International Aspects of the Division of Debt Under Secession: The Case of Quebec and Canada

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Le problème de la division de la dette publique du Canada advenant la sécession du Québec a déjà reçu beaucoup d'attention. Cependant, un grand nombre de règles de divisions proposées n'ont pas été justifiées analytiquement ou l'ont été seulement de façon normative. Après avoir passé en revue les écrits dans ce domaine, cet article s'appuie sur les perspectives des théories de la dette et de la négociation pour construire un cadre analytique positif afin d'évaluer ce problème. La conclusion principale est que même si une solution précise ne peut être déterminée de façon définitive, le domaine de solutions potentielles peut être considérablement réduit et il est plus probable qu'il soit centré autour du PIB que de la population.

The contentious issue of dividing Canada's public debt in the event of Quebec's secession has already received considerable attention. Many of the proposed division rules, however, have been either normatively motivated or analytically unjustified. After reviewing the existing literature, this paper uses a positive analytical framework to evaluate the problem, drawing on the perspectives of both sovereign debt theory and bargaining theory. The main conclusion is that while a precise solution cannot be determined definitively, the range of potential settlements may be narrowed considerably and is more likely to be centred around GDP than on population.

Introduction

The 1995 referendum on Quebec sovereignty once again focused attention on the consequences of a decision to secede from the Canadian federation. Although the independence option was rejected, the result was so close that sovereignists have been able credibly to threaten to repeat the referendum in the near future. This prospect makes the continued examination of the effects of constitutional change an imperative. Confusion over what an independent Quebec and Canada would look like can only damage the credibility of the referendum process.

Substantial research efforts have already been directed at the range of questions raised by the possibility of Quebec sovereignty, including the question of dividing Canada's federal public debt. Many authoritative writers have examined this issue from the perspectives of law, political science, history, and economics and a wide variety of potential rules for division have emerged. The justifications for choosing any particular one, however, have been weak. In some instances the approach has been almost normative, with researchers asking the question of what the division of the debt *should* be. The purpose of this paper is to examine the debt division question from a positive perspective, using

primarily the literature on sovereign debt. By incorporating the international perspective more fully into the analysis, the range of potential division rules can be narrowed considerably and explained more thoroughly.

The Literature on Debt Division

The literature on dividing the public debt in the event of state dissolution is extensive. There is also a substantial literature dealing specifically with the case of Quebec and Canada. The legal, historical, and economic research on the division question, however, has yet to identify a theoretical basis for determining how state debts get divided.

No clear consensus has emerged regarding the legal basis for the division of public debt. Constitutional law and international law both appear to be notoriously susceptible to divergent interpretations. In addition, the paucity of historical precedents contributes to the uncertainty surrounding the legal aspects of state secession.

Woehrling (1991) interprets traditional law as saying that a successor state has no obligation to assume any portion of the national debt not associated specifically with the successor's territory. According to the Vienna Convention, however, successor states not formed as the result of decolonization are expected to assume an "equitable" portion of general debt.[1] A number of states, including Canada, have not ratified the Vienna Convention, however, so it "cannot be considered an authoritative source" for the laws regarding state succession (Desjardins and Gendron 1991, p. 3).

Desjardins and Gendron (1991) provide an excellent review of the legalities of debt division under secession. States may voluntarily agree to a division of the debt, which may be in the seceding state's interests for political and financial reasons, but "there are at present no peremptory rules or uniform customs in international law that establish any obligation on the part of a successor state toward creditors of the national debt of the predecessor state" (Desjardins and Gendron 1991, p. 9). Nonetheless, they interpret the current "tendency" of international law to favour compulsory equitable debt division in the event of secession (ibid., p. 21). They conclude that while successor states should be held liable for a portion of the debt, the practice of dividing liabilities has not "been sufficiently uniform to permit the emergence of an established and recognized custom" (ibid., p. 5).

If Quebec were to secede from Canada, international law would not serve as an adequate mechanism for dividing the national debt. This conclusion is not surprising. Modern historical examples of states being divided are few, so the capacity to build up international norms based on precedents is restricted. Furthermore, state sovereignty implies that no supranational authority can impose a settlement. States submit to supranational institutions only on a voluntary basis, or because of the political, economic, or military sanctions which other sovereign states may employ against it.

Though scarce, there are historical cases of debt division. Armendariz de Aghion and Williamson (1993) review five of these: Great Colombia, the Central American Federation, the Austro-Hungarian Empire, the Ottoman Empire, and the Central African Federation. Three debt division rules emerged: population in the first two, fiscal (revenue contribution) in the third and fourth cases, and GDP in the final case. In all five cases the eventual division of the debt was largely determined and enforced by foreign governments, and in many cases the acceptance of these imposed settlements was seen by the new states as necessary for their "consolidation of sovereignty" (Armendariz de Aghion and Williamson 1993, p. 4).

An alternative debt-division rule has been denoted the "zero-option" (Armendariz de Aghion and Williamson 1993, p. 11). In this case, one of the successor states takes on the entire obligation of the

predecessor state. Examples include Panama's separation from Colombia (notably sponsored by the United States), Bangladesh's separation from Pakistan, and most of the cases of decolonization. The zero-option also emerged as a possibility in the two most recent cases of dissolution, Czechoslovakia and the Soviet Union.

Young (1994) presents an excellent discussion of the circumstances surrounding the separation of the Czech and Slovak republics. In Czechoslovakia, asset and liability division was generally based on relative population and location, at least in principle. In practice, the actual details proved problematic, especially in assigning assets. However, Young indicates that at one stage the zero-option division rule was contemplated by the Czech Republic as a means of circumventing the need to compromise with Slovakia.

