

NBER WORKING PAPER SERIES

DEALING WITH DEBT: THE 1930S AND THE 1980S

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Working Paper No. 2867

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
February 1989

An earlier version of this paper was presented to the World Bank Conference on the Debt Crisis, January, 1989. We thank Andrew Brociner, Tony Humm, Mara Leounaki, Anita Santorum and Carolyn Werley for assisting with the research on this project, the Council of Foreign Bondholders for permission to cite materials from their archives, and the Institute of Business and Economic Research at the University of California at Berkeley for logistical support. Albert Fishlow, Marilyn Skiles and Steven Webb provided helpful comments, as did participants in seminars at Oxford University and the Institute for International Economic Studies (Stockholm). This paper is part of NBER's research program in International Studies. Opinions expressed are those of the authors and should not be attributed to any of the above-named organizations.

DEALING WITH DEBT: THE 1930S AND THE 1980S

ABSTRACT

This paper analyzes the sovereign defaults of the 1930s and their implications for the debt crisis of the 1980s. It reports nine major findings. (1) There is little evidence that financial markets have grown more sophisticated over time, or that banks have a comparative advantage over the bond market in processing information. (2) Debt default in the 1930s depended on a combination of factors, including the magnitude of the external shock, the level of debt and the economic policy response, as well as on a range of noneconomic considerations. (3) Countries which interrupted service recovered more quickly from the Great Depression than countries which resisted default. This contrasts with the experience of the 1980s, when no clearcut relationship exists. (4) There is little evidence that countries which defaulted in the 1930s suffered inferior capital market access subsequently. (5) The readjustment of defaulted debts was protracted: the analogy with Chapter 11 corporate bankruptcy proceedings is no more applicable to the 1930s than to the 1980s. (6) Although default led in some cases to a substantial reduction of transfers from debtors to creditors, on balance returns on sovereign loans compared favorably with returns on domestic investments. (7) Creditor-country governments did more in the 'thirties than in the 'eighties to accelerate the settlement process. (8) Global schemes analogous to the Baker Plan were widely proposed but never implemented. (9) In contrast, market-based debt reduction in the form of debt buybacks played a useful role in the resolution of the crisis.

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INTRODUCTION

The history of foreign lending in the 19th and 20th centuries offers a rich lode of evidence on the operation of international capital markets. The last hundred years have been punctuated by a series of crises -- in the 1870s, 1890s and 1930s to cite three instances -- bearing a striking resemblance to the debt crisis of the 1980s. For the historian, that experience provides an exceptional opportunity to study the long-term evolution of international markets and their adaptation to repeated shocks. For the economist, it provides an opportunity to reflect on how the current debt crisis may be resolved. It is not possible to extrapolate directly from historical experience, since institutional aspects of the lending process, including the relative importance of bank and bond finance, the rise of supranational agencies such as the World Bank and the International Monetary Fund, and the role of creditor-country governments in rescheduling, have changed fundamentally over the past century. But even though the extent of institutional variation renders naive the hope that one might be able to draw simple "lessons from the past," it still offers the only evidence we have on the efficiency and distributional effects of different approaches to organizing international lending and readjusting existing debts.

In a series of papers we have examined the interwar debt crisis from this perspective.^{1/} Our analysis has spanned the lending of the 1920s, the defaults of the 1930s, and the debt readjustments of the 1940s and 1950s. This paper summarizes and extends the main conclusions of that research. The discussion will be organized around nine major findings.

1. Interwar investors exhibited sophistication and foresight at the lending stage. Our analysis suggests that the past repayment record of a country, its current political circumstances and its economic policies all figured in the determination of the risk premia on foreign bonds floated in the 1920s. There is little evidence that capital markets have grown more sophisticated over time, or that banks have a comparative advantage in processing the relevant information. To the contrary, the bond market's response to borrower characteristics during the 1920s bears a remarkable resemblance to experience during the post-1970 era of bank finance.

2. Neither monocausal explanations, nor for that matter multivariate explanations limited to economic variables, suffice to explain the incidence and extent of default. While authors such as Diaz-Alejandro (1983) and Fishlow (1985) have pointed rightly to the magnitude of the external shock, proxied typically by the extent of terms-of-trade deterioration, as a leading indicator of default, our own work reveals the importance of other economic variables, including the burden of the debt and the nature of the domestic policy response, as well as noneconomic variables, such as proximity to a major military power and international political links.

3. The implications of different debt-management strategies for subsequent macroeconomic performance remain difficult to isolate. In the 1930s as in the 1980s, efforts to maintain debt service tended to be associated with fiscal austerity, import compression and export subsidies, while the decision to suspend payments was often accompanied by fiscal expansion, monetary reflation and policies of import-substituting industrialization. This wholesale reorientation of a country's macroeconomic stance renders problematic any attempt to pick out the effects of external-debt management

from the entire constellation of policies. The accumulation of evidence points nonetheless to the conclusion that countries which interrupted service on their external debts recovered more quickly from the Great Depression than did countries which resisted default. This contrasts with the experience of the 1980s, for which it is even more difficult to discern a relationship between different debt-management strategies and subsequent macroeconomic performance.

4. There is little evidence that countries which defaulted in the 1930s incurred a cost in terms of inferior capital market access after World War II. Following the conclusion of negotiated settlements with the creditors, countries which previously had suspended interest payments and amortization were offered virtually identical access to the capital market as were countries which had maintained debt service without interruption. This is not to suggest that default was without costs in terms of market access, only that those costs were not borne differentially by countries which interrupted service on their debts once they reached settlement agreements with the creditors. Many of the costs were external to the defaulting countries: neither defaulting nor nondefaulting debtors had significant access to portfolio capital in the decades immediately following World War II.

5. The readjustment of defaulted debts entailed a protracted process of negotiation. The analogy with Chapter 11 corporate bankruptcy proceedings, in which default and readjustment permit a clean break with the past, is no more applicable to the 1930s than to the 1980s. In many cases, interruptions to debt service were only sporadic, and uncertainty over the magnitude of transfers lingered for decades.

6. In contrast to the experience of the 1980s, interwar default in some cases led to a substantial reduction of transfers from debtor to creditor. What we might call "selective

debt relief" was, however, compatible with a reasonable overall rate of return to the creditors. The risk premia charged ex ante sufficed to elevate the average realized rate of return on sovereign loans above the yields on British and U.S. Treasury bonds. Losses to creditors on provincial, municipal and corporate loans, although more extensive, were still sufficient to yield positive ex post returns to British investors.

7. Notwithstanding the contrast conventionally drawn between the extent of government involvement in debt negotiations in the 1930s and the 1980s, creditor-country governments often were intimately involved in the readjustment of interwar debts. The difference between the 1930s and 1980s lies not in the extent of government intervention but in its direction. In recent years creditor-country governments have exerted continuous pressure on the debtors to maintain service on their external debts. In the 1930s and 1940s creditor-country governments pressured debtors and creditors alike.

8. Global schemes to short-circuit the protracted process of bilateral negotiation proved unavailing. Nearly every element of the global plans proposed in the 1980s -- a special international lending facility, matched injections of private and public funds, conversion of existing assets into new ones featuring different contingencies -- was first suggested in the 1930s. Ultimately, those global schemes foundered on the issues of who should fund and control their administration. The failure of the global plans offered in the 1930s does not leave one optimistic about their prospects in the 1990s.

9. Unlike global plans, market-based debt reduction made a useful contribution to resolving the debt crisis of the 1930s by reducing the debt overhang and eliminating marginal creditors. There is little systematic evidence that debt buybacks had a significant impact on secondary market prices, whose movement seems to have been

influenced primarily by changes in the prospects for a negotiated settlement. In contrast to their public statements of disapproval, creditor organizations were willing in private to entertain buybacks out of reserves as part of the readjustment process.

1. The Lending Stage

The international capital markets in the 1920s are accused of having engaged in all manner of excesses. The issue houses pushed questionable obligations on hesitant borrowers and questionable bonds on otherwise cautious investors.^{2/} New entrants into the supply side of the market -- large New York banks which "foresaw a series of lean years in wholesale and industrial banking, and jumped on the new bandwagon of retail banking" -- were particularly guilty of such infractions.^{3/} But they were not alone. Private investors discriminated inadequately between good and bad credit risks.^{4/} Governments failed to monitor the industry adequately and to discourage dubious activities, even erring in the other direction as when, for example, they encouraged the flotation and purchase of German bonds.^{5/}

So it is alleged. Unfortunately, most of these assertions are difficult to test with precision. It is tempting to cite, as successive authors have done, the poor ex post performance of interwar loans as proof of the validity of the interpretation. There are obvious dangers with drawing conclusions on the basis of 20-20 hindsight, however. There was no reason for investors in the 1920s to anticipate an unprecedented macroeconomic crisis on the scale of the Great Depression. That their loans performed poorly given the exceptionally poor state of the world does not suffice to impugn the lending process.

