ESSAYS IN INTERNATIONAL FINANCE

ESSAYS IN INTERNATIONAL FINANCE are published by the International Finance Section of the Department of Economics of Princeton University. The Section sponsors this series of publications, but the opinions expressed are those of the authors. The Section welcomes the submission of manuscripts for publication in this and its other series. Please see the Notice to Contributors at the back of this Essay.

The authors of this Essay are Beatriz Armendariz de Aghion and John Williamson. Dr. Armendariz de Aghion is a Lecturer at the London School of Economics, where she specializes in international finance and the economics of developing countries. She has been a visiting scholar at the Department of Economics of the Massachusetts Institute of Technology, a research associate at the OECD Development Centre, and a visiting professor at the Université de Toulouse (Sciences Sociales). Her publications include a number of articles on the international debt problem of developing countries, particularly in Latin America.

Dr. Williamson has been a Senior Fellow at the Institute for International Economics since 1981. He has also served as professor at the Pontificia Universidade Católica do Rio de Janeiro and at the University of Warwick, as an advisor at the International Monetary Fund and H.M. Treasury, and as a lecturer at the University of York. His writings on international finance include two earlier Essays in International Finance, The Crawling Peg (1965) and The Choice of a Pivot for Parities (1971), as well as a contribution to the Section’s Reflections on Jamaica (1976).

PETER B. KENEN, Director
International Finance Section
1 INTRODUCTION

2 HISTORICAL PRECEDENTS
   Great Colombia
   The Central American Federation
   The Austro-Hungarian Empire
   The Ottoman Empire
   The Central African Federation

3 ALTERNATIVE FORMULAS FOR DIVIDING DEBT
   Choosing a Formula
   The Zero-Option Formula
   The G-7's Motives

4 FUTURE POLICY
   Economic Recovery
   Debt Restructuring

REFERENCES
1 Introduction

On December 4, 1991, eight of the fifteen republics of the disintegrating Soviet Union signed a document holding themselves "jointly and severally" responsible for the Soviet Union's foreign debt. They agreed to the terms only after considerable pressure from the Group of Seven (G-7),\(^1\) which made it clear to the republics that acceptance of the formula was a condition for receiving even limited debt rescheduling.

The requirement is without historical precedent. This is not because indebted countries have never before fragmented. In the next part of this essay, we examine five cases, going back to the 1820s, in which indebted countries broke up and their debts were divided among the successor states. In none of those cases, however, were the successor states required to accept joint-and-several responsibility for the debts they inherited.

We go on to consider possible alternative formulas for dividing international debts among successor states, and we propose criteria relevant to choosing among those alternatives. The analysis suggests that the joint-and-several formula was a mistake, a verdict that would seem to have been confirmed by its abandonment in late 1992.

Finally, we note recent negotiations on the restructuring of the debt of the former Soviet Union, and we discuss the desirable evolution of policy.

2 Historical Precedents

In this section, we review historical breakups involving countries with a substantial inherited external debt. Several divisions do not qualify and will therefore not be discussed. The separation of Belgium from Holland in 1830 and the divorce between Norway and Sweden in 1905 have been excluded because no record of external debt was found in either case. The division of the external debt between India and Pakistan in

\(^1\) The G-7 is comprised of the United States, Japan, Germany, France, the United Kingdom, Italy, and Canada.
Great Colombia

The earliest case of the splintering of a modern nation and the subsequent sharing of its external debt concerns what used to be known as Great Colombia. Like most other Latin American countries, Great Colombia contracted its first foreign loan in London (a 30-year bonded loan), shortly after gaining independence from Spain in 1819. The loan was serviced until 1829, when the country defaulted as internal conflicts led it to split into the three independent nations of Venezuela, Ecuador, and New Granada (which subsequently divided into Colombia and Panama). Figure 1 shows the borders before and after Great Colombia fragmented, as well as the new border that was created when New Granada split in turn in 1903.

Soon after the disintegration of Great Colombia, its British creditors, represented by the Corporation of Foreign Bondholders, started negotiations with the government of New Granada for a resumption of debt-service payments. New Granada refused to take responsibility for the entire external debt of the former Great Colombia, and the British Foreign Office then put pressure on the three newly created states to seek a way of sharing the external obligations. The Foreign Office suggested that the debt be shared in proportion to a rough estimate of population. The new states, seeking recognition by the British Empire as a way of consolidating their respective sovereignties, accepted the population principle without complaint (Olearte Camacho, 1914). A convention was accordingly drawn up in 1834, whereby the external debt of the former Great Colombia was shared between Venezuela, Ecuador, and New Granada (Figure 1).

