Finance and Trade: Issue Linkage and the Enforcement of International Debt Contracts

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Abstract: In many models of international debt, lenders deter default by linking finance and trade: they threaten to impose commercial sanctions on countries that refuse to pay. This paper assesses the importance of linkage in debtor-creditor relations during the nineteenth and twentieth centuries. I derive and test many implications of the linkage theory, but find almost no evidence of an enforcement strategy that connects debt with trade. Given these findings, the field should shift its theoretical and empirical focus from linkage to other mechanisms, such as reputation, that encourage countries to repay and give investors the confidence to lend.

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Why do countries keep their promises to foreigners? Few questions are as central to the theory and practice of international relations. It is widely believed that in the absence of a world government, countries enforce their agreements linking issues, that is, by threatening to retaliate in one area of world affairs if foreigners behave selfishly on another. [1] Provided the link is credible, leaders will think twice before crossing foreigners, since the gains from cheating on one issue may not outweigh the loss of cooperation on another. There are other ways to sustain international agreements, but issue linkage is seen as one of the most important mechanisms.

This paper studies the strategic link between two domains of international relations: finance and trade. When a government borrows money from foreigners, it may feel tempted to violate its obligations by refusing to repay the principal plus interest. In leading models of sovereign debt, lenders deter this kind of behavior by tying debt to commerce. In particular, they use trade embargoes and other commercial sanctions to coerce countries into paying their debts. As Lane (2004, 2) points out, "the imposition of trade sanctions on the offending country" is "the classic punishment … in the sovereign debt literature."

Many theories rely on this linkage hypothesis, but surprisingly little research has tested it directly. In this paper I assess the importance of linkage in debtor-creditor relations during the nineteenth and twentieth centuries. Contrary to existing theory, I find almost no evidence of an explicit or an implicit enforcement strategy that connects debt and trade. The paper concludes by noting the implications of this finding for theories of foreign debt.

[1] The concept of issue linkage has a long intellectual history. See, for example, Keohane and Nye (1977), Tollison and Willett (1979), Haas (1980), Stein (1980), Keohane (1984), Axelrod and Keohane (1985), Oye (1985), Snidal (1985: 939), McGinnis (1986), Martin (1992), Keohane and Martin (1995), Lohmann (1997), Aggarwal (1998), and Davis (2004).

1. Hypothesized Links between Debt and Trade

One of the main puzzles in international finance is why countries ever repay their foreign debts. A growing body of theory addresses this puzzle by modeling the incentives of borrowers and lenders. According to some theorists, countries repay because the value access to future loans and fear that default could sully their reputation in international capital markets.[2] Others emphasize that the threat of direct sanctions – trade embargoes or gunboat diplomacy – motivates countries to honor their commitments.[3] These two explanations are not mutually exclusive, but they involve distinct causal mechanisms. To understand why defaults occur and how they can be prevented, we must first determine whether and under what conditions each of these two mechanisms is effective.

In numerous models, creditors enforce debt contracts by linking finance and trade. This argument appears in the seminal work of Bulow and Rogoff (1989) and in more recent papers by Aizenman (1991), Chang and Sundaresan (2002), Diwan (1990), Fernandez and Rosenthal (1990), Gibson and Sundaresan (2002), Klimenko (2000), Lane (1999), and Rose and Spiegel (2004), among many others. But how, exactly, could creditors interfere with the trade of a foreign state? There are three possibilities: they could seize its foreign assets, prevent its citizens from obtaining short-term credit for imports and exports, or impose trade barriers ranging from higher tariffs to an outright embargo.

The first type of trade sanctions almost certainly has not played a significant role in the enforcement of debt contracts. For centuries, courts in the major financial centers adhered to an absolute doctrine of sovereign immunity, which made it impossible to attach the assets of a foreign government. After the Peruvian default of 1875, for example, bondholders sought in the

[2] E.g. Eaton and Gersovitz (1981); Kletzer and Wright (2000).
[3] E.g. Bulow and Rogoff (1989); Rose and Spiegel (2004).

Court of Chancery to seize the proceeds from guano shipments. Peru had pledged the proceeds as collateral, and commercial representatives in London were holding the money. If bondholders could have succeeded anywhere, they should have prevailed in this case. Instead, the court followed its predecessors in rejecting the petition on grounds of sovereign immunity. According to the Master of the Rolls:

> these so-called bonds amount to nothing more than engagements of honour, binding, so far as engagements of honour can bind, the government which issues them, but are not contracts enforceable before the ordinary tribunals of any foreign government, or even by the ordinary tribunals of the country which issued them, without the consent of the government of that country.[4]

The situation prevailed well into the twentieth century. As Edwin Borchard, Professor of Law at Yale, wrote in 1951, "The various attempts that have been made to sue defaulting states in the creditor's country, even where on occasion security has been attachable," had failed because of "the elementary principle that a foreign state cannot in principle, under established rules of international law, be sued in municipal courts."[5] Such threats may have become more plausible in recent years, when both the United States and Britain relaxed the doctrine of sovereign immunity, but they cannot explain why countries have attracted loans and repaid their debts for centuries. Moreover, even if creditors could obtain a judgment today, they would have trouble finding assets to attach, since most debtor governments do not hold significant physical assets abroad, and they could repatriate vulnerable financial investments prior to default.

The second form of linkage has also been of limited historical significance. For most of modern history the primary long-term creditors (private bondholders) had little ability to withhold trade credits, which were supplied by separate actors with distinct and often opposing interests. Governments nonetheless repaid their foreign debts. The situation changed during the

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[4] Judgmenmt of C.A. Jessel, Master of the Rolls, in Twycross v. Dreyfus [1876 T 177].

[5] Borchard (1951: 166).

1970s and 80s, a period that inspired much of the sanctioning literature. During that unique moment, commercial banks provided not only short-term trade credits but also long-term sovereign loans, making a strategy of linking debt and trade more feasible. Tomz (2004) shows, however, that during this period countries repaid their bondholders while defaulting on obligations to commercial banks. This tendency to favor bondholders, the very creditors who have no ability to withhold commercial credit, counts as strong evidence against the trade credit story.

The third form of linkage is harder to dismiss. Although private bondholders and commercial banks cannot impose trade barriers themselves, they may enjoy assistance from their home governments. Perhaps the home government is willing to raise tariffs against a foreign defaulter or to prohibit the export of essential products to the offending state. If so, governments may repay their debts to avoid retaliation, not by private investors, but by the politicians who serve them through control over trade policy.

This hypothesis builds upon the notion that government caters to the wealthy and directs its foreign policy accordingly. Scholars continue to advance the hypothesis today. Economist Jeffrey Sachs writes that "most debtor governments pay their debts not out of fear of the banks, but out of fear of a foreign policy rupture with the United States." In particular, the debtor government "might fear retaliation in the form of hostile trade policies."[6] Political scientist Lawrence Whitehead echoes this view: "in the long term the most powerful … influence available to creditors is the ability to offer or to withhold market openness." Defaulters,

[6] Sachs (1988: 710).

Whitehead claims, "could easily slip into a trade war" due to their "uncooperative behavior on debt servicing."[7]

Evidence for this view comes mainly from the 1930s, and the Argentine example allegedly proves the rule. Historians widely believe that Argentina was an "informal dependency" of the United Kingdom during the early twentieth century, when the British market served as the primary outlet for Argentine exports of beef and grain.[8] By the 1930s reliance on Britain had reached such acute proportions that, in the words of one scholar, Argentine foreign policy became a mere "corollary" of UK policy and the British exercised "full bargaining power" without restraint.[9] The perception of Argentina as an appendage of Britain so captivated intellectuals that it contributed to the rise of Peronism and inspired much of the "dependency" literature that emerged from Latin America after the great depression.[10]

Cognizant of this dependence, many scholars have argued that Britain coerced Argentina into repaying its debts during the Great Depression by threatening to impose a trade embargo in the event of default.[11] What logic and evidence support this view? It seems indisputable that Argentina depended upon Britain as a destination for exports during the 1920s and 30s. On the eve of the Depression Britain absorbed more than one-third of Argentine exports, a level three times higher than taken by Belgium and Germany, the next-largest consumers of Argentine

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[7] Whitehead (1989: 238). Many other scholars have advanced this view. See, for example, Alexander (1987: 44), Kletzer (1988: 588), Lindert (1989: 256), Ozler (1991: 16), Nunnenkamp and Picht (1989: 683), and Picht (1988: 350).

[8] In his study of imperialism, Lenin (1917) identified Argentina as a British dependency. Modern historians have developed and documented this perspective. See, e.g., Gallagher and Robinson (1953) and the vast literature they inspired, some of which covered in Miller (1999).

[9] Abreu (1984: 151, 153).

[10] Valenzuela and Valenzuela (1978) and Packenham (1992) review this dependency literature.