It is more informative to consider the market's ex ante assessment of the risks of foreign lending. In Table 1 we report estimates of the determinants of spreads over risk free rates on foreign loans floated in New York and London in the 1920s. This analysis utilizes ex ante yields to maturity on two samples of foreign bonds.^{6/} The regressions relate the spread between those ex ante yields and contemporaneous Treasury bond rates (consol rates for the U.K.) to country characteristics, current economic policies and shifting capital-market conditions. The specification parallels that adopted by Edwards (1986), who sought to address Guttentag and Herring's (1985) contention that rates charged foreign borrowers on bank loans could not have incorporated adequate country-risk premia because they varied so little across loans. Edwards attempted to test this hypothesis for both bank loans and bonds by regressing spreads on indicators for country risk such as the magnitude of the debt burden, the level of investment, the policy stance of the debtor government, and other characteristics of the borrower and the loan. While he found for the bond market that the spread rose with the debt/GNP ratio and fell with the investment/GNP ratio, consistent with the hypothesis that lenders distinguished among good and bad credit risks, his other coefficients were insignificant, suggesting that investors paid inadequate attention to other indicators of country risk.^{7/}

The regressions in Table 1 seek to replicate the essence of this analysis for the 1920s. The spread on each loan is related to the value of the debt (scaled by exports), to the category of borrower (national governments versus others), to the year in which the loan was issued, and to the geographical location of the borrower. We include also two measures of current economic policies and conditions in the borrowing country: the trade balance and the budget balance. For the 1920s it is not possible to construct a measure of the investment share of GNP like that used by Edwards for the 1970s and

Table 1
Determinants of Spread Over Risk-Free Rate
 Dependent Variable is Spread

	<u>Dollar Bonds</u>		<u>Sterling Bonds</u>	
	<u>Coefficient</u>	<u>S. E.</u>	<u>Coefficient</u>	<u>S. E.</u>
Constant	2.61	0.31	1.97	0.46
Value/Exports	-0.07	0.24	0.0007	0.0007
Municipal	0.11	0.18	-	-
State	0.07	0.17	-	-
Corporate	0.76	0.16	-	-
National Bank	0.04	0.34	-	-
Other Bank	0.14	0.28	-	-
Dominion etc. Central	-	-	-1.52	0.38
Dominion etc. Local	-	-	-1.25	0.69
Foreign Corporate Stocks	-	-	-0.45	0.25
Trade Surplus	-0.20	0.25	-0.56	0.40
Budget Surplus	-0.80	0.40	-0.12	0.41
1921	-0.12	0.26	-	-
1922	0.04	0.25	-	-
1923	-0.01	0.36	-	-
1924	0.17	0.29	0.18	0.48
1925	0.19	0.27	0.39	0.52
1926	0.40	0.26	0.09	0.44
1927	0.38	0.26	-0.01	0.45
1928	0.07	0.27	0.22	0.45
1929	0.06	0.28	0.20	0.48
Western Europe	-0.73	0.18	0.33	0.26
Eastern Europe	1.21	0.26	1.15	0.33
Canada	-1.38	0.19	-0.69	0.85
Central America	-0.79	0.29	-	-
South America	0.50	0.21	0.38	0.67
Japan	0.05	0.36	-0.03	0.38
Australia	-0.91	0.45	-0.29	0.67

Note: for dollar bonds 1920 is the omitted year, while for sterling bonds 1923 is omitted. The omitted country is Germany, while national government is the omitted category of borrower.

R-squared	0.69	0.91
S.E. of Regression	0.00654	0.3876
Number of Observations	207	43

1980s. But neither were investment statistics available to prospective bondholders. Instead, contemporary investment manuals urged investors to focus on the trade and budget balances as the two most important indicators of a country's capacity to generate and mobilize the foreign exchange required to service external debts.^{8/}

The spread on the dollar loans in column 1 varies considerably, with a mean of 2.6 percentage points and a standard deviation of 1.1. The omitted alternatives from the vectors of dummy variables (which are picked up by the constant term) are 1920, Germany and national government bonds. The coefficients on years indicate little tendency of the spread to widen or narrow over time, as one would have expected had foreign lending tended to come into or fall out of fashion.^{9/} Relative to the omitted alternative (national government loans), higher spreads were charged on loans to states, municipalities, corporations and banks, which is consistent with the ex post evidence that loans to national governments outperformed these other loans from the creditors' point of view.^{10/} Only the coefficient on loans to corporations differs significantly from that on the omitted alternative, however. In the case of sterling loans, where the omitted alternative is U.K.-guaranteed British Funds, again there is evidence of informed behavior: higher risk premia were charged on loans to local governments than to central governments, and on foreign than on Dominion issues. These results contrast with those of Edwards for the 1970s; he detected no discernible difference in spreads on loans to different categories of borrowers.

In the equation for dollar bonds, the coefficients on regions suggest, not surprisingly, that the best bond-market reputations were enjoyed by Canada, the Central American republics and Western Europe. Both Canada and the countries of Western Europe had virtually unblemished records of servicing their foreign debts, while the small Central

American republics economically or politically dependent on the United States had little choice in the matter.^{11/} Conversely, the nations of Eastern Europe were charged the largest risk premia. These geographical variations are suggestive of bondholder sophistication, insofar as the pattern of ex post returns indicates that loans to Eastern Europe were relatively risky and that those to Western Europe and Central America were relatively safe. With hindsight, only the risk premium attached to German loans is anomalous. The spreads on loans to Germany, the leading borrower of American funds, were smaller on average than those on loans not only to Eastern Europe and South America but to Australia and Japan as well. This is consistent with the view of the U.S. State and Commerce Departments, voiced as early as 1925, that American investors tended to underestimate the risks associated with investment in German bonds.^{12/}

The results for sterling bonds are basically consistent. The average spread is smaller (1.8 percentage points compared to 2.6 for the U.S.), perhaps reflecting the perception that British loans were less risky given their rather different geographical destination; the standard deviation of the spread is virtually identical (1.0 versus 1.1) to that for dollar bonds. High risk premia were charged the Eastern European countries, while Latin America, Greece and Germany stood in the middle and the Dominions and Japan enjoyed the lowest costs of borrowing.

The dummy variables for countries and regions capture a combination of political factors influencing the likelihood of default and, presumably, reputational factors related to past repayment performance. In a well-functioning market, investors should also take into account current economic policies. The coefficients on the trade and budget balances speak to this question. In the equations for both sterling and dollar bonds, their coefficients have the anticipated negative signs (larger trade and budget surpluses tended

to reduce spreads), although only budget surpluses in the equation for dollar bonds differs significantly from zero at standard confidence levels.^{13/}

Absolute statements about the efficiency of a market are always problematic, but comparative evaluations are more straightforward. In our case, there is no evidence that investors were less discriminating in the 1920s than in the 1970s. There is no evidence that either banks or the bond market possessed a comparative advantage in the pricing of foreign loans.

2. Causes of Default

The debt crisis of the 1930s unfolded in three steps.^{14/} The first, spanning calendar 1931, was dominated by Latin American defaults. Interest and amortization payments were at least partially suspended by virtually every South American country but Argentina. During the second phase, from the beginning of 1932 to the middle of 1933, default spread to Southern and Eastern Europe. The precise amount by which payments were reduced varied across countries, but most countries were affected to some extent. The third phase, whose dawn coincided with the Monetary and Economic Conference of 1933, was dominated by the default of Germany, the single largest foreign debtor.

In the 1930s as in the 1980s, the debt crisis did not have a single cause. Liberal foreign borrowing in the 1920s had increased the debtor countries' vulnerability to external shocks. In many Latin American countries, by 1928 central government debt/export ratios had risen to well in excess of 100 per cent, and interest and amortization on this component of the debt alone could require ten per cent of total export receipts.^{15/} In certain cases, debt/export ratios were considerably higher (Table 2). Germany, the largest single foreign borrower, had reparations as well as commercial

Table 2
Central Government Debt/Export Ratios
(in percentage points)

	<u>1929</u>	<u>1931</u>	<u>1933</u>	<u>1935</u>
<u>Heavy Defaulters</u>				
Brazil	153	163	215	127
Bulgaria	263	288	na	416
Chile	102	327	842	573
Colombia	58	101	123	67
Costa Rica	96	130	174	158
El Salvador	106	153	183	157
Germany	7	34	62	42
Greece	415	750	633	474
Guatemala	65	97	162	123
Hungary	124	251	347	256
Poland	135	212	472	355
Uruguay	147	185	212	148
Unweighted Averages:	139	224	311	241
<u>Light Defaulters</u>				
Argentina	49	73	113	81
Australia	162	684	621	585
Austria	78	157	310	274
Belgium	87	111	190	240
Canada	44	82	98	107
Czechoslovakia	26	48	119	98
Denmark	45	56	57	54
Finland	52	128	74	51
France	na	na	22	18
Italy	12	17	28	30
Japan	69	132	76	57
New Zealand	278	454	400	350
Nicaragua	30	42	53	46
Norway	107	165	133	118
Spain	43	95	137	157
Venezuela	5	1	1	1
Unweighted Averages:	72	150	152	142

Notes: na denotes not available. War debts and reparations are excluded for France. Figures for Australia starting in 1931 include state debts assumed by the federal authorities. Those for Brazil and Chile include selected state and local debts assumed by the federal authorities.

Source: League of Nations, Annual Statistical Yearbook (various issues).

debts with which to contend; in 1928 reparations transfers plus commercial debt service required more than 20 per cent of gross export receipts.^{16/}

Starting in 1928 the debtor countries were battered by a series of external shocks which increased their transfer burden and reduced their debt-servicing capacity. First was the sudden decline in lending by the United States and other creditor nations. The mounting boom on Wall Street diverted American funds from foreign to domestic uses and like a powerful suction pump siphoned off liquidity from the rest of the world. At the beginning of 1928 approximately \$800 million was required to meet foreign debt service payments on dollar debts.^{17/} Net short- and long-term foreign lending by the United States had exceeded \$1 billion in 1927 and reached nearly \$700 million in 1928. Thus, despite the collapse of new lending in the summer of 1928, the new money provided between January and June nearly sufficed to finance that year's dollar debt service costs. In 1929, net short- and long-term lending by the United States turned negative, and the \$800 million bill came due. As in the 1980s, part of the problem was the suddenness of the shift.