Following the 1834 convention, each of the states developed debt-servicing difficulties. New Granada and Ecuador were in default

---

2 The lack of documentation perhaps reflects the negligible size of the debt. India’s substantial export surpluses during World War II may explain why the debt was minimal, and the remaining obligation at the time of partition was subject to a bilateral arrangement between the two ex-British colonies (see Mishra, 1985).

2 The figures in this essay are available on diskette (Freelance).
periodically over several decades, with their shares being rescheduled and written down in several agreements with their creditors. Final payments on their portions of the debt were made between 1905 and 1911. Venezuela’s experience was fairly similar, with the unhappy difference that the British creditors were paid only after military intervention by the British government, which, together with other European powers, blockaded Venezuela’s ports in 1902-1903.

The Central American Federation

After achieving independence from Spain in 1821 and successfully fending off domination by Mexico in 1823, Guatemala, Honduras, El Salvador, Costa Rica, and Nicaragua formed the Central American Federation, also known as the United Provinces of Central America. The federation contracted a loan in London in 1825 and defaulted some years later, after liberal-conservative conflicts erupted in 1838 and led to the breakup of the federation in 1840.

Based on the precedent set by Great Colombia, and under similar pressure from the British Foreign Office, the successor states of the Central American Federation agreed to share the external debt in proportion to their respective populations. Estimates of their populations had already served as the basis for federal representation in Guatemala City, the former capital of the federation.

The motive for the Central American successor states to accept shares of the burden of the federal debt was, again, desire for recognition of their independence by the British Empire and consequent consolidation of their sovereignty (Gonzalez Viquez, 1977). Guatemala agreed to assume five-twelfths of the debt; Honduras, Nicaragua, and El Salvador agreed to two-twelfths each; and Costa Rica agreed to assume one-twelfth (Figure 2).

With the exception of Costa Rica, all the successor states experienced debt-servicing difficulties following division of the debt. Honduras, El Salvador, and Nicaragua were in default for many years, until they finally paid their shares in the 1860s. Guatemala was in default still longer. It finally paid its debt between 1917 and 1927, but only after a series of restructurings under which its creditors accepted substantial reductions in the nominal value of their claims.

The Austro-Hungarian Empire

After World War I, the debts of the defeated and dismembered Austro-Hungarian Empire were divided into nonwar and war debts, with the latter being defined as those contracted after the outbreak of the war...
in 1914. Because Austria and Hungary were deemed to have been responsible for the empire’s participation in the war, the victorious Allies held them accountable for all of the war debts. The Allies also effectively decided the division of the nonwar debts, which—apart from railway debt—had all been contracted separately by either Austria or Hungary. Responsibility was to be shared among all the states in accordance with the contribution made by the area of each successor state to the tax revenue of the empire between 1911 and 1913, the three years immediately prior to the outbreak of the war (Antonucci, 1933). The Reparations Commission was charged with gathering information on revenues for these years in order to estimate the responsibility of each state for assuming the external debt.

The Reparations Commission estimates threw most of the burden on Czechoslovakia, Austria, and Hungary, with lesser amounts falling on Roumania, Poland, Yugoslavia, Italy, and Fiume, which was later absorbed by Italy (see Figure 3, which excludes railway debt). These obligations were accepted at the 1923 Innsbruck Conference by the countries involved. Austria, and especially Hungary, expressed dissatisfaction, but Czechoslovakia and the other new states seemed to regard their debt burden as a price worth paying to gain recognition and consolidate their independence.

Of the three countries assigned the largest shares, only Austria and Czechoslovakia made sporadic payments during the interwar period, and their debts were redeemed in the 1950s. The Hungarian share of the debt is still outstanding.

The Ottoman Empire

The other major empire dismembered after World War I was the Ottoman Empire. The new boundaries and the responsibilities of the successor states were defined by the Treaty of Lausanne, signed in 1923. The treaty provided that the territories detached from Turkey should contribute to the servicing of the external nonwar debt of the

---

4 Most of the empire’s war debt was internal. The Austrian and Hungarian governments had issued two-thirds and one-third of such debt, respectively, and had to assume their shares accordingly. For a more detailed explanation of how the war debts were shared between Austria and Hungary, see Antonucci, 1933.

