

**The Economics of Constitutional Change Series**

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**THE ECONOMICS OF CONSTITUTIONAL CHANGE:  
DIVIDING THE FEDERAL DEBT**

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Comments Welcome

**The Economics of Constitutional Change:  
Dividing the Federal Debt**

by

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## **1. Introduction**

Outside Quebec, not much of the current discussion about Canadian constitutional options has focused on economic implications. However, the little discussion that has taken place, like the discussion in Quebec, has dealt mostly with questions concerning the long-run viability of various alternatives. While long-run questions are obviously important, we believe that it is equally important to recognize that there may be sizeable short-run or transition problems in moving to any new arrangement.

The purpose of this paper is to consider both the transitional and long-run implications of one aspect of changing Canada's constitutional structure -- dividing the federal debt. Although this issue has been mentioned in the press, we have yet to see a systematic treatment of the question -- especially examining its short-run consequences.

The plan of the paper is as follows. In the next section we present some current facts about the size of the federal and provincial debts, the ownership and maturity of federal bonds and the implications of two simple examples of its division. A discussion of sovereign risk premiums is presented in the next section. In Section 4 we explore options for dividing the debt in detail along with corresponding political options in Section 5. In Section 6 we discuss post-division effects and issues. A short summary concludes the paper.

## **2. Some Facts on Government Debt**

In this section, we present some basic facts regarding the debt of the Federal and Provincial governments. Looking first at Table 1, we see that for the fiscal year ending March 31, 1991, the Federal government's net debt is estimated to be about \$374 billion. Of this, direct debt such as bills, bonds and CSBs, makes up about 80 percent of the total, with the remaining

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20 percent comprised of indirect debt such as Federal pension liabilities and net liabilities of government enterprises. This total translates into about \$14,000 per capita.<sup>1</sup>

In aggregate provincial governments (including local administrations) have net debt for fiscal 1990-91 of about \$104 billion. This translates into about \$3,900 per capita. The distribution of provincial debt is quite uneven among the provinces, ranging from about \$6,750 per capita in Newfoundland to about \$1,447 in *assets* in Alberta.<sup>2</sup>

Looking next at the ownership of the direct debt presented in Table 2, we see (based on March 31, 1990 data) that the Bank of Canada and Federal government hold about 9 percent. Chartered banks hold about 5.9 percent. The non-bank public, which comprises all other businesses including trust and insurance companies as well as pension funds and individuals, is the major holder at about 64 percent. Foreigners are estimated to own about 21 percent of the direct debt. No information exists regarding the regional distribution of holdings of direct debt.

Finally, in Table 3 we present the maturity composition of the direct debt at March 31, 1990. We see that 83.4 percent of the debt is bills and bonds with an average term to maturity of 4 years. The remaining 16.6 percent is made up of CSBs which may be redeemed at any time and a tiny amount (0.6 percent) of other short-term debt mostly related to foreign exchange operations.

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<sup>1</sup> Net debt data are estimated using Financial Management Statistics (FMS) data from Statistics Canada which provide a broad coverage of government activities including most government agencies and enterprises.

<sup>2</sup> This figure includes the Alberta Heritage Savings Trust Fund.

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### 3. Sovereign Risk Premiums

The return that must be paid on funds borrowed by governments can be divided into two parts: 1) payments required to make lenders forego current consumption in favour of future consumption -- interest, and 2) compensation for the uncertainty of the return due to the possibility of default.<sup>3</sup> With free capital markets, risk-averse investors will demand these payments -- commonly known as 'risk premiums' -- according to their subjective expectation of the risks.

Normally, Government of Canada bonds (even those denominated in US dollars) trade at a yield premium over comparable US government securities. Traditionally, this premium has been in the neighbourhood of 70 basis points, although it is currently in the order of 100 basis points.

Provincial government bonds trade at various premiums (Ontario has the lowest, Newfoundland the highest), but in all cases, provincial bonds require a greater premium than comparable Government of Canada bonds.<sup>4</sup>

Why do these premiums exist? They represent investors' judgements of the riskiness of the bonds -- the probability that payments on a given borrowers' bonds will be disrupted or defaulted upon. These judgements are based on investors' perceptions of borrowers' ability to absorb negative shocks to their net income stream while continuing to service their debt. In turn,

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<sup>3</sup> In this discussion, we abstract from so-called 'interest or term risk' on securities with more than one period to maturity.