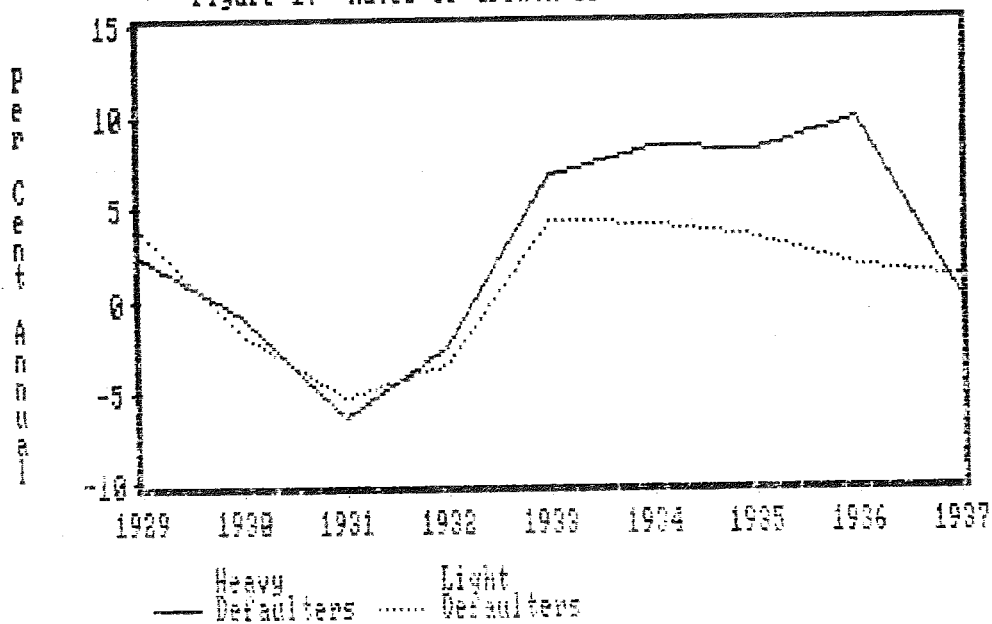
There could have been no less opportune time for the collapse of global commodity markets. Primary commodity exporters had already come under strain. Their terms of trade had been deteriorating steadily over the course of the 1920s. These then dropped like a stone with the onset of the Depression. Lewis (1949) provides the sad litany. "From 1929 to 1930 the average price of wheat fell by 19 per cent, cotton 27 per cent, wool 46 per cent, silk 30 per cent, rubber 42 per cent, sugar 20 per cent, coffee 43 per cent, copper 26 per cent, tin 29 per cent, the index of prices of commodities entering world trade fell from 1929 to 1932 by 56 per cent for raw materials, 48 per cent for foodstuffs and 37 per cent for manufactures."^{18/} It is these developments that

Diaz-Alejandro (1983) and Fishlow (1985) stress as determinants of default. They emphasize first that the collapse of real export revenues was so severe that countries could avoid default only through the most decisive, concerted action. They suggest that the magnitude of the terms-of-trade decline determined for whom the necessary steps were still feasible. Argentina and Australia continued to service their debts, for example, because as wheat exporters they suffered milder terms-of-trade declines than countries like Brazil, which exported coffee, or Bolivia, which exported tin.

The impact of the export-price collapse on foreign exchange receipts was reinforced by the contraction of export volumes. Between 1929 and 1932, world trade in foodstuffs fell by 11 per cent, trade in raw materials by 19 per cent.^{19/} These observations are consonant with the explanation for default which emphasizes the magnitude of the external shock.

Empirical analysis of the incidence and extent of default suggests, however, that the "commodity lottery" (Diaz-Alejandro's phrase) was only one of several determinants of the borrowing countries' response. In Eichengreen and Portes (1986) we reported regressions relating the percentage of government and government-guaranteed debt in default (for all levels of government) at various points in the 1930s to a vector of country characteristics. These results confirm the importance of the commodity-composition of exports and the export price shock: more severe terms of trade declines increased the incidence and extent of default. But in addition to the commodity lottery, the extent of default was significantly related to a number of other variables. Holding constant the terms of trade decline, more heavily indebted countries were more likely to default.

Figure 1. Rates of Growth of Real National Income



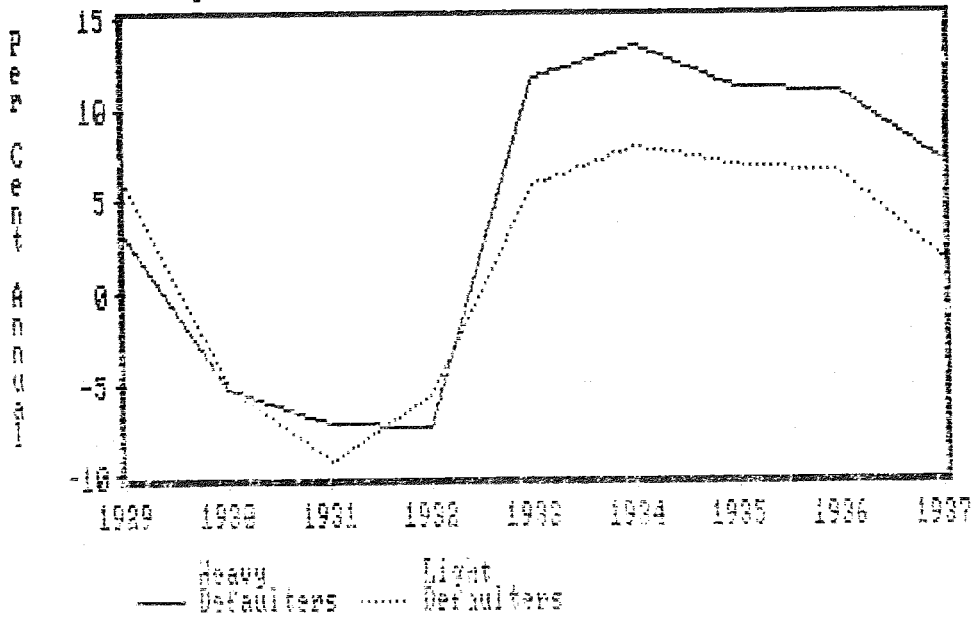
Importantly, however, we found that, in addition to these measures of changes in the debt burden and in debt-servicing capacity, two other sets of variables conditioned the default decision. First, the domestic response to the external shock played an important role. Countries which prevented large government budget deficits from emerging, through either tax increases or expenditure reductions, were less likely to default than their less spendthrift counterparts. To put the point another way, governments least willing or able to retrench fiscally were least able to avoid default. Second, political aspects of the decision whether or not to suspend debt-service payments appear to retain a role even after we control for economic characteristics of the country. For example, our equation significantly underpredicts the level of debt service maintained by Australia. That Australia avoided default on even a portion of her external debt (nonwithstanding attempts to suspend interest payments by a left-leaning state government in New South Wales in 1931, which were countermanded by the national authorities) we attribute to political ties to the country (Britain) to which the vast majority of the debt was owed.

Overall, this analysis provides a nuanced picture of the debt-servicing decisions of borrowing countries. One cannot sustain the argument that the severity of the external shock left each defaulting country with no other option. Neither does it appear that the only factor differentiating their situations was the extent of the terms-of-trade decline. The severity of the external shock, the vulnerability of the economy, the domestic policy response, and a broader range of political factors combined to influence the decision.

3. Macroeconomic Repercussions of Default

In the 1930s as in the 1980s, efforts to maintain external debt service entailed the compression of imports to generate foreign exchange, and a surplus on the non-interest current account of the public authorities to mobilize receipts for service of government

Figure 2. Rates of Growth of Industrial Production

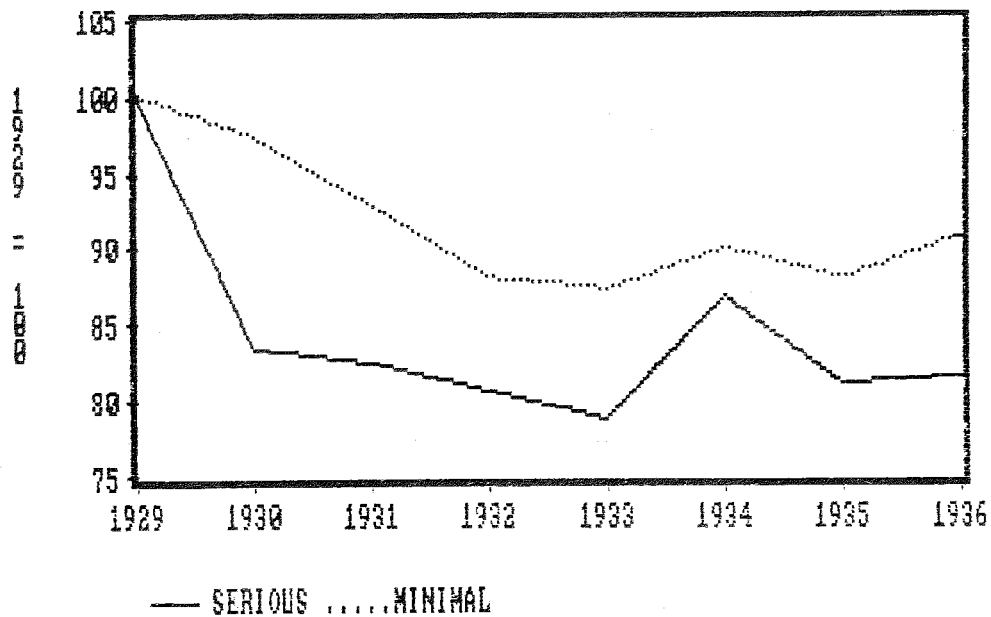


and government-guaranteed debt. As tax revenues declined with the deepening Depression, governments were forced to impose draconian cuts on current expenditures in order to avoid unmanageable public-sector deficits. As export revenues declined and international reserves were run down, the authorities were forced to adopt increasingly stringent monetary stances in an effort to strengthen the balance of payments. In combination, these policies would be expected to have depressed domestic demand in general and on investment demand in particular. Governments willing to suspend interest payments had more scope on this account for adopting monetary and fiscal policies conducive to recovery.

There are obvious parallels with the 1980s, when the Latin American debtors, in a desperate effort to maintain service on their debts, have been forced to adopt policies of austerity which have resulted in nearly a decade of slow growth. But many observers have cautioned the debtors that a moratorium or default, while it may offer immediate macroeconomic benefits in terms of scope for the adoption of reflationary policies, may also have macroeconomic costs in terms of disruptions to export- and capital-market access. Exporters may encounter difficulties in obtaining trade finance or suffer retaliatory trade sanctions.

For the 1930s it is possible to compare economic performance across countries adopting very different policies toward their external debts. Figures 1 and 2 compare the rates of growth of national income and industrial production, respectively, of the "heavy" and "light" defaulters.²⁰ Both GNP and industrial production appear to have expanded more quickly in the "heavy defaulters" after 1931. The simple comparison suggests that countries which opted for default recovered more successfully from the ravages of the Great Depression.