5 As its name indicates, the commission’s main task was to deal with reparation payments.

6 To avoid disagreements regarding the distribution of debt-service payments among creditors, the Reparations Commission decided to centralize such payments in Paris with the Caisse Commune des Porteurs de Dettes Publiques Autrichienne et Hongroise.
Ottoman Empire in proportion to their prewar contributions to the tax revenue of the empire (Wynne, 1951). The shares assigned to the successor states, again determined by the Reparations Commission, are shown in Figure 4.8

Among the successor states of the Ottoman Empire, Italy, Palestine, Lebanon, and Iraq made their debt-service payments in the late 1920s. Turkey renegotiated its debt in 1928, obtaining a substantial reduction; it liquidated its (reduced) debt entirely in 1943.

The Central African Federation

A recent case of an indebted state breaking up is the Central African Federation. The federation was formed in 1953 by the British colonies of Northern Rhodesia, Southern Rhodesia, and Nyasaland. The overwhelming black majorities in Northern Rhodesia and Nyasaland resisted the federation as a plot to maintain white rule, and they became increasingly assertive as the wave of decolonization swept Africa. The federation broke up in 1963, and Northern Rhodesia and Nyasaland achieved independence the following year. The debt that the federation had contracted in Britain was divided up, with Zambia (formerly Northern Rhodesia) accepting 39 percent of the debt and Malawi (formerly Nyasaland) accepting 9 percent. Southern Rhodesia, which was not then independent, accepted liability for the remaining 52 percent (see Figure 5).

Zambia and Malawi serviced their portions of the debt, but Southern Rhodesia, which unilaterally declared independence in 1965, stopped servicing its portion until it became legally independent as Zimbabwe and was reaccepted by the international community in 1980. At that time, the government of Zimbabwe and the Council of the Corporation of Foreign Bondholders reached an agreement to restructure the debt; the terms of this agreement are still being observed. The principle governing the division of the federation's foreign debt was the 1962 contribution of each territory to the gross domestic product (GDP) of the federation (Southern Rhodesia, 1963).

7 During the Balkan War (1912-1913), the Ottoman Empire had lost territory to Greece, Serbia, Montenegro, Bulgaria, and Albania. This was taken into account in the Treaty of Lausanne, which exempted these states (or, in the cases of Montenegro and Serbia, the successor state of Yugoslavia) from assuming shares of the external debt contracted by the empire after the outbreak of the Balkan War in October 1912.

8 The map shows the frontiers of the Ottoman Empire after the Balkan War of 1912-1913 and therefore excludes the territory lost in that war.
The cases examined above involved a clean division of the debt among the successor states, each of which was responsible for servicing its share of the inherited debt. If a state failed to do so, its creditors could not turn elsewhere for redress, and its failure could not jeopardize the relations of other states with the creditors. The historical record shows that such a clean division of debt is consistent with very different records of debt servicing by the individual successor states.

The record also shows several examples of an alternative principle, namely, that the entire external debt might be taken over by the principal successor state. As noted above, this practice was followed when Panama separated from Colombia and when Bangladesh broke away from Pakistan. A similar principle was followed for the war debts of the Austro-Hungarian Empire, which were assigned exclusively to the two successor states that had been politically dominant in the old empire. It was this principle—newly christened the "zero option"—that Russia offered in lieu of the joint-and-several formula put forward by the G-7 creditors.

The joint-and-several formula imposed on the Soviet successor states was, as noted, a novelty in the context of international debt. Indeed, it is an idea drawn from the very different world of domestic loans made jointly to several partners. In domestic loan contracts, lawyers include the joint-and-several provision to increase the assurance that a loan to multiple partners will be serviced on schedule: the inability of any one partner to pay its share will be offset by additional payments by the others; the lender will suffer no loss as long as at least one of the debtors remains solvent and liquid. Because there is increased assurance of repayment, the loan is presumably made on finer terms than the lender would otherwise concede. Moreover, the partners accept the joint-and-several responsibility voluntarily, and (one assumes) because they trust their partners to honor their respective commitments.

Choosing a Formula

What criteria might be relevant in choosing among these three alternative principles for dividing the debt of a state that fragments?

A first criterion is that the division should avoid creating unnecessary externalities. In order to get incentives right, both the benefits of servicing the debt according to agreed-upon terms and the costs of failing to do so should accrue exclusively to the same state. A debtor country that makes an effort to service its debt should expect to see its
own credit rating improve in consequence, and there should be no possibility of this improvement being eroded by free-riding behavior on the part of other states. No state should be tempted to calculate, or miscalculate, that an interruption of debt service will not offend its creditors because its partners will pick up the burden. No state should be tempted to embarrass partners with whom it has some extraneous conflict by failing to service its portion of the debt. In addition, non-payment by one or several of the parties should not be allowed to create a cover for others to suspend payment as well.