The final relevant debt-division rule, which eventually emerged in the case of the Soviet Union, is the joint-and-several formula, in which all successor states share responsibility for ensuring the repayment of preexisting debts. The actual division rule used in the Soviet Union was a formula based on GDP, imports, exports, and population. Remarkably, these shares were negotiated with little difficulty (Armendariz de Aghion and Williamson 1993, p. 12). The moral hazard inherent in the joint-and-several formula, however, led to serious problems in the case of the Soviet Union, and the approach has since been abandoned. The original agreement was eventually replaced by a modified zero-option formula in which Russia took on all of the debts of the Soviet Union, except the 16.4 percent share attributed to the Ukraine. The government of Ukraine actually desired its own debt in order to demonstrate its sovereignty in the area of international finance.

What lessons derived from these historical cases can be applied to the Canadian situation? In the first case, repudiation of the predecessor state's debts has never emerged as a viable option. Southern Rhodesia essentially tried this, but was isolated until the racist minority government was replaced.[2] In fact, acknowledgement of a "fair share" of the debt has often been viewed as a desirable means of asserting independence and acquiring immediate credibility in international financial markets, as in the Ukraine's rejection of the zero-option formula (Armendariz de Aghion and Williamson 1993, p. 15).

The Czechoslovak case is arguably the most relevant to the Quebec-Canada debate. It should be noted, however, that there are important differences with the circumstances that would likely arise in the event of Quebec secession. First of all, from a legal perspective, both the Czech and Slovak republics were successor states to Czechoslovakia. The rules for debt division in this case are somewhat clearer according to Desjardins and Gendron: both would have a "legal" obligation for the predecessor state's liabilities. In the Canadian case, Quebec as the seceding state and Canada as a predecessor state (should the latter maintain that status) have a less clear legal basis for dividing any liabilities. More importantly, the size of the Czechoslovak foreign debt was a relatively small $9.3 billion in 1992. Under these circumstances foreign creditors would be willing to accept almost any division rule, as repayment of the relatively small debt would not be at risk unless an exceptionally large portion was assigned to the Slovak Republic. Finally, it is arguable that relative GDPs could not serve as a division rule because of the severe economic distortions and dislocations resulting from the transition to a market economy. Over the four years from 1990 to 1993, the ratio of the Slovak GDP to the Czechoslovak GDP ranged from 24.6 percent (1993) to 31.2 percent (1990) (World Bank 1995). Alternatively, the population ratio was fairly stable. It should be noted, however, that the population rule was worse for the economically weaker Slovak Republic than the GDP rule, which suggests that relative bargaining strength may have influenced the eventual settlement.

The pattern of debt-division rules is difficult to identify, partly due to the paucity of examples. The

five cases reviewed by Armendariz de Aghion and Williamson are indicative of a trend from population, through revenue contributions, to GDP. While the subsequent reversion to a population rule in the case of Czechoslovakia does discredit the notion of an evolving pattern, the problems of using GDP during the transition period may help to explain why it was not chosen. Similarly, the adoption of a more complex division formula in the case of the Soviet Union may have occurred because of the problems of transition, and the absence of reliable statistics using market prices. The availability of good statistics is obviously one factor in the determination of the division rule.

A final lesson is that the external community has historically had considerable influence on the question of debt. Although the G7's motives in enforcing a joint-and-several liability rule in the case of the Soviet Union were mixed (Armendariz de Aghion and Williamson 1993, pp. 15-16), one of the motivating factors was clearly the desire to enhance repayment prospects. Similarly, Britain's involvement in the earlier cases was motivated by the desire to protect the interests of its citizens who had invested abroad.

Since neither international law nor history provide a definitive answer to the question of debt liability in the event of secession, economists and politicians have ventured into the debate to propose "reasonable" rules for the division of debt between Canada and Quebec. Unfortunately, the range of "reasonable" rules which have been proposed is unreasonably large.

At one extreme is the Bélanger-Campeau Commission's assignment of 16.6 percent of the federal debt to Quebec.[3] The approach taken by the commission is interesting for two reasons. First, the division of assets and liabilities is calculated simultaneously, that is, the asset-division rules affect the debt division. Second, the commission goes through various categories of assets and liabilities and assigns different rules with respect to the division of each category. The end figure of 16.6 percent is arrived at by adding up the amounts in each of these different categories. In this sense the commission's formula for division is far more complex than a simple rule to divide the gross debt. While the complexity of the division suggests that the commission gave some thought as to the nature of the different assets and liabilities, it has also led to suspicions that the commission's interpretations were biased in Quebec's favour. Their methodology has been criticized by several later researchers.[4]

At the other extreme is the "historical benefits" approach. This approach, attributed to Mansell and Schlenker (see Boothe and Harris 1991), takes the view that the debt was accumulated historically through the provision of goods and services by the federal government. Provinces should therefore have to repay any net benefits received from Confederation if they decide to secede, implying that larger beneficiaries should take on a larger share of the debt. As calculated by Boothe, Johnston and Powys-Lybbe (1991), this approach would lead to a total of 32 percent of federal liabilities being assigned to Quebec. Not surprisingly, this approach has also attracted criticism. Stringer (1991) outlines some of the more objectionable features of this division rule.

The difference between the Bélanger-Campeau formula and the historical benefits approach is substantial. Based on the 1994 gross federal debt of $514 billion (Statistics Canada Catalogue 68-508, Table 1.3), the former rule would assign $85 billion to Quebec. The latter approach would lead to a debt of $164 billion being added to Quebec's own provincial debt. The difference of $79 billion represents a dauntingly wide gap to be closed by negotiation.

Fortunately, other approaches tend to cluster close to the average of these two extremes. The two most popular rules are to assign debt based on relative GDP or relative populations. Within the context of the Quebec-Canada debate, these moderate rules, particularly population, have received some support. Jacques Parizeau, Quebec's former premier, has

himself indicated that Quebec's share, while subject to haggling, will work out to be "something like a quarter" (citation from Young 1995, p. 216). A recent report by the Fraser Institute (Richardson 1995) uses population as the basis for division, without providing a strong justification for that rule beyond being "reasonable" and "fair." Young argues persuasively that the division of assets and liabilities on the basis of population will be the eventual solution (Young 1995, p. 216), although once again a detailed or theoretical justification for this conclusion is absent.

