

Wages and Unemployment

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The 1990s have been a decade of dismally high unemployment in Canada - is this because Canadian workers have asked for too much in the form of wages? Are lower wages the route to lower unemployment? Is the unemployment problem due largely to the way in which wages are determined in Canada? Or is there another cause?

This chapter looks at the connection between wages and unemployment in Canada. Section 1 begins by introducing the “Beveridge Curve” as a useful framework for distinguishing between unemployment that is due to insufficient demand for labour and the structural unemployment that is created by the interaction of labour market institutions and technological and market changes. The assertion that lower wages will help solve the unemployment problem is motivated by a hope that lower wages will increase the demand for labour, but the only wage that governments control directly in Canada is the minimum wage. Section 2 therefor assesses how large an increase in demand for labour might be forthcoming, if minimum wages in Canada were cut significantly.

In Canada, less than 6% of all jobs are paid at or near the minimum wage¹. Since wages in Canada are overwhelmingly set by decentralized negotiation between firms and workers, without any legislative constraint, Section 3 asks why declining wages do not produce an “automatic” elimination of employment.

Section 4 then notes that the issue of whether or not to lower wages is not quite the same as

¹See Benjamin (1996:11), who calculates that 5.89% of jobs were paid at or below or within five cents of the minimum wage rate in 1990.

the issue of changing the ways in which wages are set. In looking for a solution to high unemployment, one must distinguish between the case for wage cuts within our current institutional framework and the case for changes to that institutional framework. If the level of aggregate demand is the key issue in determining Canada's unemployment rate and if aggregate demand policy is now constrained by a perceived need to control inflation, Canadians have to ask what type of wage-setting institutions will produce low unemployment *and* low inflation. One lesson of the 1990s is that mass unemployment is a very expensive way to control inflation, compared to the alternative of wage controls. Section 5 sums up the discussion.

1. Can high unemployment in Canada be explained by insufficient demand for labour? Or is rapid structural change the cause?

In the 1990s, the Canadian economy has seen dramatic changes. Computers and telecommunications have revolutionized many businesses, creating whole new industries and changing forever the structure of employment. Following the introduction of the FTA and NAFTA, Canadian dependence on international trade has increased rapidly and while some firms have won important export orders, domestic Canadian markets have also become much more open to import penetration. Are these structural changes the root cause of Canada's high unemployment? Since globalization and technological change have produced job gains at some firms, and job losses at others, the assertion has often been made that Canada's high unemployment is largely caused by a structural mismatch between the types of vacancies that are available and the types of unemployed people who want jobs. Is this true? Are the characteristics of the unemployed - their skills, their location and their other characteristics - of the wrong type, for available vacancies?²

A presumed mismatch between the characteristics which the unemployed are able to supply and the characteristics which existing vacancies demand is at the heart of the hypothesis that Canada's unemployment is structural in nature. However, if the issue is a mismatch between workers and vacancies, one might ask "where have these vacancies been?", in Canada in the 1990s. Although

²See, for example, HRDC (1994:17).

anecdotes of unfilled positions in high tech firms are sometimes used to illustrate the structural argument, skeptics point out that even if there were a shortage of (for example) as many as 20,000 programmers in software development, the fact that there have been about 1,400,000 unemployed means that filling those vacancies would make an extremely small dent in Canada's current unemployment rate.³

Furthermore, it is not as if technological and market change is something new for the Canadian economy to deal with. The Canadian economy has changed dramatically in every decade since Confederation -- indeed, structural change in Canada was, statistically, greater in the 1950s (a period of rapid urbanization, large scale immigration and labour saving technological change, during which the national unemployment rate averaged 4.2%) than in the subsequent decades.⁴ There is nothing new about the fact that technological change destroys some jobs and creates others. Since its origins in the late eighteenth century, capitalism has always been a system which generates continual labour market change. The real issue is whether *enough* new jobs are being created, to match the old jobs that are being destroyed.

A useful organizing framework for thinking about these issues is the "Beveridge Curve", which simply plots the number of employed against the number of vacancies which exist in the economy, at any given time (see Figure 1). The Beveridge Curve usefully underlines the fact that unemployed people and unfilled positions always coexist in all complex modern economies. There are many

³In September 1997, reducing unemployment by 20,000 would only have changed the Canadian unemployment rate from 9.1% to 9.0%.

⁴See Appendix A in Samson (1985). Lu (1997) demonstrates that sectoral shifts have had "minimal and insignificant" impacts on unemployment and that aggregate demand disturbances consistently explain Canadian unemployment from 1961 to 1993.

different labour markets within Canada, for an enormous variety of highly specific skills, in locations from Newfoundland to British Columbia. Although Canadians are very mobile - geographically, between industries and among occupations - it takes time to relocate or to retrain for a new job, and it also takes time to locate jobs.

Canadian labour markets are highly dynamic, with hundreds of thousands of people moving between jobs at any given time. Although there are about 15 million Canadians either working or actively looking for work, these are not always the same individuals, since many people leave and reenter the labour force at different times during the year. At any given moment, some people are unemployed because they are entering the labour market and looking for work, while others are losing their jobs, through layoffs or downsizing. Simultaneously, somewhere in Canada, there are always some firms which are expanding operations, and some firms which need to hire replacements for employees who have retired or quit.

Since it is impossible for the unemployed to find, and fit into, each vacancy the moment it appears, vacancies and unemployed people always coexist. However, the ratio of vacancies to unemployed is the key issue. The more unemployed people there are, the fewer vacancies are observed, since job openings tend to be filled rapidly. On the other hand, when unemployment is low, employers cannot always depend on the existence of a ready queue of available workers, to fill each vacancy the minute it appears. When the unemployment rate is low, firms may have to advertise their vacancies, and search actively themselves, in order to attract candidates. The “Beveridge Curve” graphs the relationship between unemployment and vacancies, and can be seen as a way of representing the efficiency of labour market matching. In any particular labour market, for a given institutional structure and a given rate of technological and market change, the Beveridge curve plots

the vacancy rate which corresponds to a given unemployment rate .

Even if the institutional structure and the rate of technological and market innovation is constant, unemployment will increase or decrease as the aggregate output of the economy varies. Firms hire workers because they need labour in order to produce a product, which the firm hopes to sell at a profit. The demand for labour is therefore derived from the demand for goods and services, and variations in the aggregate demand for labour are due to variations in aggregate product demand, which cause firms, in aggregate, to increase hiring, or to layoff workers. As firms shift from hiring to laying off, the economy moves along a given Beveridge Curve.

If, for example, a rise in interest rates produce a decline in aggregate demand, there will be more unemployment and fewer vacancies, as represented by a shift from A_1 to B_1 in Figure 1. A cut in aggregate demand will typically reduce the chance of price inflation - indeed the reason why the Bank of Canada occasionally feels it necessary to increase interest rates is because the Bank of Canada intends to reduce aggregate demand and thereby lessen any chance of future inflation. However, at any given time, there is also a particular level of aggregate demand which is consistent with a stable rate of inflation. With a given Beveridge curve - i.e. a given institutional structure, and a given level of market and technological innovation - management of aggregate demand to stabilize inflation therefore implies a particular ratio between unemployment and vacancies (e.g. A_1 in Figure 1).⁵ When aggregate demand is cut, in order to reduce inflation even more, there will be a higher ratio of unemployment to available vacancies (i.e. B_1 in Figure 1).

⁵If there is an asymmetry in wage formation such that excess demand for labour in some labour markets bids up money wages faster than excess supply in others depresses wages, then the unemployment/vacancy ratio consistent with inflation stability will not be one of equality -- hence A_1 in Figure 1 is drawn as being above the 45° line.