FIGURE 3. INTERNATIONAL TERMS OF TRADE



There are several reasons to treat the comparison with caution. For one, the constellation of policies influencing growth may have differed across countries in ways that are not directly attributable to their different debt-management strategies. Moreover, there is the problem of sorting out the direction of causality. As we explained in Section 2, countries suffering more severe declines in income were more likely to default; now there is a suggestion that countries which defaulted enjoyed more rapid income growth. There is nothing incompatible in the two arguments, but two-way causation poses problems of identification. Even if the problems posed by the joint endogeneity of default and output growth can be solved, there is still the possibility that because production declined more dramatically before 1931 in countries which lapsed into default, the emergence of higher levels of unemployment and excess capacity may have offered more scope for output to snap back later. After suffering more serious terms-of-trade declines before 1931, the serious defaulters may have benefited from more rapid terms-of-trade improvements as international commodity markets recovered thereafter. In fact, however, Figure 3 while confirming the greater severity of the terms-of-trade shock suffered by the heavy defaulters immediately after 1929 suggests that, with the exception of 1934, the terms of trade of the two groups of countries subsequently evolved more or less in parallel.^{21/}

Data limitations, along both the quantity and quality dimensions, preclude the estimation of a simultaneous-equations model to sort out these effects definitively. Our approach is to rely instead on a sequence of simpler descriptive analyses. None eliminates all of the problems acknowledged above, but all tend to point in the same direction.

Table 3 displays regressions in which we relate rates of growth of industrial production to both debt-management strategy (as measured by the share of government and government-guaranteed debt, for all levels of government, in default) and the severity of the external shock (as measured by the terms of trade).^{22/} To control for cross-country differences in the secular rate of growth, the dependent variable is defined as the deviation from the country mean for that variable for the sample period, eliminating the need for a constant term.^{23/} To control for changes over time in the global economic environment, we include a vector of dummy variables for years.

When the terms of trade is included along with the measure of default, both variables tend to be associated with variations in growth. Although the coefficient on the terms of trade exhibits instability, in general it appears that countries suffering more severe external shocks grew more slowly, as one would expect. And strikingly, countries with a larger share of their external debts in default grew more quickly. This continues to be the case when the vector of dummy variables for years is added and when the terms of trade variable is dropped.

One problem with basing inferences on these regressions is the likelihood that the default variable is endogenous. In defense of the ordinary least squares regressions in Table 3 one might argue that only past output growth affects current default, while current default influences future output, rendering the system recursive. In practice, it is entirely possible for effects to run in both directions within a calendar year, however. But the direction of any endogeneity bias should only reinforce conclusions drawn from the ordinary least squares regressions in Table 3. Output growth should have a negative effect on default, while according to Table 3 default had a positive "impact" on growth. If endogeneity is present, it is likely to bias the coefficient on default toward zero,

Table 3
Default and Economic Performance in the 1930s: A Statistical Description
 Dependent Variable is Annual Percentage Change in Industrial Production
 Between the Previous and Current Years, Where the Current Year Runs from
 1929 Through 1937

	Ordinary Least Squares Regressions			Two Stage Least Squares Regressions		
Terms of Trade	-9.67 (6.45)	-18.89 (8.35)	-8.24 (5.63)	-10.39 (9.32)	-3.98 (11.51)	-4.41 (7.08)
Percent of Debt in Default	0.26 (0.04)	0.33 (0.05)	0.20 (0.03)	0.46 (0.09)	0.99 (0.15)	0.59 (0.15)
Import/GNP Ratio *100		1.47 (0.26)	0.61 (0.19)		2.51 (0.41)	1.30 (0.29)
1930			-1.95 (2.37)			2.71 (3.46)
1931			-10.48 (2.22)			-7.37 (3.12)
1932			-18.11 (2.28)			-15.83 (2.83)
1933			-12.21 (2.29)			-12.83 (2.92)
1934			-2.91 (2.26)			-4.26 (2.89)
1935			5.31 (2.39)			3.19 (2.89)
1936			16.07 (7.30)			11.82 (2.95)
1937			24.53 (10.62)			19.69 (3.36)
Standard Error of Regression	16.49	16.12	10.64	17.03	20.93	12.74
R ²	0.15	0.23	0.68	0.10	0.10	0.52
number of observations	214	214	214	204	204	204

Notes: Dependent variable, terms of trade and import/GNP ratio are all defined as deviations from country mean for that variable for the sample period to eliminate country effects. Standard errors appear in parentheses. Number of observations varies because some variables are not available for some countries for some years.

Source: See text.

rendering the estimates in the first three columns of Table 3 lower bounds. The final three columns therefore report two-stage least squares estimates, which utilize as instruments for the percentage of debt in default the determinants of default identified in Eichengreen and Portes (1986). These confirm that the coefficient on default tends to increase in magnitude with this adjustment.^{24/}

To test the "rubber band effect" (that countries which suffered the largest declines in output in the early stages of the Depression had the greatest scope for recovery subsequently), we regressed the rate of growth of production over the recovery period (1931-36) on our default variable, the percentage change in the terms of trade, and the percentage change in production between 1929 and 1931. Table 4 confirms that the effect is present but that its inclusion does not reverse the coefficient on default.

The problem with such regressions is that they may fail to control adequately for other respects in which the external environment and the stance of domestic economic policy conditioned the pattern of growth.^{25/} On the side of policy, the decision whether to continue external debt service was only one of a number of interrelated policy responses to the macroeconomic shocks of the 'thirties. Lacking an articulated model of fiscal policy, there was little conscious manipulation of budgetary instruments in the 1930s.^{26/} Monetary policy was more widely utilized, although monetary authorities were constrained by inflationary fears, by the desire to defend the gold standard, and by doubts regarding the effectiveness of monetary reflation. The most widely adopted measures were the complex of policies referred to under the rubric "import substitution." With the collapse of their export markets following 1929, governments adopted policies designed, to varying degrees, to reduce their economies' dependence on exports and to shift resources to import-competing uses. Exchange rates were devalued, first in

Table 4
1931-37 Percentage Growth of Output
for a Cross Section of Countries

<u>Explanatory Variable</u>	<u>Dependent Variable</u>	
	<u>Industrial Production</u>	<u>GDP</u>
Constant	0.353 (0.094)	0.151 (0.056)
Percentage change in dependent variable 1929-31	-0.417 (0.419)	-1.313 (0.403)
% of total government debt in default	0.002 (0.001)	0.002 (0.001)
Percentage change in terms of trade 1931-37	-0.074 (0.023)	-0.089 (0.174)
Standard error of regression	0.258	.188
R ²	.113	.522
Number of observations	25	24

Notes: Standard errors in parentheses.

Source: See text.

Australasia and Latin America and subsequently in other parts of the world. Increasingly comprehensive systems of tariffs and quotas, often supplemented by exchange controls, were used to limit imports. In some countries credit was extended by the public sector on favorable terms to import-competing industries, and a variety of other measures were adopted to promote their growth. The use of such policies may well have been related to the choice of debt management strategy. Countries like Argentina, for example, which continued to service their debts did so by retaining resources in the export sector and by relying on imports for the provision of other goods. Other countries like Brazil, which reduced or suspended debt-service payments, had neither as urgent a need to generate foreign-exchange receipts nor as favorable access to certain creditor-country markets, and had reason to shift resources into the import-competing sector.^{27/} The simple correlation of -0.30 between the measure of default in Table 3 and the import share of GNP (pooled time-series cross-section data, defined as the deviation of the import share from the country average for the sample period) is consistent with this view.

The consensus view of such policies as they operated in the last quarter century is that they have proven inferior to the alternative of export promotion.^{28/} Experts indict import substitution strategies for having insulated producers from the chill winds of competition, for diverting resources into sectors far removed from comparative advantage, for raising the cost of inputs into domestic production, and for discouraging industry from achieving minimum efficient scale. But it need not follow that import substitution was an inferior strategy in the 1930s. Some country studies suggest that import substitution worked rather well in particular instances.^{29/} It is conceivable, for example, that the effectiveness of import substitution relative to export promotion may depend on the rate of expansion of international trade. When trade is expanding rapidly, as in the

Table 5
GDP Growth
(annual average, percent)

	<u>1979-82</u>	<u>1982-86</u>
<u>Reschedulers</u>		
Argentina	-0.74	0.38
Brazil	3.36	4.03
Chile	1.42	-0.37
Costa Rica	-1.08	1.63
Ecuador	3.84	1.98
Mexico	6.12	0.06
Morocco	3.31	3.83
Peru	2.77	-1.39
Philippines	4.57	-1.16
Uruguay	0.97	-2.25
Yugoslavia	2.11	0.72
 <u>Non-Reschedulers</u>		
Colombia	3.16	2.67
Egypt	2.50	4.63
India	2.75	5.19
Indonesia	6.54	3.61
Israel	2.64	1.98
Korea	4.28	8.47
Malaysia	7.37	3.94
Venezuela	-0.08	-0.22

Notes: Average growth of Mexico, Morocco, Peru and Indonesia is for 1982-85. Average growth of Egypt is for 1982-84.

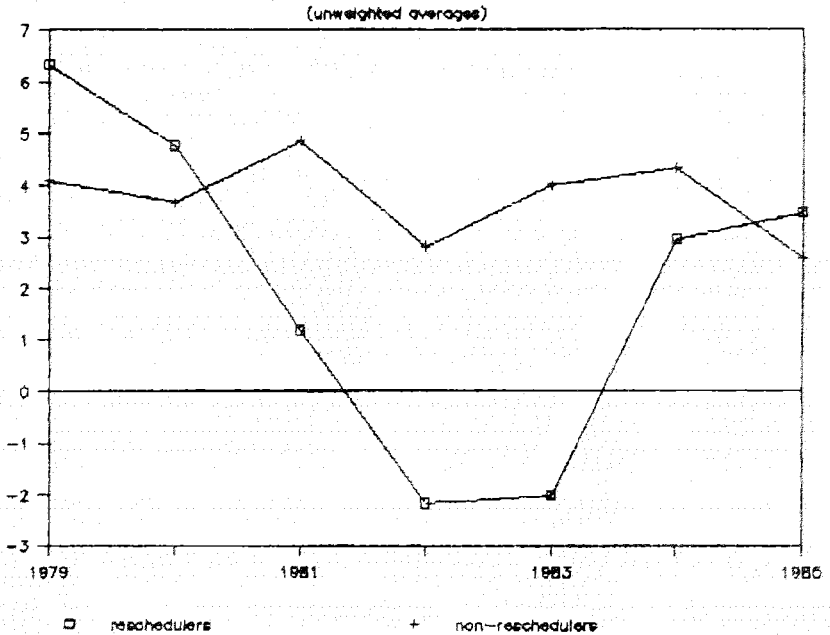
Source: International Financial Statistics (various years).

period since World War II, it may make sense for developing countries to hitch their economies to this locomotive; when trade expands slowly, it may pay to consider other options.