The GDP rule would establish Quebec's share of the 1994 gross federal debt at approximately $116 billion, while the population approach would assign $129 billion to Quebec. The difference of $13 billion is a substantial sum; indeed, it exceeds the entire external debt of Czechoslovakia at the time of its dissolution. So even if we accept that the population and GDP rules are the most "reasonable" principles of debt division, negotiations over which is "more reasonable" will likely result. Can the lessons from the sovereign debt literature help to narrow the division rule down even farther?

Dividing the Debt: Lessons from the Sovereign Debt Literature

Credit markets are typically characterized by rationing, and the sovereign debt market is no exception.[5] Credit rationing occurs because lenders perceive that there are limits to the amount that a borrower may be willing and able to repay, and because rationing by price will affect the riskiness of the loan. The absence of a legal regime to enforce repayment[6] or oversee a bankruptcy-type process implies that the collection of sovereign debt payments is restricted by the penalty-based or reputation-based incentives.[7] Thus it is important to recognize that rationing decisions in sovereign lending are based not only on the expected "ability" of a debtor to make payments (ability that may be associated with such characteristics as GDP or government revenue), but on the ability of the international community to extract repayment. The latter may be characterized as the borrower's "willingness" to repay, and may be associated with penalty opportunities arising out of such factors as a nation's dependence on the international community for its standard of living.

Despite the controversy regarding the enforcement of sovereign debt contracts, the empirical evidence regarding repudiation is unequivocal. There are no modern cases of a country repudiating its foreign debt without provoking international condemnation and being subjected to penalization. None of these cases has involved the repudiation of debt by a more developed market economy. Since both the Canadian and Quebec economies are highly integrated with international markets, both would be extremely sensitive to any trade or investment interference arising from the imposition of penalties. As both economies (and governments) are also dependent on foreign capital inflows, the loss of reputation will also be very painful. Thus, regardless of the enforcement mechanism, both economies would be crippled if their governments repudiated their foreign debts. The first key lesson from sovereign debt theory is that the threat of repudiation is simply not credible.

Between full repayment and outright repudiation lies considerable scope for renegotiating and rescheduling debt payments. The experience of developing countries indicates that the opportunities to impose sanctions, as well as the institutional arrangements, favour the creditors in these negotiations. Agreements to postpone payments are generally paid for by developing country governments in the form of the strict policy conditionality imposed by the International Monetary Fund (IMF). Even developed market economies have had to endure IMF conditionality, though only rarely and not recently.[8] Thus the second lesson from the sovereign debt literature is that even informal and partial "repudiation" is rarely countenanced by lenders, and always has painful economic consequences.

The substantial bargaining power enjoyed by creditors in sovereign debt markets will obviously be deployed to protect their investments. In the case of a state's dissolution or dismemberment the division of the predecessor state's debts is of vital concern. Not only will they have considerable influence on the terms of the division, as in the recent case of the Soviet Union's dissolution, but they retain the right to veto any agreement negotiated by the participating borrowers. From the creditors' perspective, the optimal division of a country's debt is one that maximizes the expected debt-related payments. In deciding what that optimal division will be, creditors will consider both the capacity of each state to make payments, as well as their own ability to enforce the debt contract.

The sovereign debt literature makes it clear that external creditors have formidable sanctions at their disposal in order to ensure that borrowers behave in an acceptable fashion. In the case of dividing a country's public debt, these sanctions may be used to block a voluntarily negotiated settlement if it were not in the interests of the creditors.[9] But will Canada's foreign creditors be concerned about the debt provisions arising from Quebec secession, and should they be interested in the external debt only, or in the entire debt?

Foreign creditors should be concerned about the implications of Quebec secession on their loans to Canada if only because of the sheer size of their exposure. The federal government owed at least $121 billion to non-residents at the end of 1995. In 1994, the foreign component of the gross federal debt was over 21 percent.[10] The division of this extensive federal foreign debt in the event of secession may also affect the riskiness of the rest of Canada's foreign public debt (provincial, municipal, and public enterprise), amounting to another $178 billion.[11]

External creditors, however, are likely to be interested in the division of the entire federal debt. First of all, the actual determination of what constitutes externally held debt is problematic. For example, domestic institutional holders of the debt may in turn have their shares owned partly by foreigners. More importantly, if foreign holders of the debt were treated preferentially by the successor states, there would be an incentive for domestic creditors to sell their marketable obligations to foreigners. Not only would this confuse the division between internal and external owners, it would affect the ability of external creditors to collect their payments. The potential for divergences between internal and external debt repayment prospects, therefore, makes the entire debt division issue a matter of concern for external creditors.

Debt division does alter the riskiness of their investment, and therefore creditors will seek to influence the division rules. Assuming that creditors try to maximize the probability of repayment, it is possible to establish certain characteristics of a division rule that they would prefer. It is first of all necessary for the division rule to be forward looking in its evaluation of a debtor's capacity to repay.[12] Taking GDP as the best proxy of repayment capacity, the amount of debt assigned to Quebec on the basis of current measures would be approximately 22.6 percent.[13] This amount, however, does not reflect the *expected* relative GDPs of a sovereign Quebec and the remaining parts of Canada. What is needed is an estimate of relative GDPs after independence.

In a recent paper, Vaillancourt (1995) estimates that Quebec's GDP would suffer a 2-percent decline while the remaining parts of Canada would experience a 1-percent increase. On the basis of his calculations, Quebec's share of Canada's total GDP would fall from 22.6 to 22.1 percent. By implication, Quebec's capacity to repay debt would also fall from its current level both in absolute terms and relative to Canada.