[11] See, for example, Abreu (1984), Díaz Alejandro (1983: 28-29; 1985: 389; 1986: 162), Eichengreen (1992: 260), Eichengreen and Portes (1989: 80), Fishlow (1985: 428), Jorgensen and Sachs (1989: 66), Oye (1992: 87), and Skiles (1988: 24}. della Paolera and Taylor (1999) offer a contrary view that is closer to my own.

products.[12] Furthermore, the dependence was asymmetric, giving Britain considerable leverage in the relationship. As the *Financial Times* observed, "the United Kingdom market is much more essential to Argentina than the Argentine market is to the United Kingdom, for whereas she takes about 14 percent of her imports from [us], she sells 36 percent of her total exports to this country."[13]

Above all, Argentina needed Britain as an outlet for chilled beef. In the early twentieth century the development of refrigeration technology became sufficiently advanced to allow transatlantic shipments of chilled beef that would not spoil in transit. Exports of chilled meats, which carried higher profit margins than canned or frozen varieties, consequently rose to represent nearly seventy percent of total Argentine beef exports by 1930.[14] Argentina sold 99 percent of this chilled beef (and more than half of its frozen meats) to Great Britain,[15] and many observers felt that there was no real alternative to the British market. Only countries with a relatively high standard of living could afford to consume chilled meat on a large scale, but the United States had banned Argentine beef and other countries had "placed almost prohibitive restrictions on meat imports."[16] This left Britain as the only obvious outlet for Argentine beef. Quite rightly, then, Argentines often referred to Britain as the "mercado único" (the only market), thereby recognizing that "the dependence was *absolute*."[17]

The distribution of political power in Argentina seemed to reinforce this dependence, since cattle ranchers played a central role in Argentine politics and society. Of the eight presidents that led Argentina between 1910 and the outbreak of World War II, five were

[12] *Economist* (February 8, 1936: 6).
[13] *Financial Times* (April 3, 1933).
[14] Smith (1969: 84).
[15] Great Britain, Department of Overseas Trade (1930: 21).
[16] Major W. A. McCallum, Chairman of British Chamber of Commerce in Argentina, *Review of the River Plate* (May 22, 1936).
[17] O'Connell (1986b: 23), Fodor and O'Connell (1973: 11).

members of the Rural Society, an elite group of ranchers involved in livestock trade. In addition, more than forty percent of Cabinet positions went to members of the Rural Society.[18] Ranchers gained unusual prominence after 1930, when a military coup toppled the Radicales; the ensuing government and its successors were backed by the *concordancia*, a coalition of political parties in which cattle ranchers played the central role.[19] Given the political preeminence of ranchers, one student of Argentine history has dubbed this period "gobierno de las vacas," or "the government of the cows."[20] Thus, Argentina depended heavily upon the United Kingdom, especially in an economic sector of great significance to policy makers.

During the Depression, however, this precious access to the British market was thrown into question. As agricultural producers around the world struggled to cope with sharp declines in the prices their exports, negotiators for the United Kingdom and its and its dependencies met in Ottawa to discuss trade. There, Australia and New Zealand lobbied the British to establish imperial preferences for beef. Britain ultimately agreed not to import more extra-imperial chilled beef than it had purchased during the year ending June 1932, when Argentine shipments to Britain had touched their lowest levels in nearly a decade. Although Argentina retained access to the British market, the new quantitative restriction raised a red flag. To Argentine ranchers, the prospect of losing their most valuable client no longer seemed implausible.[21]

In this context, politicians in Buenos Aires debated whether to continue paying the foreign debt, a large portion of which had been contracted in London. According to the conventional wisdom, the central government honored its debts to avert a trade embargo, which Britain would have imposed in the event of default. Leading scholars in the field endorse this

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[18] Smith (1969: 48-49).
[19] Rock (1987: chap. 6).
[20] Drosdoff (1972).
[21] Smith (1969: 140-41), Gravil (1985: 183).

view. According to Carlos Diaz Alejandro, the dean of Argentine economic history, "tampering with the normal servicing of the Argentine debt would have involved not only a bruising commercial clash with the United Kingdom, but also probably a major restructuring of the Argentine domestic political scene, at the expense of groups linked with Anglo-Argentine trade."[22] Economist Barry Eichengreen concurs: "Britain was Argentina's most important export market, and the British Government was more inclined than its American counterpart to impose trade sanctions in retaliation against default. This combination of forces induced Argentina to maintain debt service throughout the 1930s, in contrast to the other major Latin American debtors."[23]

The Argentine experience may be indicative of a wider phenomenon. During the 1930s, investors had few coercive alternatives to a trade embargo. They could not block the supply of commercial credit in response to default, nor could they attach the assets of a sovereign. The only trade-related weapon in their arsenal would have been the threat of embargo, which investors (if punitively minded) should have used to maximum capacity. Kenneth Oye contends that nations of the 1930s "commonly constructed tactical linkages between market access and debt servicing."[24] Thus, it is possible that a link between finance and trade not only influenced Argentina, but also compelled other countries to honor their debts and gave investors the confidence to lend.

The remainder of the paper is devoted to testing this hypothesis. I begin with data from the interwar period, which is an appropriate focus for two reasons. First, it offers a relatively

[22] Díaz Alejandro (1983: 29).
[23] Eichengreen (1992: 260). According to Jorgensen and Sachs (1989: 66), "the government must have believed that any tampering with debt service was sure to be commercially and politically costly". Skiles (1988: 24) adds that "any deviation by Argentina … such as a suspension of debt servicing, could have led to retaliatory trade action by the U.K.," and Abreu (1984) alleges that Britain used its tremendous commercial "bargaining power" to extract payment from Argentina.
[24] Oye (1992: 11, 80).

easy proving ground for the politics of linkage. After all, the Argentine example comes from the interwar period, and linkages between debt and trade were allegedly plentiful, whereas Oye (1992) emphasizes that such linkages are rare in financial bargaining today. It follows that the association between trade sanctions and debt repayment should have reached a historical high in the 1930s. If theories of linkage fail during that period, when they seem most likely to succeed, it would be fair to question their explanatory power more broadly.

Second, the interwar period offers a unique opportunity for empirical analysis because there were two leading groups of international creditors. During the nineteenth century British bondholders provided most capital to foreign governments, but the situation changed in the aftermath of World War I. By the 1920s the United States had emerged as the leading international creditor, and investors from Wall Street and Main Street funneled enormous sums to sovereigns in Latin America, Europe, and the Far East. British investors continued to offer new loans, as well, albeit at a slower pace, and many sterling bonds with long maturities remained on the books. The coexistence of lenders from two distinct nations, the United States and the United Kingdom, each with its own patterns of international trade, allows a test for discrimination across creditors. When deciding who should bear the burden of default, did sovereigns of the 1930s pay more money to their principal trading partner, or did they treat American and British lenders equally?

My analysis of the interwar period proceeds in two steps. I begin with a detailed examination of the Argentine case. Contrary to the conventional wisdom, I show that Argentina paid not to avoid trade sanctions but to bolster its reputation in capital markets. Next, I look for more systematic evidence across a wider range of cases. A quantitative study of compliance with dollar and sterling bonds during the 1930s lends very little support to the sanctioning hypothesis. Apparently, neither borrowers nor lenders used the prospect of a trade embargo as a basis for debt policy.

After considering the interwar period, I present evidence from other historical moments. In particular, I test for references to trade sanctions in diplomatic correspondence and the financial press between 1822 and 1914. Across all these sources and time periods, I find almost no support for the linkage hypothesis.

2. Did Argentina Pay to Avert a Trade War?

Scholars have argued that Argentina paid its debts during the 1930s to avert a trade war with Britain. Although this traditional view seems plausible, further analysis shows that the apparent correlation between commercial dependence and debt repayment is spurious. Argentina honored its debt obligations not to protect itself from commercial sanctions, but instead to build its reputation in global capital markets. Put another way, Argentina paid to facilitate its future access to *finance*, not trade. In three key areas – the treatment of dollar debt, the behavior of provincial borrowers, and the statements of key decision makers – the evidence points to concerns about reputation, rather than the fear of trade sanctions, as the impetus for repayment.

The Treatment of Dollar Debt

Before the depression, Argentina had borrowed in two foreign markets: London and New York. The British had long served as bankers to Argentina, beginning with the first sterling-denominated loan to the newly independent state in 1824. In the aftermath of World War One, however, new British lending slowed to a crawl and the United States rose to become the leading supplier of fresh capital to the River Plate. Throughout the 1920s, Argentina floated millions of dollars in foreign bonds through investment banks in New York, principally to finance public works, improve sanitation, develop state railways, and cover treasury deficits, at a time when the government was amortizing its pre-war sterling bonds. By the end of 1931 more than 60 percent of the central government's foreign debt was denominated in dollars, whereas 37 percent had to be paid in sterling. The remaining three percent, owed to scattered creditors in France and Spain, is too trivial to merit attention.[25]

If the threat of trade sanctions had motivated Argentina to repay, the government should have defaulted on its dollar debt while maintaining punctual service to creditors in the United Kingdom. The reason is straightforward: US-Argentine relations, particularly over trade in beef, could only be described as wretched. Commercial intercourse between the two countries had never been particularly friendly, given a lack of economic complementarities: the United States exported the same agricultural commodities as Argentina, which left little scope for gains from trade. But relations turned unpalatably sour during the 1920s, when leaders in Washington raised tariffs on agricultural goods and banned the importation of Argentine beef. US policy makers therefore entered the depression with an empty quiver: having already embargoed Argentine products for reasons unrelated to the foreign debt, they had no sanctions to apply in the event of default.

