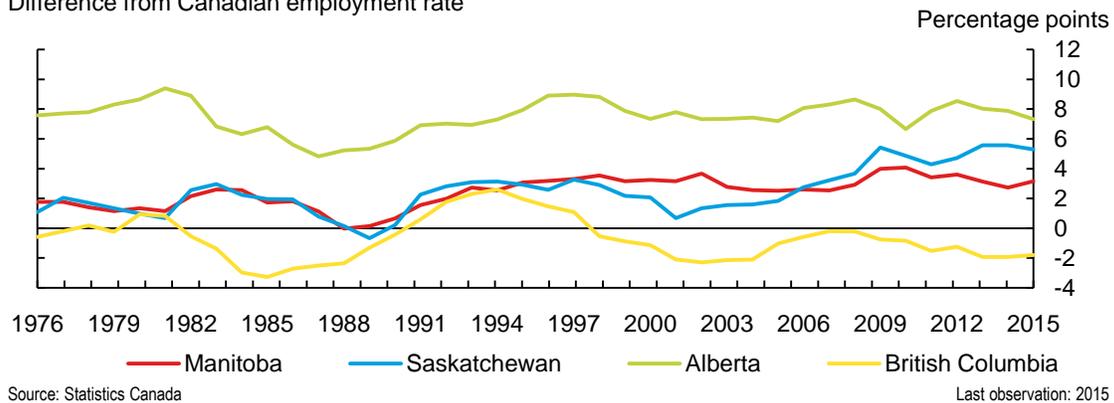


Chart A3: Western provinces

Difference from Canadian employment rate

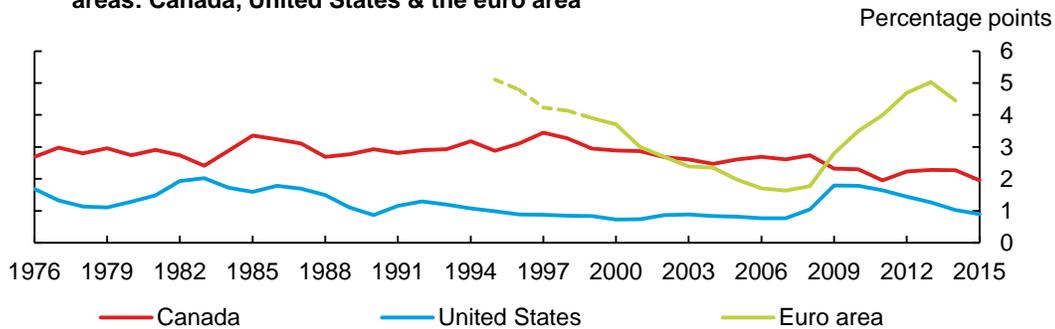


Appendix B: Mean absolute dispersion of unemployment rates and participation rates: an international comparison

This appendix provides a complementary look at Chart 1 by decomposing the employment rate into its component unemployment and participation rate dispersion across Canada, the United States and the euro area (Charts B1 and B2, respectively). The dispersion of unemployment rates in both the euro area and the United States increased sharply in response to the global recession of the late 2000s. While progress has been made in closing the gap between U.S. states in the years following the recession, the gap had, until very recently, continued to widen in the euro area. Canada, on the other hand, did not see the same cyclical increase in unemployment rate dispersion.

In terms of participation rates, Canada has seen some important convergence from the early 1980s to the early 2000s, partially as a result of women entering the labour force and partially as the population in places with relatively slow economic growth stagnated. Participation rate dispersion has remained fairly consistent for the United States throughout the sample, except for a slight increase since the mid-2000s. All three regions have similar levels of participation rate dispersion in the most recent periods. Although the euro area saw some convergence shortly after the adoption of the euro, divergence occurred soon after.

Chart B1: Mean absolute dispersion of unemployment rates within three currency areas: Canada, United States & the euro area

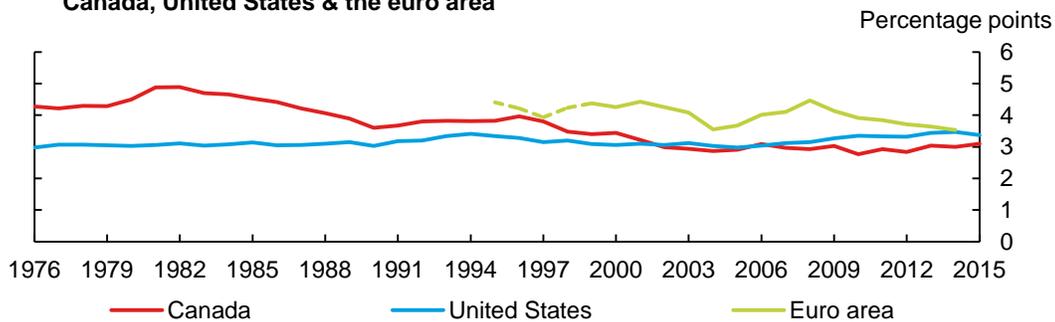


Notes: In Canada and the United States, data shown are mean absolute dispersion of provincial or state unemployment rates away from the national average. The euro area data show country unemployment rates differenced from the currency area average, taking into account when countries entered the monetary union.

Sources: Eurostat, U.S. Bureau of Labor Statistics and Statistics Canada

Last observation: 2015

Chart B2: Mean absolute dispersion of participation rates within three currency areas: Canada, United States & the euro area



Notes: In Canada and the United States, data shown are mean absolute dispersion of provincial or state participation rates away from the national average. The euro area data show country participation rates differenced from the currency area average, taking into account when countries entered the monetary union.

Sources: Eurostat, U.S. Bureau of Labor Statistics and Statistics Canada

Last observation: 2015