<sup>4</sup> For example, looking at 10-year bonds on March 7, 1991, we see that Ontario paid a premium of 60 basis points over federal government bonds. The premium for BC was 60, for Manitoba was 75, for New Brunswick was 97, for Quebec was 70 and for Saskatchewan was 90 basis points.

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these perceptions are related to beliefs about the kinds of shocks which are likely to affect a jurisdiction, and its inherent capacity to generate tax revenue. At least in the short-run, part of the Federal government's capacity to service its debt comes from its ability to print money.

If the economic capacity of a federation is just the sum of the economic capacities of its provinces, why is the federal bond risk premium not just the weighted sum of the provincial risk premiums? Abstracting from its short-run ability to print money, the Federal government gains the benefits of a smaller risk premium because of diversification. As long as the changes in provincial incomes (the provincial tax base) are not perfectly correlated, the variance of national income (the national tax base) will be less than the sum of the variances of provincial incomes. Intuitively, this means that when revenues from one province are down, revenues from another province may be unaffected or even up. Thus, the federal government, with its diversified sources of income, is viewed by investors as a less-risky borrower than the individual provinces.

It should be clear how this relates to current constitutional discussions regarding Quebec and, perhaps, other regions. Any change which reduces a borrowing government's ability to diversify its income, will likely result in investors demanding a larger risk premium. How much larger is very difficult to assess and will depend on the particular arrangement. If, for example, individual regions were made responsible for servicing their share of the federal debt, the risk premium could be substantial, and perhaps for some regions, prohibitive. This will be especially true if the region currently contributes less than its full share of tax revenue to service the debt.<sup>5</sup>

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<sup>5</sup>In a report released February 25, 1991, First Boston Corporation argued: "Of the 200-250 basis point spread [*between Canadian and US long-term bond yields*] that has prevailed for the last year, a portion probably reflects the uncertainty created by the Meech Lake debate." An earlier, leaked version of the report, put a value of 150 basis points on the uncertainty.



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To illustrate this point, consider a division of the debt based on population shares. For every 100 basis point rise in the risk premium, long-term annual debt service costs in Atlantic and Western Canada would rise about 450 million dollars and 1.17 billion dollars respectively. For Ontario and Quebec, the annual rise would be in the order of 1.47 billion and 1.79 billion respectively. Given, the short term-to-maturity of much of the debt, these long-term impacts would be realized very rapidly.

#### **4. Division Formula**

In this section we look at alternative rules or formula which might be used to determine the distribution of the debt in any future political structure. The implications of alternative structures are discussed in Section 5.

Suppose that at a given date it is necessary to divide the debt. Some alternatives for division which are fairly transparent include:

- 1) per capita
- 2) per employed worker
- 3) per citizen
- 4) GDP within a region

The choice of division formula should depend on the principles of transparency, equity, and hopefully minimization of negotiation costs. There are a number of issues which each particular formulae raises. Below, we consider each formulae in turn.

1. Per capita. The simplest formulae is simply per capita on an agreed-upon date. The choice of date should be one which is already past -- so as to minimize policy responses devoted to changing the base. The population of the last census might be the easiest to work with. This division rule is transparent and relies on the notion that it is the individual who should bear the costs and benefits of past federal expenditures.

2. Per employed worker. Obviously, this formulae benefits high unemployment regions and works the equity criterion hard. It would minimize the chances of Atlantic Canada simply declaring bankruptcy and refusing to assume its share of debt based on a per capita rule.
3. Per citizen. This formulae corrects for differences in recent immigration. BC would probably like to leave recent immigrants out so as to reduce its share. Why should they be left out? One could argue that because they were not direct recipients of past federal expenditures, recent immigrants should not have to share the current burden of those expenditures. Also, recent immigrants might leave Canada rather than face of a large debt burden.
4. Per dollar of GDP. This formulae is attractive because it corrects for regional differences in income. However, a disadvantage is that it may not correctly account for past benefits. For example, income is now low in Saskatchewan due to depressed wheat prices. However in the past, Saskatchewan has been a beneficiary of public expenditures. If one uses some average of past GDP the formulae becomes less transparent and may invite strategic negotiating.

As one attempts to invoke more elaborate notions of equity the division formulae get increasingly complicated.