A brief analysis of US tariff policy reveals why relations had become so acrimonious. US duties on Argentine goods climbed steadily between the two world wars. The Fordney-McCumber act, approved by the US Congress in September 1922, increased tariffs on agricultural products such as beef and linseed (two crucial Argentine exports), and the Smoot-Hawley Act of 1930 exacerbated tensions by raising taxes on an even wider range of Argentine

[25] Calculated from Alhadeff (1983: 153).

commodities. Outraged Argentines warned that reprisals might follow, but their threats failed to stop the march of protection. The Agricultural Adjustment Act of 1933 raised prices of American farm products above international levels and subsequent legislation banned foreign farm goods that undersold domestic ones, thereby robbing Argentina of any comparative advantage that might have remained.[26]

The greatest blow, however, came in the form of a "sanitary embargo" on Argentine beef. Beginning in January 1927, the US Department of Agriculture prohibited imports of fresh or refrigerated meats from the Argentine Republic and from the fourteen other countries in which foot-and-mouth disease was endemic.[27] Argentines viewed the embargo as a protectionist device and the cattle barons strongly resented it.[28] In response, the president of the Rural Society launched a vigorous campaign against imports from the United States under the slogan "buy from those who buy from us." From February 1927 onward, this slogan appeared on the cover of every issue of the Rural Society's monthly newsletter.

The combination of high tariffs and the sanitary embargo effectively closed the US market to Argentine products, including beef, which meant Argentina could default on dollar bonds without fear of commercial reprisal. Although Argentina imported some manufactured goods – mainly cars, trucks and machines – from the United States, there was no risk of retaliation in that area, either. By the depths of the depression purchases of US goods accounted for only twelve percent of Argentine imports, less than half the British level. If for some reason

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[26] O'Connell (1986a), Peterson (1964: 351-60), Rock (1987: 242-43).

[27] Although initially an administrative measure, the embargo became US law in 1930, when it was incorporated into the Tariff Act, "stalling all possibilities of convincing inspectors to make a change." Garcia-Mata (1941: 6).

[28] John Whitaker, quoted in Weil (1944: 196), explained the Argentine view: "American sanitary regulations are designed, the Argentine believes, not because the United States needs protection from hoof-and-mouth disease but because American cattle growers are needlessly protecting their home markets against better and cheaper meats. This is what the Argentine believes, every Argentine, all Argentines." Subsequent analysis by O'Connell (1986b) suggests that the embargo probably had scientific merit, however.

the United States undermined its own industry in time of need by prohibiting exports to Argentina, industrial nations such as Britain and Italy could have filled the gap.[29]

Clearly, if the threat of trade sanctions had been the main motivation for honoring foreign debts, the Argentine government would have repaid the British while defaulting against Americans. On the contrary, the central government repaid American bondholders, even though dollar-debt was considerably larger, carried a higher interest rate, and could only be serviced by purchasing a currency that was more expensive in real terms than British sterling. The behavior of the central government demonstrates that the threat of trade sanctions – particularly the threat of an embargo on beef – did not motivate the decision to repay.

Is it possible that creditors on both sides of the Atlantic were united? Perhaps the British did the Americans a favor by threatening to retaliate in the commercial arena if any dollar bonds fell into default. In fact, evidence reveals precisely the opposite. The British, annoyed that Argentina was repaying US bondholders at the expense of English merchants, wanted Argentina to default on dollar debts and redirect the savings to the United Kingdom.

Such competition between Britain and the United States arose from the problem of blocked exchange. During the 1930s, Argentina owed money to several types of British creditors: investors who owned Argentine bonds, firms that exported to the River Plate, and English who held property in Argentina and remitted profits to the motherland. To ensure enough foreign exchange for bondholders, the government prohibited British merchants and property owners from converting their pesos into sterling and taking the money out of the

[29] *Barron's* (June 12, 1933: 9).

country. The freeze on exchange adversely affected more than twenty thousand English creditors, whose blocked accounts in 1932 exceeded the annual service of the foreign debt.[30]

The situation proved especially upsetting because Argentina earned the foreign exchange to repay Americans by running a trade surplus with Britain. For most of the interwar period, Argentina sold more than it bought in relations with Britain, while accumulating a trade deficit with the United States. When the supply of international loans dried-up in 1929, trade became the only source of exchange for external debt payments. Argentina therefore used its profits in the British market to finance dollar obligations at the expense of English trading interests, a pattern many British found "galling."[31] Not surprisingly, when the British Board of Trade met with bankers and merchants to discuss the situation, it concluded that British exporters should get priority over American bondholders, even if this meant defaulting on the dollar debt.[32] Far from extending a favor to the United States, the British actually preferred a dollar bond default "to provide larger scope for Anglo-Argentine trade."[33]

The Behavior of Argentine Provinces

To this point our analysis has focused on debts of the central government, but many Argentine provinces and municipalities issued their own bonds in New York and London. Some of these subnational borrowers participated actively in the beef trade, whereas others specialized in different aspects of economic life. If Argentines feared losing the British beef market in the wake of default, beef-exporting provinces should have been particularly scrupulous in repaying their debts and encouraging other borrowers to do the same. On the contrary, evidence in this

[30] Alhadeff (1985: 371).
[31] The overseas files in the Bank of England Archives are replete with such complaints. See, e.g., Craigie to Brittain, 31 October 1932, OV102/2; Siepmann to Brittain, 9 November 1932, OV 102/2; Simon to Macleay, 27 January 1933, OV 102/208; "Memorandum on Argentina," 29 November 1933, OV 102/4; Lingerman, "United Kingdom Exchange Quota May/December 1933," 7 May 1934, OV 102/4.
[32] Lieth-Ross to Hambro, 20 December 1932 in Argentina Files, OV102/2, Bank of England Archives.
[33] Fishlow (1989: 328).

section shows that beef-producing provinces repaid at no higher rate than other provinces, and senators from ranching strongholds were among the most vocal proponents of default.

As a first step toward studying the behavior of subnational borrowers, I collected data on all Argentine provinces that owed debts denominated in dollars or sterling on the eve of the Great Depression.[34] The sample included twenty provincial bonds, as well as two municipal loans that were guaranteed by provincial authorities and could therefore be regarded as provincial debts. For each bond I calculated an "ideal" cash flow, which the investor would have received if the borrower had remained in full compliance during the period 1930-1939, and compared it with the amount of money the borrower actually paid.[35] The new variable, "compliance," is actual payments as a percentage of ideal payments in nominal terms. Table 1 summarizes the data by province.

TABLE 1 ABOUT HERE

I then measured the role each province played in the beef trade. My first measure was the province's share of the national stock of cattle, on the assumption that provinces with more cattle would participate more actively in exports. The second measure focused on chilled beef, 99 percent of which was sold to Britain. Argentines typically converted their best cattle into chilled beef while reserving the lower grades for frozen and canned meat. Before sending these "chillers" to the slaughterhouse, ranchers fattened the top-grade calves on special alfalfa pastures in east-central Argentina. The fatteners, who controlled the dry, flat terrain where alfalfa flourished, belonged to the upper class and enjoyed more economic and political influence than

[34] In Argentina, the municipality of Buenos Aires (often called the Capital Federal) has a status similar to the District of Columbia in the United States. Consistent with investment literature from the 1920s, I treat the Capital Federal as a separate province, even though in land area it is much smaller than the others.
[35] Data on ideal and actual cash flows, as well as other features of the indentures, came from Moody, *Moodys Manual of Investments*, and White Weld, *Foreign Dollar Bonds*, various issues

mere breeders.[36] Given their specialization in the chilled beef trade, these fatteners probably would have suffered the most if Britain closed its market to Argentine beef. To identify the location of fatteners, I measured the acreage of alfalfa pastureland in each province as a percentage of the national total. The linkage hypothesis implies that provinces with more cattle or alfalfa should have complied at a higher rate, on average.

Finally, I measured the wealth of each province. One might guess that beef-exporting provinces were relatively poor and, therefore, more likely to default due to lack of financial resources. If this speculation has merit, failing to control for wealth would introduce bias into the analysis, causing us to understate the positive effect of beef on compliance. In fact the opposite is true: the beef industry flourished in many of the wealthiest regions of the country, such as the Province of Buenos Aires. No systematic data on provincial wealth exist for the interwar period, but I use illiteracy as a proxy.[37]

I regressed compliance on either cattle stock or alfalfa pastureland, with and without controlling for wealth.[38] The unit of observation in these regressions was the bond, rather than the province, giving a sample size of 22. Since some provinces issued more than one bond, intra-provincial observations were not fully independent. I corrected the standard errors, via clustering by province, to account for statistical dependence among bonds of the same province.

TABLE 2 ABOUT HERE

[36] Smith (1969: 36-46).
[37] Literacy data are from Vázquez-Presedo (1978: 212). I considered other proxies, such as infant mortality rates (Diaz-Alejandro 1970: 50) and provincial revenue per capita (Banco de la Nación Argentina, Oficina de Investigaciónes Económicas, 13 January 1933 in OV102/209, Bank of England Archives, supplemented with data from Moody's Investor's Service 1934. Results were qualitatively similar but even less favorable to the linkage hypothesis.
[38] The compliance variable is bounded between 0 and 100, whereas OLS assumes that the dependent variable has no theoretical bounds. One might obtain better estimates with a model designed for limited dependent variables, though such models impose their own assumptions and work best with a larger sample. I also estimated a two-limit Tobit regression (censoring at 0 and 100) of compliance on each measure of beef. Although qualitatively similar to the results in this paper, the Tobit estimates provided even stronger evidence against sanctioning: beef was negatively associated with compliance, sometimes at high levels of statistical significance.

Table 2 shows that major beef-producing provinces did not comply at a higher rate than provinces that specialized in other economic activities. The coefficient on "cattle" in column (1) is positive, as hypothesized, but carries a standard error nearly four times as large. Thus, the marginal effect is statistically indistinguishable from zero at conventional levels of confidence. Even if we take the point estimate at face value, though, the substantive effect is trivial. On a scale from 0 to 100, compliance is only 4 points higher in the most beef-intensive province (32 percent of the national stock of cattle) than in areas with no cattle at all. Finally, the R-squared statistic for column (1) signifies that, at most, participation in the beef trade explains only one percent of the variation in provincial debt service. Alfalfa, an alternative measure of participation in the beef trade, performs similarly in but exhibits an even larger standard error and a smaller R-squared (see column 2).

