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The National Debt and New Constitutional Arrangements

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Foreword

This paper was commissioned as part of the research effort that led to the publication of the Economic Council's 28th Annual Review, *A Joint Venture*. The Review assessed the nature of the economic linkages among the provinces and discussed various aspects of policy harmonization within the union. It also investigated the fiscal relationships between the provinces and the federal government and debated key issues such as the appropriateness of national standards, the allocation of powers between levels of government and the problems created by overlapping jurisdictions. The last part of the Review was devoted to a qualitative and quantitative assessment of some of the costs and benefits attached to various political models that could emerge from the current constitutional debate. Issues relating to the transition phases towards a new form of confederation were also discussed including the thorny issue of how the existing federal debt might be redistributed in the event that Quebec becomes a sovereign nation while maintaining a common market and monetary union with Canada.

In this paper, which served as a background to the section on transition costs, Pat Grady points out that the redistribution of debt, unlike some other aspects of possible constitutional change, would be at best a "zero sum" game with any gains experienced by one party coming at the expense of losses experienced by others.

Redistribution of the debt means dividing up both assets and liabilities. As the study points out, however, there is a wide variety of possible approaches to determining what an "appropriate" share might be. Choosing among them would require painful choices that are bound to generate some degree of acrimony, since many of these would result in significant changes in the burden of debt servicing costs borne by residents of each province.

Moreover, any dividing-up of assets or liabilities would need to be preceded by an assessment of the value of particular assets and liabilities. This would be one of the largest valuation exercises ever undertaken and the costs involved would probably be substantial. Furthermore, any redistribution of the debt would make it more difficult to service because individual provinces could not expect to borrow at rates of interest that are as favourable as those currently paid by the federal government.

The paper also points to additional transition costs in the form of the likely negative reaction of financial markets to the increased uncertainty surrounding major constitutional changes and the implication of debt redistribution for the credit-worthiness of each province. While there exist various ways to minimize such costs, the author stresses that this would be possible only if excessive acrimony is avoided.

Pat Grady has written several papers on the economic issues surrounding constitutional change, including a recent study published by the Fraser Institute, *The Economic Consequences of Quebec Sovereignty*. He is a partner in Global Economics Ltd., an economic consulting firm based in Ottawa.

Judith Maxwell
Chairman

Introduction

Net public debt was forecast by the Minister of Finance in his 1991 budget to increase to $419 billion by the end of the current fiscal year or almost 60 per cent of GDP. This amounts to over $15,500 for every man, woman, and child in Canada. Interest charges alone on the public debt are expected to be over $43 billion in 1991-92. The public debt has become a very heavy burden for Canadian taxpayers. Sharing the debt would be an important and contentious issue in any new constitutional arrangements that did not preserve the federal structure of Canada.

The Economic Council staff asked me to analyse the sharing of the national debt under five specific options for new constitutional arrangements. In two of these options for modernized federalism and decentralized federalism, the issue of dividing up the public debt does not arise as Canada retains a federal government to carry the debt. This leaves three options under which the issue of the distribution of the federal debt would have to be addressed. They are:

– A sovereignty-association Quebec-Canada – where an economic and monetary union is agreed upon and the debt and assets are divided up in a harmonious context.

– Quebec independence – where Quebec adopts its own currency, and debt and assets have to be divided up in a climate of conflict.

– A confederation of regions (Quebec, Ontario, Atlantic Canada, Manitoba/Saskatchewan, Alberta, and British Columbia) – where each region has to assume its portion of the debt and where tax collection is the exclusive responsibility of the regions.

This paper explores the implications for the division of the national debt of these three options and their underlying assumptions. It should be emphasized that these options and assumptions are not my own and that I take no responsibility for their political viability. Indeed, my own view is that the only two options that are politically viable are renewed federalism or Quebec independence. Both sovereignty-association and a confederation of regions are non-starters from a political point of view.[1]

Under any of these three hypothetical options, the sharing of the federal debt would be one of the most difficult issues to be resolved. The negotiations over the federal debt would be at best a zero-sum game. What one party would gain by obtaining a reduced share of the debt, the others would lose through increased shares. This is unlike negotiations over trade where all parties to the negotiations can be gainers.

Indeed it is possible that the division of the debt could be a negative-sum game. The increased variability of the revenues of the pieces of a divided Canada would be greater than that of the whole and could thus give rise to a premium in borrowing rates and raise the total public debt charges. But, even with higher public debt charges in total, some regions could experience lower public debt charges if their debt burden were to decrease.

Any negotiations over the sharing of the federal debt would obviously be more difficult if carried out in a climate of conflict. It would thus be much harder to achieve an agreement in the event of Quebec independence than under a Quebec-Canada sovereignty-association arrangement assuming, of course, that it were possible to negotiate such an agreement at all. Under sovereignty-association, it is assumed that the mutual interest in preserving close economic relations would temper the negotiations and allow for mutually beneficial trade-offs.

The federal debt has been called the "bonds that tie" because of the sense of shared interest it imparts to discussions of Canada's constitutional future. It could equally be called the "bonds that break" because of the incentive it creates for parties to separate from the federation to avoid their share of the debt.

In this paper, the public accounts presentation of the comparative statement of financial assets and liabilities of the federal government is provided. Some of the possible approaches for the division of the debt are explored. Included is the proposal of the Secretariat of the Commission on the Political and Constitutional Future of Quebec. The rationales of the various approaches are considered. Any resulting problems are discussed. Finally, some mechanisms which could minimize the transition costs of the debt and asset transfer are reviewed.