In the Beveridge Curve framework, demand-driven changes in unemployment can be represented as shifts along a given Beveridge Curve. An increase in “structural unemployment” is represented by a shift of the Beveridge Curve (e.g. from 1 to 2 in Figure 1), and could arise for a number of possible reasons. Such a shift might occur if, for example, informational flows in the labour market became slower (e.g. if newspapers shifted to publishing help wanted ads weekly, instead of daily), and the unemployed had to wait longer to hear of vacancies. Alternatively, if the unemployed became fussier about accepting job offers (perhaps because of a more generous unemployment insurance scheme), then on average they would take longer to find an acceptable vacancy and the number of unemployed for any given number of vacancies might increase⁶. Both these sorts of change in institutional structure would mean that the unemployed would take longer to locate and to fill vacancies, and the Beveridge Curve would shift out. A similar shift would occur if an increase in the rate of technological and market change in the economy produced a higher rate of turnover of firms. If greater structural change in the economy produced both more bankruptcies of old firms and more openings of new firms, there would be both more vacancies and more unemployed people at any given time. Greater “churning” in the labour market, and greater mismatch between the characteristics of the unemployed and the characteristics demanded by available vacancies would be represented as a

⁶If the job search view of unemployment (see Kiefer and Neumann, 1992) is correct, and unemployment can be blamed on inflexibility of the reservation wage of the jobless, this argument also implies that the jobs which the unemployed ultimately accept are at higher wages, with higher productivity. Although the cost of providing unemployment insurance and social assistance payments is that people become more “fussy” about job offers and may initially remain unemployed longer, the benefit of that fussiness is that they eventually find better job matches, with positive long run impacts on labour productivity. To the extent that individuals then remain longer in the better jobs that they have found (because of their longer initial search), labour market turnover is ultimately reduced - hence the ultimate effect of UI generosity on unemployment is ambiguous.

shift from A_1 to A_2 .

The bottom line in distinguishing between demand deficient and structural unemployment is “How many vacancies are there?” In Figure 1, a rise in unemployment from u_1 to u_1' could occur either because the economy has moved along a given Beveridge Curve (from A_1 to B_1) or because the Beveridge Curve has shifted (from A_1 to A_2). If structural change is the explanation for higher unemployment, then one would expect to see an increase in the number of available vacancies (from v_1 to v_2). If deficient demand is the explanation for higher unemployment, a decrease in vacancies (from v_1 to v_1') will be observed.

If the origin of Canada’s high unemployment is structural, where are the increased vacancies that should correspond to our increased unemployment rate? Anecdotal evidence that (as always) there are some available unfilled vacancies in Canada in the 1990s⁷ is not evidence of an increase in vacancies. Indeed, all the available statistical series indicate a substantial decline in job vacancies during the 1990s. As Figure 2 illustrates, Statistics Canada’s Help Wanted Index has come up somewhat in 1997 but is still not much above the recessionary trough of the early 1990s, and it remains well below its 1989 level. The percentage of manufacturing firms who report difficulty in locating skilled labour continues to be well below the levels of 1988/89, or 1981, and virtually no firms at all report any difficulty locating unskilled labour.

Some institutional changes in the labour market might also have decreased the structural rate of unemployment, and shifted the Beveridge Curve in, as represented by the dashed line labelled 0 in

⁷In October, 1997, for example, a spokesperson for the Alberta oil drilling industry complained about the lack of willing, unskilled labour for oil rigs. Within two days of the appearance of his comments in the national media, an inundation of applications for employment from around the country forced a hasty retraction.

Figure 1. An inward shift of the Beveridge curve would be consistent with the view that, in the 1990s, there are *fewer* vacancies for any given level of unemployment. Such a change would occur if computer technology has speeded up the transmission of labour market information. Vacancies will also be filled faster if the unemployed become less fussy (or more desperate) to get jobs. There has been a considerable debate in the economics literature on how much the generosity of unemployment insurance affected the level of structural unemployment in the 1970s and 1980s.⁸ However, there is no dispute that a very substantial decline in unemployment insurance coverage occurred in Canada during the 1990s. As Figure 3 illustrates, in 1989/90 almost all of Canada's unemployed received UI benefits -- by late 1997, over 2/3 of the unemployed did not receive EI benefits.⁹ If the generosity of UI caused an increase in structural unemployment in the 1980s, presumably the stinginess of UI/EI in the 1990s should have caused a decline in structural unemployment - but there is little sign of it so far.

In short, comparing the 1980s and the 1990s in Canada, it has been easy to observe an increase in the number of unemployed, but there is no evidence of an increase in the number of job vacancies. There is, therefore, no reason to think that the increase in Canada's unemployment is structural in origin - particularly since some institutional changes (such as changes to UI/EI) *should* have reduced structural unemployment. Since high unemployment in Canada has been due to deficient aggregate demand for labour (i.e. a shift *along* the Beveridge curve), the question is: "What changes to wages, or wage setting institutions, would increase the demand for labour in Canada?"

⁸Osberg (1996) and Atkinson (1991) argue that the evidence on the impact of unemployment insurance on aggregate unemployment is far from conclusive.

⁹As Figure 3 also notes, the number of unemployment insurance recipients as a percentage of the number of unemployed is now higher in Alabama than in Canada.

2. Would lower minimum wages increase the demand for labour?

Many government policies influence the structure of wages indirectly -- for example, industrial relations legislation may influence the relative bargaining power of unions and firms, and thereby influence wages. However, the only direct impact which Canadian governments have on wages (apart from the wages of their own employees) is through minimum wage legislation. In thinking, therefore, about government policies which affect wages, and which might affect unemployment, the minimum wage is a natural place to start.

In Canada, the last 20 years have seen a general trend to lower real minimum wages. In almost all provinces, the minimum wage, adjusted for inflation, was higher in 1978 than in 1997.¹⁰ As Figures 4a and 4b indicate, in 8 out of 10 provinces, the real minimum wage declined fairly substantially between 1978 and 1997 -- e.g. by 30% in Alberta, and 16% in Nova Scotia.

Figure 5 weights each province's minimum wage by the size of the provincial labour force and allows for the fact that the federal minimum wage covers approximately 10% of the national labour force -- it compares the trend in the national unemployment rate, the youth unemployment rate and the composite average real minimum wage in Canada.¹¹ On the face of it, there is little correlation to be observed between fluctuating (but rising) unemployment and gradually falling

¹⁰In B.C. and Ontario the differences were smaller -- the minimum wage (expressed in October 1997 dollars, and using the provincial CPI index) was \$7.09 in 1978 and \$7.00 in 1997 in BC and \$7.03 in 1978 in Ontario, compared to \$6.85 in 1997.

¹¹Fluctuations in real average weekly wages imply that the ratio of the minimum wage to average weekly earnings has somewhat different trend in the 1990s, but since that trend is driven by changes in the denominator (average weekly wages), which is the subject of section 3, we concentrate here on trends in the legislated minimum hourly wage, adjusted for inflation.

minimum wages. Figure 5 seems to offer little support for the hypothesis that the cure for unemployment lies in further cuts to the minimum wage.

Nevertheless, there is an old argument (e.g. Rottenberg, 1981) that a higher minimum wage rate costs jobs, particularly for youth. The theoretical origins of this argument lie in the proposition that individual firms will hire workers up to the point where the marginal productivity of labour -- the addition to the firm's output generated by the last worker hired -- is equal to the workers wage. A lower minimum wage rate is seen as enabling more labour to be profitably hired -- hence a decrease in the minimum wage is seen as increasing the demand for labour, thereby decreasing unemployment.