Column (3) introduces illiteracy as a proxy for wealth. In this simple bivariate regression, each percentage point of illiteracy reduces compliance by approximately 2 points. Considering that provincial illiteracy rates ranged from 14 to 45 percent, the overall effect is enormous. Given the small standard error, it is almost certain (probability 0.98) that the negative effect of illiteracy did not arise by chance alone. Finally, illiteracy alone accounts for more than 35 percent of the variation in compliance. Thus, even with a relatively small sample, our data and methods can deliver strong results. The contrast in explanatory power between the beef and illiteracy variables is striking.

Once we control for illiteracy, the estimated effect of beef becomes even more miniscule and statistically insignificant. The coefficient on cattle in column (4) falls to 0.02, implying that the difference in compliance rates between the most and least beef-intensive provinces is less than one percentage point. The alfalfa measure performs even worse, suggesting a negative relationship between chilled beef and compliance. Neither estimate is statistically different from zero, though. In summary, Table 2 counts as strong evidence against the trade linkage hypothesis.

I conclude this section by considering how *legislators* from cattle-raising provinces behaved in their attempts to shape national policy. By far the most important cattle-raising province was Buenos Aires, represented in the Argentine senate by Matías Sanchez Sorondo. As a deputy in the lower chamber of the national legislature during the 1920s, Sanchez Sorondo had earned a reputation as an energetic defender of ranching interests. He continued this advocacy in the 1930s in his new role as senator. If default on the external debt had endangered beef exporters, surely this senator would have lobbied for strict repayment. Instead, Sanchez Sorondo authored and sponsored a bill that would have required the central government to suspend amortization and reduce interest payments on the national debt. This was the only pro-default bill introduced into the national legislature during the 1930s.

A second important cattle center was the province of Santa Fe, located just north of Buenos Aires. Lisandro de la Torre, lead senator from Santa Fe, was known as a strong defender of ranching interests and had served as president of the Rural Society in the city of Rosario. Nevertheless, when the province of Santa Fe suspended payment on its foreign debt, Senator de la Torre argued that the moratorium should extend nationwide. He complained that "Argentina's obstinate insistence on meeting her foreign debt," particularly in a period of depression and with depreciated exchange rate, was "materially prejudicial to the immediate interests of the country" and, with respect to the future, "little if anything better than a beau geste."[39] Such behavior by

[39] *La Nación* (July 27, 1932: 1).

leading senators from the most important beef-producing provinces seriously undermines the claim that Argentina repaid its debts at the behest of ranching interests.[40]

Statements of Key Decisionmakers

To complete the analysis I now consider the statements of key decisionmakers in the Argentine central government. If the link between debt service and trade relations were salient, interlocutors would have presented the debate in these terms. Proponents of repayment would have warned that Britain would retaliate against a lapse of payments by restricting access to the English market. Meanwhile, advocates of default would have stated, both publicly and privately, that the country should lighten the burden of austerity by suspending payments, even if it meant losing an important foreign client.

The silence on these issues is profound, however. Having thoroughly examined the debates at the time, I could not find a single reference to the threat of trade sanctions as a reason for repaying the foreign debt. Instead, all major players in the debate focused on reputation, asking how default might affect the image of Argentina in the eyes of investors and, therefore, the country's ability to borrow anew when the global economy recovered. The notion that Argentina repaid to avert a hypothetical sanction that no one bothered to mention, when so many speeches were delivered and so much ink was spilt on the theme of reputation, strains the limits of credulity.

Consider the views of General Justo, President of the Argentine Republic from 1932 until 1938. Justo emphatically believed that "it would be madness" not to maintain service on the debt at a time when almost every other South American state was defaulting, since repayment

[40] Similar behavior, albeit at a popular rather than an elite level, occurred in the cattle provinces of Corrientes and Entre Rios, where a mass meeting of cattle breeders, farmers and industrialists was held in 1932 to call for default on the foreign debt. See *Review of the River Plate* (August 19, 1932: 21-22; September 2, 1932: 11), *New York Times* (August 22, 1932: 6).

would enhance the reputation of the country, whereas default would "throw away the future benefits of cheap borrowing."[41] In a national radio broadcast in 1933 the president justified the policy of repayment as a way to "consolidate the good name and high credit of Argentina."[42]

Alberto Hueyo, who served as finance minister during the first two years of the Justo administration, viewed the issue in much the same way. Hueyo insisted that the country continue paying, even if it meant "demanding a strenuous sacrifice from the inhabitants of the country," because he viewed compliance as "the fundamental basis of credit." Like many of his contemporaries in government, Hueyo thought the global economy would eventually recover, and he deemed it "vital that our country should arrive at that hour with its prestige unabated" so it could "immediately take advantage" of the increased supply of capital.[43]

The finance minister elaborated these views during a particularly revealing debate in the Argentine senate. In May 1933 Sanchez Sorondo, who had recently formalized his proposal for default, asked Hueyo to defend the government's policy before the senate. If the linkage argument had merit, there could not have been a more opportune time to invoke it. But Hueyo never mentioned the risk of commercial sanctions as a reason for repayment, even though he was being interpellated by the senator of the largest beef-exporting province. Rather, Hueyo argued that the country would need to borrow again, especially for transportation, irrigation, and sanitation, and for this reason identified Argentina as one of the countries in the world "that most requires the safeguarding of its credit." Default would be "short-sighted," since it would not convey Argentina's determination to carry out the weight of contractual obligations. Hueyo held

[41] *Financial News* (September 28, 1932; October 26, 1932).
[42] The broadcast, delivered on 16 November 1933, is reprinted in Argentina (1934: 5-6) and available at the Tornquist Library, BCRA, Argentina.
[43] *Review of the River Plate* (January 22, 1932: 17).

out the prospect of converting the outstanding debt into new issues at lower interest rates, but insisted that conversion would not occur if Argentina sullied her credit.[44]

In fact, the theme of reputation seemed central to all discourse about debt, while the prospect of sanctions was conspicuously absent. Federico Pinedo, who succeeded Hueyo as minister of finance, viewed the debate in these terms.[45] So too did the National Association of Importers, which pointed out that the world was marching slowly toward an economic recovery, and that Argentina would benefit from its "reputation of having complied with all obligations. The destruction of this favorable situation must not be permitted."[46] *La Prensa* and *La Nación*, the two leading newspapers in Buenos Aires, often rehearsed the reputational theme, though they sometimes questioned whether a stalwart-like image was worth the cost.[47] Even the advocates of default, Matías Sanchez Sorondo and Lisandro de la Torre, couched their arguments in reputational terms, asserting that the Great Depression gave the country an excuse to default without hurting its reputation.[48]

In fact both sides were right. Default probably would not have undermined the reputation of Argentina, which investors regarded as a fair-weather payer on the eve of the depression. Nevertheless, the decision to repay during a period of extreme difficulty allowed Argentina to climb the reputational ladder and obtain special access to new credit. Years later, Hueyo reflected that Argentina had succeeded by showing its resolve to pay not only in times of bonanza but also during periods of extreme poverty. "Cumplir los compromises contraídos es

[44] Hueyo, Speech of 30 May 1933 before the Argentine Senate, reprinted in Hueyo (1938: 230-38). Hueyo presented similar arguments to the Argentine Chamber of Deputies.
[45] See, e.g., his radio broadcast on 16 November 1933, reprinted in *Review of the River Plate* (November 24, 1933: 15).
[46] *Review of the River Plate* (March 18, 1932: 7-8).
[47] In early August 1932 the editors of *La Nación* advocated default because they believed that creditors would excuse a moratorium, given the dire circumstances.
[48] *Review of the River Plate* (June 2, 1933; July 29, 1932: 23-34).

sumamente honroso, pero hacerlo cuando todo el mundo falla y en moments de penuria … tiene mil veces más valor."[49]

Evaluating the Evidence

We have seen that Argentina repaid its debts, not to avoid a costly trade war, but to facilitate additional borrowing. The desire to build a reputation for honesty led decisionmakers to take the remarkable step of maintaining payments during the depths of the depression. All three considerations – the treatment of dollar debt, the behavior of Argentine provinces, and the statements of key decisionmakers – lead to the same conclusion.

What general lessons can we draw from this detailed analysis of the Argentine case? If the prospect of trade sanctions did not shape the debt policies of interwar Argentina, it seems unlikely to be potent elsewhere. Even in an extreme case of dependency, the risk of a trade embargo did not figure prominently in the decision to repay. The evidence is particularly damning because it contradicts the main example researchers have supplied to illustrate the payment-inducing power of trade sanctions.

The results are not merely negative, however. In casting doubt on the importance of trade sanctions, we have also seen the overriding importance of reputation. In the Argentine case, debate centered on how default would affect the image of Buenos Aires in the eyes of foreign investors. The desire for a better reputation, even at great cost, probably motivated other peripheral countries to repay during the Great Depression, though we cannot verify this without in-depth studies of the national debates in other countries. For now, though, we can be highly confident that what seemed the strongest example of the power of trade sanctions is actually a testament to the importance of reputation.

[49] Hueyo, Speech in El Colegio Libre de Estudios Superiores, 1 October 1937, reprinted in Hueyo (1938: 307).