Another obvious issue relates to correcting for the asset side of the federal balance sheet - particularly federal physical assets which are geographically immobile. Given the non-marketable nature of many of these assets one would have to value them using either depreciated book value or replacement cost. Consider, for example, the case of defense. Quebec has a certain fraction of the armed forces inside its borders. In principle, one should try to correct the debt allocation by arriving at a rule for the value of those assets. If the assets are fixed in location then regions with a larger percentage of the assets will want to minimize the role of assets in the overall formulae. Using depreciated book value may be a problem because of the difficulty in choosing a depreciation rate. Nevertheless, it seems only reasonable that some correction may be made for federal assets to be allocated to regions leaving confederation. We have no idea what the quantitative significance of this issue is, but presumably it could be very

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large. For example, if the federal government has significant land holdings in downtown Montreal, then the Rest of Canada (ROC) ought to be compensated if Quebec chooses independence.<sup>6</sup>

Another debt allocation rule might be based on past federal expenditures by region, perhaps including transfers. This is problematic for two reasons. First, the accounting would be difficult, particularly in the case of expenditures which are of a public-good nature and thus involved past joint consumption. Second, the negotiations would be likely be extremely difficult. Debt division would become the focal point of all the ill feelings about past federal policies. For these reasons, this formula is unlikely to lead to a quick resolution of the problem.

Finally, regions may object to any formulae on the grounds that it is not truly representative of the cumulative contributions or burdens on confederation. For example, GDP in a region in recession might be unusually low. One could overcome this problem by some type of averaging over the last decade using the formulae adopted.

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<sup>6</sup> An interesting twist on the question of federal assets comes from Quebec's Belanger-Campeau Commission. The commission argued that Quebec's share of the federal debt should be equal to Quebec's share of federal real property. Although the federal government has no measure of the value of its physical properties, the Commission estimates Quebec's share to about eighteen percent, based Quebec's share of federal grants in lieu of taxes. The argument is based on the idea that governments, like businesses, should borrow only to purchase physical capital, so that all federal debt should be allocated to the future owners of these physical assets. Needless to say, this debt division formula is unlikely to be favourably received by other regions. Even if federal grants in lieu of taxes did provide a good measure of a region's share of federal physical capital (which they may not), to suggest that the federal government borrows only to purchase physical assets is simply ludicrous.

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## **5. Debt Allocation Under Alternative Constitutional Options**

In this section we turn to the mechanics of transferring the debt under alternative constitutional options. To limit the discussion we discuss three alternative constitutional options.

These are:

- A) Quebec sovereignty-association with ROC including monetary union
- B) Quebec independence with ROC intact and no monetary union
- C) Canada disintegrates into 4 politically-independent regions.

Different options have different implications for both the feasibility and the stability of the outcome. In each case, fundamental questions about which units assume responsibility for the existing debt, whether default of a region is possible or likely, and the currency arrangements are crucial. Determining the outcome of negotiations is difficult because the implicit threat of negotiation failure is hard to comprehend. Note that in these negotiations there is the "Clyde Wells" problem; that is, any region could unilaterally refuse to accept the outcome if it is willing to suffer the consequences. The remaining regions are left with the option of either picking up the share of the region opting out, or in effect announcing complete failure. It is in this sense that the national debt is "the glue that binds". Nevertheless, the fact that each region can unilaterally cause the negotiations to fail is a serious cause for concern. Obviously, one way to deal with this is to make any such unilateral action as costly as possible to a region initiating it. Finally, it is worth re-stating that the reaction of international markets will be an important factor under any scenario. This issue is discussed further below.

### *Model A: Quebec sovereignty-association with ROC including monetary union*

Under this model there may or may not be jointly-administered programs (as in the case of the EEC). If there are not, the problem is fairly simple. If sovereignty association means

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common provision of some public services, then the financing of these services will have to be made quite clear, and separate from the division of responsibilities which exist from the past arrangement. Failure to negotiate a division of the debt could lead to future conflicts about the taxing authorities of the upper-tier government. We assume, therefore, that such a negotiation takes place and the existing debt is to be allocated between Quebec and ROC.

*Alternatives:*

- A1. A joint Quebec-ROC debt financing arrangement is signed. A jointly-managed Central Bank manages debt and both regions agree to a fixed schedule for debt retirement with associated commitment to provide monies to the Central Bank in order to retire the debt. How each region provides such monies is its own internal matter. New debt issues by ROC and Quebec would have to be clearly differentiated from outstanding debt and the obligations of each political entity to servicing the new versus existing debt would have to be made clear.
- A2. On the date of 'separation' Quebec issues its own debt denominated in Canadian dollars. It may or may not have its own central bank, but currency union is not crucial to this model. This Quebec debt is held by the government of ROC as an asset against the agreed-upon Quebec share of existing federal debt. The maturity of the Quebec-issued debt must match the maturity of the existing federal debt. Both parties agree that as federal debt matures it will be paid off by liquidating the Quebec debt. At the end of the period Quebec would have to have issued enough of its own debt (denominated in whatever currency) to meet its obligations on outstanding debt issued to ROC on the separation date.