In an attempt to capture the effects of this complex of policies, we added to the Table 3 regressions the import share of GNP relative to the country average for the sample period. This measure captures not the different growth prospects of more- and less-open economies but rather the implications of policies tending to increase or reduce the rate of import growth. The coefficient enters with a positive sign and differs from zero at standard confidence levels, suggesting that countries which raised their capacity to import most rapidly in the 1930s recovered most quickly from the Great Depression. More significantly for our purposes, the coefficient on percentage of debt in default is robust to the inclusion of this additional measure of economic policy stance.

If the data for the 1930s suggest a positive relationship between default and subsequent economic performance, the evidence for the 1980s is much more ambiguous. Part of the problem is the difficulty of distinguishing different debt-management strategies. Most authors' measure of interruptions to debt service, namely prevalence of rescheduling, is an imperfect proxy. Figure 4 and Table 5, which compare growth rates of GDP for defaulting and nondefaulting countries, confirm that the growth of reschedulers accelerated in 1984-85 relative to 1982-83, but shows that their performance was still substantially worse than that of the non-reschedulers. Whereas only one of the non-reschedulers shows a deterioration in its fiscal position, six of the reschedulers do (Table 6). Investment ratios drop much more dramatically in reschedulers than in nonreschedulers (Table 7).

Figure 4. Average Growth, 1979-85



Reschedulers (countries from World Debt Tables categorized as Major Borrowers or Highly Indebted Countries, excluding sub-Saharan Africa, which had not rescheduled prior to 1983 but did reschedule 10% or more of their total debt in any of the years 1983-85, thereby restricting attention to countries that rescheduled only after the 1982 crisis) include Argentina, Brazil, Chile, Costa Rica, Ecuador, Mexico, Morocco, Peru, Philippines, Uruguay, and Yugoslavia. Non-reschedulers include Colombia, Egypt, India, Indonesia, Israel, Korea, Malaysia and Venezuela.

Source: International Financial Statistics.

Once again, the problem with such comparisons is that they fail to control for other respects in which countries differ. One attempt to do so finds little evidence that rescheduling promoted growth. Analyzing macroeconomic performance in 52 developing countries, Lindert (1988) finds that reschedulers performed less well (as measured by the rate of growth of GDP) than did other countries. This result comes through even when instrumental variables are used in the attempt to eliminate simultaneity bias.

Two explanations for this difference between the 1930s and the 1980s suggest themselves. First, compared to rescheduling in the 'eighties, default in the 'thirties offered more scope for redirecting domestic resources toward investment and other domestic uses. Interruptions to debt service in the 1980s have been partial and intermittent, and the net resource transfer to the creditors remains large. Second, the macroeconomic repercussions of default may have been different when interruptions to debt service were widespread, as in the 1930s, rather than relatively isolated, as in the 1980s. It may have been harder for creditors to impose sanctions against defaulting debtors precisely because default was so widespread.^{30/} This brings us to the question of how foreign investors and their governments responded to the crisis.

4. Default and Capital Market Access

The immediate way for creditors to retaliate against default was to exclude the debtor from the capital market. Starting in 1825, the London Stock Exchange refused quotation to new loans of governments in default on outstanding obligations and in extreme instances refused to quote all loans of the offending government. There existed no comparable arrangement in New York, although it was still possible for individual creditors to refuse accommodation to defaulting borrowers.

Table 6
Central Government Deficit or Surplus
 (average of annual figures, percent of GDP)

	<u>1979-82</u>	<u>1983-86</u>
<u>Reschedulers</u>		
Argentina*	-5.4	-8.4
Brazil*	-2.0	-3.7
Chile	3.0	-2.2
Costa Rica	-4.5	-2.2
Ecuador	-2.8	-1.9
Mexico*	-7.1	-3.1
Morocco*	-11.4	-7.5
Peru*	-1.7	-5.7
Philippines	-2.4	-2.6
Uruguay	-2.6	-3.0
Yugoslavia	-0.4	0.0
 <u>Non-Reschedulers</u>		
Colombia	-1.9	na
Egypt	-13.2	-11.0
India*	-6.3	-7.7
Indonesia	-2.1	-1.5
Israel*	-15.0	-14.7
Korea	-2.6	-0.9
Malaysia	-10.4	-10.0
Venezuela*	-0.9	1.4

Notes: Asterisks denote 1983-85 rather than 1983-86.
 For Yugoslavia, deficit or surplus is measured as percent of gross material product.

Source: IFS Yearbook (IMF) except:
 Brazil 1985: Government Finance Statistics Yearbook
 (GFSY) 1987
 Ecuador 1979 and 1980: GFSY and IFS Monthly
 1984 to 1985: IFS Monthly
 Uruguay 1979: IFS Monthly

Table 7
Investment Ratios
 (average of annual figures, percent of GDP)

	<u>1979-82</u>	<u>1983-86</u>
<u>Reschedulers</u>		
Argentina	20.6	12.5
Brazil	21.9	17.9
Chile	18.2	13.0
Costa Rica	26.4	23.5
Ecuador	25.0	18.3
Mexico	26.1	21.0
Morocco	23.2	21.1
Peru	19.2	16.7
Philippines	30.3	18.1
Uruguay	16.1	8.8
Yugoslavia	42.6	29.8
<u>Non-Reschedulers</u>		
Colombia	19.6	18.2
Egypt	32.2	23.4
India	24.5	24.1
Indonesia	24.9	28.2
Israel	23.2	20.6
Korea	30.8	29.7
Malaysia	32.9	30.7
Venezuela	26.3	15.4

Note: Mexico is 1983-85 rather than 1983-86.

Sources: International Financial Statistics (various years) and
World Development Report (various years).

That the capital markets reacted strongly to the defaults of the 1930s is beyond question. For years -- in fact decades -- following the defaults of 1931-33 the volume of portfolio lending remained depressed. Only in the late 1960s and early 1970s did portfolio capital flows recover with the entry of the money center banks into the business of international retail banking. The conclusion drawn by a generation of American and European investors from 1930s experience was that direct foreign investment was preferable to purchases of foreign bonds. As a spokesman of the U.S. National Association of Manufacturers put it in 1949, "After the experience of the 'thirties and the serious balance of payment difficulties now plaguing most of the world, the superiority of equity over loan financing has, we believe, a universal appeal."³¹ Few deceived themselves into believing that the risk of nationalization of direct foreign investments was negligible; that it was thought to be significantly less than the danger of default on foreign portfolio investments is an indication of the scars left by interwar experience.

But there is scant evidence that defaulting debtors were differentially affected. On the basis of their study of six large Latin American debtors, Jorgensen and Sachs (1988) find no observable capital market penalty for 1930s default in the period 1950-64. Lindert and Morton (1987) conclude from their study of more than a century of international lending experience that "defaulting governments have seldom been punished, either with direct sanctions or with discriminatory denial of later credit." Eichengreen (1987) analyzes borrowing by a cross section of 32 countries in the first post-war decade, relating foreign borrowing to both demand-side variables (as proxied by country characteristics such as openness, export variability and inherited debt) and supply-side variables, notably past debt-servicing performance. In those results there is no apparent relationship between severity of interwar default and ability to borrow immediately after World War II.

This is not to deny that lenders were cognizant of default. But the reaction against portfolio investment abroad was general rather than selective. "A general sigh of resolve was to be heard over the United States," Herbert Feis wrote. "Never again should we lend or invest our money in foreign lands."^{32/} American investors, having been rudely reminded of the special risks of foreign loans, revised their assessment of the desirability of lending abroad. The British and others reacted similarly, and they were significantly constrained by controls on capital movements until the end of the 1950s. Hence the market for portfolio investments remained becalmed for more than a third of a century. Sovereign default may have had costs in terms of disruptions to capital market access. But many of these costs were external to the defaulting countries and affected the market access of defaulters and nondefaulters alike.

Two caveats to this conclusion are in order. First, the generality of the capital market's reaction may have been a function of the generality of default. Default having been so widespread, it led to a comprehensive reassessment of the risks of international lending which redounded unfavorably even on countries which had kept their debt service up to date. In contrast, in periods like the 1920s, when the only countries in serious default were Mexico and the Soviet Union, and the 1970s, when debt problems were much more isolated than they became subsequently, the market may have been more inclined to focus on the creditworthiness of particular countries and less inclined to reassess the entire enterprise. Second, the market's tendency to discriminate among countries according to their past debt-service records may differ during periods of stagnation and buoyancy. Ozler (1988b) suggests that during the boom in bank finance in the 1970s, larger spreads over the risk-free rate were demanded of countries with records of having defaulted on loans in the past.^{33/} Still, there is little evidence that defaulters were rationed out of the market, or that faithful servicers were rationed in.

5. The Settlement Process

Observers of the current debt crisis deplore its protracted nature. Investment and growth remain low, while uncertainty about the resolution of the crisis continues to depress bank share prices and to increase the vulnerability of the money center banks to destabilizing shocks. Often a contrast is drawn with the era of bond finance, when debtors were able to make a clean break with past problems and divert scarce resources to productive domestic uses and creditors were able to get on with their business.

In fact, even in the era of bond finance the readjustment of defaulted debts often entailed a protracted process of sporadic suspension and renegotiation. Service might be suspended in part or in full, restarted for some years, suspended again and so forth. Negotiations with the creditors often proceeded on a on-again, off-again basis, and required as much as a quarter of a century to complete. Bolivia, the first country to default in 1931, was also the last major debtor to settle in 1955.