All these potential sources of tension among the successor states, and between them and their creditors, arise with the joint-and-several formula, but all are avoided by the clean division of debt offered by the other two alternatives. A clean division of the debt, including the special case in which all the debt is taken on by one party, internalizes all of the possible externalities noted above. That is how economists tell policymakers they should design contracts.

A second criterion might be ease of negotiation. As noted in the previous section, the division of the inherited debt among the successor states proved controversial in several historical cases, so one might see some advantage in a principle that avoids the need for bickering over burden-sharing. The only principle that might further this objective, however, is the zero-option formula, for the joint-and-several option creates as much need to divide up the responsibility for debt service as does a clean division of the debt. Ironically, the actual division of the debt among the former Soviet republics in the autumn of 1991 was determined with relatively little difficulty (although several republics delayed acknowledging their shares for some months). The formula used took account of the previous share of each republic in total Soviet GDP, in exports, imports, and in population. The shares agreed upon at that time are shown in Figure 6.

A third criterion might be fairness. Even if fairness is not regarded as valuable in and of itself, arrangements that are perceived to be manifestly unjust will have the potential to spark future conflict, and fears of future conflict may undermine confidence that an agreement will be honored even if the conflict never actually erupts. This criterion argues against the zero option, unless the dominant power assuming the responsibility for debt servicing has previously obtained the lion's share of the benefits of the past external borrowing. This was perhaps true in the case of Pakistan.
The Zero-Option Formula

In the case of the former Soviet republics, the main advocate of the zero option has been Russia, which volunteered to assume the responsibility for servicing the entire debt. Russia did, however, ask for something in exchange, namely, that the other republics renounce any claim to the external assets of the Soviet Union. These external assets consist of (1) gold and foreign exchange, the holdings of which have recently been very modest relative to the size of the external debt, (2) property, notably embassies, and (3) the portfolio of loans (with a face value larger than the Soviet Union's hard-currency debt) previously made by the Soviet Union. There can be little doubt that the total value of these assets is less than the value of the debt. Why, then, did Russia advocate such a solution and why did Ukraine oppose it?9

Russian advocates of the zero-option offer consider it generous in the sense that it will leave the other republics distinctly better off than they otherwise would be, but they also see it as advantageous to Russia. They support the offer by arguing, first, that Russia's natural resources give it a much better chance than most of the other republics of earning in the medium term the hard-currency surplus necessary to repay the debt. They maintain, second, that most of the assets other than gold and foreign exchange would be of little value if their ownership were dispersed among the fifteen republics—1 percent of the ex-Soviet embassy in Brasilia would be of no use to Armenia, for example. But more important, uncollected claims on the debtors of the former Soviet Union would be of no use to any of the republics. The Russians point out that even those debtors that could afford to service their obligations to the former Soviet Union (like India and Libya) ceased paying any debt service as soon as the breakup of the Soviet Union gave them a legal excuse to do so. Concentration of the claims would raise hope of being able to resume collecting service on at least some of the outstanding debt.

The Russians argue, third, that the zero-option principle is the quickest way to escape the joint-and-several formula, which proved to be unworkable (no republic except Russia paid any debt service at all in 1991), and which was blocking a Paris Club rescheduling. A possible fourth reason, not openly articulated by the Russians, may be their desire to maintain Russia's status as the regional hegemon.

Why should Ukraine oppose the zero option? There seem to be two reasons. One is doubt about whether the bargain is in fact a good one in financial terms. Perhaps one day the fabled hoard of gold purportedly hidden by the communists will be found. And how much are those embassies worth? How valuable are the claims on the developing-nation debtors? Above all, given that most of the former Soviet debt will be rescheduled for the next few years and that there may be some debt relief in the longer term, is it really such a benefit to be rid of it? The second reason the zero option may seem a dubious bargain to Ukraine is surely the obverse of Russia's desire to remain the regional hegemon; Ukraine wants to be recognized as a power comparable in standing to Russia. Just as the successor states of Great Colombia and the Central American Federation, and Czechoslovakia after it left the Austro-Hungarian Empire, all consolidated their sovereignty by accepting a part of the debts of the countries from which they had sprung, so today Ukraine would be willing to pay in order to reinforce its national independence.

