

The CPP Payroll Tax Hike: Macroeconomic Transition Costs and Alternatives

PETER DUNGAN

Institute for Policy Analysis

University of Toronto

Toronto, Ontario

Le modèle macroéconomique FOCUS est utilisé pour estimer l'impact des hausses des primes du RPC introduites en 1997. Il est démontré que ces hausses vont avoir des conséquences macroéconomiques sévères à court et à moyen terme mais qu'elles placeront le régime en bonne position sur le plan fiscal. D'autres simulations explorent des façons d'amoindrir le dommage macroéconomique causé par les hausses des taux du RPC. Une méthode serait de "privatiser" le RPC de façon à ce que les employeurs n'aient plus à être taxés. Une seconde alternative est de plafonner les primes du RPC au taux de sept pour-cent (planifié pour 1999) à partir de 2000 et de lever les fonds nécessaires au financement des engagements du RPC via les taxes sur le revenu. Une dernière simulation indique que si le plan actuel d'augmentation des taux du RPC n'est pas modifié alors il sera important que les taux d'assurance-emploi soient réduits massivement dans les prochaines années.

The FOCUS macroeconometric model is used to estimate the impact of the CPP premium increases introduced in 1997. It is found that these will have relatively severe macroeconomic consequences in the short to medium term, although they will put the plan on a sound fiscal footing. Additional simulations explore how the macroeconomic damage of the CPP rate hikes could be mitigated. One method would be to "privatize" the CPP such that employers would no longer be taxed. A second alternative is to cap the CPP premium at the planned 1999 rate of 7 percent in 2000 and beyond, and collect the funds required to finance the unfunded CPP liabilities through the income tax. A final simulation indicates that if the current plan for CPP rate hikes is not amended it will be imperative that Employment Insurance rates be massively reduced over the next few years.

In 1997 the federal government introduced major changes to the Canada Pension Plan (CPP) to preserve the fiscal soundness of the plan through the next several decades. The major feature of these changes is a significant increase in the contributions or premiums paid by employers and employees. What macroeconomic damage will these rate hikes do? And what alternative methods of restructuring and refunding the CPP would mitigate these ill ef-

fects? I examine these questions with the FOCUS computer simulation model of the Canadian economy.

Note that by "CPP" I also mean similar changes in the Quebec pension plan. I do *not* attempt to model the impacts of proposed reductions in benefits to be paid under the plan, nor in the methods by which the plan's funds are to be managed to

achieve greater returns. These changes also contribute to the fiscal soundness of the plan but their impact will be slow and gradual, while the changes in premiums will have much larger and more immediate macroeconomic effects.

I find that the new CPP premium increases will have severe negative consequences in the short to medium term. A considerable increase in the funds set aside for pensions is necessary for the fiscal soundness of a national pension system no matter what form it might take, and this shift in saving will inevitably impose some adjustment costs on the macroeconomy. However, the simulations show that these costs are greatly magnified under the current policy, which imposes a large increase in the CPP premiums paid by employers. A large body of academic literature, both theoretical and empirical, indicates that all or most of a payroll tax on employers is “passed through” to employees in the form of wages lower than they would otherwise be. (For a more detailed description and review of the literature, see Dungan 1998 and Kesselman 1996). That the employer pays the “employer portion” of a payroll tax is largely a myth, but one that it is not in the immediate interests of employers, unions, or governments to question. Unfortunately, the myth is an expensive one in the face of large payroll-tax increases because the primary method by which the tax is passed through to labour as lower wages is through the creation of a period of higher unemployment and reduced output.

SIMULATING THE IMPACT OF THE CPP PREMIUM RATE HIKES

The payroll-tax literature suggests that there will likely be short-term macroeconomic damage from the CPP payroll tax hike introduced in 1997, and possibly longer term or permanent damage as well. But questions remain: How great might the damage of the CPP tax hike be, and How long might the short-term impacts last? To answer these questions I have used the FOCUS macroeconomic model

of the Canadian economy, built and maintained at the Institute for Policy Analysis of the University of Toronto (Dungan and Jump 1995).