The Financial Assets and Liabilities of the Federal Government

The federal government's financial assets and liabilities as of March 31, 1990, which would have to be shared under any of the non-federal constitutional options, are shown in Table 1. The figures are taken from the *Public Accounts of Canada* for the latest period currently available.[2]

On the asset side of the federal government's balance sheet, the value of the federal government's investment in enterprise crown corporations such as CMHC, the Farm Credit Corporation, Canadian National Railways, and Petro-Canada was $17.7 billion after allowance is made for any reduction in the value of the government's investment. The value of other loans, investment,

Table 1

Government of Canada Public Accounts Presentation

Comparative Statement of Financial Assets and Liabilities for the Year Ended March 31, 1990

	($ millions)
Financial Assets	
Loans, investments, and advances	
Enterprise crown corporations	21,977
Less: allowance for valuation	4,300
	17,677
Other	9,208
Less: allowance for valuation	6,200
	3,008
Total, net loans, investments, and advances	20,685
Foreign exchange accounts	
International reserves held in the exchange fund account	15,393
International Monetary Fund – Subscriptions	4,474
Less: International Monetary Fund – Notes payable and special drawing rights allocations	5,045
Total net foreign exchange accounts	14,822
Accounts receivable	14,822
Cash in transit	2,320
Cash	1,512
Total financial assets	41,475
Accumulated deficit	357,961
Total	399,436
Liabilities	
Specified purpose accounts	
Canada Pension Fund account (net)	2,962
Superannuation accounts (net)	70,997
Government annuities account	907
Deposit and trust accounts	1,156
Provincial tax collection accounts	1,398
Other	920
Total specified-purpose accounts	78,340
Other liabilities	26,534
Unmatured debt	
Payable in Canadian currency	288,887
Payable in foreign currencies	5,675
Total unmatured debt	294,562
Total	399,436

SOURCE Government of Canada, *Public Accounts of Canada*, Volume I, Summary Report and Financial Statements (Ottawa: Minister of Supply and Services Canada, 1990), p. 1.9.

and advances, which includes loans to developing countries and international organizations, was $3 billion after allowance for valuation. The value of the foreign exchange account including IMF subscriptions was $14.8 billion. The value of accounts receivable, cash in transit, and cash was, respectively, $14.8 billion, $2.3 billion, and $1.5 billion. The value of total financial assets, which would have to be shared, was $41.5 billion.

The federal government also owns nonfinancial assets, the most important of which is real property. These nonfinancial assets are recorded in the public accounts at $1 and are consequently not shown. No recent estimate of the value of these assets is available. The Task Force on Program Review estimated that the value of federal real property holdings was between $40 and $60 billion in 1984.[3] These assets would also have to be shared in the event of a break-up.

The accumulated deficit is the difference between financial assets and liabilities. It represents the total value of budgetary deficits since Confederation. It measures the net debt that would have to be shared.

On the liability side of the federal government's balance sheet, the specified-purpose accounts, which include amounts owing to several internal government accounts including, most notably, the Superannuation accounts, were valued at $78.3 billion. The Superannuation accounts alone represent $71 billion of this, not allowing for any actuarial deficiency that might exist in the accounts.

The other liabilities, which encompass interest and matured debt, accounts payable, outstanding checks and warrants, and allowances for borrowings of agent enterprise crown corporations expected to be repaid by the government, were $26.5 billion.

The final category of liability is unmatured debt, which was valued at $294.6 billion (Table 2). Marketable bonds account for 43.3 per cent of unmatured debt, Treasury bills for 40.2 per cent, and Canada Savings Bonds for 13.9 per cent. It also includes special nonmarketable bonds issued to the Canada Pension Plan Investment Fund, and foreign currency obligations. The unmatured debt is what most people have in mind when they talk about public debt, although it amounts to less than three quarters of federal government liabilities.

It would also be necessary to take into account the assets and liabilities of the Bank of Canada in determining the sharing of assets and liabilities. The total assets and liabilities of the Bank of Canada as of March 31, 1990 were $22.6 billion. The main assets of the bank were $21.5 billion in government of Canada direct and guaranteed securities, and the main liabilities were $19.6

Table 2

Government of Canada Unmatured Debt, for the Year Ended March 31, 1990

	($ millions)
Payable in Canadian Currency	
Marketable bonds	127,682
Canada Savings Bonds	40,929
Special nonmarketable bonds issued to the Canada Pension Plan Investment Fund	3,072
Treasury bills	118,550
	290,233
Less: government's holdings of unmatured debt	1,346
	288,887
Payable in Foreign Currencies	
Marketable bonds	4,128
Notes and loans	177
Canada bills	1,446
	5,751
Less: government's holdings of unmatured debt	76
	5,675
Total unmatured debt	294,562

SOURCE Government of Canada, *Public Accounts of Canada*, p. 2.9.

billion in notes in circulation and $2.3 billion in Canadian dollar deposits. The Bank of Canada is very important in any sharing of federal government assets and liabilities, since it holds so much government debt and since its liabilities bear no interest. Under a monetary union, the holders of the bank's liabilities are in effect indirectly holding the federal government debt directly held by the Bank of Canada. This must be included in the federal debt holdings of the appropriate regions or else their direct and indirect federal debt holdings would be underestimated.