Our analysis suggests that there is nothing to be said in favor of the joint-and-several formula as a way of organizing the debts of the Soviet Union's successor states. The formula externalized what should have been internalities, and it gained nothing for the successor states in terms of greater fairness or easier negotiations on burden-sharing. Unlike the domestic context in which the joint-and-several formula is familiar, the republics could not choose their partners, and mutual trust was clearly limited at best. In fact, the formula worked so badly that it has now been abandoned.

The G-7's Motives

Why did the G-7 impose the clearly faulty joint-and-several formula on the republics? A combination of two factors seems to have been at play. One is that the G-7 creditors thought the formula would help prevent or limit the disintegration of the Soviet Union; the other is that they thought it would improve their chances of being repaid.

With regard to the first factor, one must remember that these negotiations took place in November 1991, before the Soviet Union had finally dissolved and when the G-7 still regarded Mikhail Gorbachev as its best friend in the region. The requirement that the debt be handled centrally was the natural complement to an accord

---

9 Ukraine did sign a protocol in November 1992 giving Russia the right to renegotiate the debt in return for Ukraine's renouncing its claim on the financial assets bequeathed by the Soviet Union, but with a rider requiring that Russia provide a full accounting of the external assets and liabilities before January 1, 1993. Because Russia did not satisfy that requirement, Ukraine exercised its right to withdraw its (qualified) acceptance of the zero option.
framed with nominally independent republics agreeing to hold themselves jointly and severally responsible for payment. It was also viewed as a way of fortifying the eroding authority of Gorbachev’s union government against that of the republics. Once the union government had actually disappeared, however, joint responsibility as an instrument to sustain the center made no sense; a requirement for centralized debt management would impose a divisive task on the central authority that would jeopardize rather than enhance the prospects for continued cooperation.

With regard to the second factor, the G-7 believed that a number of the small republics would find it impossible to service any debt, and that contagion would then increase the chances of default even by those republics for which payment was possible. This argument depends critically on the contention (also argued by the Russians) that most of the republics other than Russia have no capacity to service external debt (see Williamson, 1993). But the fact that most non-Russian republics have historically had only minimal hard-currency earnings does not rule out their capacity in the future to service hard-currency debt. Latvia, for example, had virtually no hard-currency earnings in the past, but that was because the Soviet planners chose to make Latvia sell its output in the internal rather than the international market. In the long run, moreover, the ability to service hard-currency debt will not depend solely on the ability to export to the hard-currency countries. Once market-oriented reforms have been implemented, Latvian exports to Russia will earn rubles that can be converted into dollars to service debts (or of course to buy imports). Thus, it was wrong to assume that a clean division of the debt would have forced some republics to renege on their obligations and would thereby have threatened a contagious spread of debt repudiation.

4 Future Policy

Even if we agree that the G-7 blundered in imposing the joint-and-several formula rather than dividing the debt cleanly among the successor states, it is now too late to adopt that historically accepted solution. In early October 1992, Russia put forward the zero-option offer, and, apart from Ukraine’s prevarications, all the other republics have now accepted it.

As noted, Ukraine was still resisting the zero option at the time this essay was written. It is not clear this opposition is well-advised, but neither would it seem difficult to allow Ukraine to take over its share of the debt (16.4 percent) in return for an equal share of the external assets. It would be important that the division of the assets be done in a sensible way so as not to impair their total value. Embassies, for example, would need to be taken over entirely by one or the other of the two countries (unless they were prepared to share a building indefinitely). Either Ukraine might take over buildings worth 16.4 percent of the total value or Russia might compensate Ukraine by an equivalent sum. Similarly, Russia should become sole owner of the foreign loans so as to maximize the debt service they yield, and it should then pass on 16.4 percent of the earnings to Ukraine. Satisfactory arrangements could clearly be devised given even a modicum of goodwill.

It seems apparent, however, that the main opposition to allowing Ukraine to take over its share of the debt stems, not from Russian concerns about the difficulty of dividing the assets, but from the continued G-7 concern about whether the debt will be serviced.

The other important issue regarding the debt of the former Soviet Union concerns the terms on which it will be restructured. As this essay goes to press, it is reported that Russia is very close to reaching a deal with the Paris Club that will limit the overall debt-service payments due in 1993 to a figure more or less within Russia’s capacity to pay. This is reputed to be a conventional Paris Club agreement confined to principal and interest falling due within a 12-month period, with the balance that cannot be serviced being rescheduled at “commercial” interest rates. The question that arises is whether such treatment is appropriate.

Economic Recovery

The basic principle that should inspire the policy of the G-7 is that

alone from the rest of the world. And Russia does not plan to extend ruble convertibility to rubles held by other republics when internal convertibility is achieved. But “external convertibility” is intended to come some day, and, at that time, the other republics will be able to use earnings of Russian rubles to buy hard currency.