However appealing this theoretical argument may be, it does not establish how large the impact of the minimum wage on employment is. Some firms may be in a situation where small changes in wages make little or no difference to employment levels - perhaps because the cost of capital equipment is the main issue (e.g. oil refineries). Other firms may not find it practical to change their employment levels by small amounts (for example, assembly line operations in which the firm must fill all the positions on the line, or close the plant). Some firms may operate in non-competitive labour markets, where an increase in the minimum wage may actually increase employment, because a legal floor on wages implies that the firm does not have to worry about bidding up wages as it increases employment. In other firms, employment may increase as the minimum wage falls, but there is nothing in the theory to say how large the effect will be. Since firms are of different types, the net effect on labour demand of a decrease in the minimum wage will be the sum across these different types of firms.

As a consequence, the studies which find a negative impact of the minimum wage employment typically estimate an effect which is actually rather small. As well, in many studies

the minimum wage variable is sometimes statistically significant and sometimes not.¹² It has therefore long been pointed out that one can be fairly certain that large cuts to the minimum wage will have large impacts on the earnings of low wage workers, but the supposed beneficial effects on employment of such cuts are much smaller and more uncertain. If, for example, a 50% cut in the minimum wage is required in order to produce a 7% increase in employment¹³, the cuts necessary to make an appreciable dent in aggregate unemployment would have to be very large, with a correspondingly large cut in the incomes of the working poor.

Recently, Card and Krueger (1995) have questioned whether there is any gain in employment to be had from cuts in the minimum wage. Based on comparisons between similar employers in US states with different changes in minimum wage legislation, and after a detailed reexamination of aggregate time series data and international studies, they conclude that there is “fairly compelling evidence that minimum wage increases have no systematic affect on employment. Indeed some of the research suggests that a rise in the minimum wage may actually increase employment.” (1995:13) They note that despite the large number of economic studies of minimum wage, “economists’ views of the minimum wage are based largely on abstract theoretical reasoning, rather than on systematic empirical study.” (1995:7) And they emphasize that “many features of the labour market are at odds with the simple models that are presented in the introductory textbooks, and that most policy makers have in mind when considering a minimum wage hike.” (1995:8)

Although a simple textbook model of marginal productivity and labour demand implies

¹². Although many regression results imply there is no disemployment effect, the wide range of results found in different studies also implies that, as Benjamin (1996:33) puts it “*If* estimates from the high end of confidence intervals are chosen, in Canada at least, the loss of jobs may actually reduce the wage bill received by low wage workers.” [emphasis added]

¹³For example, Ragan (1981, Table 1) estimates the elasticity of employment to changes in the minimum wage at -.14

a simple prediction of the impacts of a change in the minimum wage, that prediction fails to find support in the data -- both when Card and Krueger examined case studies of employment in the fast food industry and when they reexamined the time series evidence on changes in total employment, using up-to-date data. They note that the data is more consistent with an alternative view of the labour market in which higher wages increase the ability of firms to attract, retain and motivate employees. This alternative view is also consistent with the finding that changes in the minimum wage, within the historically observed range, have essentially no impact on labour demand.

If employment changes very little (if at all) when the minimum wage changes, the major effect of a cut in the minimum wages would be to increase inequality in the distribution of earnings. In the United States, the decline in the real value of the minimum wage throughout the 1980s has been estimated to account for 20-30% of the increase in wage inequality during that decade.¹⁴ Although the alleviation of poverty is one of the main rationales for the minimum wage, some minimum wage workers are members of affluent households, while the very poorest families are those without anyone who can work at all. As a consequence, the minimum wage is an imperfectly targeted anti-poverty policy. Nevertheless, as Benjamin (1996:32) concludes, using 1990 Canadian data, although the minimum wage is a very blunt instrument for helping the poor, “increases in the minimum wage may have disproportionate benefits for low wage working adults, who tend to come from poor families”¹⁵

Only a small percentage of jobs in Canada are directly affected by the minimum wage - Benjamin’s (1996:11) estimate that 5.89% of all jobs in Canada are “potential minimum wage

¹⁴See Dinardo, Fortin and LeMieux (1994).

¹⁵Benjamin notes that among teenagers, minimum wage workers are relatively evenly spread over the distribution of family income, but the picture is substantially different for adults (who fill 70% of low wage jobs).

jobs” can be split into 3.11% of jobs having wages within \$0.04 of the minimum wage and 2.78% with even lower wages (either non-compliant or measured with error). Although it may be the case that other jobs are paid higher wages in order to maintain a differential with the minimum wage, the decision by employers to pay such differentials is not the result of legislation, but of the employer’s calculation of a profit-maximizing wage strategy. Hence, since the minimum wage affects directly only a small percentage of the workforce and since there is a good deal of credible evidence that changes in the minimum wage have little impact on employment, the bottom line is that cuts to the minimum wage are not the solution to Canada’s high unemployment problem.

3: Would lower average wages reduce unemployment? Why has this not already happened?

Although minimum wages are set by legislation, the wages of the vast majority of workers in Canada are determined by a decentralized market process, in which individuals and firms independently agree on the wage to be paid. *In general*, prices in the Canadian economy are set by decentralized market processes - but why does the labour market not function in the same way as other markets? If the labour market operated in the same way as, for example, the market for lumber, one could depend on the market mechanism to quickly and automatically eliminate any excess of supply over demand (i.e., unemployment). When sellers exceed buyers in the lumber market, there is a decline in the price of lumber -- and when the price falls, supply decreases while demand increases. Usually, the decline in prices continues until supply and demand are in balance. Why has this not happened -- or at least not happened yet -- in the labour market?

In some instances, firms may have to negotiate wage changes with unions, who will typically resist strongly any suggestion that the money wages of their membership should be cut. Are unions, and the collective bargaining system, therefore the cause of inflexibility in real wages and, indirectly, the cause of Canada's high unemployment? In some European countries, the financial media have often blamed high unemployment on "wage inflexibility" - does this diagnosis also apply to Canada?

Whatever the merits of the argument about union induced wage inflexibility in the European context, there is a fundamental difference between continental European and Canadian labour markets. In countries such as Sweden or Denmark, over 90% of the labour force is unionized - and in many countries where union membership is not particularly high (e.g. France), collective bargaining retains a dominant influence on wage determination because union

agreements are, by legislation, automatically extended to the non-union sector. In Canada, on the other hand, union membership constitutes less than a third of the labour force (32.6% in 1993¹⁶), and there is no presumption that a collective agreement will be automatically extended to cover non-union members.

Unlike continental Europe, in Canada unions have to organize on an establishment by establishment basis, and in the 1990s most Canadian unions have been preoccupied with retaining some measure of job security for their members. There has been no evidence whatever of heightened union militancy - in fact the strike rate has fallen dramatically.¹⁷ Settlements in major collective agreements have lagged inflation through much of the 1990s¹⁸ - which means that the average real wages of unionized workers has fallen. Furthermore, the fact that these cuts in real wages have usually been achieved without strikes indicates that unions and management have in general been willing to agree on pay determination.

Furthermore, in an economy such as Canada's, where the non-unionized labour force is approximately twice as large as the unionized workforce, it is clear that the vast majority of wage bargains are not constrained by the necessity to negotiate collectively. *If* it is the case that some unionized workers lose their jobs because their unions demand excessively high wages, there is a very large non-union sector in which displaced workers can look for jobs. The question then is -

¹⁶See Statistics Canada (1996:45) - union density in Canada has been essentially constant for thirty years in Canada - in 1967 33.2% of workers were unionized.

¹⁷In 1980 total time lost to strike activity was 9,130,000 working days - in 1996, 3,340,000 working days were lost to strikes, and in 1995 only 1,582,000. Over the same period, the labour force grew from 10 to 15 million in size - hence the ratio of working days lost to strikes per labour force member fell from approximately 0.9 to 0.2, or less. See Statistics Canada (1997:52)

¹⁸For example, in 1995, 1996 and 1997, the average annual increase in base wage rates in major union wage settlements was 0.9%, 0.9% and 1.6% - inflation in the CPI in the same years was 2.1%, 1.6% and 1.9%. From 1991 to 1997 the cumulative cut in average real base wages in major collective agreements was 4.7% - see Statistics Canada (1997:52)

why do wages in the non-union sector not adjust so as to equalize the supply and demand of labour - ie eliminate unemployment ?