Brazil's experience is illustrative.^{34/} By 1931 the Depression had caused a precipitous fall in Brazilian exports, leading the government in October 1931 to suspend interest payments unilaterally on most of the nation's external debts. In March 1932 a plan was announced to issue 20 and 40 year funding bonds to capitalize interest arrears, and to resume normal interest payments no later than 1934. But in 1934, with the advice of British financial experts, Brazil announced a plan to readjust the debt. The Aranha Plan, designed to run through 1937, limited debt service to roughly half of Brazil's net export receipts. Bonds were divided into seven grades, with funding loans and other select obligations to receive full interest, other Federal, state and local loans partial interest (from 17.5 to 50 per cent of contractual levels), and certain state and municipal loans no interest. At the end of 1937, with the external situation little

improved, debt-service payments were suspended again. Following sporadic negotiations with the creditors, in 1940 Brazil announced another temporary, four year settlement, under which the seven categories of bonds distinguished in 1934 were to receive interest at somewhat modified rates. Finally, in 1943 Brazil and her creditors negotiated a permanent readjustment, in which bondholders had the option of choosing between two plans, one which reduced interest rates from 30 to 70 per cent of contractual levels, and a second under which they would surrender 20 to 50 per cent of capital in exchange for a cash payment of 6 to 60 per cent of par value and somewhat higher interest rates on the remainder.

Thus, while there may be some truth to the notion that in the era of bond finance debtors were better able to jettison their debt overhangs and redirect resources toward domestic uses, the extent of the difference should not be exaggerated. Even when payments were in suspension, there was often a real possibility that they would be restarted. In the 1930s as in the 1980s, investors had reason to be wary about committing funds to domestic investment on the grounds that the authorities still might tax the returns and devote them to debt service. The difference between periods lies not in the uncertainty or in any difference in investment-debt service links, but in the willingness and ability of governments to reduce payments by a substantial fraction of contractual rates.

The central difficulty that negotiators had to surmount was the large-numbers problem created by the existence of a multitude of bondholders. It was even harder than in the era of syndicated bank lending to solicit the opinions of the creditors on a settlement proposal. Yet the British and, after 1933, the Americans came up with a remarkably efficient solution to the representation problem. Committees were appointed

to negotiate with the debtor. Bondholders sometimes were asked to lodge their bonds with the committee, other times simply to register as an interested investor.

Readjustment plans were signalled by the publication of an offer or simply by an announcement that bond covenants were henceforth modified. If the plan was judged to be fair or at least to be the best that could be expected, the committee would recommend its acceptance by the bondholders. The latter signified their approval by cashing a coupon or, when requested, by exchanging the old certificate for a new one. The only option available to dissident bondholders was to hold out for better terms.

The recommendation of a reputable bondholders committee was the seal of approval on an offer. In Britain, where the Corporation of Foreign Bondholders (CFBH) had been in existence since 1868 and was universally acknowledged to represent the creditors, that recommendation carried considerable weight. When the CFBH recommended an offer, any Stock Exchange sanctions could be expected to be withdrawn, and dissident bondholders had little hope of obtaining better terms. In the United States, a comparable organization was created only in 1934 when, with State Department prompting, the Foreign Bondholders Protective Committee came into operation. Prior to that time, bondholders relied on ad hoc committees created to deal with individual defaults. The ad hoc nature of such committees tended to inflate administrative expenses, while the existence of rival committees, as well as committees of dubious reputation, made it difficult for both debtors and creditors to determine who best represented the interests of the bondholders.

6. Terms of Settlement

In contrast to the experience of highly indebted countries in the 1980s, interwar default led in some cases to a substantial reduction in net resource transfers from debtors

to creditors. The estimates of Lindert and Morton (1987), Jorgensen and Sachs (1988) and Eichengreen and Portes (1986, 1988b) agree on this point. Our own calculations, based on two large samples of foreign bonds issued in the 1920s, reveal in addition considerable variation in debtor and creditor experience.^{34/}

To summarize the performance of foreign loans issued between 1920 and 1929, we calculated the nominal own-currency internal rate of return on more than 300 issues. These are summarized in Table 8. For dollar bonds, at one extreme the realized return marginally exceeded the contractual rate, as in the cases of Norway and Canada, due to early debt retirement. At the other extreme, the realized internal rate of return might reach substantial negative levels, such as -7.4 per cent for Brazil, -9.8 per cent for Bolivia and -14.76 per cent for Hungary, indicating that not just interest but a substantial fraction of principal was written off by the creditors.

On average, however, both British and American creditors recovered their principal. Our calculations suggest that, for creditors with diversified foreign bond portfolios who were willing to hold out for final settlement, the defaults of the 1930s were not as disastrous as typically portrayed. The average nominal internal rate of return (weighted by issue value) was roughly 4 per cent on dollar bonds and in the range of 5 per cent for sterling issues. While dollar bondholders settled for approximately half of contractual interest and sterling bondholders settled for only slightly more, on balance the former did only slightly worse than if they had held domestic Treasury bonds, and the latter did slightly better. Ex ante risk premia were nearly sufficient to compensate American bondholders for the risks of foreign lending, while for British bondholders they more than sufficed. Although some debtor countries received what can be interpreted as substantial relief, overall the defaults of the 1930s did not inflict unsupportable losses on the creditors.

Table 8
Realized Rates of Return on Overseas Bonds Issued
in the 1920s, by Borrowing Region
(in percentage points)

<u>Region</u>	<u>Dollar Bonds</u>	<u>Sterling Bonds</u>
Central America	1.46	-
South America	3.50	1.44
Germany	1.12	3.61
Other Western Europe	4.83	4.81
Eastern Europe	2.04	1.45
Canada	5.08	5.18
Australia	5.97	5.26
Japan	6.20	5.30
Other Asia	-	5.92
Africa	-	5.62

Notes: Rates of return on sterling bonds calculated on the assumption that repurchases occurred at market prices. Returns on dollar bonds use market price or par retirements as specified in the bond covenants.

Source: see text.

Three factors contributed to the rather different experiences of investors in dollar and sterling bonds. First, loans to different categories of creditors fared very differently in the 1930s and 1940s. For both sterling and dollar issues, loans to national governments yielded higher realized returns than loans to states and municipalities; loans to states and municipalities in turn yielded higher realized returns than loans to foreign corporations. And American investors purchased a disproportionate share of the speculative bonds issued on behalf of foreign municipalities and corporations. Second, London and New York channelled funds in different geographical directions. London specialized in new overseas issues on behalf of the Commonwealth and colonies, and devoted a smaller share of capital than New York to riskier loans to Latin America and Central Europe. It is difficult to assess the extent to which London's behavior is attributable to the sophistication of a more experienced market, to long-standing political and financial ties with the Commonwealth, to preferential British tax treatment on colonial issues, or to the Bank of England's intermittent embargoes on foreign issues.^{35/} But the combined result of these factors was a significantly lower incidence of default on sterling than on dollar issues.

The differing prevalence of default does not by itself account, however, for international differences in realized rates of return. British creditors also recovered more successfully in the event of default. For the bonds in our sample, the average default on a dollar issue cost the creditors more than four percentage points on realized rate of return, while the average default on sterling issues cost them only about two percentage points. Part of the difference may be attributable to the greater effectiveness of the British Corporation of Foreign Bondholders than of its American counterparts.^{36/} Part may also be attributable to the different stances of the British and American governments, to which we now turn.

7. Government Intervention

A recurrent theme in much of the recent literature on the debt crisis (viz. Sachs, 1986) is that creditor-country governments have continually pressured the debtors to maintain service on their obligations. One might think that in the 1930s and 1940s, when creditor-country banking systems held only a small share of their portfolios in foreign bonds and hence were not at risk in the event of foreign default, creditor-country governments might have felt less compulsion to intervene.^{37/} This view is supported by the tendency of British officials between the wars to cite the remarks of their well-known 19th-century predecessors to the effect that the British government was not a debt collector. American officials argued likewise that the higher returns on foreign loans than on contemporaneous domestic investments represented implicit acknowledgement of, and compensation for, the special risks of lending abroad, and that investors had no justification for seeking assistance.

In fact, governments were intimately involved in interwar debt readjustments. There is nothing unprecedented about the extent of government intervention in the 1980s. The extent and nature of this involvement varied over time and across creditor countries. Thus, British governments in the 1930s were more willing to intervene than the Roosevelt Administration. The British used the Ottawa Agreements of 1932, which provided preferential British market access to the Commonwealth and Empire at the expense of foreign exporters, to secure favorable treatment of sterling debts by Argentina, in return for tariff preferences under the provisions of the 1933 Roca-Runciman Treaty.^{38/} The Americans were more hesitant to link trade and debt, especially once Roosevelt was converted to the arguments of Cordell Hull and the U.S. began to move back toward freer trade with the adoption of the Reciprocal Trade Agreements Act in 1934. The

links between U.S. Export-Import Bank loans and commercial debts varied over time. On some occasions the U.S. extended Eximbank loans despite the existence of unsettled defaults; on others officials made clear that Eximbank decisions had a political dimension and might be torpedoed by Congress without progress on the debt front. Along with several European governments, Britain threatened to impose clearing arrangements upon Germany following her default in 1933, leading to the partial or full resumption of service on Germany's European bonds. No clearing was threatened by the United States, and no significant interest payments were made to Germany's American creditors over the remainder of the decade. But until the outbreak of World War II involved governments directly in nearly every aspect of international trade and finance, their intervention was limited largely to instances where public officials had actively promoted the original issues (as in the case of Germany's Dawes and Young Plan loans) or when the debtor discriminated against one class of national creditors in favor of others.

With the approach of the war, creditor-country pressure for settlement intensified. But in contrast to the 1980s, on more than one occasion considerable pressure was applied to the creditors as well as the debtors. In addition to providing information and advice to the bondholders' representative committee and objecting to discriminatory provisions included in settlement offers, governments sometimes intervened directly in negotiations if they felt that progress was inadequate. A favorable settlement for the creditors was not often viewed as a high priority relative to international trade concessions and international security agreements. Creditors were urged to settle, in no uncertain terms, if their obstinacy stood in the way of these other goals.

Essentially, the difference in government intervention in the 1930s and 1980s lies not in its extent but its direction. Where U.S. officials in the 'eighties have made clear

the priority they attach to maintaining debt service, in the 'thirties and 'forties, when governments intervened, they might pressure both debtors and creditors to reach an early agreement.

8. Global Plans

The debt difficulties that arose at the beginning of the 1980s for Poland, Turkey and others were regarded as country-specific problems. This perception was transformed by the Mexican and Brazilian crises in August-September 1982. These countries not only required emergency rescue packages, but their problems brought the international financial community to recognize that it faced a generalized debt crisis.