3. Cross-country Analysis of Trade Sanctions

In this section I cast the empirical net more broadly by conducting a cross-country statistical analysis of debtor behavior during the 1930s. If the prospect of a trade embargo motivates sovereigns to repay, we should observe two patterns in the data. First, the more heavily a country depends on trade with the country where its creditors reside, the more it would suffer from sanctions and thus the more scrupulously it should honor its debts to those creditors. Second, the debtor should discriminate in favor of its senior trading partner, particularly during moments of crisis. Throughout history, governments have borrowed from investors in several countries, some more important commercially than others. In a moment of default it makes sense to minimize the cost of noncompliance by paying citizens of the senior trading partner (which could impose more costly trade sanctions) at a higher rate than lenders in countries that are less commercially significant. I investigate both of these propositions below.

The Level of Compliance

To test the first prediction, I measured each government's compliance with its dollar and sterling debt. As in the Argentine case, my measure was the monetary value of interest payments that the government made as a proportion of its contractual obligations. Suppose, for example, that a government paid \$200 million in interest on its dollar bonds in 1934, even though by right it should have paid \$500 million that year. The government would earn a compliance score of 200/500 = 0.4 for that year. Using the database described in Tomz (2004), I calculated an average compliance score for each government and denomination of bond (dollar vs. sterling) during the period 1933-38. Those dates offered the greatest variation in the dependent variable while avoiding the potential problems imposed by World War II.

The key explanatory variable was trade – the sum of exports plus imports – with the creditor country as a proportion of gross domestic product in 1928.[50] I chose 1928 to minimize the risk of a reciprocal relationship between dependent and explanatory variable. If creditors did indeed slap trade sanctions on countries that defaulted during the 1930s, the value of trade with creditors during that decade would have been, at least in part, a consequence rather than a cause of the decision to repay or default. To determine whether the prospect of a trade embargo deterred default, it was essential to measure the threat of trade sanctions at a moment before the defaults actually took place.[51]

This same concern with endogeneity led me to exclude a few longstanding defaulters from the sample. China, Ecuador, Mexico, Russia had all initiated default before 1928 and remained in default throughout the depression. Assuming that lenders did retaliate commercially, these longstanding defaulters would have had atypically low levels of trade with creditors in 1928, due perhaps to default decisions that were taken many years earlier. For reasons of logical consistency, then, I dropped them from the sample, leaving only those countries that were honoring their debts before the Great Crash.

Trade was measured for all countries and reported in standard sources, such as the Statistical Abstract of the League of Nations, but the level of GDP in 1928/29 was more difficult to find. A comprehensive literature search uncovered estimates for most sovereigns, but in a few cases the data were not available, despite the best efforts of economic historians to calculate them. To overcome this problem I collected auxiliary variables that correlated closely with GDP

[50] This effect is not readily apparent in the data. Mexican trade with the United States, for example, was no lower or more restricted in the late 1920s than it was before the revolution, even though Mexico had *repudiated* its financial obligations to US investors in 1914. Trade with creditors remained equally buoyant for China, Ecuador, and Russia, despite their defaults. These observations themselves should cast doubt on the trade sanction hypothesis.

[51] In future analysis it should be possible to use geographic distance between debtor and creditor as an instrument for the "normal" level of trade.

per capita. Several performed quite well, including movie theaters per capita, trade per capita, radio sets per person, life expectancy, illiteracy rates, and infant mortality, each of which explained at least 50% of the variation in GDP levels. Ultimately I settled on motor vehicles per capita, which was available for all sovereign countries and tightly related with GDP.[52] I used this auxiliary information to fill holes in the dataset via the technique of multiple imputation.

In the final sample, compliance scores ranged from 0 to 1 with a mean of 0.73 for sterling bonds and 0.68 for dollar bonds. I analyzed the sterling and dollar bonds separately, since it seemed implausible that, say, the United Kingdom would threaten trade sanctions against a country that defaulted on dollar bonds, especially if those countries had not also borrowed from British investors. Trade with the United Kingdom as a proportion of GDP ran from .007 to 0.31, with an average value of 0.08. Trade with the USA, in turn, was 0.10 on average, with a minimum of .004 and a maximum of 0.71. I included GDP per capita as a control variable, since it should have influenced the rate of compliance and might also have covaried with dependence on trade with the United States or the United Kingdom.

For each type of bond (dollar or sterling), I estimated a model with the following log likelihood:

$$\ln L_i = y_i \ln \pi_i + (1 - y_i)\ln(1 - \pi_i)$$

where y_i was the observed rate of compliance for country i during the period 1933-38, $\pi_i = F(\beta' x_i)$ was the expected rate of compliance conditional on the explanatory variables, and F was the cumulative standard normal distribution. The model is a modified version of the standard probit regression. In most cases, y_i took on values of 1 or 0, such that the likelihood

[52] A simple bivariate regression of GDP on motor vehicles, both measured in natural logs per capita at their 1928/29 levels, produced an R^2 of nearly 80% for the fully observed observations, suggesting that this was an excellent predictor of the missing data.

was governed by either π_i or (1- π_i), just as in a probit model. In the few cases where y_i assumed an intermediate value, the likelihood amounted to a weighted average of the probability of full compliance (π_i) and the probability of full default (1- π_i).

The results for sterling and dollar bonds appear in Table 3. Contrary to the linkage theory, dependence on trade with the UK did not lead countries to honor their sterling debts at a higher rate. The estimated coefficient on "trade with lender" was actually negative, the reverse of what we would expect if countries repaid to avoid a trade embargo. Nevertheless, the standard error was more than fifty times larger than the point estimate, so for all practical purposes we should regard the estimate as zero. Results for dollar bonds were similar. The coefficient on trade with lender was slightly positive, but once again the large standard error and miniscule t-statistic inspire no confidence that the effect differed from zero. Apparently, the threat of a trade embargo did not provide any systematic protection to either British or American investors during the interwar years.

TABLE 3 ABOUT HERE

Could measurement error have caused this resoundingly null result? Our key explanatory variable, trade with lender as a share of GDP, was probably measured with error, which – if random – could have biased the estimated coefficient toward zero. By the 1920s the United States and Britain had been collecting detailed trade statistics for a century, and we can treat the data as reasonably accurate. Gross domestic product, in contrast, was a fairly new concept that only reached full development by economists around the time of World War II. The estimates of GDP at 1929 levels were, for the most part, obtained through retrospective calculation by historians, rather than systematic work by researchers at the time. Were our measures of GDP so riddled with error that they obscured the effects of trade with the lender?

The parameter estimate for GDP per capita suggests otherwise. If GDP per capita suffered from severe and random measurement error, it would not have proved so consequential in the statistical analysis. On the contrary, the coefficients on GDP per capita in Table 3 carried the anticipated sign and were estimated with a considerable degree of precision. Moreover, variable exerted a powerful effect on compliance. Holding other factors constant, the expected level of compliance rises from approximately 0.3 (for dollar bonds) and 0.4 (for sterling bonds) to nearly 1, as we move across the full range of observed GDP per capita. Moreover, higher income not only increases the expected level of compliance but also heightens the certainty of repayment. If the variable were plagued with measurement error, we probably would not have observed such clean and intuitive results. Thus, measurement error does not seem serious enough to alter our conclusion that trade with the lender exerted no effect on compliance.

A related objection concerns the paucity of data during the 1930s. If interwar leaders did not have measures of national income, could they really be expected to base decisions on trade with the lender as a share of GDP? There are two answers. First, policymakers probably had a good intuition about how extensively their economies depended on trade with lenders, even if they could not quantify it to several decimal points. (If leaders could not gauge their level of dependence, then the embargo hypothesis should be rejected immediately.) Second, the conclusions in this section do not depend on the particular measure of trade reliance that was used. I considered two other measures: trade with the creditor as a percentage of all trade, and trade with the creditor in dollars per capita. For both the sterling and dollar bonds, the estimated coefficients on these alternative measures were slightly negative, the opposite of what we would expect given the embargo hypothesis, but with enormous standard errors they were statistically indistinguishable from zero.

Finally, readers might attribute the null result to selection bias. Perhaps investors refrained from lending to countries that had little commercial intercourse with the United Kingdom or the United States, such that the ones who actually attracted capital were satisfactorily vulnerable to trade sanctions. If this objection is valid, then it might explain why we found no relationship between trade and debt in the sample of borrowers.

Three pieces of evidence argue against this possibility, however. First, as Tomz (2004) shows, investment primers of the interwar period almost never mentioned the direction of trade or the prospect of an embargo as a factor in lending decisions. It therefore seems unlikely that investors rationed credit on the basis of this variable. Second, the wide range on "trade with creditors" provides a considerable degree of reassurance. British and American investors lent to countries that conducted less than one percent of their foreign trade with the motherland and would therefore have been relatively invulnerable to an embargo. Third, countries that borrowed from the British actually conducted *less* trade with the United Kingdom, on average, than countries that did not attract sterling loans. The behavior of US lenders seemed slightly more consistent with rationing: American investors did indeed show a slight preference for countries that traded extensively with the United States. The difference was not statistically significant, however, either in a t-test of means or in a probit regression that explored whether dependence on the United States could explain which countries got dollar loans. Thus, investors of the interwar period did not use dependence on trade as a criterion for allocating credit.

Patterns of Discrimination

For additional evidence I turned to the subset of countries that defaulted. If the threat of an embargo truly loomed, then defaulters should have pushed the cost of non-compliance onto their junior trading partners, thereby minimizing the commercial penalty. Did governments behave in this way? To answer this question I identified all sovereigns that owed money to both British and US bondholders during the 1930s. Of these, I disqualified thirteen countries that paid creditors in full and three that defaulted on both dollar and sterling obligations before the Great Depression.[53] That left sixteen sovereigns who, having borrowed on both sides of the Atlantic, violated their debt contracts during the 1930s.