The advantage of this model is that it does not tie Quebec into currency union with ROC. ROC would have to bear the risk of default by Quebec, but it would tend to minimize the interest differential costs to ROC on issuing new debt. The advantage to both parties would be that the divorce would be over fairly quickly and tied only to the maturity of existing federal debt -- which is fairly short.

Note that a disadvantage of model A2 is that the ROC would assume liability for all outstanding federal debt. Should this model be chosen ROC might want to get a more favourable

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share of federal assets as a form of 'collateral' against Quebec debt. This collateral might be dropped once all existing federal debt is successfully retired. The actual form of the collateral is problematic given the location of the assets -- i.e. in Quebec.

A3. Both parties issue their own bonds on date of separation denominated in US dollars and retire all outstanding Canadian government federal debt.

Holders of existing Canadian federal government debt would have to be compensated for liquidating their bonds prior to maturity. This problem might prove intractable, perhaps because of the transactions costs imposed on all parties, plus the problem of negotiating a fair price at which to liquidate the existing debt. In this case, it might be more useful simply to agree to wait until the existing debt matured, and then retire it with each government financing the rollover by issuing their own debt. Under the latter arrangement an interim agreement covering the servicing of the outstanding federal debt would be required. Both parties might agree to share the debt servicing costs in the same proportions used to divide the debt.

The problem with model A3 is that both Quebec and ROC bear some currency risk. However, in the face of the uncertainty which accompanies separation it could be a very favourable policy. Presumably the Canadian dollar will depreciate in the face of the separation. Swapping Canadian dollar debt for US dollar debt at the prevailing exchange rate means both regions must incorporate only the political risk in the interest rate on the debt and not the currency risk. In addition if both Quebec and ROC behave responsibly following separation, their respective currencies might appreciate relative to the US dollar as uncertainty is removed from market -- allowing them a capital gain on their US dollar liabilities.

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A4. A Quebec-ROC debt management political superstructure is developed with taxation authority, and a rule for debt reduction.

This resembles an EEC model with the superstructure endowed with a taxing authority in order to gradually retire the debt on the basis of an agreed-upon schedule. It would only work if each region could agree to giving up part of its taxing power (ie. sovereignty). The rule may or may not be discretionary. It is conceivable that a constitutional constraint may be placed on the superstructure with respect to the management of the existing debt. For example, the rule might require an agreed-upon schedule for retiring the existing debt, and a new issue of bonds by "New Canada". This would be for a period of time much longer than the maturity of the existing debt, and would almost certainly be on the order of one or two decades. It would be important in choosing a tax base to assign to the superstructure which was sufficiently broad to ensure that revenues were adequate to pay both principal and retire the debt on a reasonable schedule.

*Model B: Quebec Independence with ROC intact and no monetary union*

This model is like the models discussed above except that we now assume that monetary union is not acceptable, there are no issues regarding shared-cost programs, and in some sense the division of the debt must be accomplished fairly cleanly upon date of Quebec independence. Options A2 and A3 would probably be acceptable in this case. One option Quebec might favour, assuming it issues its own currency, is a swap for Quebec-dollar denominated bonds for existing federal government debt. Like option A2, ROC ends up holding Quebec-backed bonds, but in this case denominated in Quebec currency. This may not be acceptable to ROC. It would be very difficult to establish an exchange rate at which to convert the debt, given that the Quebec currency would be of relatively recent origin. If Quebec chooses independence, it may do well

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to fix its currency vis-a-vis the US dollar. If debt is converted at the official exchange rate, ROC faces the risk of future devaluation of the Quebec currency. However, ROC would benefit if the US dollar appreciated versus the Canadian dollar.

Both the advantage and disadvantage of model A4 is the fiscal discipline which would be required. By constitutionally agreeing to pay off what amounts to the existing federal debt over a given period, say 15 years, this would automatically imply that a substantial share of the total private tax bill would have to be shifted toward this end. This, in turn, would imply that, without substantial increases in taxes, the two regions would have budgetary problems. They could respond either by reducing expenditure or by borrowing. It can be argued that the additional borrowing that would be induced by such an arrangement would just amount to substituting new debt on the part of both jurisdictions for the old federal debt.