A basic assumption applies to all the simulations: in response to any change in CPP rates or other tax changes, the Bank of Canada adjusts interest rates so that the balance of payments clears at the exchange rate that existed before the policy change. This assumption permits some temporary response of inflation to the new policy, but in the long run the original price level is largely maintained, and the inflation rate never strays outside the Bank of Canada’s 1 to 3 percent target band. A stricter adherence to inflation targets would worsen the impacts of the CPP tax hikes on output and employment.

The first task is to examine the impact of the CPP premium-rate hike imposed in 1997. The new rates are significantly above the older rates, especially in the period 1999-2003, but it should be kept in mind when assessing the impact of the 1997 rates that some increase in CPP premiums would have occurred under the older legislation. It is also important to note that after 2003 the schedule of new and old rates converges gradually. In 2003, the new rates are capped at 4.95 percent each for employers and employees, which is calculated to be sufficient to fund the plan indefinitely given other adjustments to be made to benefits in the longer term. The older legislation had contribution rates rising slowly but continually such that, by 2016, they would have exceeded the 4.95 percent cap rate under the 1997 reforms. Note that the rate change entered in the model also contains an adjustment because, under the 1997 CPP reforms, the “Year Basic Exemption” (YBE) for the plan is to be frozen at \$3500 instead of indexed.

The model responds to the increased premium rates largely as would be expected under the mainstream analysis of payroll taxes. The additional tax on employees acts as a standard fiscal drag through the reduction of disposable income. In addition,

employers try to pass through their share of the tax increase in the form of higher prices and they also reduce their demand for labour at the existing wage. The higher unemployment that results puts gradual downward pressure on wages. Eventually there is full pass-through of the payroll tax to labour, but only after an extended period of higher unemployment and lower output.

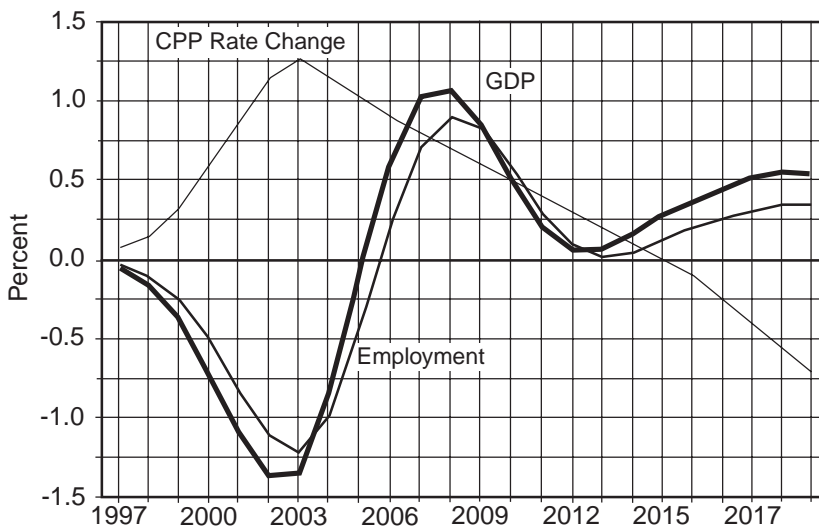
The results of the simulation are summarized for GDP and employment in Figure 1, which also plots the 1997 changes in the CPP rate. The impacts of the premium rate increase are quite severe between 2000 and 2004. At maximum, in 2002 and 2003, there is a loss of over \$13 billion (1996 dollars) of GDP per year and the employment loss reaches almost 200,000 in 2003.

After 2004 there is a rapid recovery in GDP, followed at a one-year lag by a recovery in employment. This period of positive impact is neither as large nor as prolonged as the period of negative

impact and occurs for two reasons. First, there is the natural tendency of the economy to over-respond to a policy shock — usually in the form of damped cycles. Second, the negative stimulus from the premium-rate change gets progressively smaller as the new and old rates gradually converge after 2003. Starting in 2016, there is a small sustained *positive* impact on GDP and employment because the 1997 premium rate falls below the older rate.