Should the zero option fall through and Ukraine take responsibility for 16.4 percent of the debt, Russia will presumably be in a position to finalize the renegotiation of its 83.6 percent of the debt quickly, and the Paris Club will then have to start negotiating with Ukraine on its share.
helping Russia and the other republics to recover is more important than getting repaid quickly. Implementing that principle requires a willingness to provide real resources when there is assurance that they will be used to good effect. It is no longer seriously argued that growth can be achieved by political will and policy reform alone, without an injection of foreign resources. Of course, large sums of money should be disbursed only in support of a policy framework that assures that the resources will be used constructively (although it would be unrealistic to imagine that the industrial countries could terminate all aid if Russia and the other former republics were to meander along with half-baked programs).

Table 1 suggests that observing the current debt-serviceing schedule would be prohibitive for the Soviet successor states. Without policy reform, it is inconceivable that the debt can be serviced; with policy reform, an attempt to service the debt would jeopardize the prospect of economic recovery. In neither case does it make sense to insist that Russia (or any other successor state) should make a massive negative resource transfer.

There are, of course, various ways to ease this pressure. One possibility is to resort to "exceptional finance," that is, to allow arrears to develop or to resort to repeated reschedulings. We would argue that this is justifiable only as an emergency solution, as there are important disadvantages in a country's failing to fulfill the terms of its contractual obligations. The consequent erosion of confidence not only prevents new lending but also fuels capital flight and prevents the repatriation of flight capital. The capital flight from which Russia is currently suffering presumably owes something to the abandonment of any attempt to respect or enforce contractual obligations.

Contrary to the conventional wisdom at the onset of the 1980s debt crisis, it seems clear now that the critical issue is not that a debtor honors the original terms under which it contracted international debt, but that it honors the terms as they are adjusted to meet new circumstances. The idea that markets have long memories and that failure to abide by original contract terms must shut a country out of the markets for years to come is refuted by the fact that money has recently surged back to Latin America. This is illustrated vividly by the rapid turnaround in sentiment following Mexico's Brady deal, which resolved doubts about Mexico's ability and willingness to service debt on revised terms. The markets may be myopic, but they are fundamentally forward-looking rather than backward-looking. Most lenders realize it is impossible to make explicit provision for every conceivable contingency in a debt contract, and that circumstances may arise in which the borrower cannot reasonably be expected to abide by the original terms. The important point is to ensure that, when such circumstances arise, the contract is revised promptly and reasonably equitably so as to reflect the new realities.

### Debt Restructuring

A second objective of policy should be to achieve a permanent debt restructuring that will avoid the need for further reschedulings. This necessarily involves reducing future policy leverage, so it is an action that makes sense only when the creditors are confident that the debtor country's policy is firmly set in the right direction.

An important question with regard to debt restructuring is whether it should take the form of debt relief (or its ugly official euphemism, "debt reduction and debt-service reduction") or of a long stretch-out in maturities. Either can give liquidity (cash-flow) relief. Because the creditors will naturally prefer a stretch-out in maturities if that is consistent with the overriding objective of achieving economic recovery, one has to expect a trade-off between the amount of debt relief and the extent of cash-flow relief that a debtor can achieve. On which should Russia focus?

By international standards, the stock of the debt owed by the former Soviet Union is not particularly high, even if it is all inherited by Russia. It is estimated that the total debt was $85 billion at the end of 1989 and $86 billion at the end of 1991. As Table 2 shows, this is well below the debt of Latin American countries with much smaller populations.

**Table 1**

| External Debt Burdens in the Former Soviet Union and Other Countries, 1989-1992 (debt service as a percentage of exports) |
|---|---|---|---|---|
| Former Soviet Union |   |   |   |   |
| Contractual | 24.2 | 61.7 | 41.3 | 47.4 |
| Actual | 23.9 | 34.5 | 30.6 | n.a. |
| Brazil | 29.8 | 20.8 | 27.8 | 37.3 |
| Mexico | 37.9 | 29.3 | 30.2 | 26.2 |
| Bulgaria | 32.3 | 17.0 | 24.2 | 18.3 |
| Poland | 10.1 | 4.9 | n.a. | n.a. |

Debt is customarily compared with exports and GDP to obtain measures of a country’s debt burden. According to the statistics in the joint study of the Soviet economy (IMF et al., 1991, table II.2.6), Soviet exports to the convertible-currency area were $35 billion in 1989, of which Russia provided about 70 percent. Exports to the socialist bloc were valued (in rubles) at over twice those exports to the convertible-currency area. This figure certainly gives an exaggerated measure of the value of exports to the socialist bloc, which was a captive market paying systematically inflated prices for industrial products. Even if one were to assume, however, that exports to the socialist bloc were no larger than those to the convertible-currency area, the debt-to-export ratio for Russia would have been only about 112 percent, well below the threshold of 200 percent that a common and rather conservative rule of thumb holds to be the maximum safe ratio. Exports have fallen sharply since 1989, but the long-run debt-servicing potential may be better measured by the level of exports achieved before the collapse than by current values.