#### *Defining the Worst Case*

In the event Quebec chooses independence, it is worth imagining the worst case. This would occur if either Quebec or ROC refused to take their share of the debt in an agreed-upon formulae. The default sharing rule, would then amount to how the debt is now held on a regional basis -- which, except for foreign holdings, is unknown. Canadian pension funds, financial institutions, and private individuals now hold this debt. In the event that Quebec were unwilling to take on the debt, ROC could retaliate by doing the same thing. At that point, both governments would likely face a situation where they are unable to borrow in either domestic or international capital markets.

With respect to the internal costs of this default to the citizens of each region, however, there is the possibility of compensation. ROC might look at the total debt held by residents or



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citizens of ROC and agree to honour that debt. We are not sure how difficult it would be to verify ownership and therefore eligibility for compensation. For much of the debt held by pension funds, we doubt this would be a problem. The real problem would be for financial institutions with extensive cross-holdings between ROC and Quebec. Quebec could adopt its own, possibly different, compensation rules.

In the worst-case scenario there is the rather crucial matter of who the Bank of Canada and Government of Canada represent. Let us assume that Quebec chooses independence and the Bank of Canada and Government of Canada act in the interests of ROC. ROC has a substantial threat in that the currency which is held within the province of Quebec is a liability of the Bank of Canada and the Bank of Canada controls the clearing system. In extreme circumstances, the Bank could refuse to clear cheques drawn on Quebec accounts in the event that Quebec refused to take its share of the debt. Clearly, both parties have very strong incentives to negotiate a resolution which secures the value of the outstanding debt to its holders.

In the event of negotiations with Quebec, ROC might announce at the outset what it would intend to do in the event of a failure in negotiations (ie. makes its threat and promise of compensation to residents of ROC). This would at least provide some comfort to citizens of ROC who hold the existing debt.

#### *Model C: Regional Breakup of Canada*

The regional disintegration of Canada means that the number of parties to the agreement will be larger than in either models A or B. This increases the chance of free-riding substantially, particularly for the smaller regions. Either Atlantic Canada or the West might have the incentive to repudiate the debt, arguing "the Government of Canada no longer exists and

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therefore the debt of that government is no longer a concern for us." The cost to doing so would be substantial, but perhaps, particularly in the Atlantic Canada case, less than trying to pay off their share. We assume this is not the outcome.

- C1. Whatever the agreement the debt will undoubtedly have to be rolled over into bonds denominated in foreign currency -- probably US dollars. No investor will be likely willing to bear the currency risk of an Alberta petro-buck or a Nova Scotia peso. At the same time, the problem of the Canadian money supply will have to be dealt with. Some arrangement for the regional central banks to take on the liabilities of the Bank of Canada will have to be made in order to avoid a severe disruption. The set of problems here are immense. The only sensible approach may be for all regions to peg their currency to the US dollar -- at least for some considerable transition period.

The interesting difference between this and the previous models is that in the absence of the ROC, existing holders of federal debt will receive a portfolio of different regions' debt substituted for their own federal debt. There is now no ROC to act as an intermediary and thus risk share in the transfer process. For example, in some previous models ROC would take responsibility for the existing Canadian debt and hold Quebec debt as an offsetting asset. In this instance, upon the date of the breakup there would have to be an interim arrangement whereby each dollar of federal debt could be swapped for some portfolio of Western, Ontario, Quebec and Atlantic Canada debt. The shares of the portfolio would depend on the division rule adopted.

The question of the value of the swap and the rate of interest would be a big problem in such an arrangement. Would the Ontario debt pay the same rate as the Atlantic Canada debt? In the interests of seeking agreement all parties might agree to pay the same interest rate on their US dollar-denominated debt. It must be recognized however that Atlantic Canada is quite likely to have a balance of payments problem almost immediately. Thus, its currency -- issued, say at one Atlantic Canada dollar to one Canadian dollar -- would have to be devalued soon after the

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breakup. Investors would probably assign a much higher sovereign risk to Atlantic Canada than to Ontario. The expected currency devaluation alone might set up considerable capital flight from Atlantic Canada. Multi-party arrangements along the lines of A4 are a possibility.