In the literature, there is some question as to whether the extent of wage pass-through to labour is total, which in turn depends on the sensitivity of labour supply to changes in wages. The labour-supply equations of the basic FOCUS model show no sensitivity to the real wage and they therefore impose full pass-through in the long run; these results are reported in this note. Alternative simulations assuming a labour-supply elasticity of .25 with respect to pre-tax wages have also been conducted and are reported in Dungan (1998). (The figure of .25 is arbitrary, but appears to be in the

FIGURE 1
Increasing Canada Pension Plan Rate: Summary of Impact on GDP and Employment, 1997-2017



upper range of general estimates.) Assuming a more responsive labour supply leads to no improvement in impacts on GDP or employment for the initial five- or six-year adjustment period; thereafter, the impacts on GDP and employment are uniformly worse. Reduced adjustment costs are more than offset by the economic losses of permanent withdrawals from the labour force.

A number of other results from the simulation are noteworthy (Dungan 1998). First, the bulk of the reduction of GDP is inflicted on consumption, as might be expected. In the initial years of the simulation there is also an important hit on investment, due to reduced corporate profitability before the increase in the employer part of the payroll tax can be fully passed through. After 2004, there is positive impact on investment and on net trade that persists thereafter. This too could be expected: with higher net government-sector saving under the premium increase, and with the economy eventually returning to something near full employment, there must of necessity be either an increase in investment or an improvement in the current account of the balance of payments, and, in fact, both occur. As a result of greater net investment, the capital stock is growing above base, and labour productivity is increasing. In effect, this is the “real” objective of greater CPP pre-funding: eventually there can only be more output for the working-age population to “share” with the retired babyboomers if the working-age population is more productive (due to increased capital accumulation beforehand), or if there are larger net foreign assets (due to higher previous net exports) to generate income. The simulation shows these desirable impacts of the CPP reform occurring.

In drawing lessons from this first simulation, it is important to keep in mind that it may represent something of a worst-case scenario. It is possible that forcing pass-through of the employers’ share may be less costly and more rapid than normal for two reasons. First, the schedule of rate hikes through 2003 is known in advance. Each year’s increase will

not be a surprise, but can instead be anticipated in earlier wage agreements. This may tend to shorten adjustment times. The second reason is that the 1997 premium hikes are relatively clearly linked to the health of the CPP, which may make some workers willing to accept a more rapid pass-through. Frankly, my own judgement is that these offsets are not likely to be large, but we have no way of measuring them in advance.

CPP PRIVATIZATION AS A MEANS OF REDUCING MACROECONOMIC ADJUSTMENT COSTS

One way the macroeconomic damage of the 1997 CPP rate hikes could be reduced is by some form of privatization of the CPP. The various benefits of this possibility have been explored in Pesando (1997), but what matters here is that privatization could be used either to take the employer “out of the loop” by setting up a compulsory RRSP-like plan that would be the responsibility of individuals (employed or not) and governments only, or to make clear the direct connection between present contributions and future benefits, thereby making labour much less resistant to pass-through of the employers’ share. In either case, a “fiscal-drag” impact of the higher contribution rates would remain, but the additional short-term damage of forcing a pass-through by higher unemployment would be eliminated.

Simulation 2 demonstrates the considerable benefits of such an alternative to the 1997 CPP reforms. This simulation takes as a “base case” the present economic situation with the 1997 contribution rates in effect. It then calculates the impact of an alternative policy whereby all increases in revenues for the CPP in 1998 and after would come solely from employees. Again, this could occur either because employers are to be specifically excluded from the privatized plan, or because pass-through to workers would be almost immediate. Privatization of the CPP would yield major short-term stimulus for the macroeconomy compared to the 1997 reforms (see Figure 2). The impact on GDP and employment

FIGURE 2

Privatizing Canada Pension Plan: Summary of Impact on GDP and Employment, 1998-2020



would rise gradually from 1998, peaking at an effect of 1.3 percent of GDP, or \$13 billion (1996 dollars), in 2003. This would also constitute a gain of about 180,000 jobs in that year. Thereafter, the stimulative effect diminishes as the 1997 rate hikes come to an end in 2003. There is a modest negative overshoot from the policy in 2008-2009, and thereafter the effect on GDP remains a small positive, as the relief of pressure on the macroeconomy and on the corporate sector has permitted greater capital accumulation and increased productivity. Comparing Figures 1 and 2, it can be seen that “privatization,” by eliminating the need for the “employer pays” myth, can achieve the goals of stabilizing the plan’s finances and increasing national savings in the long-term, but can avert much of the short-term macroeconomic damage that will otherwise result.