For each of the sixteen, I checked for discrimination by comparing compliance rates on *similar* sterling and dollar bonds during period 1933-38. Two factors led me to focus on similar bonds instead of pooling all dollar and sterling obligations. First, some debt contracts are harder to honor than others. A government must exert more effort to honor a debt with an 8-percent interest rate than to service one with an annual burden of only four percent, for example. When testing for discrimination it seemed crucial to hold constant the degree of difficulty the obligations posed. Second, certain types of bonds have traditionally enjoyed higher standing than others. During moments of crisis governments usually prioritize "funding" or "adjustment" bonds that were issued to compensate lenders for past defaults. This practice not only seems fair, but it also signals that the government is serious about the settlement offered to bondholders.

Whenever possible, then, I paired sterling and dollar debts that bore approximately the same interest rate and security, and I tried not to mix funding bonds with new issues. Sometimes the pairings were obvious, as when a sovereign issued identical bonds in two tranches, one in London and the other in New York. In other cases it proved impossible to find an exact match, so I opted for as close an approximation as possible. Each pairing received a letter grade ranging

[53] The nondefaulters were Argentina, Australia, Belgium, Canada, Czechoslovakia, Denmark, Estonia, Finland, Italy, Japan, Newfoundland, Norway, and Sweden. The three pre-depression defaulters were China, Mexico, and Russia.

from “A,” which signified a perfect match on all characteristics except the issue market, to “D,” which meant that the closest pair nonetheless differed in type, interest rate, and security.

I created at least one paring for each of the sixteen defaulters, calculated separate compliance rates for sterling and dollar debts, and then computed the disparity in treatment, if any. In cases where more than one paring was possible, I opted for the one with the highest grade. Heavy borrowers such as Austria, Brazil, Bulgaria, Germany, and Greece had several grade-A pairs. Rather than pick one arbitrarily, I used them all to compute the average gap in compliance between sterling and dollar bonds. A difference of zero meant that the government afforded equal treatment to creditors in the United States and the United Kingdom, whereas a nonzero value indicated some degree of favoritism.

The results appear in Table 4. The first set of columns gives each country’s trade with the United Kingdom and the United States as a percentage of total trade in 1928. The second set reports the compliance rates on sterling and dollar bonds during the 1930s, and the third set compares these quantities, thereby revealing whether an asymmetry in trade correlated with an asymmetry in compliance. Finally, the rightmost column reports the quality of the match between sterling and dollar obligations. Little weight should be given to any row with a grade of C or lower, since those involved incommensurable obligations.

TABLE 4 ABOUT HERE

The countries in Table 4 appear in order of their dependence on the United States versus the United Kingdom. Colombia, which heads the list, conducted 60 percent of its foreign trade with the United States versus only 10 percent with the United Kingdom, an enormous disparity that could have aided US bondholders. Likewise, Guatemala, El Salvador, Brazil and Peru depended much more on commerce with the United States than with the United Kingdom.

Conversely, a few European countries such as Rumania and Bulgaria appear at the bottom of the list, since they traded more intensively with the British than with Americans.

The largest commercial asymmetries in Table 4 favored the Americans for reasons that are easy to understand. The wave of defaults that began in 1931 confined itself mainly to Latin America and Eastern Europe, where debtors were relatively poor and suffered sharp declines in their terms of trade. As a "gravity" model of commerce would predict, most Latin American countries traded heavily with their nearest developed neighbor, the United States. The nations of Eastern Europe, in contrast, could interact with any number of large developed markets on the continent, and therefore relied less on either the United States or the United Kingdom. Thus, the 16 defaulters in the sample fell into two categories: Latin American states, which for reasons of geography depended heavily on the United States, and East European countries, whose trade was more diversified.

The "comparison" columns show that defaulters did not discriminate in favor of their senior trading partners. Instead, the modal difference in compliance (UK minus USA) across the full range of dependencies was zero, and the next most common value was one percentage point. In all but four cases, discrimination amounted to no more than five percent of contractual obligations, a gap that could have arisen from slightly different terms of contract. Overall, the average defaulter paid nearly the same amount to British and US bondholders, regardless of its dependence on trade.

Not all defaulters treated their creditors equally, however. Table 4 shows that Guatemala, El Salvador, Germany, and Rumania serviced their sterling debts more fully than their dollar obligations, sometimes by a wide margin. The behavior of the first two countries runs contrary to the embargo hypothesis: Guatemala and El Salvador favored their sterling bonds, even though they relied more extensively on the US market. How can we explain this perplexing result?

The apparent discrimination by Guatemala and El Salvador arose from an inability to match dollar and sterling obligations, rather than any coercive actions by lenders. British investors held funding bonds with interest rates of 4 to 6 percent, whereas US citizens had invested in new securities with interest rates of 7 to 8 percent. The higher rates on dollar debt were meant to compensate for the risk of default, especially since investors understood that the funding bonds would receive priority. Based purely on the nature of the obligations and without any reference to trade, then, we would expect Guatemala and El Salvador to treat their sterling bonds more scrupulously than their dollar debt.

This leaves only two genuine cases of discrimination: Germany and Rumania. Both countries received match grades of A, meaning the disparities in Table 4 were not due to incommensurate bonds. Instead, the two countries explicitly elevated British bondholders over American ones. The German government honored all debts through mid-1934, when it changed course by offering full service to British investors but only partial payment to Americans. Agents implemented this policy of discrimination by stamping each bond to indicate "UK domicile" or "USA domicile." Likewise, the Rumanian government serviced bonds that were "British-owned," while withholding payment from American investors.

Although unusual, these two examples demonstrate that governments could have privileged some bondholders over others. The fact that most governments did not discriminate, despite the German and Rumanian precedents, counts as powerful evidence against the embargo hypothesis. Moreover, the two cases of discrimination probably did not arise from the threat of an embargo, though they did originate from tense trade relations between Britain and the borrowers. Later in this section I explain why Germany and Rumania slighted the Americans. For now, though, it bears emphasizing that neither country depended heavily on British trade, and Germany actually conducted more commerce with the United States than with the United Kingdom.

If the threat of an embargo truly had been credible, we would have expected discrimination not from Germany and Rumania, but from nations closer to the top of the dependency scale. Brazil, for example, should have favored American bondholders. During the interwar period, Brazil conducted more than one-third of its trade with the Untied States and sent half of its exports to the US market. Perhaps more importantly, it sold up to 70 percent of its most politically sensitive export, coffee, to US buyers. In contrast, Brazil relied on the British for only 12 percent of trade and less than 5 percent of exports. Considering these differences in the direction of trade, an embargo-minded US government could have extracted preferential treatment from Brazil.

Apparently it did not. On the matched bonds in Table 4, Brazil paid exactly the same amount to British and American creditors. This outcome arose from a strong commitment to treating all creditors equally. As early as 1933, Brazilian officials announced that they would "in no way discriminate between different nations" in the repayment of its foreign debt. Instead, they strove to classify bonds "solely on their respective merits," including "relative security, previous funding, debtors solvency or capacity to pay, differing rates of contractual interest, and actual market values."[54]

Colombia, too, chose not to discriminate, despite its potential vulnerability to trade sanctions. Between the wars, Colombia conducted 60 percent of its trade with the United States,

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[54] Gibson to Secretary of State (November 10, 1933: enclosure 2, pg. 2), Brazil Files, Archives of the Foreign Bondholders Protective Council.

which absorbed almost 90 percent of Colombian coffee exports. By comparison, the United Kingdom played only a minor role in Colombian commerce. US bondholders understood the situation and urged officials to link debt with trade. For example, a committee of Colombian bondholders appeared before the US Tariff Commission to demand repayment as a precondition for any reciprocal trade treaty with Colombia.[55] US officials refused to hold trade hostage, however. Sumner Wells, as Assistant Secretary of State, relayed the official view:

> The position of the Department is that the primary purpose of the trade agreements negotiated under the Act of June 12, 1934, is the revival of international trade, and the agreement with Colombia does not, therefore, contain provisions specifically relating to the resumption of service of Colombian dollar obligations. However, inasmuch as the decline in international trade was one of the principal causes of financial difficulties in many countries, it is to be expected that the revival of international trade which the trade agreement program seeks to foster will aid in remedying conditions which have led to defaults. [56]

The same US policy applied to other debtors.[57] At various points bondholders asked policymakers to use trade as a weapon, but Secretary of State Cordell Hull "would not consider it for a moment; he [was] thinking only of his trade agreements and extending them and not of bringing in any economic pressure on those countries."[58] Thus, an authoritative report by the Securities and Exchange Commission found "no case on record" in which the United States had threatened or imposed "trade sanctions for the purpose of concluding a debt settlement."[59]

This firm US policy may explain the null statistical results that appeared earlier in this section. Governments did not pay in proportion to their commercial dependence on the United

[55] Securities and Exchange Commission (1937: 445). The FBPC also sent a thinly veiled threat to the Colombian government: although it had "not as yet" urged the US Government to employ "coercive measures" against Colombia, it had received "many requests" to that effect and implored Colombia to settle before such steps became necessary. Minutes of Meeting of the Executive Committee, August 7, 1934, Foreign Bondholders Protective Council Archives, Box 45, Minute Book Vol I, 1933-34.