Grady (1991) comes up with far more dramatic figures: Quebec loses a minimum of 14 percent of GDP in the short run and 11.5 percent in the long run. The remaining parts of Canada lose less than

5 percent of GDP in total in the short run, and less than 2 percent in the long run. Using the short-run estimates, Quebec's share of a much reduced Canadian GDP would fall to 20.9 percent.

Without attempting to evaluate the likelihood of the various estimates of sovereignty's effects on GDP, it is clear that they all point in the same direction: the ratio of Quebec's GDP to Canada's would decline from current levels. To reduce the riskiness of their investments and loans, therefore, creditors would prefer to see a corresponding reduction in the quantity of federal debt assigned to Quebec.

Relative GDPs are not the only consideration that creditors will have in evaluating repayment capacity. The state of each government's fiscal situation will also affect the ability of each jurisdiction to finance its public debt. In this regard it would appear that once again Quebec would be in a relatively less healthy fiscal position. There have been many estimates of what would happen to a sovereign Quebec's public deficit. For the most part, these have assumed a rather serious weakening in the government's fiscal situation.[14]

Therefore the optimal division of the debt from the creditors' perspective would be lower than the current GDP ratios would suggest. Adjusting for the relative deficit problems in the two successor states, as well as the presumed reduction in Quebec's GDP relative to Canada's, a reasonable starting point for the negotiations of the debt might be for Quebec to take on between 20 and 22 percent of the federal debt. Such a proportion would at least be seen by both domestic and foreign creditors as a realistic representation of each state's relative ability to service the public debt.

Before going on to consider how the negotiations over the debt are likely to evolve, some additional points should be made. There has been an assumption that creditors are interested in the relative abilities and willingness to repay the debt, and that these creditors have considerable influence on the actual division rule. Why would these creditors not simply impose a settlement on the two parties? There are three explanations: First becoming involved in the independence process will cause creditors to incur transactions costs which they would rather avoid. Second, a negotiated settlement would presumably have more credibility in terms of public support than an externally imposed solution. The ability of a state to generate revenue from its residents will depend partially on public perceptions of the fairness of the taxes and expenditures. The classic historical case in the context of international payments is interwar Germany, where the perception of an unfair war reparations burden was cited as one reason for the German government's inability and unwillingness to make the required payments. In the context of dividing a debt, fairness is arguably an important criterion by which to judge any settlement (Armendariz de Aghion and Williamson 1993, p. 12). Finally, the assumption of a fixed and known penalization capability (and hence capacity to extract payments) is inaccurate. Uncertainty and information deficiencies require creditors to build margins of error into their calculations of credit ceilings. Part of the flexibility is derived from the use of risk premia, which increase until the debtor has reached its credit ceiling. Therefore, although creditors may have a preferred division of the debt, some flexibility is derived from the ability to alter the risk premium.

It should also be noted that the sovereign debt literature, unlike the Bélanger-Campeau calculations, rarely considers the question of assets. The assets of interest to the creditors are those that contribute to a jurisdiction's GDP. These are typically location-specific assets such as infrastructure, which presumably would be preserved in any asset division settlement. Which jurisdiction would get military assets (with negligible implications for economic output) or other movable assets are likely to be of limited concern to creditors. Tying asset division to debt division, therefore, is relevant only in as far as the eventual solution should be perceived as being "fair."

Furthermore, basing the debt division on perceptions of future ability and willingness to pay opens up the possibility for strategic behaviour. By portraying itself as likely to suffer grievous economic difficulty in the event of dissolution, a jurisdiction might think it is possible to reduce its share of the debt. Thus there is an interesting dilemma for those involved in campaigning for or against a state's dissolution. Secessionists may discount the financial costs of independence in order to persuade voters, but by so doing may well be increasing their post-independence share of the debt. Similarly, those who oppose dissolution may inflate the costs of the split, but thereby decrease the share of the debt in the seceding jurisdiction. In some instances the net effect is to make matters worse for both jurisdictions. Statements by secessionist leaders that threaten repudiation, for example, will increase the perceived riskiness of the debt and raise the costs of borrowing.

Finally, the discussion in this section presupposes that Quebec and Canada have agreed to preserve the current borders. This assumption may be unwarranted given the opposition to Quebec sovereignty expressed by aboriginal groups in northern Quebec. The preliminary conclusion reached here would have to be modified by reestimating the relative GDPs of the nations that emerge from the territorial negotiations. It must also be recognized that some of Quebec's debts were used to finance specific projects, such as hydro-electric facilities, and may thus be treated as secured by these assets and thus associated with the jurisdiction in which they are located. Furthermore, if Quebec's territorial integrity is open to question, the analogous problem of dividing its provincial debt becomes relevant. Finally, should any territorial disputes remain unresolved, bargaining over debt would likely become irrelevant until the two parties could at least establish an agreement over this fundamental requirement of sovereignty.[15]

The lessons on debt division to be derived from the sovereign debt literature are unequivocal. The repudiation of foreign debt is not a viable option for a country interested in maintaining extensive international economic or diplomatic relations. Furthermore, any debt division which does not protect the interests of the lenders is not viable, and will precipitate sanctions until revised accordingly. Lenders, therefore, have considerable influence and may impose conditions and division rules unilaterally should the borrowing sovereigns fail to negotiate a suitable agreement. The division rules which appeal to creditors are those that enhance the prospects for repayment and reflect both the ability of a state to pay as well as the ability of creditors to extract repayment. The fact that foreign lenders have an interest in how a state's debt is divided in the event of secession implies that the relative bargaining power of "successor" states is not determined exclusively, or even primarily, by domestic factors.