FINANCING THE UNFUNDED LIABILITY PORTION OF THE CPP FROM INCOME TAXES

Pesando has estimated that 2.9 percent of the eventual 9.9 percent total CPP premium (employer plus

employee contributions) is necessary to cover the unfunded liability of the plan (1997, pp. 9-11). The unfunded liability is the shortfall of contributions from those currently retired or soon to be retired under the plan, relative to expected payout. Under the 1997 CPP reforms, the unfunded liability is not to be covered by taxpayers in general, but only by those currently working, and only up to the CPP contribution maximum, making it both a selective and regressive tax.

Fairness argues for covering the unfunded liability out of a more general tax which, provided that it had no direct effect on wage settlements, would also have the effect of mitigating the short-term damage of CPP payroll-tax increases. As it happens, the rate increases after the year 1999 total to the 2.9 percent needed to cover the unfunded liability. An alternative arrangement could see the CPP rate increases capped at their 1999 levels in the year 2000 and after, while the additional funds to cover the unfunded liability are collected through the personal income tax — or through smaller income-tax reductions with growing incipient federal government surpluses.

Simulation 3 tests the effect of this proposal. The base case is assumed to include the CPP rate hikes legislated in 1997. The alternative, which begins in 2000, is to keep the CPP premium rate unchanged for employers and employees at 1999 levels and to raise personal income taxes instead.

Switching the burden of the unfunded liability to the personal income tax (see Figure 3) would increase GDP by over 1 percent in 2003 and create an additional 140,000 jobs in 2004. Thereafter, the impacts diminish as the economy would have adjusted to the CPP rate increase in any case. There is a small net long-term gain in GDP because the reduced stress on the economy and the corporate sector in the adjustment period encourages extra capital accumulation. Comparing Figures 1 and 3 shows how much this alternative would mitigate the shorter term macroeconomic damage of the 1997 reforms in the early years of the next decade.

DECREASING EI PREMIUMS AS AN OFFSET TO CPP PREMIUM INCREASES

As CPP premiums increase over the next few years, Employment Insurance (EI) premiums will probably be decreasing, given the large annual surpluses now being run in the EI account, and the increasing accumulated surplus. I have assumed the following schedule of EI rates (for employees; those for employers are 1.4 times these amounts): 1999: 2.4 percent, 2000: 2.1 percent, 2001: 2.0 percent, 2002: 1.9 percent, and 2003- : 1.8 percent. To what extent does a reduction in EI premiums such as this offset the increases scheduled for the CPP?

This question is examined in Simulation 4. Since the question of payroll tax impacts is often posed in terms simply of changes from the previous year, this simulation takes as a base a situation in which the EI and CPP premium rates would have both continued in 1997 and after at their 1996 levels. This

FIGURE 3
Financing Unfunded Liability of Canada Pension Plan from Personal Income Tax: Summary of Impact on GDP and Employment, 2000-2020