Approaches to the Sharing of Assets and Debt

The Implications of International Law

The first question that has to be asked about the sharing of assets and debt is whether there is a unique approach sanctioned by international law. The short answer is that there is no such approach and virtually any sharing agreed to by the parties would be compatible with international law.[4]

The Vienna Convention on the Succession of States in Respect of State Property, Archives and Debts, 1983, was an effort to codify and extend the customary law in this area. As the Vienna Convention has not been ratified by any state, and most western countries are opposed to it for a number of reasons, the Vienna Convention has no official status except to the extent that it reflects customary law. Furthermore, the Vienna Convention is only intended to apply to the effects of a succession of states that takes place in conformity with international law and, more particularly, the principle of international law in the Charter of the United Nations. This requires that the secession correspond to the wishes of the population of the seceding state and that it take place with the consent of the dismembered state. In addition, there is no precedent of a member of a federal state seceding from the federation that could be applied. International law thus provides no firm guidance on the distribution of assets and liabilities in the event of the break-up of a country such as Canada. Any split that would be acceptable to the parties would be compatible with international law. No specific approach can be said to have the unique sanction of international law in its favour.

Top Down or Bottom Up?

The successor states would have to agree on the approaches and principles that would govern the division of assets and liabilities. Two fundamental approaches would be possible. The first would be a top-down approach that would seek to establish agreement on the shares of total debt net of financial and nonfinancial assets, and would then distribute the specific assets and liabilities in such a way as to end with the agreed-upon net debt. The residual in the calculation that would assure that the agreed-upon global share was achieved would be debt outstanding. To the extent that the share of specific assets and liabilities allocated was greater or lesser than the agreed-upon global share, a greater or lesser share as appropriate of outstanding debt would have to be assumed.

The second approach would be to agree upon the sharing of each particular category of assets and liabilities based on principles most relevant to the specific category and to let the global shares turn out as they would. The approach proposed by the Secretariat of the Commission on the Political and Constitutional Future of Quebec exhibits some features of this second sort.

The first type of approach has the advantage of being more equitable as it establishes an agreed-upon overriding distributional criterion that governs the sharing of assets and liabilities. The overall result is thus less influenced by the historical accident of the existing territorial distribution of assets and liabilities. However, the territorial distribution would be an important determinant of the subsequent ownership of specific assets, especially nonfinancial assets.

Either approach would require that all assets and liabilities be appraised so that their current market value could be determined. For certain assets such as real property, there are sophisticated appraisal methodologies that have been developed and that could be applied. But any changes in property values that would be associated with the different constitutional options would certainly complicate the task and would raise the issue of whether pre- or post-break-up prices should be used in appraising property values. For some assets such as gold, there are active markets. The value of indexed pension liabilities would have to be determined using actuarial techniques. Other assets and liabilities would present their own valuation problems. The valuation of federal assets and liabilities would be one of the largest valuation exercises that has ever occurred. It would require large numbers of accountants and evaluators, and the resolution of many difficult evaluation issues. Needless to say, it would be very costly. But it would have to be done in order to arrive at a fair sharing of assets and liabilities.

Principles of Sharing

Before turning to some of the specific indicators that could be used in constructing formulas for dividing up the debt, it is useful to consider some of the basic principles that might provide guidance. In public finance, the two main principles of taxation are ability to pay and benefit. If the public debt is considered to be deferred taxes, then the same principles should be applicable to the division of the debt.

The ability-to-pay principle suggests that the amount of debt assumed should be directly related to income, because income is the best measure of a country or province's ability to pay debt service charges. Empirical measures of ability to pay are GDP, tax revenue, or fiscal capacity. As ability to pay depends upon current and future income, it would be important that the indicators of ability to pay used in dividing up the debt be forward-looking. If ability to pay is the principle behind the sharing of the public debt, it indicates a willingness to continue to redistribute income from high-income regions to lower-income regions.

The benefit principle suggests that the amount of debt assumed should be related to the net fiscal benefits derived from federal government spending and taxing. Since the public debt was incurred to finance past net fiscal benefits, the indicators of net fiscal benefits would have to be backward-looking and would have to identify which regions benefited from past federal government spending in excess of the taxes paid. Under the benefit principle the division of the debt could be regarded as a final settling of accounts.

A third principle which does not find much favour in public finance is equality. While head taxes under which everyone pays an equal tax are generally agreed to be efficient, they are not considered to be equitable. But, as a fundamental philosophical or ethical principle, equality is much better accepted. Children are taught that fairness requires all to share equally. The equivalent principle for dividing the debt would be per capita sharing or sharing by population. This has the advantage of being simple and is deeply rooted in the human concept of fairness. It would imply the end of the redistribution among regions resulting from the current financing of the public debt based on ability to pay. But it would not go so far as to settle all past accounts, as would be required under the benefit principle.

Various Distributional Formulas and Their Pros and Cons

There are various formulas that could be used to determine the sharing of the debt and that would have their basis in one of the above principles. The two most basic were identified by Jacques Parizeau, the Leader of the Parti Québécois, in a speech in Toronto last year, when he said "There are really two criteria to use: population and Gross Domestic Product." This is in effect based on either the equality principle or ability to pay. He went on to say "We will, I suppose, haggle for a few weeks before we come to something like a quarter."[5] Would that it were so simple. More recently, the Secretariat of the Commission on the Political and Constitutional Future of Quebec has come up with a more complicated proposal for sharing assets and liabilities that is not based on any single principle and that results in a much lower share for Quebec, which will be considered in the next section.