Although the existence of unions and collective bargaining may be called on to explain inequalities in wages between unionized and non-unionized workers, unions cannot be blamed for unemployment. The plain fact of the matter is that in Canada the majority of firms are not constrained by unions or by minimum wage legislation in their wage setting decisions - why do they not find it in their interest to cut wages, and employ more people at lower wages?

In many cases, of course, employers have cut wages - for some categories of new hires. In recent years Canadian employers have developed a fascinating array of institutional mechanisms for distinguishing between categories of workers who are doing essentially the same work - and for paying some new hires less than existing employees¹⁹. Sessional lecturers in universities, short term contract employees in government, temporary workers at many businesses, "self-employed" sub-contractors - the institutional mechanisms may vary, but the bottom line is the same - lower wages (and less security). The continued prevalence of high unemployment has meant that employers have faced little difficulty in filling vacancies on these terms, and Canadian labour law has not gotten in the way. Since, for many new hires, there already has been considerable wage flexibility in Canadian labour markets, the real question is: "Why have employers not found it in their interest to go further? Would going further reduce unemployment?"

In general, profit maximizing firms do not necessarily want to pay the lowest possible wage - but they do want to minimize their costs per unit of output. If paying lower wages implies a decrease in productivity, it may well be in the firm's interest *not* to cut wages, even if there are many unemployed who would be willing to work at lower wages than the firm now pays. The

¹⁹Since Canadian labour law and institutional practice has enabled unemployed workers to be hired at lower effective wages than existing employees, the "insider/outsider" argument of Lindbeck and Snower(1988) is not relevant to the Canadian context.

level of wages may affect productivity by a number of routes - by affecting the quit rate, by increasing the costs of recruiting qualified workers and by influencing the output level of workers while they are on the job.

Lower wages may mean that more workers quit, taking with them the investment that the firm has made in their recruitment and training. Generally, firms find that the workers who quit are those who have the best alternatives open to them elsewhere, and an increase in the quit rate therefore tends to produce a decline in the average quality of the remaining workforce. Firms with lower wages may also have to advertise more widely, and recruit more intensively, for replacement workers. Because the jobs they offer are less desirable, low wage firms cannot rely on the informal information network of personal referrals that is available to high wage firms.

Fundamentally, a job with low wages is not as precious an asset to workers as a job with decent wages. In low wage jobs, the lower morale of the workforce may decrease workers' motivation and low motivation may interact with the fact that the lower cost of losing such a job means that employer threats of dismissal are a less powerful sanction - firms cannot expect to get the same level of commitment and effort from their employees when they cut wages.²⁰

Canadian firms have to compete in a world of very rapid change. On the production side, new developments in computers and telecommunications have massively reshaped the way many firms do business, and the need for further change shows no sign of letting up. On the sales side, the globalization of many markets and the rapid increase in import penetration of the 1990s has increased the complexity of market demands, and the diversity of product offerings. Along with a new emphasis on product quality at many firms, there is also a recognition that "quality" is a highly ambiguous concept and that although each customer may have a slightly different definition

²⁰See Layard, Nickell and Jackman (1991) for a formal summary of the arguments why profit maximizing firms may want to pay an "efficiency wage", which exceeds the wage at which they could hire unemployed workers.

of what is important in “quality”, it is the *customer’s* definition of quality that actually matters if a sale is to be made. In this environment, many firms recognize that retaining the effort and commitment of their workforce is essential to profitability, and often to survival.²¹

For these reasons, it is not surprising that firms rarely propose a cut in the money wages of their existing workforce. As noted above, it is a slightly different issue if new employees, hired under a different employment status, receive lower wages, but in general few firms ask existing employees to accept a cut in their money wages, unless a major crisis and threat to the firm’s survival can be demonstrated.²² Although it is rare to cut money wages, during inflationary periods firms can effectively cut real wages by allowing wage increases that are less than the rate of inflation. However, Canada’s transition to near zero inflation in the 1990s has removed the option of this method of real wage adjustment.

However, even if it is now more difficult than in the 1980s to cut real wages, the question still remains - Would that be desirable? Would a general trend to lower real wages help or hinder in the fight against unemployment? To answer this question, one must first specify clearly the definition of real wages, and how a cut in real wages might come about.

The real wage is the money wage divided by the price level. If the money wage were cut and if neither the exchange rate nor the domestic price level changed, lower money wages in Canada would mean a fall in Canadian wages, measured in foreign currency. This cut in Canadian wages, relative to foreign (particularly U.S.) wages, would certainly make our exports more competitive. Increased demand for Canadian exports (and for Canadian goods that compete with imports) would increase the demand for Canadian labour. However, the key reason is that Canadian labour has become cheaper, compared to foreign labour. Since it is easier to change the

²¹For case study evidence on this point, see Osberg, Wien and Grude (1995)

²²See Akerlof, Dickens and Perry (1997); Fortin (1996)

exchange rate than to change the average level of money wages, a depreciation of the exchange rate would achieve the same objective as a cut in money wages. Indeed, since a depreciation of the exchange rate would cut the cost (measured in foreign currencies) of both Canadian labour and Canadian capital, a depreciation of the exchange rate would be a more equitable, and a more effective, way of stimulating aggregate demand in Canada than a cut in wages.

Since a change in the exchange rate is the most effective way of stimulating labour demand in the export sector, the real issue is whether, *aside from* its impact on the export sector, lower real wages in Canada would decrease unemployment. To answer this question, one must ask what would happen to the domestic demand for goods, if real wages were to fall. Clearly, the consumption of workers would have to fall, but would that be balanced by an increase in investment and in the consumption of the owners of capital? Since there are a variety of theoretical perspectives within economics on this issue, it seems desirable to turn to the empirical evidence.

What exactly is the correlation between wages and unemployment? Recently, Blanchflower and Oswald (1996) have summarized the results of several years of research examining the relationship between wages and unemployment in the US, Great Britain, South Korea, Canada, Austria, Italy, Germany, Switzerland, Ireland, Norway, the Netherlands and Australia. Their research finds a remarkably similar common pattern - so similar that they refer to it as an empirical law: "A worker who is employed in an area of high unemployment earns less than an identical individual who works in a region of low unemployment." (1996:5) Approximately speaking, they find that a doubling of the unemployment rate is associated with a ten percent fall in wage rates, and the size of the impact is very similar across countries and time periods. As possible explanations for why it might be the case that unemployment is lower, where wages are higher, they suggest (1996:37) four broad reasons:

(1) an optimal contract between workers and firms may generate a positive relationship between unemployment and wages, because when pay is high, it is more of a waste of resources to leave workers idle;

(2) the efficiency wage which firms have to pay workers in order to induce effort is higher when unemployment is low, because in a booming labour market it is easy to replace a low wage job;

(3) when unemployment is high, workers have little bargaining power and have to accept whatever employers offer;

(4) long, persistent slumps in the macro economy generate both depressed wages and depressed employment opportunities.

The importance of this argument, in the Canadian context, is that it suggests that efforts to lower real wages are pushing in exactly the wrong direction, if the objective is to solve the unemployment problem. However, even if one ignores the Blanchflower and Oswald argument, and assumes that lower wages would produce higher employment, the question is: “*How much* would wages have to fall, in order to reduce unemployment?” If the demand for labour changes very little as the wage rate falls²³, a rather large fall in wages may be necessary in order to produce a relatively small increase in total employment. Wage cuts then produce a net decline in the income of wage earners because the earnings gains of the newly employed are less than the earnings losses of those already employed. As a result, the aggregate net income of labour declines when real wages fall.