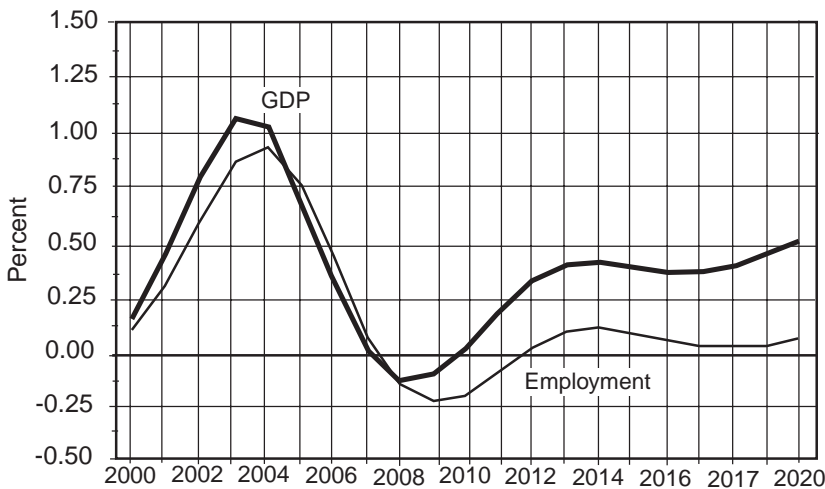
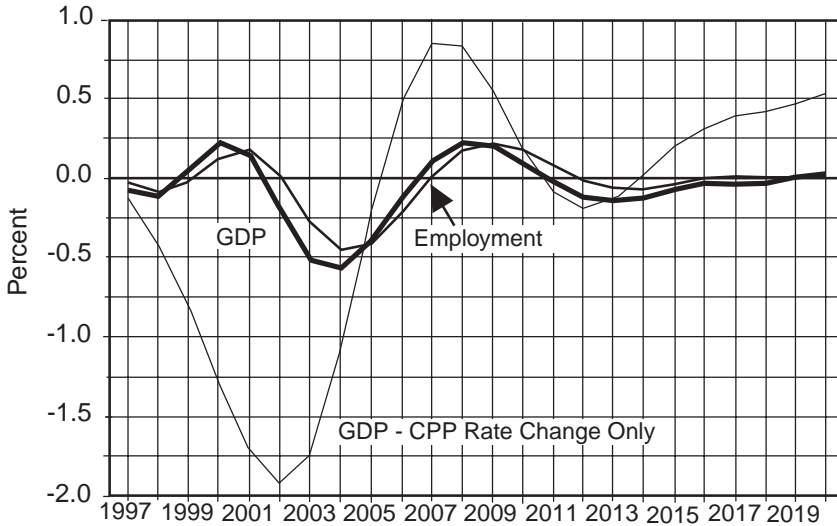


FIGURE 4
 Changing Canada Pension Plan and Employment Insurance Rate: Summary of Impact on GDP and Employment, 1997-2020



is “unrealistic” for both accounts, but since we are interested in the impact of year-to-year changes in the rates, it is the effective base against which changes can be measured. The simulation imposed on this base is that the CPP rate rises as under the 1997 schedule, and the EI rate falls following the path above. The impacts are summarized for GDP and employment in Figure 4, which also shows the impact on GDP for a simulation in which only the CPP rate is changed.

The effect of changing the two rates together is largely to nullify any impact on GDP and employment until about 2002. From that year through 2005 there is still a significant negative impact on GDP and employment, with maximum loss of \$5.9 billion (1996 dollars) in 2004 or just under 73,000 jobs. There is a small positive rebound in 2008-2009, and then effectively zero impact thereafter. While not

small, these negative impacts after 2000 are still much less than those seen when only the CPP rate change is considered. The EI rate reductions are not as large in absolute terms as the CPP rate increases, but they have a near-equal effect because the employer portion is 1.4 times the basic employee rate for EI, and it is the employer portion that damages the macroeconomy.

While it might appear that there is, as a result of this last simulation, little to worry about in the impending CPP rate increases, two points should be kept in mind. First, by using the likely EI rate decreases of the next few years to offset the impacts of CPP increases, we will be throwing away a powerful fiscal instrument that could otherwise be used to push the economy back to its potential more quickly and in a decidedly non-inflationary fashion. Second, the EI rate decreases are no “sure thing.”

An overly cautious government, or one that chooses to keep EI rates high in order to have greater freedom to reduce taxes or increase spending elsewhere (neither of which would be nearly so effective in offsetting the CPP payroll tax), could leave the CPP rate hikes to do their damage to the macroeconomy in the shorter term.

NOTE

I am indebted to the Donner Canadian Foundation for financial support and to Steve Murphy, James Pesando, Bill Robson, Bill Scarth, and Thomas Wilson for suggestions and comments at all stages of the research.

REFERENCES

- Dungan, P. (1998), "The CPP Payroll Tax Hike: Macroeconomic Transition Costs and Alternatives" (Toronto: C.D. Howe Institute). Forthcoming.
- Dungan, P. and G. Jump (1995), *FOCUS: Quarterly Forecasting and User Simulation Model of the Canadian Economy: Version 94A* (Toronto: Institute for Policy Analysis, University of Toronto).
- Kesselman, J.R. (1996), "Payroll Taxes in the Financing of Social Security," *Canadian Public Policy – Analyse de Politiques*, XXII(2):162-179.
- Pesando, J.E. (1997), *From Tax Grab to Retirement Saving: Privatizing the CPP Premium Hike*, Commentary, no. 93 (Toronto: C.D. Howe Institute).