The regional distribution of various economic indicators in 1989, which could be used to operationalize the principles for the sharing of assets and liabilities, is provided in Table 3. The first indicator is public debt charges. It would not be a good indicator to use for dividing up the debt, not being based on any principle. Rather, it shows where the debt is currently held based on the voluntary portfolio decisions of Canadian investors. The high proportion of the debt held in Ontario and the lower proportion in the other regions are notable. Ontario is where most of the financial institutions that hold Canadian government debt are located.

Population is the next indicator, which can be justified based on the equality principle. In 1989, 25.5 per cent of the Canadian population was in Quebec, 8.8 per cent in the Atlantic provinces, 36.5 per cent in Ontario, 8 per cent in Manitoba/Saskatchewan, 9.2 per cent in Alberta, and 11.6 per cent in British Columbia. These same proportions could be applied to assets and liabilities to determine the shares to be transferred to the different regions. The rationale for using population for sharing the assets and liabilities of the federal government would be the equality principle, namely that each Canadian is equal and has an equal share in the country and thus should share equally in the division of the assets and liabilities. In my view, this would be the simplest

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Table 3

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Regional Distribution of Various Economic Indicators in ~~1989~~

	Atlantic	Quebec	Ontario	Manitoba/ Saskatchewan	Alberta	British Columbia	Canada (excl. Quebec)
				(Per cent of total)			
Public debt charges	4.9	17.4 19.0	60.7	4.1	4.5	7.9	82.6 81
Population	8.8	~~25.5~~ 25.3	36.5	8.0	9.2	11.6	74.5 74.7
GDP	6.0	23.3 22.9	41.9	6.6	10.2	11.7	76.7 77.1
Revenue	6.0	21.6 21.4	46.6	5.4	9.1	10.7	78.4 78.6
Revenue adjusted 1[a]	6.8	21.0	44.5	6.3	9.9	11.4	79.0
Revenue adjusted 2[b]	6.7	~~22.2~~ 23.4	43.5	6.2	9.7	11.2	77.8
Revenue adjusted 3[c]	3.5	22.8	49.4	4.8	10.2	11.9	77.2
Federal capital consumption allowances	15.1	18.7	33.4	10.6	7.0	9.4	81.3
Federal investment cumulative[d]	15.9	~~18.7~~, 17.93	30.6	11.8	7.0	10.7	81.3
Federal net lending cumulative[e]	47.2	30.9 , 29.27	-7.5	19.9	-13.4	2.2	69.1

NOTE Shares do not add up to 100 per cent because revenues and expenditures in the territories and abroad are excluded.

a Total federal revenue with indirect taxes distributed as consumer expenditures instead of production.

b As above but with federal revenue in Quebec increased by $1,931.5 million to reflect 16.5 per cent Quebec abatement.

c As above but net of federal transfers to provinces.

d Government investment deflated by the price deflator for government investment is cumulated from 1961 to 1989.

e Federal net lending is cumulated from 1961 to 1989. The sum of the regions is less than 100 per cent because the territories are excluded as is federal net lending abroad.

SOURCE All data except for population are based on data from Statistics Canada, System of National Accounts, *Provincial Economic Accounts*, annual estimates 1985-89, Cat. 10-299.

way to split the debt and would be most understandable by all Canadians. It would thus be the way that would most likely be judged fairest by Canadians. Even Jacques Parizeau's musings about a quarter share seem to support this indicator.

The second indicator is GDP, which is based on the ability-to-pay principle. It has the advantage of reflecting the economic base of the region and hence the region's capacity to carry debt. If GDP were used as the criteria, the debt-to-GDP ratios of all regions would be equal to the sum of the debt-to-GDP ratio of the federal and provincial governments prior to the division of the federal debt. In this sense, all regions would continue to have the same debt-to-GDP ratio as before the division of the debt.

The next set of criteria shown in Table 3 are also based on the ability-to-pay principle and related to the distribution of revenue from the *Provincial Economic Accounts*. The justification for using revenue is that it is a better indicator of a region's ability to carry debt than GDP (an even better indicator would be fiscal capacity as defined for purposes of the equalization program). Revenue from a region also provides an estimate of the region's future contribution to the federal government if Confederation were to continue.

There are two reasons that could be advanced for using federal revenues as a criteria for sharing assets and liabilities. First, the debt was incurred on the implicit assumption that all regions would continue to provide the same revenues to the federal government. Second, the fiscal position of a particular region should be the same whether it remains in Confederation or withdraws. This argument is more convincing, however, in the case of a region that remains in Confederation. It clearly would not be fair for a well-off region to withdraw from Confederation, leaving the less well-off regions involuntarily saddled with the federal debt. But a region that decides to withdraw is making a voluntary choice and should be prepared to live with the consequences.

There are several different ways of looking at revenue. There is total revenue and there are a number of possible adjustments that could be made to total revenue. The first adjustment is to distribute indirect taxes among the provinces based on consumption instead of production, as suggested by the currently accepted theory of the incidence of indirect taxes.[6] This reduces the revenue shares of Quebec and especially Ontario, where most of Canada's manufacturing production is concentrated. The second adjustment is to increase Quebec's revenues to reflect the special 16.5-per-cent Quebec tax abatement. This represents tax points that were transferred to Quebec for opting out of certain federal programs for which other provinces receive federal transfer payments.

The third adjusted revenue series is adjusted for federal fiscal transfers in addition to the adjustments for indirect taxes and the Quebec tax abatement.