An increase in the share of aggregate national income received by capital, compared to the share received by labour implies an increase in aggregate inequality, because wealth ownership

²³Technically, if the demand for labour is inelastic with respect to the wage - as Hamermesh (1993) finds in his summarization of the literature.

is correlated with family income. And since the wealthy, who now have more of national income, tend to spend a lower percentage of their income, there would be a tendency for aggregate consumption to fall - creating a need for additional monetary or fiscal stimulus, if a demand induced decrease in employment is to be averted.

However, whether or not it would be desirable for wages to go upwards or downwards, the “bottom line” on wage flexibility as a solution for high unemployment in Canada is that it is not happening. Canada’s unemployment rate in the 1990s has been higher than in any other decade other than the Great Depression of the 1930s - and market forces are not solving the problem. One cannot blame wage inflexibility on greater government intervention in the labour market, because government intervention has been decreasing - as noted earlier, Unemployment Insurance coverage has fallen dramatically in Canada in the 1990s, and there has been a long, slow downward trend in the real minimum wage. Neither can one blame higher unemployment on greater wage rigidity by unions, because neither union membership nor union militancy has increased. The percentage of the labour force that is unionized has not changed much in thirty years and in the third of jobs that are unionized, the strike rate has fallen dramatically and unions have accepted real wage cuts every year since 1991. To explain the wage setting decisions of firms, therefore, one must instead look at why it is in their interest to hold real hourly wages approximately constant (on average²⁴) and not hire more workers from the pool of the unemployed.

However, the question remains - is there some institutional reform to the wage setting process in Canada that would reduce the level of unemployment?

²⁴ See CANSIM series L95706

4. Wage Setting Institutions in Canada

Overwhelmingly, in Canada wage setting is a private affair, with little or no involvement by government. As noted earlier, the minimum wage affects directly less than 6% of all jobs, and government is typically not involved in other wage negotiations, other than those relating to its own employees. Constitutionally, labour relations in Canada are a matter of provincial jurisdiction, with exceptions only for a few industries such as banking and railways (comprising about 10% of the labour force), so the power of the federal government to directly affect wages is very limited. Because wage setting in Canada is so predominantly a private affair already, it is hard to see what exactly “deregulation”, or a diminished level of direct government involvement in wage setting, could mean - or how it could reduce unemployment.

Indirectly, it can be argued that governments may affect wage setting by setting an example, in the pay scales of public servants, for pattern bargaining in the private sector. Although the pattern established in previous decades may have been different, in the 1990s, public sector wage restraint has been the clear model. At both the provincial and federal level, the pattern has been one of wage freezes, and occasional roll-backs.

Governments also influence wages [in the broad sense of total labour compensation] by providing services that might otherwise be part of employee compensation - for example, by providing public health insurance, Canadian governments obviate the need for employers to provide private health insurance as a fringe benefit of employment. As well, labour standards on such things as health or workplace safety reduce the variation in workplace conditions, and the need for employers to use higher wages to compensate workers for poor working conditions. However, the bottom line on all these influences on wages is the fact that they are small, indirect

and change little over time.

However, although the federal government has a very limited direct influence on wages, it is clear that by affecting unemployment the federal government's policies do have an impact on wages. In the medium term, the most important lever that the federal government has to influence wages and unemployment is its control over macroeconomic policy.

By increasing or decreasing the level of taxation and government expenditure, the federal government influences the level of economic activity. By raising or lowering the level of short-term interest rates, the Bank of Canada plays a major role in determining the level of aggregate demand. Both fiscal and monetary policy influence wages and employment, by determining the level of labour demand. If firms have orders to fill, they will hire more workers - thereby reducing unemployment. Indeed, if firms try to hire a great many new workers, they will start to bid up the wages of labour. For many years it has been well known that fiscal or monetary stimulus will produce a decline in unemployment and, potentially, an increase in average money wages.

Why has stimulative monetary and fiscal policy not been used to bring down the rate of unemployment?

In a small open economy with a flexible exchange rate, monetary policy is the major lever of aggregate demand management. When it raises interest rates, the Bank of Canada affects the domestic demand for goods and services, by contracting the demand of interest sensitive sectors - such as capital investment by firms, and housing and consumer durable purchases by households. As periods of high interest rates lengthen, households increasingly have to renew mortgages at higher interest rates, and reduce their general consumption expenditures to match their higher mortgage payments. Raising interest rates also increase capital inflows into Canada, and as the exchange rate appreciates, the demand by foreigners for our exports shrinks, and the ability of foreign goods and services to compete effectively with Canadian suppliers increases. All these

mechanisms produce a decrease in the aggregate demand for goods and services and, therefore, a decrease in the demand for labour.

When, as in June 1997, the Bank of Canada raises interest rates, it does so because it wishes to close off the possibility of inflation. Since 1988, the Bank has adopted the view that its only objective is “price stability” - an objective which has formally been interpreted as keeping the inflation rate in the 1% to 3% range (in practice, the inflation rate has been kept well below the midpoint of the range - at a cumulative average of 1.3% per annum, since 1991). Since the Bank of Canada has demonstrated, that even when the unemployment rate exceeds 9%, it is willing to increase interest rates, and choke off employment growth, in order to contain any chance of inflation, and since it is the level of aggregate demand in the economy that fundamentally determines the rate of unemployment, one can rephrase the essential question as: “What change in wage setting institutions in Canada would persuade the Bank of Canada that it can allow a faster rate of growth in the economy, without fear that this will spark a resurgence of inflation?”

Of course, it can plausibly be argued that the Bank of Canada could allow a faster rate of growth of aggregate demand now, without any change in Canada’s wage setting institutions and without any danger of a resurgence of inflation. Since 1996, the US has demonstrated that it is possible to have less than 5% unemployment, without any resurgence of inflation. Although it might have been said in the 1980s that Canada’s labour market institutions (such as the UI system) were sufficiently different from those of the US that Canada’s rate of structural unemployment was necessarily higher, over the 1990s the differences between Canada and the US in labour market institutions have narrowed dramatically. Even before the transition of UI into EI, research at the Department of Finance indicated that the unemployment rate could safely be reduced to 7%, without danger of inflation.²⁵, and the cuts to the system embodied in the transition to EI can

²⁵See Sargent (1996)

reasonably be expected to have reduced even further the rate of unemployment at which there is some danger of inflation returning. There is no evidence in the numbers of any resurgence of inflation with the moderate declines in unemployment that have been observed so far. Indeed in the business press there are expressions of concern at the possibility of deflation. Since it can reasonably be argued that Canada simply has not tried the option of allowing a long period of low interest rates and strong economic growth, one could say that this is the best option.

However, a major problem with this argument is that the Bank of Canada is not buying - and it is the Governor of the Bank who has the power to set monetary policy. In 1997, the Bank of Canada used that power to choke off growth in aggregate demand with higher interest rates, and the Bank has signalled that it will continue to use that power whenever it thinks that a future chance of inflation exists. Furthermore, the issue of inflation does need to be addressed. Proponents of a more stimulative macro demand stance²⁶ have a responsibility to say what they would suggest as a policy to reduce the risks of inflation, so that as the economy moves further down the Beveridge curve and the ratio of unemployed to vacancies falls, increased demand for labour continues to be translated into greater employment, rather than into wage inflation.

In countries where co-ordinated wage bargaining between employer associations and trade union federation has been long established, there has been an institutional mechanism to prevent the emergence of wage inflation at high levels of unemployment. In these countries, the representatives of both business and labour can agree on a pattern of wage changes that restrain inflation, even if rising aggregate demand produces tight labour markets in some areas and for some specialties. Such a tradition of centralized bargaining does not exist in Canada, and there is no institutionalized guarantee that a resurgence of demand for labour might not create spot shortages, and a leap-frog pattern of inflationary wage increases, even if aggregate unemployment

²⁶Such as the present author

is still at a high level.