The policy reaction was guided partly by the objective of avoiding contagion effects that might lead to a general financial crisis like that of the early 1930s (see Eichengreen and Portes, 1987, for a comparison). The perception that serious debt-servicing problems were already widespread prompted the elaboration of several proposals for global solutions. These plans have been surveyed and analyzed by Cline (1987) and Fischer (1987). Most involved taking the debt off the books of the commercial banks at a discount and reducing the debtors' repayment obligations correspondingly. Typically, they required a new or existing international financial institution to implement the scheme.

Objections to these plans center on three points: the need for a grand political agreement to authorize and initiate the scheme, for uniformity of procedure for all debtors or at least for agreed criteria for discriminating among them, and for taxpayers in creditor countries to defray the cost of debt relief. For all three reasons such general schemes seem unlikely to be adopted.

Most authors of global solutions to the debt crisis of the 1980s are unaware that similar plans were widely discussed half a century earlier. Some, like current proposals under which the World Bank or International Monetary Fund would play a central role, suggested that the newly-established Bank for International Settlements be endowed with the funds and authority needed to readjust defaulted debts on a global basis. Others advocated instead an independent facility under the control of private creditors. Some advocated converting existing debts into new obligations, not unlike the debt-equity swaps and seniority provisions so fashionable today, while others emphasized the need to index payments to export revenues (compare Peru under Garcia) or to service the debt in local currency (see Dornbusch, 1988).

Four sets of global schemes can be distinguished.^{39/} The first proposed to endow the Bank for International Settlements with the resources needed to resolve the crisis. The B.I.S. had been established in 1930 as part of the Young Plan rescheduling of German reparations; it was logical to propose that it might also take charge of other debt problems. Hubert Henderson, a highly-placed British government economic advisor, suggested that the B.I.S. issue unbacked "International Certificates" to exporting countries to finance debt service payments and other economic needs.

The 1931 Kindersley-Norman Plan, named after Montagu Norman, Governor of the Bank of England, and Robert Kindersley, one of its directors, proposed the establishment of a new international facility to make loans to countries and corporations unable to obtain them through normal channels. This new international entity was to be capitalized by the leading creditor-country governments and further financed through the sale of bonds to private investors. The agency would extend new loans to indebted countries unable to obtain them through the market, "reestablishing the credit of the foreign Governments, corporations, etc., to whom the money is lent ... improving the

price of their securities ... and the purchasing power of their nationals."⁴⁰ Like a mutual fund, it would in effect resell packages of these claims to private investors in the creditor countries.

The Beyen and Crena de Jongh Plans, offered by a pair of Dutch bankers to the Standstill Conference in the winter of 1931-32, addressed the problem of short-term debts. Beyen proposed to convert short-term debts frozen by debtor governments into long-term obligations repayable in installments over as long as 20 years. Debtors that did not possess enough foreign exchange to meet their current obligations might be permitted to make payment in local currency and to extend preferential treatment to creditor countries who were their best export customers. Crena de Jongh took the idea of payments in domestic currency a step further. He proposed a central administrator to issue foreign-currency-denominated bonds; the administrator would accept repayment of short-term obligations in domestic currency, invest the currency at home, and pay the creditors out of the proceeds.

Finally, a variety of proposals were mooted during the preparatory meetings that preceded the World Economic Conference of 1933. In a series of meetings with U.S. officials, Britain proposed the establishment of a "normalization fund" to channel capital toward countries requiring foreign funds for purposes including the resumption of debt service. British officials suggested up to \$2 billion of capitalization for the fund, to be subscribed by creditor-country governments. Representatives of the debtor countries endorsed variants of the plan.

It is a pessimistic commentary on the global plans currently under consideration that none of their interwar predecessors bore fruit. Implementing those schemes would have required a serious commitment on the part of the leading creditor-country governments.

But at each juncture, domestic problems diverted their attention from the international debt crisis. In 1931 Britain was battling increasingly intense balance-of-payments difficulties, which ultimately drove her from the gold standard in September of that year. In 1933, the Roosevelt Administration turned toward devaluation and away from international policy coordination precisely when the World Economic Conference was poised to take up the debt problem. As a result that conference limited its efforts to the increasingly turbulent exchange-rate situation.

Even when governments and banks were willing to entertain the possibility of an international debt facility, there remained insoluble problems of finance and control. Under the provisions of the Kindersley-Norman Plan, for example, the bulk of new finance was supposed to come from private investors. But the large investors, such as J.P. Morgan, expressed their unwillingness to contribute unless control over any new organization also rested in private hands. For their part, governments insisted that control be allocated according to the nationality of the finance. In 1931, for example, the Bank of France insisted that control rest with it on the grounds that the largest single share of the funds would be donated by Paris.

Finally, there were debilitating disputes over what countries and what obligations to include. At the 1933 World Economic Conference the United States declared all discussion of war debts off limits. The realization that debt relief on inter-allied obligations was unlikely to be forthcoming weakened the resolve of European countries who would have preferred to take up the whole interlocking set of debts.

9. Market Solutions

In contrast to global plans, market-based debt reduction made a useful contribution to the resolution of the interwar debt crisis. We refer to repurchases of bonds on the

market, often at prices substantially below par. Similar practices have been discussed recently by Portes (1987), USUNA (1988), and Williamson (1988), and been utilized extensively by Mexico (for private sector debt) and by Bolivia. Their efficacy has been a subject of controversy.^{41/} The argument that buybacks out of reserves leave the debtor worse off (since reserves are sacrificed without any reduction in the debt, the market price of remaining obligations simply rising to reflect the country's unchanged debt-servicing capacity) is difficult to reconcile with the revealed preference of interwar governments, many of which utilized the option extensively, as well as with the market prices of the bonds repurchased at the time. In 1939 the Foreign Bondholders Protective Committee estimated that a dozen countries in default had repatriated between 15 and 50 per cent of their bonds since the beginning of the decade. Jorgensen and Sachs estimate that Bolivia repurchased five per cent of its defaulted debt at an average price of 16, that Chile retired 18 per cent at 59, Colombia 22 per cent at 22, and Peru 31 per cent at 21.

Buybacks were controversial. Dornbusch (1988) points to opposition by some creditors, while Skiles (1988) notes that "because creditors objected so strenuously to the practice, most of these bond repurchases were carried out through intermediaries." Another interpretation of the use of intermediaries was that debtors wished to avoid driving up bond prices by signaling their policy through first-person appearance in the market. In fact, the time-series behavior of bond prices suggests little systematic reaction to repurchases of securities in default. There is little evidence that debtors sought to depress prices immediately prior to repurchases, or that buybacks had a major impact on price trends. Figure 5, for example, displays high and low market prices for a sterling loan to the Chilean Government issued in the 1920s, along with estimates of the volume of repurchases of bonds (valued at par).^{42/} The data for a variety of other bonds

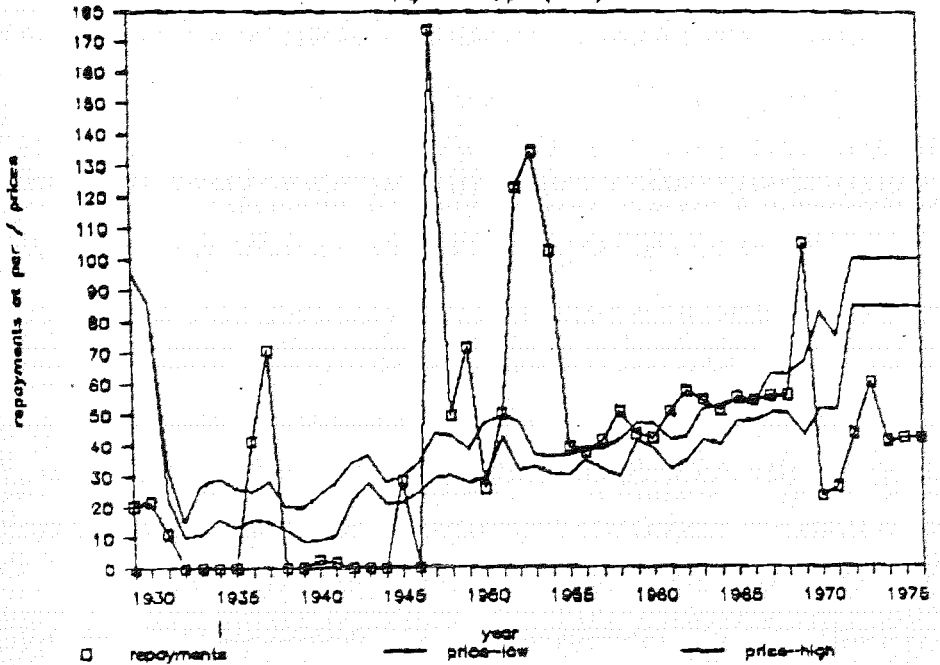
tell a similar story. The Chilean case is particularly interesting since the country was one of the first to engage in extensive buybacks and was the target of criticism by creditors. Figure 5 shows that the buybacks of the second half of the 1930s, second half of the 1940s and first half of the 1950s were not preceded by unusual declines in bond prices, nor did they result in major price increases, although in the 'thirties and 'forties some upward movement in prices is observed.

The private attitude of the bondholders committees toward repurchases differed significantly from their public position on the question.^{43/} In public the bondholders' committees complained that any available foreign exchange should be allocated to the resumption of debt service and contractual amortization rather than to repurchases of defaulted bonds at a discount. They objected to the potential for debtors to manipulate bond prices by declaring their inability to service their debts, and then to turn around and retire the debt as soon as the prices fell. In private, the committees were much more receptive to the practice, especially if it was accompanied by the resumption of at least partial debt service payments, and when the creditors were unlikely to receive a better offer.

Numerous examples could be cited. For example, in December 1936, following the unilateral imposition of restricted repayments and interest by Chile, representatives of the U.S. bondholders refused to accept the reduced interest payments that had been deposited in New York. Chile then borrowed from Schroeders in London on this security in order to purchase bonds in the market. The Council of Foreign Bondholders did not object; it noted with satisfaction that "the Finance Minister so far has obtained and used \$4 million for purchases."^{44/} As part of the 1940 temporary settlement recommended by the Council, the Brazilian authorities devoted "at least \$400,000 in each of four years" to

Figure 5 Chile.