It is calculated by subtracting federal transfers to provincial governments from the second adjusted revenue series. It represents the net contribution of a region to the federal government. This is the amount that the regions' citizens would be providing to the federal government to finance its activities including the payment of interest on the public debt if the regions were to remain in Confederation. The Atlantic provinces and Manitoba/Saskatchewan have much smaller shares of net revenues because of the importance of federal transfer payments that they receive. Interestingly, Quebec's share increases slightly under this criterion, even though it is an equalization receiving province.

The next two indicators are federal government capital consumption allowances and cumulative investment spending from 1961 to 1989. They are not based on any of the basic principles enunciated above, but rather provide two different rough estimates of the shares of the different regions in federal nonfinancial assets. They would not be reliable enough to use in assessing the value of assets in particular regions for the purpose of valuing asset transfers. Instead, a comprehensive exercise, which would seek to establish a market value for each individual asset, would be required.

The final indicator, which is based on the benefit principle, is cumulative federal net lending over the 1961-89 period. The starting year, 1961, was chosen because the provincial accounts data are not available for earlier years. Federal net lending is the *Provincial Economic Accounts* equivalent of the federal deficit. Cumulating it over time shows the proportion of the cumulative federal deficit that was run over this period that can be attributed to each region. As the gross debt was relatively small in 1961 (only $20.1 billion), the cumulative federal deficit in a region over the period, which represents the debt incurred on each region's behalf by the federal government, can be viewed as a good proxy for the region's share of federal debt at the end of the period. The regions that received more from than they paid to the federal government over this period, such as the Atlantic provinces, Quebec, Manitoba/Saskatchewan, and British Columbia, have a positive share. The regions that paid more in than they received, such as Ontario and Alberta, have a negative share. This criterion could be viewed as an exit tax on leaving the federation. Provinces would be required to settle their past balances of benefits or contributions.[7]

Shares of Net Public Debt and Public Debt Charges Estimated Using the Various Distributional Formulas

A better appreciation of the implications of some of the various distributional formulas can be gained by applying them to net debt (gross debt minus financial assets) and debt charges as projected in this year's budget for the current fiscal year. Net debt is forecast to reach $419 billion by March 31, 1992, and public debt charges are forecast to be $43.2 billion in the 1991-92 fiscal year. The estimates of the public debt shares shown in Table 4 are offered to provide an indication of the possible orders of magnitude of the debt that would have to be assumed by the various regions under different distributional formulas. They should not be taken as definitive estimates of relative debt shares. The preparation of such estimates would require, among other things, that all assets and liabilities be evaluated including nonfinancial assets, the allocation of specific assets be determined, and any settlement balances resulting from the asset transfer be taken into account.

Under any of the three non-federal constitutional options of sovereignty-association, Quebec independence, or a confederation of regions, the debt would have to be shared between Quebec and the rest of Canada. If population was used as a criteria, Quebec's share of net debt would be $106.9 billion and the rest of Canada's share $312.1 billion. An implication of using population as a criterion is that Quebec would assume a larger portion of debt in relation to GDP than the rest of the country because its GDP per capita is lower. Quebec's share of the debt would be reduced to $97.4 billion if GDP was used as the criteria and $93 billion if adjusted revenue was used. The rest of Canada's share of the net debt would go up to $321.6 billion and $326 billion. On the other hand, if cumulative net lending was used, the Quebec share would rise to $129.4 billion and the rest of Canada's share would drop to $289.6 billion. The amount at stake between the lowest and highest estimate of Quebec's share would be $36 billion. Quebec's share of the federal debt as a proportion of GDP would run between 58.1 and 80.8 per cent of Quebec's GDP. This would make the difference between a significant decrease in the debt burden of Quebecers and a large increase if the debt-to-GDP ratio of a sovereign Quebec were compared to the current sum of the federal and provincial debt-to-GDP ratio. Associated with this increase in net debt would be an increase in public debt charges for Quebec that would range between $9.6 and $13.3 billion. The rest of Canada's share of federal debt as a percentage of GDP would range between 54.2 and 61 per cent or between a significant decrease and a slight increase.

Under the confederation-of-regions option, the debt would have to be shared by the six regions. Using the population criterion, the Atlantic provinces would assume $36.8 billion of the net debt, Ontario $153 billion, Manitoba/Saskatchewan $33.4 billion, Alberta $38.7 billion, and British Columbia $48.8 billion. Using the GDP or adjusted revenue criteria, the shares of the less well-off regions of the country (the Atlantic provinces, Quebec, and Manitoba/Saskatchewan) would be lower and the better-off regions (Ontario, Alberta, and British Columbia) would be higher. Using the cumulative net lending criteria would increase the shares of the less well-off regions and reduce the shares of the well-off regions, even going so far as to transform those of

Table 4

Regional Distribution of Projected Net Public Debt and Public Debt Charges Using Various Criteria in 1991-92

	Atlantic	Quebec	Ontario	Manitoba/ Saskatchewan	Alberta	British Columbia	Canada (excl. Quebec)
				(Billions of dollars)			
Public debt							
Population	36.8	106.9	153.1	33.4	38.7	48.8	312.1
GDP	25.0	97.4	175.4	27.7	42.6	49.0	321.6
Revenue adjusted 2	27.9	93.0	182.2	25.9	40.4	47.0	326.0
Net lending cumulative	198.0	129.4	–31.5	83.5	–56.0	9.3	289.6
				(Per cent of GDP)			
Public debt							
Population	87.0	66.7	53.0	73.4	53.3	59.1	58.4
GDP	59.1	60.8	60.8	60.7	58.7	59.4	60.1
Revenue adjusted 2	66.0	58.1	63.1	56.9	55.7	56.9	61.0
Net lending cumulative	467.7	80.8	–10.9	188.8	–77.2	11.3	54.2
				(Billions of dollars)			
Public debt charges							
Population	3.8	11.0	15.8	3.4	4.0	5.0	32.2
GDP	2.6	10.0	18.1	2.9	4.4	5.1	33.2
Revenue adjusted 2	2.9	9.6	18.8	2.7	4.2	4.8	33.6
Net lending cumulative	20.4	13.3	–3.2	8.6	–5.8	1.0	29.9