Although both academic economists and organized labour in Canada have always been hostile to the idea of considering wage controls as a way of preventing the emergence of inflation, wage controls look more attractive if the alternative is always to maintain enough excess unemployment in the system that inflation has no chance of re-emerging. There is really no big trick in maintaining forever a low rate of inflation, if one is also willing to maintain high unemployment forever. However, the economic and social costs of such a strategy are enormous.

It may well be time in Canada to consider the possibility that a stimulation of aggregate demand be combined with the explicit statement that if inflation should start to emerge, wage and price controls would be implemented. My own personal expectation is that such controls would not be needed, and that the economy has plenty of slack to grow without inflation - but if it takes acceptance of the possibility of wage controls to convince the Bank of Canada that faster aggregate growth, and lower unemployment, can be combined with low inflation, then that would be a small price to pay. The 1990s has taught us that low inflation is certainly possible, but it has also taught us that persistent mass unemployment is an extremely costly way of achieving it.

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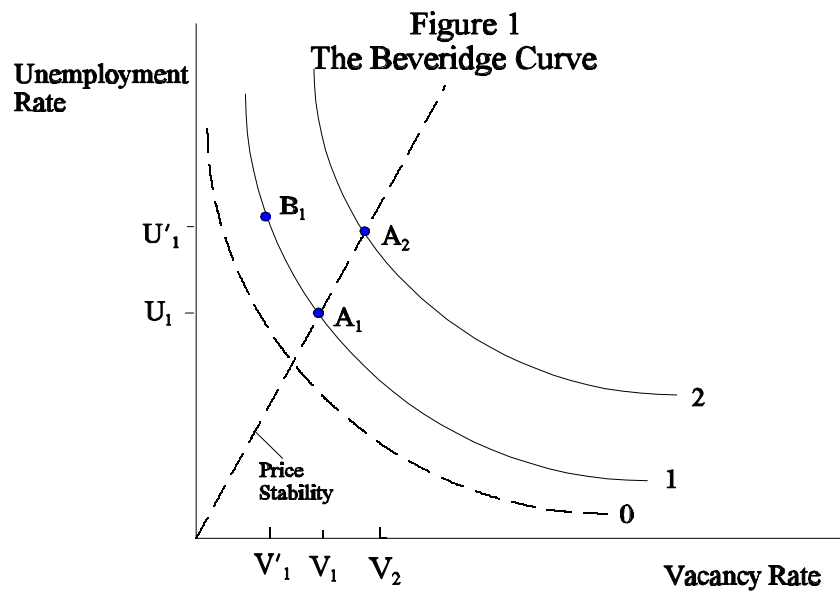
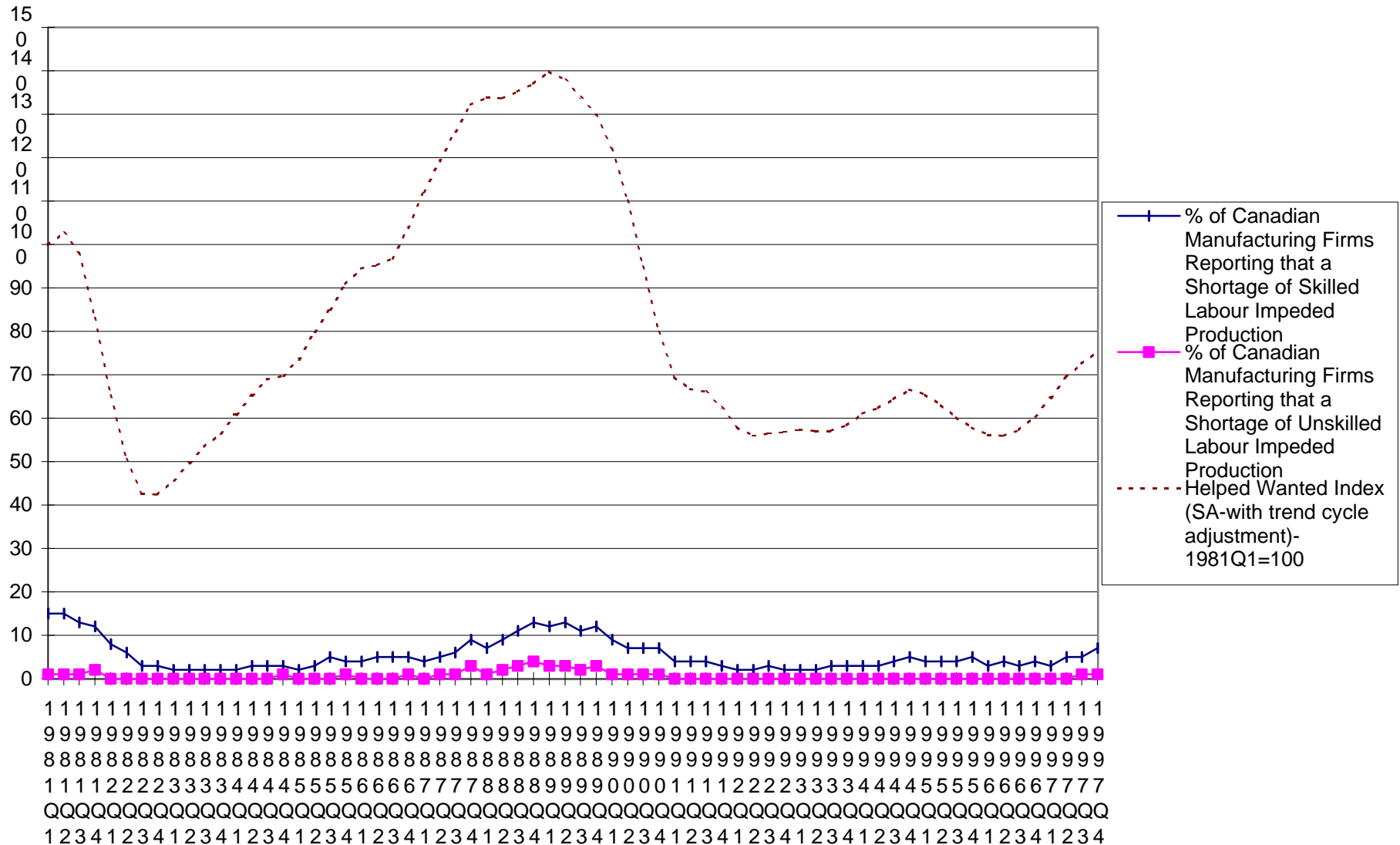