It is even more difficult to get a reasonable estimate of past Russian GDP than of previous Russian exports. Estimates of Soviet GDP for 1989 ranged from a high of $2,664 billion (CIA, 1989) to a low of $80 billion. The low figure was based on 1989 GDP of a trillion rubles converted at the black-market exchange rate of 12 rubles to the dollar. It is well known, however, that black-market exchange rates tend to be

<table>
<thead>
<tr>
<th>Population and External Debt in Russia and Latin America, 1989</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population (millions)</strong></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Russia</td>
</tr>
<tr>
<td>Latin Americab</td>
</tr>
<tr>
<td>Argentina</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Mexico</td>
</tr>
</tbody>
</table>


* Assuming GDP of $300 billion (see text).

**Includes** the Caribbean.

Moreover, the export figure does not register Russian exports to the other republics.

13 The share of short-term debt at the end of 1989 reached 33 percent, as compared to 19 percent two years earlier (Shatalov, 1992, pp. 1-2); it has undoubtedly increased further since then.
former Soviet Union. Germany, as the largest creditor by far, would gain by a formula that facilitated debt service through an input of new money given by the industrial countries in proportion to their economic weight (Bulow, Rogoff, and Bevilaqua, 1992).

If and when the G-7 decides that Russian reform is sufficiently consolidated to merit a definitive debt restructuring, and if the G-7 manages to sort out the distributional problem arising from Germany’s lopsided creditor position, it will still need to design the debt restructuring so as to push out maturities. It would seem necessary to resort to substantial interest capitalization, given that capital flight is unlikely to cease until debt is once again being serviced on contractual terms and that no possibility exists of paying much interest until capital flight ends. The G-7 has always argued that interest capitalization is a bad idea because it deprives debtors of access to new credits. This is an odd argument for the G-7 to make, however, for, for the G-7 governments themselves have set the rules that insist that interest capitalization precludes new credits. Nevertheless, it is probably a good idea to avoid total interest capitalization so as to maintain the principle that debt should be serviced.

One possible plan might consolidate the whole of the outstanding public-sector debt into long-term loans, with a maturity of perhaps 25 years, a lengthy grace period of perhaps 10 years, and a substantial, but possibly decreasing, proportion of the interest being capitalized at the beginning, say for the first 5 years. Medium-term debt to the commercial banks might be restructured in a broadly similar way, although some differences would probably be appropriate. Experience has shown, for example, the wisdom of continuing to service trade credits and analogous short-term debt, without which a country finds it difficult to engage in trade on a normal basis.

The G-7 has been severely criticized for its handling of the challenge posed by the attempt to liberalize the economies of the former Soviet republics. This essay argues that censure of the G-7 is indeed merited with regard to the joint-and-several formula it imposed on the external debt of the former Soviet Union. Fortunately, that episode is now largely over. Even if the zero-option formula (or any substitute involving a Ukrainian share) leaves something to be desired, acceptance of the zero option is much better than stubborn insistence on the joint-and-several formula would have been. This does not mean, however, that the G-7’s responsibilities have now been fulfilled. The G-7 still faces the need to design a permanent restructuring of the former Soviet debt when policy reform has advanced far enough to justify such a step, and it still faces the larger and continuing challenge of how Russia and the other republics design a set of policy reforms that will justify consolidating the debt.

References


Notice to Contributors

The International Finance Section publishes papers in four series: ESSAYS IN INTERNATIONAL FINANCE, PRINCETON STUDIES IN INTERNATIONAL FINANCE, and SPECIAL PAPERS IN INTERNATIONAL ECONOMICS contain new work not published elsewhere. REPRINTS IN INTERNATIONAL FINANCE reproduce journal articles previously published by Princeton faculty members associated with the Section. The Section welcomes the submission of manuscripts for publication under the following guidelines:

ESSAYS are meant to disseminate new views about international financial matters and should be accessible to well-informed non-specialists as well as to professional economists. Technical terms, tables, and charts should be used sparingly; mathematics should be avoided.