Repayments at par (000's)



purchases in the English market.^{45/} In the 1941 Colombian negotiations, the Council of Foreign Bondholders was asked to agree that all the sterling debt be repurchased in the market. While it objected to the "disastrous precedent" that might be set, its members admitted that "we have long become acclimatized to the idea of a debtor being allowed to devote some sums to amortization, provided that he is paying an agreed percentage on the principal of his debt."^{46/} Typically, the bondholders argued that purchases below par should take place only if at least partial service was being paid. Thus, in 1944 the Council of Foreign Bondholders decided "to refuse to consider a settlement of the Ecuadorean debt by means of a purchase offer at below par" unless at the same time the bondholders were offered an option of partial service on the debt.^{47/}

Perhaps the most revealing exchange surrounded the hearings of the U.S. Securities and Exchange Commission investigation into defaulted for bonds in 1937.^{48/} The SEC had recommended that in order to curb the repatriation of bonds by defaulters measures be introduced to restrain bankers and brokers from dealing on behalf of governments in default. The Council of Foreign Bondholders noted that such restraints on repurchases would be met with "strong and ... effective criticism on the ground that, by limiting the market in such bonds, it would act detrimentally to the bondholders."^{49/}

Clearly, debt buybacks were controversial. But many British and American experts regarded them favorably, especially when they were accompanied by other measures designed to readjust the debt.

CONCLUSION

The international debt crises of the 1930s and the 1980s differ in fundamental ways. In the 1920s lending was mediated by the bond market, in the 1970s by the commercial banks. Since the lending mechanism differed, so did the mechanism for negotiating readjustments of defaulted debts. In the 1930s outright default was common, albeit sporadic. In the 1980s, in contrast, serial reschedulings and other expedients so far have prevented a significant spread of formal default.

Despite these differences, this earlier debt crisis sheds light on a number of aspects of the current situation. It highlights the advantages, from the viewpoint of financial stability, of dispersing foreign obligations across large numbers of private investors rather than concentrating them in the hands of financially vulnerable commercial banks. While reminding us of the sophistication of the bond market, it shows that bondholders historically have been no more adept than the banks in avoiding loans to countries with a repeated tendency to default. It alerts us to the central role creditor-country governments can play in promoting or impeding a negotiated resolution of the crisis. Finally, it reminds us of the serious obstacles to the implementation of any global plan for resolving the debt crisis and underscores the useful contribution to resolution offered by market-based debt-reduction schemes.

FOOTNOTES

1. See Eichengreen (1987, 1988) and Eichengreen and Portes (1986, 1987, 1988a,b).
2. For two accounts of the literature on loan pushing in the 1920s, the first of which is more agnostic than the second, see Skiles (1988) and Darity and Horn (1988).
3. The quote is from de Cecco (1985), p.57. See also the evidence on the lending practices of different banks in Mintz (1951).
4. See the discussion in U.S. Senate (1932).
5. See for example Schuker (1988).
6. The two samples of foreign bonds are described in Eichengreen and Portes (1988b). For Britain we constructed estimates for all 125 overseas bonds offered for subscription and listed by the Stock Exchange Yearbook, while for the U.S. we drew a stratified sample of 250 foreign bonds from the list of more than 1400 such bonds published in Young (1931). After adjusting for the actual price paid by the purchaser, we then tracked interest and amortization payments until the bond issue was extinguished and calculated the nominal own-currency internal rate of return. The number of bonds included in the regression analysis was limited by the availability of explanatory variables. For a similar analysis utilizing grouped data which yields results generally consistent with those reported below, see Eichengreen (1988).
7. Edwards's results for bank loans are basically consistent. In addition, see Ozler (1988a), who suggests that spreads decline with the amount of time the borrower has been in the market.
8. See for example Madden and Nadler (1929). Other variables to which investment advisors referred included the natural resource endowment of the country and the position of the central bank.
9. For both sterling and dollar bonds, the coefficients have signs consistent with this hypothesis, but it is impossible to reject the hypothesis that each individual year effect is zero. This contrasts with the analysis of grouped data for the U.S. in Eichengreen (1988), where there was some apparent tendency of the spread to rise over the course of the 1920s, suggesting that investors recognized the increasingly risky nature of foreign loans.
10. We discuss this evidence on ex post returns in Section VI below.
11. Under the provisions of the Hay-Bunau Varilla Treaty of 1904, the U.S. was permitted to intervene in Panama to preserve order and to supervise the expenditure of government loans placed in the U.S. Under the Platt Amendment, the U.S. was entitled to object to "improvident or otherwise objectionable fiscal policy" in Cuba. The Dominican Republic was under U.S. military administration until 1924, and thereafter the U.S. retained the right to object to changes in Dominican tariffs and public debt. Haiti was under U.S. martial law from 1916 to 1931. See Angell (1933), pp. 8-27.

12. For examples of State and Commerce Department warnings of the risks of German loans, see Eichengreen (1988).
13. Obviously, the greater precision of the estimate of the coefficient on budget balance in the equation for dollar bonds compared to its sterling counterpart may reflect the larger sample size.
14. This chronology follows Eichengreen and Portes (1987).
15. Central government debt to export ratios are not representative of the level of total debt. They are, however, the only debt indicators available for a wide range of countries, which is why we present them in Table 2. Where state and local government debts were substantial, the total government debt to export ratio could be much higher. Germany's for 1931 rises from 34 to 212 per cent, for example. Schulker (1988), p. 65.
16. Calculated from statistics in Harris (1935).
17. Lary (1943), p. 6 and Table III after p. 216, estimates that debt service on dollar loans amounted to \$900 million in 1929. The stock of U.S. portfolio investments abroad at the end of 1929 was on the order of \$7.2 billion. Subtracting net short- and long-term lending in 1928 and 1929, which totalled \$576 million (Lewis, 1938, pp.628-629) and multiplying the 1927/1929 ratio of debt stocks by \$900 million yields \$828 million.
18. Lewis (1949), p. 56.
19. Lewis (1949), p. 58.
20. Both figures are constructed from unweighted averages of country data. The heavy defaulters are Brazil, Bulgaria, Chile, Colombia, El Salvador, Germany, Greece, Guatemala, Hungary, Poland and Yugoslavia. The light defaulters are Argentina, Australia, Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Italy, Japan, New Zealand, Nicaragua, Norway and Spain. Sources are described in the data appendix to Eichengreen and Portes (1986).
21. It is tempting to ascribe the 1934 improvement in the commodity exporters' terms of trade to the 1933-34 devaluation of the dollar. Why the heavy defaulters should have benefitted more is not clear, however.
22. We use industrial production indices rather than GDP because their wider availability permits the inclusion of more countries. (We also suspect that the industrial production indices are more reliable.) Table 4 below documents that the choice of dependent variable is of little moment.
23. When the constant term is included, it differs from zero only because of rounding. The first equation of Table 3 becomes:

$$IP = -0.15 - 9.70 \text{ Terms of Trade} + 0.26 \text{ Default}$$

$$(1.08) \quad (6.47) \quad (0.04)$$

with standard errors in parentheses.

24. Instruments include the debt/income ratio, the 1928 export/GNP ratio, and dummy variables for British Commonwealth and Latin American countries (which were shown to be significant determinants of default in Eichengreen and Portes, 1986).
25. Defining the dependent variable for each country in Table 3 as the deviation from that country's average growth rate during the sample period should, by picking up secular differences in national growth rates, eliminate problems potentially caused by our procedure of pooling together countries at different stages of economic development.
26. There were, however, independent expenditure programs which de facto had fiscal effects, such as commodity price stabilization schemes and unemployment insurance systems, although the magnitude of their effects is much debated.
27. Contrast Anglo-Argentine trade relations as discussed in Section 7 and footnote 38 below.
28. To cite but one well-known statement of the view, see Krueger (1978).
29. See for example Fishlow (1972) and a number of the studies contained in Thorp (1984).
30. As will become clear momentarily, this is not a hypothesis toward which we are inclined.
31. Cited in Eichengreen (1988).
32. Feis (1950), p. 1. Other observers were less pessimistic about the prospects for the foreign bond market. As King (1950, p. 11) put it, "And so, economically speaking, I would not call the prospects unfavorable. If you were to look for a foreign bond as a safe investment you would have to use care and judgement, you would have to consider the many different factors which I have mentioned or hinted at, the character of the country and the people, their industriousness, their ingenuity, their good faith, and policies of the governments, their reserves of strength, their vulnerability to economic and technical changes and so forth. But I do not think you would be left high and dry without a candidate for admission -- except for one thing, the political situation."
33. These results are consistent with those in Table 1, which suggest that in pricing foreign bonds in the 1920s investors took the past debt-servicing records of countries into account.
34. Three accounts of Brazilian experience are Abreu (1978), Cardoso and Dornbusch (1988) and Eichengreen and Portes (1988a).
35. In what follows we concentrate on the results reported in Eichengreen and Portes (1988b), utilizing samples of 207 dollar bonds and 125 sterling bonds issued between 1920 and 1929. This analysis is an extension of the pilot study utilizing two considerably smaller samples first reported in Eichengreen and Portes (1986).
36. For further discussion of this possibility, see Eichengreen and Portes (1988b).

37. For the interwar data available on the weight of foreign bonds in American banks' asset portfolios, see Eichengreen and Portes (1987), pp. 23-24.
38. Details on the Roca-Runciman convention and references to the surrounding literature may be found in Abreu (1984).
39. These plans are described in more detail in Eichengreen (1989).
40. Quotation cited in Eichengreen (1989), pp. 12-13.
41. See in particular the critique of Bulow and Rogoff (1988).
42. We imputed the quantity of buybacks from figures provided by the Council of Foreign Bondholders in its Annual Reports on the par value of issues still outstanding.
43. We offer more archival evidence to this effect, drawn from the records of the Council of Foreign Bondholders, in Eichengreen and Portes (1988a).
44. Council of the Corporation of Foreign Bondholders, Minutes, 17 December 1936. Emphasis added.
45. Council of the Corporation of Foreign Bondholders, Minutes, 14 March 1940.
46. Emphasis added. Council of the Corporation of Foreign Bondholders, Minutes, 14 December 1941.
47. Council of the Corporation of Foreign Bondholders, Minutes, 31 May 1944.
48. U.S. Securities and Exchange Commission (1937).
49. Council of the Corporation of Foreign Bondholders, Minutes, 31 May 1937.

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