NOTE The total net public debt and public debt charges estimated for 1991-92 to be distributed among the regions are $419 billion and $43.2 billion, respectively, and are taken from Department of Finance, *The Budget*, February 26, 1991, p. 94. Regional GDP for 1991 used in calculating debt as a percentage of GDP was estimated by applying the forecast regional growth rates from the Conference Board's January 23, 1991 forecast to 1989 levels from the *Provincial Economic Accounts*.

Ontario and especially Alberta into cash transfers. Indeed, using this criteria would produce a debt burden as measured by the debt-to-GDP ratio in Manitoba/ Saskatchewan and especially the Atlantic provinces that could only be described as crushing. But this is, of course, purely academic as neither Manitoba/Saskatchewan nor the Atlantic provinces have embarked upon a process that could lead to a referendum on sovereignty. The share of public debt charges would vary with the share of the debt assumed.

The federal debt assumed under any of these options would come on top of the existing provincial debt. A region's ability to handle the new debt resulting from the division of the federal debt would depend on how heavily indebted the region already was. In 1989, the most deeply in-debt region was Manitoba/Saskatchewan, where provincial-local public debt charges accounted for 6.3 per cent of GDP, followed in decreasing order of indebtedness by the Atlantic region (4.9 per cent), Quebec (4 per cent), Alberta (3.2 per cent), British Columbia (2.6 per cent), and Ontario (2.1 per cent). This ranking, which corresponds closely with the ranking of ratings accorded to the provinces in the regions by the credit rating agencies, will obviously change over time as some provinces begin to run larger relative deficits than others. In particular, Ontario will likely move up in the indebtedness order in coming years if the projections for large deficits in the 1991 budget are realized. For the present, however, Quebec is more heavily indebted than the rest of Canada where, in 1989, provincial-local public debt charges amounted to only 2.9 per cent of GDP. This would make it more difficult for Quebec to bear its share of the debt than for the rest of Canada.

A final word of warning is in order. Any distribution of the federal debt burden among regions would make it more difficult to service the public debt. Federal revenues from all regions are much more stable than federal revenues for any one region because economic cycles vary across regions. Federal revenues may be weak in the Atlantic provinces if the fishery is having a bad year, in Ontario if auto sales are down, in Manitoba/Saskatchewan if grain prices or the price of oil are low, or in British Columbia if the forest industry is in recession, but it is an unusually unfortunate year when all regions are in the doldrums at the same time. This interregional risk pooling provides the federal government with a more dependable source of revenue and makes it easier for the federal government to service the public debt. This greater ability to carry debt is recognized by lenders and credit rating agencies and results in the federal government's AAA credit rating and lower risk premiums in interest rates in spite of the federal government's heavy debt load. Any division of the debt among regions would lose this advantage and would result in higher risk premiums in interest rates, particularly for the more volatile and heavily indebted regional economies that would be less able to bear the additional debt burden.

The Proposal of the Commission on the Political and Constitutional Future of Quebec

The Secretariat of the Commission on the Political and Constitutional Future of Quebec proposed the sharing of assets and liabilities shown in Table 5.[8] This was based on an eclectic approach that claimed to set the share of federal non-pension financial liabilities that would be assumed by Quebec equal to its share of total federal assets. It is worth noting before proceeding that there is no logical reason why the sharing of the public debt should be based on the sharing of assets, given that the public debt was not incurred to purchase assets but rather for deficit spending.

The share of assets in turn was based on several different criteria. The 3.8-per-cent estimated share of financial assets shown in the table was based on an estimate of the share of these assets accounted for by enterprise crown corporations operating in Quebec, or Quebec's share of crown corporations which it would want to retain. It was assumed that Quebec would renounce its interest in all other financial assets, thus lowering its share. The share of nonfinancial assets, which is mostly real property, was estimated using information on the distribution of federal payments to municipalities in lieu of taxes.

Table 5

Quebec's Share of Federal Assets and Liabilities Proposed by the Commission on the Political and Constitutional Future of Quebec

	Value	Part of Quebec	
	($ millions)	(Per cent)	($ millions)
Assets			
Financial assets	57,195	3.8	2,169
Nonfinancial assets	72,000	18.0	12,960
Total assets	129,195	11.7	15,129
Accumulated deficit	200,394	22.8	45,690
Total	329,589	18.5	60,819
Liabilities			
Monetary liabilities	22,486		
Financial liabilities	307,103	18.5	56,814
Pension liabilities	70,997	13.3	9,456

SOURCE Commission on the Political and Constitutional Future of Quebec, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec*, Discussion paper no. 1, first semester, 1991, pp. 427, 431 and 433. The figures in this table incorporate several adjustments made by the Secretariat of the Commission that make them different from those shown in Tables 1 and 2.