Figure 2

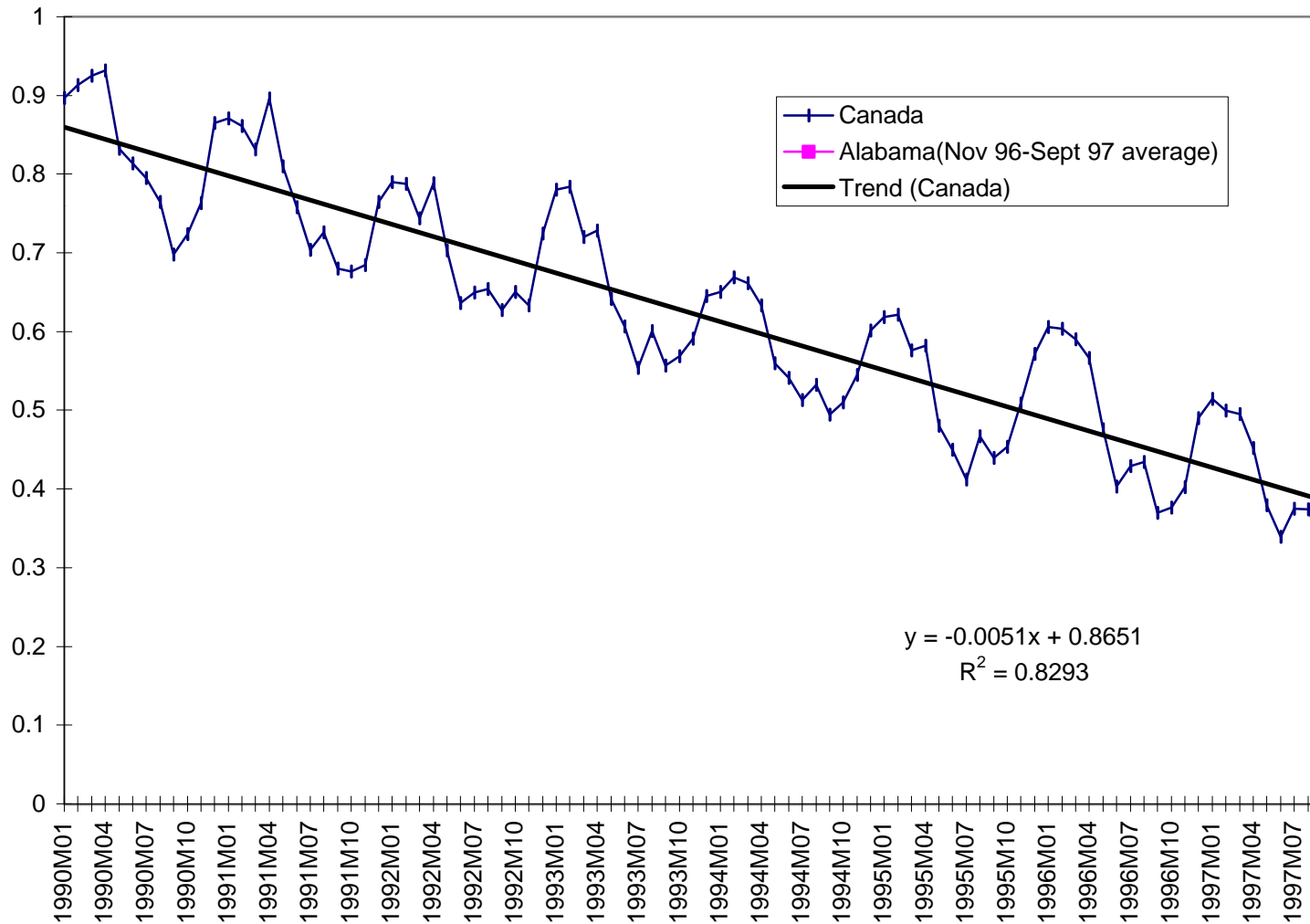
Indicators of Labour Demand



Source:
 CANSIM (D262256) "Business Conditions by Economic Use/ Production Difficulties, Unskilled Shortage"
 CANSIM (D262255) "Business Conditions by Economic Use/ Production Difficulties, Skilled Shortage"
 CANSIM (D738868) "HWI- Can, Mthly"

Figure 3

Regular UI/EI Beneficiaries as a Percentage of the Total Number of Unemployed - By Month.



Source: Cansim (D980342) "Canada - Labour Force Characteristics Monthly / Unemployment Age 15-64"
CANSIM (D730603) "No. of Benef. by Prov, Mth, Type of Benefit, Sex/ Regular Benefit - Canada"
Alabama, Dept. of Industrial Relations.