C2. Cooperative interregional arrangements. In the case of a regional breakup there may well be incentives to seek a less-independent route to dealing with the debt, although we admit this will be difficult. One such arrangement would be the following. Imagine a sort of 'World Bank' for "Canada", perhaps called the "Debt Bank". Accompanying this institution would be a cooperative tax arrangement with a finite lifetime -- perhaps 10 to 20 years. Each region would be assigned a "tax share" based on the division rule used. The Debt Bank would issue a new debt denominated in US dollars as part of a conversion loan to offset the old debt which would carry a return comparable to that of similar government debt at the date of break-up. The Debt Bank would have the ability to raise taxes via specified instruments -- either income or sales taxes -- so as to retire the initial debt over the given period. An expenditure tax might be the easiest to monitor.

The advantage of creating a cooperative institution such as this in the event of a breakup of the country is that it might facilitate cooperation in other areas of economic policy such as trade and environment policy. Also, it might form the basis of an institution which could handle other functions as time evolved -- such as currency and monetary matters -- should a genuine economic union emerge from some subset or all of the regions.

## **6. Post-Division Issues**

In this section, we address some of the issues that are likely to arise after the division of the debt has been effected.

### *Factor Mobility*

It is worth noting the important link between factor mobility (i.e. a possible common market in ROC) and the debt problem. Upon breakup the have-not regions will experience severe balance of payments problems -- Atlantic Canada and parts of the West most notably.

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Taking the existing distribution of population and trying to force a debt division based on that initial allocation will lead to some severe problems. If a common market were secured within ROC, people could move and at the same time create institutions such that their debt obligations went with them. A cooperative institution such as discussed in C2 above would imply that the rules for sharing the debt would have to be based upon regional income. Thus as Atlantic Canada loses people and hence income, their share of the total debt burden would necessarily decline, and in the receiving regions it would rise. Devising such a formulae would not be easy because of its forward-looking nature. In the absence of factor mobility the problem is essentially worse and this leads to the problem of the next section.

### *Capital Flight*

Whatever arrangement is devised, there is the basic problem of capital flight, both human and financial, in response to the burden of the debt. One could argue this problem already exists in that even if the country stays together, similar incentives are present. *Ceteris paribus*, people would rather be in low-tax jurisdictions. However, in the event of a breakup the capital flight problem will likely be more pronounced. Those stuck with Canadian pensions and RRSPs will have to bear the brunt of the burden on impact and people who leave with asset values intact will not -- even if they have been beneficiaries of past Canadian public expenditures. One could imagine restrictions put on financial capital outflows by Canadian residents, or alternatively a "national debt exit tax". Anybody could leave with their assets subject to the usual tax provisions, but with an additional lump sum charge equal to their share in the inherited debt burden. For individuals who had lived in the country for only a limited period this would have to be pro-rated, and ability-to-pay would have to be considered in designing the exit tax.

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More problematic is the basic problem of human capital flight. Faced with a large tax burden due to the breakup of the country, individuals with substantial human capital may simply choose to leave. There seems to be very little that can be done about this. It is conceivable that tax rates would have to decline, together with a reduction in the provision of public services as a necessary antidote to capital flight. The alternative, which would involve losing a large number of skilled individuals who would emigrate to the United States or elsewhere, would simply compound the burdens already put on the economy by the debt resolution problem. It is conceivable the economic losses imposed by the exit of human capital would be much larger than the burden of the existing debt.

## **7. Summary**

In this paper, we have shown that division of the federal debt is anything but trivial. The divided debt may well carry substantially-increased risk premiums. It may be difficult to agree on a division formula. Individual regions may have strong incentives to frustrate any agreement. Even with an agreed-upon division formulae, designing institutions to effect the division will be problematic -- requiring unprecedented cooperation and risk sharing among the regions. Finally, the post-division forces may induce a large-scale migration of labour and capital.

Obviously, problems with dividing the federal debt cannot dictate the constitutional direction of the country. However, as this analysis has demonstrated, we would do well to proceed very cautiously, in order to minimize the potentially large transition costs and dislocations that could easily occur.