The final category on the asset side of the balance sheet that is considered is not really an asset category like the others. It is the accumulated deficit which is defined to be equal to the difference between non-pension liabilities and total assets. The Secretariat proposed that it should be shared, based on Quebec's average share of federal revenues between 1972 and 1988, taking into account the special Quebec tax abatement not allowed the other provinces. Thus the 22.8-per-cent share was estimated. The rationale for using Quebec's share of revenues to determine the distribution of the accumulated deficit is that the accumulated deficit represents future tax liabilities and Quebec's share should be equal to Quebec's share of future federal taxes whether or not Quebec remains part of Canada.

Under the proposal, Quebec's share of non-pension financial liabilities, which is by far the most important category of debt, would be determined by Quebec's proposed 18.5-per-cent share of assets. Given that it was assumed that there would be a Canada-Quebec monetary union, Quebec's share of the federal government's monetary liabilities (currency in circulation and deposits with the Bank of Canada) would result from the decisions of Quebecers to hold Canadian dollars. Finally, concerning pension liabilities, the proposal is that Quebec assume the pension liabilities of federal employees working in Quebec that would be transferred to the Quebec government (and not federal government pensioners living in Quebec). This would amount to 13.3 per cent of total federal pension liabilities.

In total, the proposal calls for Quebec to assume 17.5 per cent of the federal government's financial and pension liabilities. This is substantially less than Quebec's share of population, GDP, or tax revenue, even taking into account Quebec's relatively smaller share of assets. According to the Secretariat's own calculations, it would result in a 5-percentage-point increase in the debt-to-GDP ratio of the federal government from 53.5 to 58.4 per cent. The proposal would not likely be considered equitable by the rest of Canada if it were advanced in the context of negotiations over Quebec sovereignty.

Possible Mechanisms for Minimizing Transition Costs

Critical to minimizing transition costs would be to carry out the debt and asset transfer in such a way as to minimize uncertainty. If there is one thing that lenders and financial markets abhor, it is uncertainty. Any borrowers that take actions that increase uncertainty are bound to pay a price in terms of a higher interest-rate premium demanded. The existing public debt is an obligation of the federal government of Canada and until it matures it must remain so. There must never be any questions about the federal government's readiness to meet its obligations and the security of the funds lent. From the beginning, it would be important to establish clearly in the eyes of all market participants that the federal government stands firmly behind its obligations regardless of the outcome of any constitutional negotiations. A corollary of this is that no existing holders of government of Canada debt should be forced to convert their holdings for the debt of another political unit except in extreme circumstances.

It would also be critical that any negotiations over the sharing of the debt take place within a calm and rational context. Recriminations and threats at the bargaining table could undermine the credibility of all governments involved. This could make it more difficult to secure the financing and could lead to increases in risk premiums in interest rates on government debt that would be costly for all parties concerned.

The good credit ratings of Canada and the provinces have been earned over years of responsible behaviour as borrowers. In the event that it becomes necessary to divide the public debt, it should be done in such a way as not to jeopardize these hard-earned credit ratings.

Quebec-Canada

Transitional costs would be much less under the Quebec-Canada sovereignty-association option than under the Quebec independence option, given the Economic Council's assumption that the move to sovereignty-association would be harmonious. The preservation of a common currency would go a long way to reassuring lenders about the security of their principal. It would also be much easier for Quebec to assume its share of the Canadian-dollar-denominated public debt if it were to belong to a monetary union with Canada. Finally, the assumed more harmonious climate of relations between Quebec and Canada under sovereignty-association would help to minimize the uncertainty stemming from the constitutional changes.

Under both the Quebec-Canada sovereignty-association or the Quebec independence options, transition problems would arise from the difficulties that would be encountered if Quebec were to assume its share of the debt more rapidly than markets could be developed to absorb it. Currently, Quebec residents only hold around 17.5 per cent of the federal public debt. Any share above this would require the development of new markets, which would take time. In addition, Quebec would have to finance annually its own budget deficit, which would incorporate the share of the federal deficit that it would assume, and which could easily exceed $10 billion. If the time were not allowed to develop a market for such a large stock and flow of public debt, Quebec would be forced to pay a higher interest-rate premium on its debt than otherwise.

The potential for the development of larger debt markets in Quebec is there. The Caisse de dépôts et placements du Québec, which invests QPP and public-sector pension funds in Quebec, only held half of its $36 billion portfolio in bonds at the end of 1990. The caisses populaires also hold a relatively small proportion of their portfolios in government bonds. Quebec also has a good reputation as a borrower in international markets that would allow these markets to be tapped to a greater extent.

Any transfer of debt obligations to Quebec could take place in accordance with an agreed-upon timetable that would allow for the developments of debt markets. There is no good reason to refinance existing outstanding debt until it matures. This would just result in additional financing charges. The average term to maturity of federal public debt is now four years. A reasonable timetable for debt transfer might involve transferring half of the debt over a four-year period with the balance over the remainder of the decade. This would probably allow sufficient time for the expansion of the market for government debt in Quebec.[9]

The solution to the transition problem, where the federal government would continue indefinitely to bear the full debt in return for a transfer from Quebec of its share of interest costs, would be beneficial for Quebec but disadvantageous for the rest of Canada. The federal government would likely be viewed by financial markets as still bearing the full obligation of the debt, and the transfer paid to the federal government by Quebec for its share of public debt charges would be regarded as less secure than the federal government's previous access to the Quebec tax base. In effect, the federal government would be providing a guarantee for Quebec debt with no offsetting compensation. This would result in an interest premium for the federal government on all its debt that would not be covered by the Quebec transfer of its share of the interest costs.