[56] Securities and Exchange Commission (1937: 446).

[57] Eichengreen (1991: 159-60), Fishlow (1985: 429).

[58] Francis White, Memorandum, April 5, 1938 in FBPC Archives, Box 29, Province of Mendoza (Argentina) Folder, Document 25-1.

[59] Securities and Exchange Commission (1937: 445).

States, nor did they discriminate in favor of US bondholders. Perhaps they ignored trade because sanctions were not credible. Whatever its capacity to slap trade sanctions on countries that violated their debt contracts, the US government clearly lacked the will, a reality that debtors and bondholders understood.

Even without the threat of trade sanctions, though, the United States secured payment from most countries. Twenty nations paid their debts in full to American investors during the 1930s,[60] and others honored a high proportion of their obligations. Only two countries, Bolivia and Peru, made no transfers to US bondholders between 1933 and 1938. Clearly, then, the threat of a trade embargo cannot explain why countries repaid their debts to the Americans or why so many nations treated British and American investors equitably. Moreover, if the US lacked the will to apply sanctions during one of the most discriminatory moments in the history of international trade, it seems unlikely to have linked trade and debt during other periods. As a general explanation for payment patterns, the embargo hypothesis is seriously deficient.

The British were only slightly more willing to flex their commercial muscle on behalf of bondholders. In relations with Rumania and Germany, the two discriminators that we identified earlier, the UK government did indeed apply some commercial leverage, though in the form of a clearing arrangement rather than a trade embargo. During the Great Depression, many countries established clearing arrangements. As parties to the clearing, each nation required its importers to pay for goods in domestic currency, which accumulated in a domestic clearing office instead of being shipped abroad. Exporters, in turn, were paid in their own currency from funds in the clearing office. Thus, clearing agreements allowed countries to trade without transferring foreign funds, except to settle the account. The country with a trade deficit invariably

[60] The countries were Argentina, Australia, Belgium, Canada, Czechoslovakia, Denmark, Dominican Republic, Estonia, Finland, France, Haiti, Ireland, Italy, Japan, Netherlands, Newfoundland, Norway, Sweden, Switzerland, UK.

accumulated a surplus in its clearing office, and under some agreements could redirect the surplus to bondholders

By threatening or imposing clearing arrangements, Britain secured preferential treatment from Rumania and Germany. Britain and Rumania established a clearing in the late 1930s. Under the terms of the agreement, any surplus sterling that piled-up in the British clearing office could be transferred to British holders of Rumanian bonds. The United States had no such agreement with Rumania, which explains why British bondholders fared better than American ones. A similar situation arose with Germany. When Germany declared a moratorium on all long-term government bonds in June 1934, Britain threatened to impose a clearing. It proved unnecessary to carry out the threat, however. Under the Anglo-German transfer agreement of 1934, the British pledged not to establish a clearing, and Germany committed to pay full interest to British holders of Dawes and Young bonds.

This British behavior smacks of trade sanctions, but it is important to keep the evidence in perspective. First, Britain never threatened to sever or even reduce trade with Rumania and Germany in response to default. Instead, it simply sequestered the surplus exchange that accumulated when those two debtors ran a trade surplus with Britain. Thus, the discrimination arose from a special form of currency rationing, rather than traditional trade sanctions. Second and more importantly, the Rumanian and German cases were unique. As Barry Eichengreen emphasizes, they "were exceptions to the rule. British officials generally rejected bondholders' calls for commercial retaliation," and American policymakers uniformly refused.[61] Nevertheless, many countries paid in full. Thus, evidence for the embargo hypothesis is surprisingly thin.

[61] Eichengreen (1991: 160).

4. Evidence from other Historical Periods

Having found almost no proof of linkage during the interwar period, where it was most likely to occur, I briefly consider data from other historical periods.

Evidence from Diplomatic Correspondence

After the Napoleonic wars, nearly all countries around the world issued bonds on the London capital market. Did the British government use the threat of trade sanctions to deter these countries from defaulting, and to punish nations that did not meet their obligations in full? We can gain valuable insight by analyzing the correspondence of the Foreign Office. In 1847, the Foreign Office presented the House of Commons with a collection of 354 letters relative to foreign loans. The correspondence, spanning the previous quarter-century, involved three types of parties: the British government, foreign powers, and disgruntled bondholders.

It is hard to verify whether the collection was comprehensive, but even if the publication contained only a sample of letters, there are two reasons to use it for empirical analysis. First, the collection was extensive not only in the sheer number of letters but also in its geographic coverage. Documents pertained to the debts of Spain, Portugal, Greece, Mexico, Central America, Colombia, New Grenada, Venezuela, Ecuador, Peru, Argentina, and Chile, a good cross-section of sovereign borrowers. Second, any bias in the selection of correspondence would have favored the linkage hypothesis. If the British government truly sought to deter countries from defaulting, it would have published the most threatening letters: ones with the most explicit connections between default and trade.

In fact, not one of 354 letters mentions trade sanctions. On the contrary, the British government strenuously refused to take *any* official role on behalf of b ondholders. At the beginning of the sample period, a wave of defaults outraged the holders of foreign bonds, who asked British authorities to "take prompt and energetic steps" to "compel the governments to pay."[62] At every turn, though, the government refused to get involved. Speaking to the House of Commons in 1824, Foreign Secretary George Canning "did not mean to throw the slightest blame on those who employed their capital in loans to the states of South America. All men had a perfect right to advance their capital in foreign governments, if they thought fit…." But "parties so engaged ought not to carry with them the force and influence of the British government, in order to compel foreign states to fulfill their contracts."[63]

Canning's successors agreed. At the end of the sample period, Palmerston succinctly summarized the British position that had prevailed for a quarter century: "no doubt an expression of the intention of the British Government authoritatively to interfere on behalf of the bondholders might be useful to them; but such a declaration would be at variance with the fixed rule of the British Government in regard to all such cases."[64]

Although the British government eschewed any official involvement, its diplomats assumed an unofficial role, sometimes using "good offices" to represent the feelings of disappointment and express the hopes of British investors. As the correspondence clearly shows, though, when diplomats entered into dialogue with a defaulting state, they did not threaten to take any coercive steps, commercial or otherwise. On the contrary, they argued that continued default would undermine the reputation of the country in the eyes of capital markets, and would therefore make it unlikely that investors would offer new loans. Without such money, economic development would suffer. The consistent line during this period, then, was not the threat of coercion but an appeal to reputation.

[62] George Shee to William Ewing, 5 October 1831, letter 165.
[63] XI Parl.Deb. 2s, 15 June 1824: 404.
[64] E.J. Stanley to Thomas Lethbridge, 6 March 1847, letter 29.

The collection of letters ends in 1847, but subsequent correspondence – occasionally reprinted as part of parliamentary debates – confirms a consistent message. In 1871, for example, the Permanent Undersecretary of State for Foreign Affairs explained:

> Her Majesty's Government are in no way party to private loan transactions with foreign States. … [It] is scarcely necessary to point out the endless troubles which certainly would arise if the active intervention of England were exerted to redress the grievances of bondholders. Independently of the expense which would necessarily be incurred, and the risk of international complications, forcible measures, if adopted towards small States, which for the most part are the ones complained of, would subject this country to grievous imputations. For such and other obvious reasons, her Majesty's Government have determined, as a matter of wise policy, to abstain from taking up, as international questions, the complaints of British subjects against Foreign States which fail to make good their engagements in regard to such pecuniary transactions, or to interpose, except by good offices, between bondholders and the States by which they may be wronged.[65]

Even though many countries depended heavily on trade with Britain, I am not aware of a single case in which the British government made commercial relations contingent on repayment of foreign debts.

Evidence from the Financial Press

If the threat of trade sanctions sustained lending and repayment, discussion of this enforcement mechanism should have appeared not only in diplomatic correspondence, but also in the financial press. To test this hypothesis I examined a unique collection of newspaper articles compiled by the British Corporation of Foreign Bondholders (CFB), which was founded in the late 1860s to monitor foreign debtors and negotiate with them when defaults took place. The CFB kept abreast of debt-related policies at home and abroad by maintaining a massive collection of scrapbooks, with clippings from dozens of domestic and foreign newspapers.

Working with a team of research assistants, I analyzed all newspaper clippings during the period 1870-1914 for the eighteen countries listed in Table 5. The second column of the tab le

[65] Edmund Hammond to Hyde Clarke, 26 April 1871, reprinted in Parl Deb 225, 3s (18 June 1875):201.

gives the number of pages we read and classified, which ranged from 82 for Panama to 7653 for Egypt. In total we checked more than 48,000 scrapbook pages, each containing between one and five newspaper articles.

TABLE 5 ABOUT HERE

In all those pages, we found only two references to a possible link between debt repayment and trade sanctions. The first example concerned Peru. When Peru defaulted on its foreign debts in 1876, bondholders tried to seize the guano Peru had pledged as collateral. When British courts prevented this on grounds of sovereign immunity, bondholders proposed to achieve the same result through tariffs.

The proposal came from James Croyle, president of the International Committee of Peruvian Bondholders, which had failed on previous occasions to obtain aid from the British government. In a new and somewhat desperate letter to the British Foreign Secretary, Croyle explained that the bondholders "are still in hopes of getting some support from H.M. Government." His earlier recommendations rebuffed, Croyle wrote that "there is still another mode of dealing with the Peruvian Government which would … probably in a very short time rectify the whole position, viz., to place an import duty on Peruvian guano of, say, £6 per ton – £5 of this to be appropriated to the redemption of the Bonds."[66] The British government never levied the tariff, and the issue was never mentioned again in the CFB scrapbooks on Peru.