The main conclusion of this section is that the debt division rule will have to reflect the repayment capabilities of the successor states. In the context of Canada and Quebec, this would suggest a division rule which would assign a sovereign Quebec approximately 20 to 22 percent of the federal public debt. The actual amount, however, will also reflect the relative bargaining strengths of the subsequently formed states with respect to each other and the creditors. The next section examines some of the issues arising from the bargaining process.

Negotiating the Division of Debt

The international community would very likely accept that Canada and Quebec would have to reach a negotiated settlement over the federal public debt. In these negotiations, which side would have the stronger bargaining position? The incentive to settle would come from the direct and indirect penalties to which the two parties are vulnerable. Direct penalties include explicit diplomatic and financial pressure on the two sides, motivated by a desire to settle the debt and resume orderly repayments in a timely fashion.[16] Indirect penalties include the financial costs of uncertainty over both the debt settlement and the entire sovereignty experiment.

These penalties, in conjunction with the need of the two governments to regain access to international (and domestic) investors, would generate a game in which delay imposes costs on both parties. The bargaining process, therefore, has the essential ingredients of a Rubinstein game.[17] The results of these types of bargaining models are fairly standard: the division rule will reflect the relative penalties endured by each party.

With respect to the direct penalty opportunities, the evidence suggests that Quebec would be more susceptible to international interference. One of the common measures of international penalty opportunities is the trade-to-GDP ratios.[18] Quebec's total trade with the rest of the world outside Canada (imports plus exports) amounts to approximately 40 percent of GDP. Trade with the rest of Canada amounts to another 53 percent, for a total trade-to-GDP ratio of 93 percent. The percentages for Canada are 64 percent (international) and 16 percent (Quebec) for a total of 80 percent. Thus, while Canada would be more vulnerable to foreign countries excluding an independent Quebec, Quebec would be relatively more vulnerable to trade interference from Canada. Some authors have also noted that the structure of Quebec's trade and production leave it relatively more dependent on Canada than vice versa, suggesting once again that the former would be more susceptible to trade interference.[19]

The question of trade interference, however, raises an interesting question with respect to the incentives to penalize one another. By imposing penalties on each other, Canada and Quebec would also be damaging their opponent's economy and, by implication, their debt-servicing capacity. Should the damage arising from penalties be perceived as permanent, then there could be a corresponding decline in the creditors' evaluation of how much debt the penalized economy can service. Pursuing non-cooperative strategies after secession, therefore, may not only invite both self-administered pain and retaliation, it may also increase the share of the federal debt that may be assigned to the side imposing the most effective penalties.

In addition to trade, both Canada and Quebec are net capital importers. On the basis of both public and total financing requirements, Quebec's needs are relatively higher than Canada's.[20] Thus the interference with financial flows may also leave Quebec more vulnerable to external sanctions, and particularly to the inevitable cessation of financial flows which would accompany a protracted dispute over foreign financial obligations.[21] In Quebec's favour, at least in the short term, is the federal government's reliance on shorter-maturity Treasury Bills, requiring frequent trips to capital markets.

The opportunities for diplomatic pressure and penalization will likely put Quebec at a disadvantage relative to Canada. The advantage for Canada, however, would occur only if it were to retain its status as the sole successor state to pre-secession Canada. Should this be the case, Quebec would have to acquire diplomatic recognition while Canada would not. The granting of that recognition would create an opportunity for foreign governments to penalize Quebec should it prove reluctant to take on appropriate international obligations or otherwise create difficulties for foreign investors. Furthermore, Canada would probably retain its membership in international organizations and treaties, while Quebec may not receive automatic membership. If access to treaty rights and organizational privileges were unequal, then there would be unequal opportunities to penalize the two countries.

Other negotiating features should be identified as well. International sanctions affect both those imposing the sanctions as well as the target. As a larger economy (and a larger importer), a larger source of natural resources, and a larger debtor, Canada would have an additional advantage over Quebec. The international community would presumably be less willing to provoke economic disruptions with Canada because of its relatively larger size.

The negotiating process would also favour Canada because of the two-stage bargaining that

would likely occur. Which level of government would have the right to approve a deal with Quebec would not be obvious after secession.[22] While the federal government would probably lead the negotiations with Quebec, a final settlement might credibly require approval of the remaining provincial governments. Recent statements by the other premiers suggest that they would favour a hardline attitude towards Quebec. Thus the two-level game would yield an advantage to Canada.[23]

The bargaining power of the two sides will also depend on public support and the role of opposition parties. A Reform Party opposition in the federal Parliament would presumably serve as a strong focus for those wishing to punish a seceding Quebec. Quebec's departure, however, would affect Ontario and the Atlantic provinces more adversely than the western provinces.[24] In conjunction with the confusion and finger-pointing that would likely follow Quebec's departure, the Canadian negotiating position could be weakened by the competition amongst disparate regional interests. Forecasting the reaction in Quebec is even more difficult, since it is not clear what approach the opposition Liberal Party will adopt when the federalist option disappears. Quebec will also experience regional and linguistic dissension. In both countries, however, bitterness and mutual antagonism may well serve as powerful, and dangerous, sources of internal unity. It is difficult to predict which side would acquire the greater bargaining advantage from these domestic political factors.

One final feature of the negotiations, however, does favour Canada. Since both parties would face considerable loss from the secession process, and from a lengthy negotiating period, both would have an incentive to settle quickly by adopting a relatively amicable attitude. A hard-line bargaining position is difficult to threaten in a credible fashion in a one-shot game. The value of adopting a hard line lies in the creation of a reputation that can be used in subsequent negotiations. Therein lies the advantage for Canada: Quebec can secede but once, while the federal government may deem it wise to bargain hard with Quebec in order to dissuade other provinces from following suit.