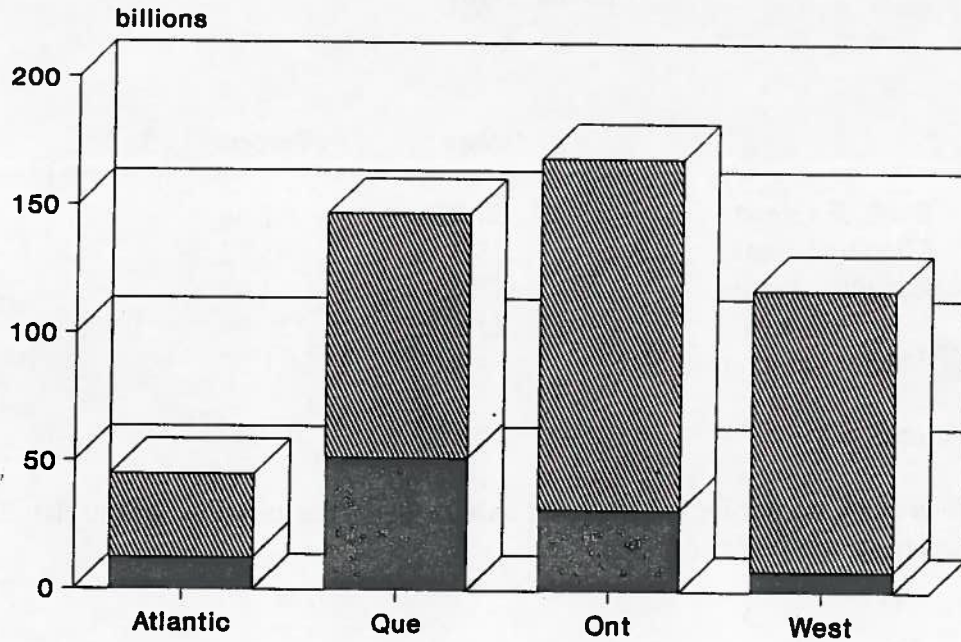
Table 1

## Provincial and Federal Debt - March 1991

Jurisdiction	Own Debt (pop share)	Fed share (GDP share)	Fed share (pop share)	Total debt (GDP share)	Total debt
Nfld	3.866	8.061	4.720	11.927	8.586
PEI	0.298	1.829	1.048	2.127	1.346
NS	4.898	12.549	9.029	17.447	13.927
NB	3.316	10.186	7.139	13.502	10.455
Atlantic	12.378	32.626	21.935	45.004	34.313
Que	51.776	95.134	87.806	146.910	139.582
Ont	31.803	136.904	153.469	168.707	185.272
Man	5.998	15.335	13.144	21.333	19.142
Sask	2.276	14.069	11.590	16.345	13.866
Alta	-3.575	34.750	40.566	31.175	36.991
BC	3.673	44.064	43.933	47.737	47.606
Ykn	-0.123	0.338	0.371	0.215	0.248
NWT	-0.082	0.760	1.165	0.678	1.083
West	8.167	109.315	110.769	117.482	118.936
All Prov	104.124	373.979	373.979	478.103	478.103
Federal	373.979				
Total Can	478.103				

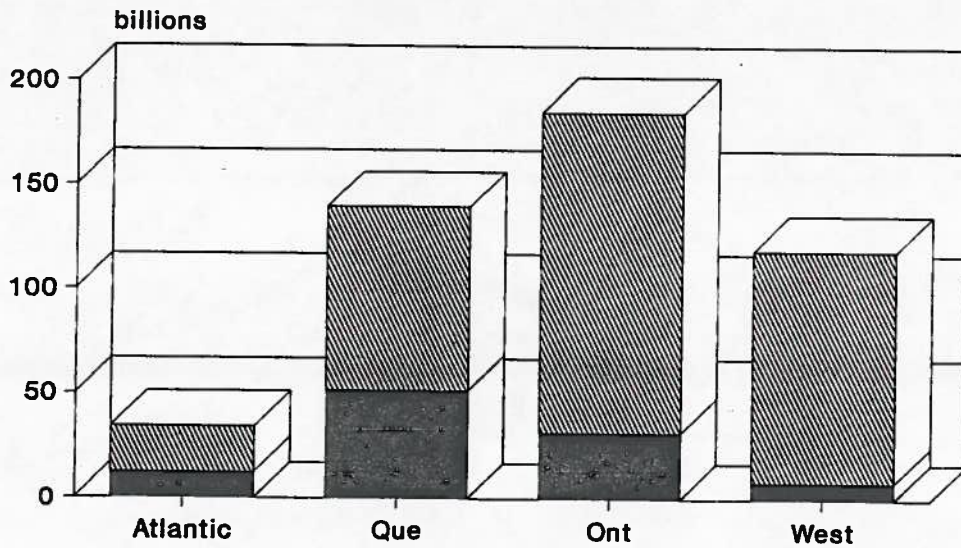
Note: These data are estimates for March 31, 1991. The figures include indirect liabilities such as pensions and net liabilities of government enterprises. Provincial figures include local administrations.