The second reference to trade sanctions was stronger, since it involved an actual threat by a German diplomat, rather than a mere petition by a disaffected bondholder. In 1893 Greece defaulted on its debts to foreign bondholders, most of whom resided in England and Germany. The following July, the German minister in Athens threatened that his government would

[66] Cryole to Salisbury, 30 April 1878, printed in CFB Newspaper Cuttings Reel 146:51.

support the bondholders by suspending the commercial treaty between Germany and Greece.[67] News of the threat appeared in the London Times on August 1, 1894.

Over the next two days, though, the *Times* downplayed the significance of the threat. Apparently, the "premature" threat had not been authorized by Berlin, and the Times concluded: "it seems unlikely that the German Government will take any immediate steps to support the claims of the bondholders."[68] Moreover, Greece could "without much hesitation return a polite refusal" because the rupture of commercial relations would hurt Germany more than Greece.[69] Ultimately the threat came to nothing: the German government did not suspend its commercial treaty, and Greek exports to Germany nearly doubled between 1891 and 1895.[70]

Other than these two references – a petition by a disgruntled bondholder, and an unauthorized threat that was never carried out – we found no discussion of trade sanctions more than 48,000 thousand pages. Analysis of newspaper articles about six additional debtors (Argentina, Brazil, Chile, Mexico, Nicaragua, and Portugal) is still in process, but the theme of trade sanctions has not come up in any of the 10 thousand pages we have reviewed on these countries.

Additional Evidence

Two additional pieces of evidence cast doubt on the linkage hypothesis. First, investors have at times extended loans to borrowers that were invulnerable to trade embargoes. One powerful example comes from the nineteenth century, when Massachusetts, Pennsylvania, New

[67] *Times*, 1 August 1894 in CFB Newspaper Cuttings Reel 21:415.
[68] Times, August 2 and 3, 1894, in CFB Newspaper Cuttings Reel 21:415
[69] Times, October 25, 1894 in CFB Newspaper Cuttings Reel 21:450.
[70] CFB Newspaper Cuttings Reel 21:598.

York, and other US states borrowed form British investors.[71] In the event of default, any individual state could have evaded British trade sanctions by transshipping goods through neighboring states. To apply effective pressure, then, Britain would have needed to embargo the entire union in response to default by one of its members. As William English (1996) points out, it is highly unlikely that Britain would have followed such a course. Despite their invulnerability to trade sanctions, though, the US states managed to borrow, and most repaid their debts. Even the ones that defaulted did not experience a trade embargo, but they did tarnish their reputations and lose access to capital markets, at least until they settled their defaults.

Second, investors from commercially insignificant states have supplied capital to foreign governments, even though their governments could not slap serious trade sanctions on defaulters. Throughout history, loans have flowed not only from Britain and the United States but also from small states such as Switzerland, Belgium, Denmark, and the Netherlands. In fact, writers often use the terms "Swiss banker" and "Belgian dentist" to describe the stereotypical participants in international finance.[72] It is hard to believe that any country would repay its debts to maintain access to a Swiss-sized market, yet citizens of small states repeatedly risk their capital abroad. Moreover, it is not clear that investors from small states have fared any worse than those from commercially powerful countries such as Britain and the United States.

5. Conclusions

In leading theories of international debt, cooperation between lenders and borrowers arises through issue linkage, especially a threat to impose trade sanctions in response to default. The evidence in this paper suggests that such theories have almost no empirical foundation.

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[71] English (1996) provides a provocative analysis of this period.
[72] The phrase "Belgian Dentist" is often used to describe the typical investor in eurobonds. See, for example, *Euromoney* (June 1984: 56-62).

Between the two world wars, governments did not service debts in proportion to their dependence on trade with creditors, nor did they offer preferential treatment to the specific creditors that were most capable of imposing a trade embargo. At a time when the linkage between debt and trade supposedly reached its height, we uncovered only two examples of the connection and many more instances in which it played no role at all. Moreover, careful investigation revealed that Argentina, long held as exemplar of the embargo hypothesis, paid out of concern for reputation, not trade. Thus, the analysis not only showed statistically that commercial threats were of little significance during the 1930s, when they stood the best chance of credibility and success, but also debunked the Argentine case that helped inspire the hypothesis in the first place.

Other types of evidence, from other historical periods, support the same conclusion. We uncovered no hint of trade sanctions in diplomatic correspondence and found only two references of the possibility in more than 48,000 pages of newspaper clippings about foreign lending. One reference came from a private bondholder who petitioned but received no satisfaction from the British government; the other involved an unauthorized threat that was never carried out. Although other examples may eventually turn up, perhaps in the late twentieth century (a period only briefly covered by the data in this paper), it is fair to conclude that governments rarely, if ever, link finance with trade in an effort to enforce private loan contracts.

Why have governments so consistently avoided making commercial relations contingent on debt repayment? There are several possibilities. First, existing theories notwithstanding, such linkage may not be in the interests of creditors. A sovereign debtor needs foreign currency to service its external debts, and practically the only way to obtain such funds over the long run is through earnings from foreign trade. In fact, it is reasonable to think about foreign loans as advances on future exports. Sanctions reduce the earnings from trade, and in this sense they are counterproductive.

Even if sanctions could help bondholders and commercial banks, though, the creditor government may have other priorities that argue against using trade as a weapon. Trade sanctions would damage the lending economy, especially if trade with the debtor is an important source of gains from exchange. Sanctions would also have major distributional consequences, hurting exporters and selected importers in the lending country. The linkage hypothesis requires the central government to side consistently with bondholders and banks at the expense of trading interests. This seems unlikely, given that exporters and importers have been relatively concentrated throughout history, whereas bondholders – the principal lenders to foreign governments – have been more atomized and thus vulnerable to problems of collective action.

Finally, the political representatives of bondholders and banks may avoid trade sanctions on purely practical grounds. In many cases, a defaulting government could minimize its punishment by finding new commercial partners or transshipping products through other states. Knowing that sanctions would be largely ineffective in the presence of third parties, it makes sense for the lending government to avoid them.

The evidence in this paper has major implications for theories of sovereign debt. Trade sanctions, often regarded as the key to lending and repayment, has in fact been largely irrelevant to debtor-creditor relations over the past two centuries. To understand why countries repay their debts, then, we must consider other ways to uphold contracts in the absence of a world government. The most plausible alternative is reputation. Perhaps countries repay their debts, not because they fear trade sanctions, but because they want access to future loans and know that default could sully their reputation in international capital markets.

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Table 1: Compliance by Argentine Province, 1930s

Province	Loans	Compliance
Buenos Aires	9	85
Capital Federal	4	100
Córdoba	2	88
Corrientes	1	0
Mendoza	1	67
Santa Fe	4	50
Tucumán	1	100

Table 2: Beef-Producing Provinces Did Not Comply at a Higher Rate (entries in table are regression coefficients and standard errors)

	(1)	(2)	(3)	(4)	(5)
Cattle	0.12			0.02	
	(0.45)			(0.25)	
Alfalfa		0.12			-0.03
		(0.73)			(0.33)
Illiteracy			-2.16	-2.15	-2.17
			(0.93)	(0.99)	(0.96)
Constant	75.37	75.51	128.18	127.68	128.88
	(16.20)	(19.41)	(18.97)	(18.97)	(14.93)
R^2	0.01	0.00	0.35	0.35	0.35

Table 3: Compliance Did Not Depend on Trade with the Lender

	Sterling Bonds (n=39)			Dollar Bonds (n=37)		
	Estimated coefficient	Standard error	*t*-statistic	Estimated coefficient	Standard error	*t*-statistic
Trade with lender	-0.044	2.285	0.02	0.037	1.593	0.02
GDP per capita	0.771	0.272	2.84	0.704	0.180	3.92
Constant	-0.438	0.347	1.26	-0.680	0.371	1.83

Table 4: Defaulters Did Not Discriminate in Favor of their Senior Trading Partner

	% trade with		% compliance		comparison (UK-USA)		Quality
	UK	USA	UK	USA	trade	compliance	of match
Colombia	10	60	28	28	-51	**0**	**B**
Guatemala	5	55	100	54	-50	46	D
El Salvador	7	34	56	43	-28	13	C
Brazil	12	36	32	32	-24	**0**	**A**
Peru	21	33	0	0	-12	**0**	**A**
Costa Rica	35	40	14	14	-5	1	C
Chile	28	33	5	5	-5	**0**	**A**
Greece	14	18	40	40	-4	**0**	**A**
Germany	8	11	100	70	-3	**30**	**A**
Uruguay	19	21	58	63	-2	**-5**	**B**
Austria	3	5	99	99	-2	**0**	**A**
Hungary	3	2	61	61	1	**0**	**A**
Yugoslavia	4	3	38	34	1	**4**	**B**
Poland	9	8	86	85	1	**1**	**A**
Rumania	6	3	41	18	4	**24**	**A**
Bulgaria	6	2	36	37	5	**-1**	**A**

Table 5: Countries and Pages from CFB Scrapbooks

Country	Pages
Bolivia	1,802
Colombia	3,659
Costa Rica	2,558
Cuba	1,022
Dominican Republic	1,517
Ecuador	2,340
Egypt	7,653
Greece	2,441
Guatemala	1,767
Honduras	1,459
Panama	82
Paraguay	2,571
Peru	6,089
Roumania	581
Salvador	992
Spain	4,637
Uruguay	3,559
Venezuela	3,713
Total	48,442