Another disadvantage for the rest of Canada of continuing to have Quebec's share of the public debt as a direct liability indefinitely is that it would give Quebec a lever over the rest of Canada that could be used in subsequent negotiations over unrelated issues. Quebec could always threaten to withhold the transfer payments for interest until whatever issue was on the table was resolved to its satisfaction.

One possible solution to the problem of giving Quebec leverage over the rest of Canada would be to require Quebec to issue marketable bonds to Canada covering its share of the debt. In this case, if Quebec ever sought to withhold the transfer payments for interest to exert leverage, the Canadian government could sell Quebec bonds on the open market, increasing the cost of borrowing for Quebec and making it more difficult to borrow. However, this would not necessarily be an effective strategy. Quebec would always have the fallback option of repudiating the bonds held by the rest of Canada, provided that it was possible to single out the bonds based on particular identifiable characteristics such as serial numbers or bond types.

Another alternative would be to have Quebec pledge assets to the federal government as collateral for its share of the debt until it was able to assume the debt directly itself. This would not be an easy solution as the value of the required assets would be enormous in comparison to Quebec's share of federal government assets.

Confederation of Regions

The assumed harmonious climate of relations under a confederation of regions would help to keep investors confident during the negotiations over the distribution of assets and debt that would have to take place under this option. The maintenance of the Canadian dollar as the common currency would facilitate sharing the burden of the debt and avoid any currency risk for lenders. This would all serve to minimize transition costs.

In addition, since there would still be some form of central government, it would be possible to minimize the transition costs of splitting up the debt by assigning the task of debt management to a confederal agency. If such an agency were established, the regional governments would be responsible for transferring the funds required to pay public debt charges on their share of the debt to the confederal agency. The regional governments would also be required to pay the agency a management fee to cover the costs of managing the debt. A key advantage of this option would be that it would make it unnecessary to recall existing federal government debt and to have each regional government issue its own debt to cover its share of the federal debt. This would eliminate the unnecessary financial costs associated with reissuing debt. There might also be some advantages from economies of scale in debt management but, in the past, provincial governments have apparently not been convinced that the advantages of such an agency would outweigh the costs or else they would have already established one.

Conclusion

Sharing the burden of the federal debt may be a technical issue that should be clearly subordinate to the other broader political and economic issues arising in the non-federal constitutional options. But because of the vast sums of money involved and their implications for the standard of living and welfare of citizens of all the regions of Canada, it would likely be one of the most contentious questions which would have to be settled. The inherent adversarial character of the negotiations would be exacerbated by the emergence of any acrimony amongst the parties to the negotiations. It would be important that any negotiations be carried out in a climate of calm economic rationality.

There are five additional ways that the transition costs of the debt and asset transfer could be minimized. First, maintaining a common currency through a monetary union would avoid introducing any element of exchange risk into the financing of the debt. Second, it would be important to avoid incurring any additional financial cost from redeeming existing debt only to issue new debt. Third, the transfer of debt could be phased over a long enough period of time to allow the development of markets so that the new securities could be issued without paying a premium over market interest rates. Fourth, it could in certain circumstances prove advantageous for the federal government or a special agency to manage the entire debt in return for compensation. Fifth, it would be important, to the extent possible, to manage the transfer of assets in such a way as not to disrupt the functioning of any government enterprises.

Notes

1 For a more detailed discussion of why I consider these options to be unlikely, see Patrick Grady, *The Economic Consequences of Quebec Sovereignty* (Vancouver: The Fraser Institute, 1991).

2 Government of Canada, *Public Accounts of Canada*, Volume I, Summary Report and Financial Statements (Ottawa: Minister of Supply and Services Canada, 1990).

3 Task Force on Program Review, *An Introduction to the Process of Program Review* (Ottawa: Minister of Supply and Services Canada, May 1986), p. 29.

4 This interpretation is based on the legal opinions provided by two eminent international legal experts to the Commission on the Political and Constitutional Future of Quebec, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec*, Discussion paper no. 1, first semester, 1991, pp. 518-58.

5 Jacques Parizeau, "What does sovereignty association mean?" Notes for a speech to a joint meeting of The Empire Club of Canada and The Canadian Club, Toronto, 11 December 1990, p. 10.

6 The theory assumes that it is possible to expand or contract production at the current price (perfectly elastic supply). In this case, price increases by the full amount of any indirect tax imposed and consumers rather than producers bear the tax.

7 Paul Boothe and Richard Harris ("Alternative divisions of federal assets and liabilities," a paper presented at the John Deutsch Conference on Economic Dimensions of Constitutional Change, Queen's University, Kingston, Ontario, 4-6 June 1991) have independently proposed the similar alternative of basing the distribution on historical benefits from the net federal spending by province, as measured by Mansell and Schlenker ("An analysis of regional distribution of federal fiscal balances: updated data," unpublished paper, Department of Economics, University of Calgary, 1990). The difference between cumulative federal net lending and cumulative net federal spending is that the latter reflects a number of technical adjustments and includes the interregional transfers resulting from the regulatory aspects of federal energy policy. Conceptually, it would be possible to extend a measure to include the impacts of tariffs and regulatory policies in other areas such as transportation.

8 Commission on the Political and Constitutional Future of Quebec, *ibid.*

9 Marcel Côté estimates that it would take five to ten years to develop a market for $100 billion of new Quebec securities. Marcel Côté, "Canada's constitutional future: a viable option," a presentation to the C. D. Howe Institute Policy Analysis Committee, Montreal, 16 November 1990, p. 3.