Regional Debt Levels - March 1991  
(Population shares of Federal debt)



Note: All Federal Debt (ie. pensions)

Regional Debt Levels - March 1991  
(GDP shares of Federal debt)



Own debt      Share of Federal

Table 2

Ownership of Federal Direct Debt  
(March 1990)

	dollars	Percent
Bank of Canada	21.97	7.44
Chartered Banks	17.49	5.92
Canadian Public	189.09	64.02
Non-Residents	61.99	20.99
Federal Government	4.81	1.63
<b>total</b>	<b>295.35</b>	<b>100.00</b>

Note: These data do not include indirect liabilities such as pensions or net liabilities of government enterprises.

Ownership of Direct Federal Debt  
(March 1990)

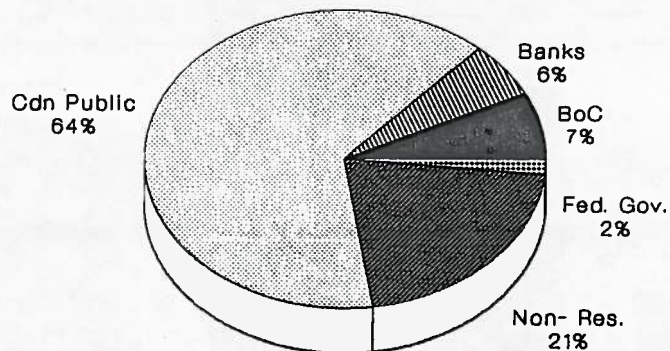




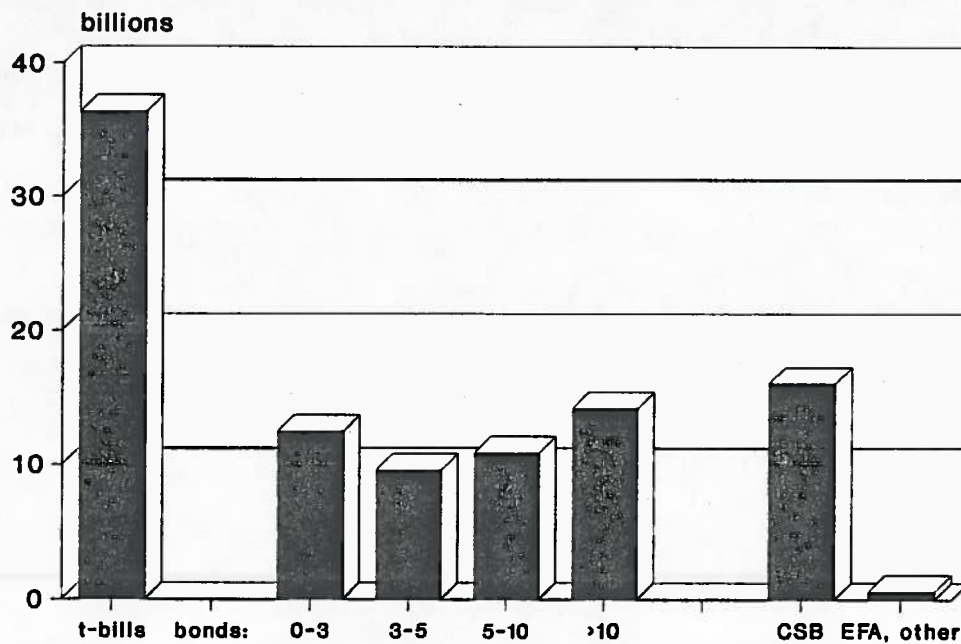
Table 3

Maturity Composition of Federal Direct Debt  
(March 1990)

	dollars	Percent
Treasury-bills	91.18	36.31
bonds:		
0-3 years	31.28	12.46
3-5 years	24.08	9.59
5-10 years	27.30	10.87
>10 years	35.56	14.16
CSBs	40.21	16.01
EFA, other	1.48	0.59
total	251.08	100.00

Note: These data do not include indirect liabilities such as pensions or net liabilities of government enterprises. Bank of Canada and Government of Canada holdings are excluded.

Maturity of Direct Federal Debt  
(March 1990)



Note: BoC and Gov. holdings excluded