The penalty opportunities and the negotiating environment establish relative bargaining strengths. It is important to note that the absolute penalties are much larger for Canada than Quebec, so naturally the former would be assigned a larger share of the debt. Quebec's vulnerability to sanctions, however, suggests that it would have to take on a share of the debt which exceeded the ratios of ability to pay discussed in the previous section. How much more debt share would Quebec have to take on? Canada's bargaining advantage is potentially significant, but is still bounded by the views of creditors. Imposing too onerous a burden on either party risks having the debt obligations exceed one country's ability to pay. Thus, moving too far from the expected GDP ratios is not likely to be acceptable to foreign or domestic investors as an appropriate division of liabilities.

In addition, a settlement which either party considers inherently "unfair" may lead to repayment interruptions as well. Part of the negotiating dynamic, therefore, will depend on how public opinion evolves with respect to prospective division rules. Strong public support for one rule or another may well determine the eventual division rule. Thus, because of simplicity, approximate correspondence to ability to pay and penalization opportunities, and "fairness" appeal, rules such as relative current GDPs or population may well serve as the eventual basis for dividing the debt.

The conclusion to a previous section was that the starting point for the negotiations, from the perspective of the creditors, would be 20 to 22 percent of the federal debt being attributable to Quebec. The actual negotiated settlement between Quebec and Canada would be judged by creditors against this range. Adjusting for the bargaining strengths will result in a larger share being assigned to Quebec, possibly an additional 2 or 3 percent.[25] The result is

an estimate of between 22 and 25 percent. On the basis of these calculations, either the GDP or population rule would qualify, and likely remain acceptable to creditors. The latter, however, is clearly close to the upper bound of the set of potential solutions. Thus it may be necessary for there to be some side payments, perhaps in the division of assets, for either party to agree to a clear GDP or population rule. For example, Quebec might accept that the debt be divided on the basis of population only if it be given some other favourable consideration in its negotiations with Canada. Division on the basis of current GDP, however, seems more likely since it is closer to the middle of the estimated range of solutions.

Finally, the potential risk to the two successor economies implies that creditors may be reluctant to agree to a straightforward division rule. If either economy were to "collapse" relative to the other one, then creditors may not wish to be left in a position of having to write off one country's debts when the other country may be in a position to service them. As a result, creditors may seek to have a debt-division rule that is flexible *ex post*. While writing contingent contracts may not be feasible, the joint-and-several liability rule does provide the creditors some protection from the uncertain post-dissolution economic conditions (although the case of the Soviet Union may well dissuade creditors from seeking it). The liability rules can also be written to favour the creditors, however, by having Canada (arguably the less risky economy) retain legal liability for the debt. The question of how to implement a debt-division rule, however, is a complex argument in its own right, and beyond the scope of this paper.[26]

Conclusions

Should Quebec decide to separate from Canada, many issues will have to be decided by negotiation. These negotiations may well prove to be acrimonious. The division of the federal debt is likely to be one issue that will provoke considerable antagonism between the two parties. Previous legal and historical analyses of the debt-division question are inconclusive. In the specific case of Canada and Quebec, several authors have identified or assumed a particular division rule without providing a detailed justification of their choice, and in some instances seemed to have relied primarily on normative criteria.

This paper has attempted to address these deficiencies by providing a positive analytical basis for identifying how a country's debt will be divided in the event of secession by one of its constituent parts. Sovereign debt theory suggests that debt repayment can indeed be enforced in most cases, and neither Canada nor Quebec can credibly threaten to repudiate the federal debt, or endanger the repayment prospects of the creditors who hold that debt. Furthermore, sovereign debt theory indicates that foreign governments and creditors will evaluate a debt-division rule primarily on the basis of repayment prospects. Thus it is not surprising that measures such as relative GDP frequently form the basis of division rules.

As long as the ability to pay is not compromised, however, the share of debt will also reflect the relative bargaining position of the successor states. In the case of Canada and Quebec, the evidence suggests that Canada would have the advantage. Thus, Quebec would probably have to take on a larger share of the debt than the post-independence GDP ratio would suggest. Nevertheless, there are limits to how much Quebec could be expected to take on; and on the basis of ability to pay, penalty opportunities, and perceptions of fairness the current GDP ratio is the most likely basis for any eventual division. The more commonly identified population rule could arise, but it would probably require Canada to grant some concessions to Quebec in other aspects of the negotiations, and would certainly be viewed less favourably by creditors.

At the time of writing, how to divide Canada's federal debt with an independent Quebec remains a hypothetical question which may be avoided.

Refining and formalizing the analysis in this paper, however, remains a worthwhile endeavour. Should another sovereignty referendum be held in Quebec, the effects of either outcome should be identified more precisely prior to the vote. In addition, other countries have experienced secessionist movements as well. For example, although the Organization of African Unity has traditionally rejected alterations to national boundaries as determined by the departing colonial powers, the recent acceptance of Eritrean independence has potentially opened the door to the creation of new states in Africa. Furthermore, the trend towards greater devolution of power raises important questions about jurisdictional debt even within a single state, and some of the lessons to be derived from the case of secession may be valuable in analyzing the consequences of this trend. Finally, the case of dividing a country's debts provides a new perspective from which to examine the problem of sovereign borrowing and international finance. As such, debt division can shed some light on the larger question of enforcing interjurisdictional contracts.

NOTES

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[1]"Quant à la dette générale, les règles traditionalles du droit international prévoyaient que celui-ci n'était pas obligé d'en assumer quelque part que ce soit. La Convention de Vienne de 1983 (qui n'est pas en vigeur) change cependant cette solution, sauf pour les États nouveaux issus de la décolonisation, et prévoit que l'État successeur doit assumer une proportion équitable de la dette générale, compte tenu notamment des biens, droits et intérêts qui lui échoient." (Woerhling 1991, p. 75).

[2]The direction of causality here is difficult to determine. Isolation of the government was probably guaranteed even in the absence of default. The prospect of isolation made default a more desirable option for the Rhodesian government. In those rare cases where debt repudiation has occurred either "permanently" or temporarily (Soviet Union, North Korea, Cuba, Vietnam, Iran) political turmoil and revolution have been prerequisites.