Figure 4a

**Real (Oct. 97 \$) Minimum Wage
Eastern Canada
- six month moving average**

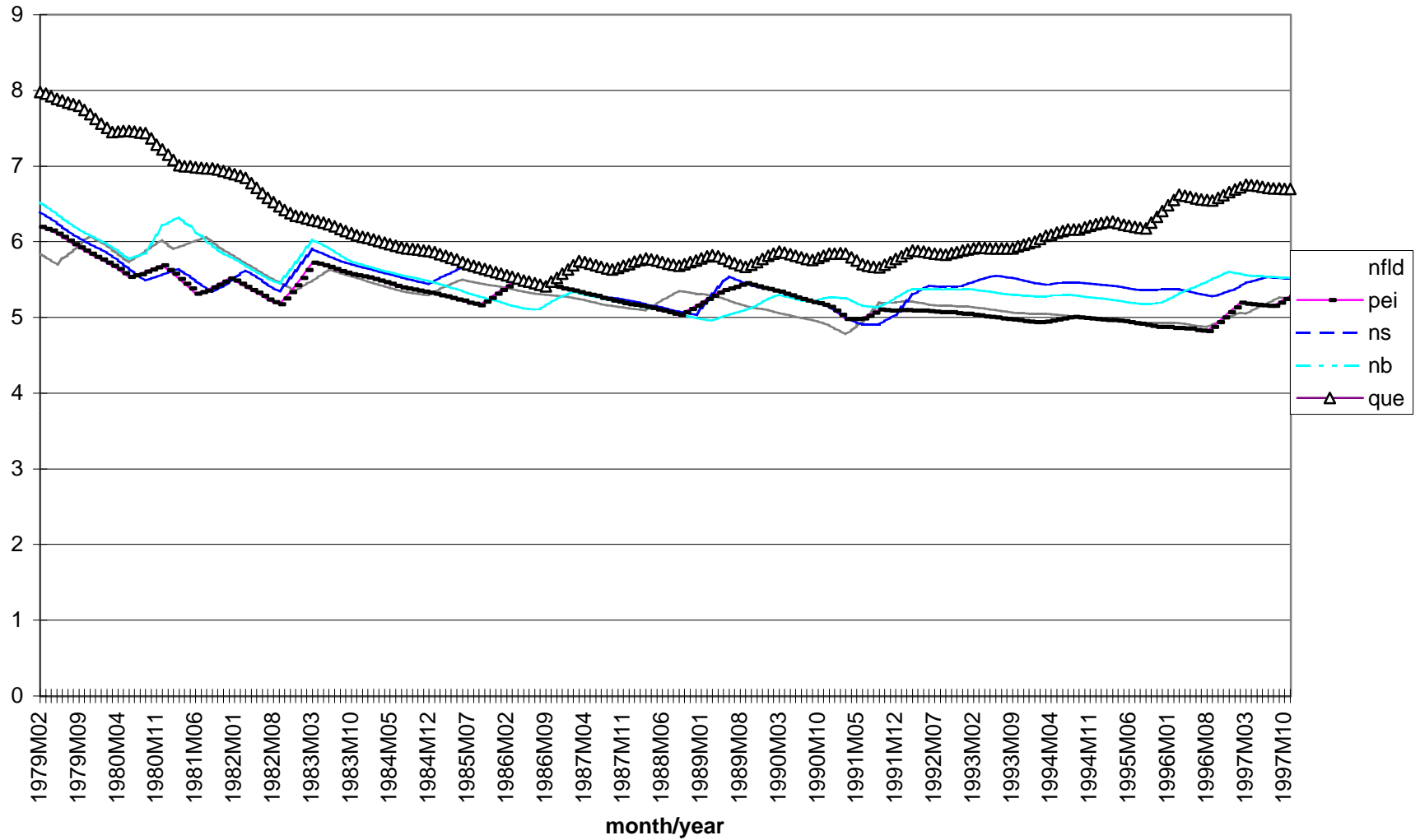


Figure 4b

**Real (Oct. 97 \$) Minimum Wage
Western Provinces
Six Month Moving Average**

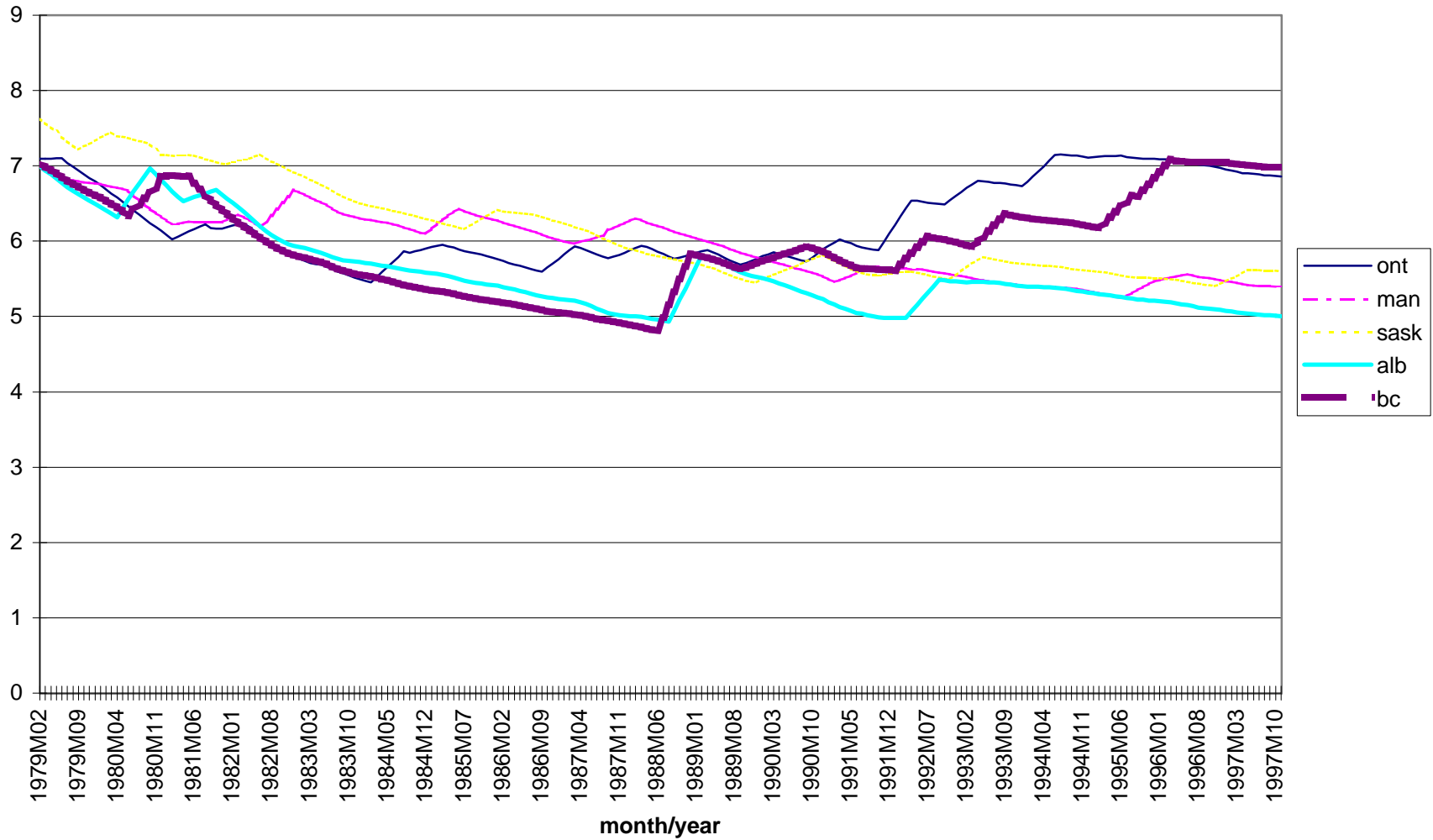
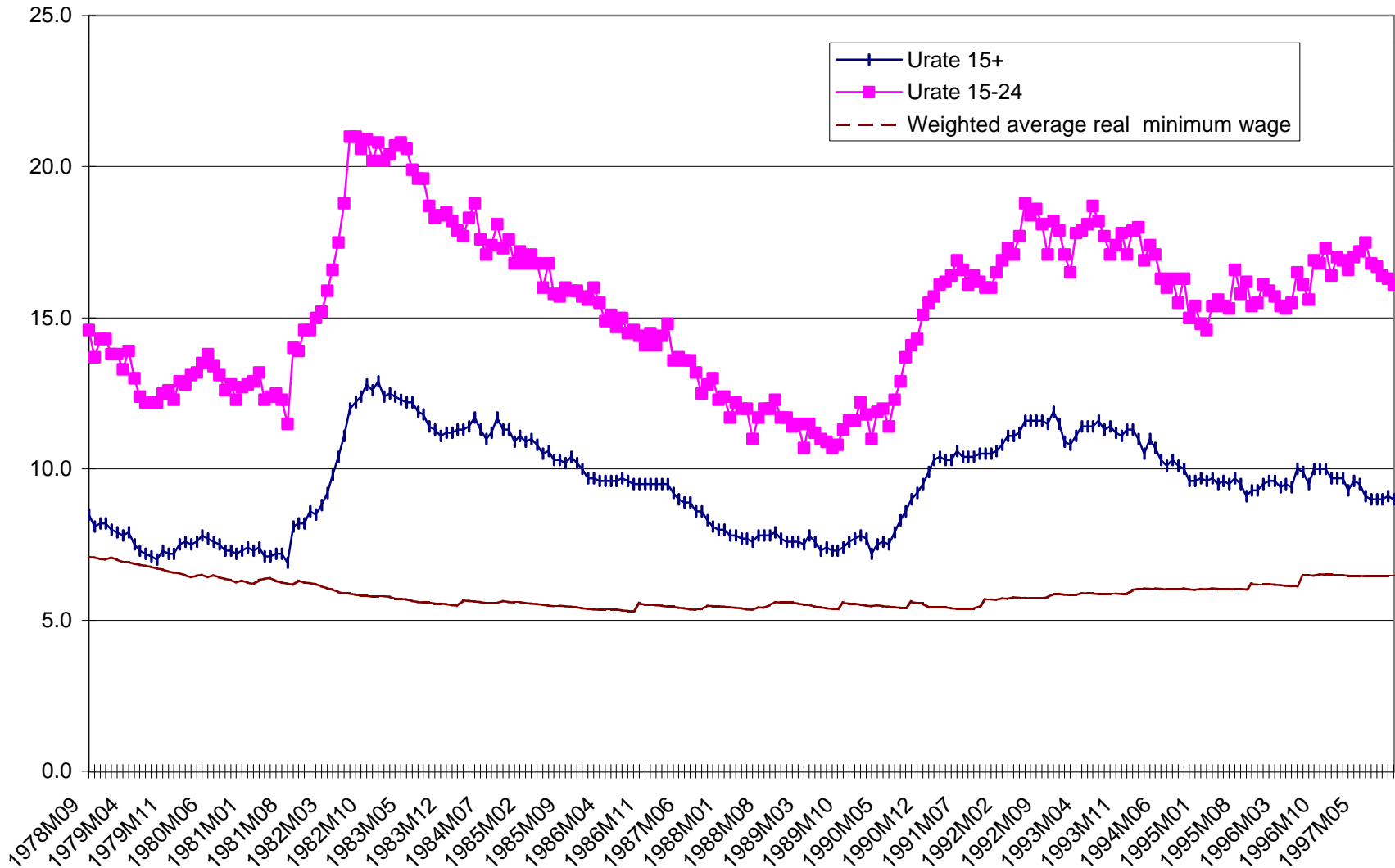


Figure 5

**Unemployment and
Real (Oct. 97 \$)**



Source: CANSIM (D980745) "CDA LF characteristics monthly SA/ unemployment rate 15+"
CANSIM (D980746) CDA LF characteristics monthly SA/ U.Rate 15-24
HRDC - Labour Program "<http://labour-travail.hrdc-drhc.gc.ca>"