STUDIES are devoted to new research on international finance, with preference given to empirical work. They should be comparable in originality and technical proficiency to papers published in leading economic journals. They should be of medium length, longer than a journal article but shorter than a book.

SPECIAL PAPERS are surveys of research on particular topics and should be suitable for use in undergraduate courses. They may be concerned with international trade as well as international finance. They should also be of medium length.

Manuscripts should be submitted in triplicate, typed single sided and double spaced throughout on 8½ by 11 white bond paper. Publication can be expedited if manuscripts are computer keyboarded in WordPerfect 5.1 or a compatible program. Additional instructions and a style guide are available from the Section.

How to Obtain Publications

The Section’s publications are distributed free of charge to college, university, and public libraries and to nongovernmental, nonprofit research institutions. Eligible institutions may ask to be placed on the Section’s permanent mailing list.

Individuals and institutions not qualifying for free distribution may receive all publications for the calendar year for a subscription fee of $35.00. Late subscribers will receive all back issues for the year during which they subscribe. Subscribers should notify the Section promptly of any change in address, giving the old address as well as the new.

Publications may be ordered individually, with payment made in advance. ESSAYS and REPRINTS cost $8.00 each; STUDIES and SPECIAL PAPERS cost $11.00. An additional $1.25 should be sent for postage and handling within the United States, Canada, and Mexico; $1.50 should be added for surface delivery outside the region.

All payments must be made in U.S. dollars. Subscription fees and charges for single issues will be waived for organizations and individuals in countries where foreign-exchange regulations prohibit dollar payments.

Please address all correspondence, submissions, and orders to:

International Finance Section
Department of Economics, Fisher Hall
Princeton University
Princeton, New Jersey 08544-1021
List of Recent Publications

A complete list of publications may be obtained from the International Finance Section.

ESSAYS IN INTERNATIONAL FINANCE

156. Sebastian Edwards, The Order of Liberalization of the External Sector in Developing Countries. (December 1984)
160. Stanley W. Black, Learning from Adversity: Policy Responses to Two Oil Shocks. (December 1985)
161. Alexis Rieffel, The Role of the Paris Club in Managing Debt Problems. (December 1985)
163. Arminio Fraça, German Reparations and Brazilian Debt: A Comparative Study. (July 1986)
164. Jack M. Gutten tag and Richard J. Herring, Disaster Myopia in International Banking. (September 1986)
166. John Spraos, IMF Conditionality: Ineptual, Inefficient, Mistargeted. (December 1986)
175. C. David Finch, The IMF: The Record and the Prospect. (September 1990)
178. Alberto Giovannini, The Transition to European Monetary Union. (November 1990)
183. Michael Bruno, High Inflation and the Nominal Anchors of an Open Economy. (June 1991)
186. Alessandro Giustiniani, Francesco Papadia, and Daniela Porciani, Growth and Catch-Up in Central and Eastern Europe: Macroeconomic Effects on Western Countries. (April 1992)
187. Michele Fratianni, Jürgen von Hagen, and Christopher Waller, The Maastricht Way to EMU. (June 1992)

PRINCETON STUDIES IN INTERNATIONAL FINANCE

55. Marsha R. Shelburne, Rules for Regulating Intervention under a Managed Float. (December 1984)
60. Thorvaldur Gylfason, Credit Policy and Economic Activity in Developing Countries with IMF Stabilization Programs. (August 1987)
61. Stephen A. Schuker, American “Reparations” to Germany, 1919-33: Implications for the Third-World Debt Crisis. (July 1988)
64. Jeffrey A. Frankel, Obstacles to International Macroeconomic Policy Coordination. (December 1988)
68. Mark Gersovitz and Christina H. Paxson, The Economics of Africa and the Prices of Their Exports. (October 1990)
74. Barry Eichengreen, Should the Maastricht Treaty Be Saved?. (December 1992)

SPECIAL PAPERS IN INTERNATIONAL ECONOMICS


REPRINTS IN INTERNATIONAL FINANCE

27. Peter B. Kenen, Transitional Arrangements for Trade and Payments Among the CMEA Countries; reprinted from International Monetary Fund Staff Papers 38 (2), 1991. (July 1991)

The work of the International Finance Section is supported in part by the income of the Walker Foundation, established in memory of James Theodore Walker, Class of 1927. The offices of the Section, in Fisher Hall, were provided by a generous grant from Merrill Lynch & Company.