[3]McCallum (1991*a*, p. viii). The Bélanger-Campeau Commission's calculations are controversial not simply because of the general methodology of division, but because of the actual calculations. Boothe, Johnston and Powys-Lybbe (1991) use a "modified" Bélanger-Campeau formula, and calculate Quebec's share to be 20 percent of federal liabilities. Young (1995) reports the number as 18.5 percent.

[4]For examples, see McCallum (1991*a*); Grady (1991); Boothe, Johnston and Powys-Lybbe (1991); Stringer (1991); Ip and Robson (1991).

[5]See Stiglitz and Weiss (1981) for a discussion of credit rationing in the context of a single jurisdiction. See Eaton and Gersovitz (1981); Kletzer (1984); Sachs (1984); and Eaton, Gersovitz and Stiglitz (1986) for models of rationing in sovereign debt markets.

[6]For the purposes of this paper, debt "repayment" refers to the payment of both interest and principal, and is thus equivalent to debt-servicing payments.

[7]The identification of repayment incentives remains controversial. At present, the theoretical advantage seems to lie with the penalty-based approach as argued by such authors as Bulow and Rogoff (1989). The empirical advantage, however, appears to have swung back to the reputation approach with the recent article by English (1996). See Rowlands (1993) for a discussion of the two approaches and their theoretical disadvantages.

[8]Italy and the United Kingdom both required IMF stand-by agreements during the 1970s.

[9]To illustrate with an extreme case, it would not be acceptable to foreign creditors if the Canadian federation were to dissolve and all of the federal debt assigned to Prince Edward Island. In this case the creditors, realizing their vastly diminished prospects for repayment, would presumably penalize the successor states until a more realistic division was implemented.

[10]The foreign debt figures presented here are lower

bounds, as it is composed of only two categories of debt: bonds and money market paper. The 1994 foreign debt total in these two categories amounted to $110 billion, while bonds and treasury bills themselves amounted to $346 billion out of a total federal (gross) debt of $514 billion. Many of the other types of debt, however, are held exclusively by residents, thus making these foreign debt estimates fairly reliable. Federal debt figures are from Statistics Canada Catalogue 68-508, Tables 1 and 1.3, while foreign holdings were calculated from Statistics Canada Catalogue 67-002, Tables 19 and 21. Furthermore, the portion of the federal public debt owed to foreigners is much less than, and should not be confused with, the percentage of Canadian public debt held abroad (roughly 30 percent) or the ratio of total foreign debt to GDP (approximately 45 percent).

[11]Figures are for 1995 (Statistics Canada Catalogue 67-002, Tables 19 and 21).

[12]This is one reason why the historical benefits approach is essentially irrelevant as a prospective division rule, although it may have some value to Canada as a negotiating tool.

[13]This percentage is based on 1993 figures (Statistics Canada Catalogue 11-210, Table 39). An alternative would be to use contributions to federal tax revenue, which would reduce Quebec's share to 21.3 percent (1992 figures, Statistics Canada Catalogue 13-213, Table 6). The remainder of the discussion will focus on the GDP rule since revenue contribution calculations are complicated by federal-provincial tax point agreements and since federal taxes represent only a portion of the taxes raised in a jurisdiction. Creditors will presumably be concerned with how much revenue a jurisdiction can raise in total. It is easier to find projections on GDP than on tax revenue. Finally, the figure of 21.3 percent falls into the middle of the debt-division range calculated on the basis of GDP. As a *caveat*, it should be noted that a revenue-based division would reduce Quebec's share of the debt more than that estimated using a GDP rule.

[14]See Vaillancourt (1995); Demers and Demers (1995); Coulombe (1995); Richardson (1995); and McCallum and Green (1991). Demers and Demers (1995) provide a list of other studies on the question of Quebec's fiscal deficit.

[15]As a general principle, any unresolved issue which could significantly affect relative GDPs would likely preclude any final agreement on debt division.

[16]Young (1995, p. 138) also acknowledges the importance of foreign countries in influencing the process of secession.

[17]A Rubinstein game is a bargaining process in which two parties negotiate over the division of a "good," the value of which deteriorates over time. It should be noted that the game of dividing the debt is not identical to a Rubinstein game, because in the debt-division case the utility of each party declines as its share of the item being divided increases.

[18]The following numbers are based primarily on the 1986 provincial trade accounts, the most recent year for which interprovincial trade figures are available.

[19]See the review of the trade studies in Grady (1991).

[20]There is weak evidence to suggest that Quebec's government may also borrow heavily from foreign sources relative to Canadian provinces in general: its foreign currency liabilities represent 19.4 percent of total liabilities, compared to 15.7 percent for the other nine provinces (1992 figures from Statistics Canada Catalogue 68-508, Tables 1.3-1.11).

[21]Even a brief interruption to a government's access to capital markets can be severely crippling. Large amounts of government debt come due at various times during a year, most of which are paid off using revenue from new capital market issues. For example, in 1995, the federal government "rolled over" (i.e., paid off and re-borrowed) more than $300 billion on a total federal gross debt of $514 billion.

[22]McCallum (1991*b*) makes a similar point and also reviews other aspects of constitutional negotiations in Canada.

[23]Two-level games occur when two protagonists must negotiate a settlement, but at least one negotiator must then convince a third party to accept the agreement. For further discussion of two-level games, see Putnam (1988) and Mayer (1992).

[24]See the papers by May and Rowlands (1991); Chambers and Percy (1991); Cameron, Hum and Simpson (1991); and McCallum (1991*c*) on the possible regional consequences of Quebec's secession and alternative constitutional arrangements.

[25]In the case of the Czech and Slovak republics, the

1992 GDP ratio would have imputed a 27-percent share of the debt to the Slovak side. As it turns out, they agreed to take on 33 percent of the debt. The relatively small debt, and the instability of the GDP figures during the transition to a market economy, makes the Czechoslovakian case substantially different than the Canada-Quebec case. Thus, while the negotiators and creditors may have had considerable flexibility in the former partition, the relatively higher levels of indebtedness may limit the amount of negotiating room the parties have.

[26]For examples, see Richardson (1995); Chant (1991); and Boothe and Harris (1991).

References

Armendariz de Aghion, B. and J. Williamson (1993), *The G-7's Joint and Several Blunder*, Essays in International Finance, No. 189 (Princeton: International Finance Section, Department of Economics, Princeton University).

Boothe, P. and R. Harris (1991), "Alternative Divisions of Federal Assets and Liabilities," in *Economic Dimensions of Constitutional Change* Vol. 2, ed. R. Boadway, T. Courchene and D. Purvis (Kingston: The John Deutsch Institute for the Study of Economic Policy, Queen's University).

Boothe, P., B. Johnston and K. Powys-Lybbe (1991), "Dismantling Confederation: The Divisive Question of the National Debt," in *Closing the Books*, ed. McCallum.

Bulow, J. and K. Rogoff (1989), "Sovereign Debt: Is to Forgive to Forget?" *American Economic Review* 79(1): 43-50.

Cameron, N., D. Hum and W. Simpson (1991), "The View from the Less-Affluent West," in *From East and West*, ed. McCallum.

Chambers, E.J. and M. Percy (1991), "Natural Resources and the Western Canadian Economy: Implications for Constitutional Change," in *From East and West,* ed. McCallum.

Chant, J. (1991), "Dividing the Debt: Avoiding the Burden," in *Closing the Books,* ed. McCallum.

Coulombe, S. (1995), "Les incidences de la séparation sur le budget québécois - où s'arrête la réalité, où commence la fiction," *Canadian Public Administration/ Administration Publique du Canada* 38(3): 433-52.

Demers, F. and M. Demers (1995), *European Union: A Viable Model for Quebec-Canada?* (Ottawa: Centre for Trade Policy and Law).

Desjardins, D. and C. Gendron (1991), "Legal Issues Concerning the Division of Assets and Debt in State Succession: The Canada-Québec Debate," in *Closing the Books,* ed. McCallum.

Eaton, J. and M. Gersovitz (1981), "Debt with Potential Repudiation: Theoretical and Empirical Analysis," *Review of Economic Studies* XLVIII: 289-309.

Eaton, J., M. Gersovitz and J. Stiglitz (1986), "The Pure Theory of Country Risk," *European Economic Review* 30(3): 481-519.

English, W. (1996), "Understanding the Costs of Sovereign Default: American State Debts in the 1840s," *American Economic Review* 86(1): 259-75.

Grady, P. (1991), *The Economic Consequences of Quebec Sovereignty* (Vancouver: The Fraser Institute).

Ip, I. and W. Robson (1991), "Liquidating the Federal Balance Sheet: Some Additional Modest Proposals," in *Closing the Books,* ed. McCallum.

Kletzer, K. (1984), "Asymmetries of Information and LDC Borrowing with Sovereign Risk," *Economic Journal* 94: 287-307.

May, D. and D. Rowlands (1991), "Atlantic Canada in Confederation; Uncharted Waters with Dangerous Shoals," in *From East and West,* ed. McCallum.

Mayer, F. (1992), "Managing Domestic Differences in International Negotiations: The Strategic Use of Internal Side-Payments," *International Organization* 46(4): 793-818.

McCallum, J. (1991*a*), "The Study in Brief," in *Closing the Books: Dividing Federal Assets and Debt If Canada Breaks Up*, ed. J. McCallum (Toronto: C.D. Howe Institute).

____ (1991*b*), "Les économistes et le processus de changement constitutionnel," *L'Actualité Économique* 67(3): 255-66.

____ (1991*c*), "Regional Perspectives: Summary and Synthesis," in *From East and West: Regional Views on Reconfederation*, ed. J. McCallum (Toronto: C.D. Howe Institute).

McCallum, J. and C. Green (1991), *Parting as Friends* (Toronto: C.D. Howe Institute).

Putnam, R. (1988), "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization* 42(3): 425-59.

Richardson, R. (1995), *The Public Debt of an Independent Quebec* (Vancouver: The Fraser Institute).

Rowlands, D. (1993), "Constitutional Rules, Reputation, and Sovereign Debt," *Journal of International*

Economics 35(3/4): 335-50.

Sachs, J. (1984), *Theoretical Issues in International Borrowing*, Princeton Studies in International Finance, No. 54 (Princeton, NJ: International Finance Section, Department of Economics, Princeton University).

Stiglitz, J. and A. Weiss (1981), "Credit Rationing in Markets with Imperfect Information," *American Economic Review* 71(3): 393-409.

Stringer, Y. (1991), "Sharing Modest Thoughts on How to Share an Immodest Debt," in *Closing the Books,* ed. McCallum.

Vaillancourt, F. (1995), "The Costs and Benefits of Various Constitutional Options for Quebec," paper presented at the Canadian Law and Economics Association, September 1995.

Woehrling, J. (1991), "Les Aspects Juridiques de la Redéfinition du Statut Politique et Constitutionnel du Québec," in *Éléments d'analyse institutionnelle, juridique et démolinquistique pertinents à la révision du statut politique et constitutionnel du Québec*, Document de travail, No. 2 (Québec: Commission sur L'Avenir Politique et Constitutionnel du Québec).

World Bank (1995), *World Debt Tables* (Washington, DC: The World Bank).

Young, R. (1994), *The Breakup of Czechoslovakia* (Kingston: Institute for Intergovernmental Relations, Queen's University).

____ (1995), *The Secession of Quebec and the Future of Canada* (Kingston: Institute for Intergovernmental Relations, Queen's University).