Empire, Public Goods, and the Roosevelt Corollary

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The Roosevelt Corollary to the Monroe Doctrine marked a turning point in American foreign policy. In 1904, President Roosevelt announced that, not only were European powers not welcome in the Americas, but that the US had the right to intervene in the affairs of Latin American countries that were unstable and did not pay their debts. We use this abrupt change in U. S. policy to test Kindleberger's hypothesis that a hegemon can provide public goods such as increased financial stability and peace. Using a newly assembled database of weekly sovereign debt prices, we find that the average sovereign debt price for countries under the U.S. "sphere of influence" rose by 74% in the year following the announcement of the policy. With the dramatic rise in bond prices, the threat of European intervention to support bondholder claims in the Western Hemisphere waned, and the U.S. was able to exert its role as regional hegemon. We find some evidence that the Corollary spurred export growth and reduced regional conflict in Latin America, both of which improved the likelihood of repayment of sovereign debt and were compatible with broader U.S. commercial and strategic interests.

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"If a nation shows that it knows how to act with reasonable efficiency and decency in social and political matters, it keeps order and pays its obligations, it need fear no interference from the United States. Chronic wrongdoing, or an impotence which results in a general loosening of the ties of civilized society, may in America, as elsewhere, ultimately require intervention by some civilized nation, and in the Western Hemisphere the adherence of the United States to the Monroe Doctrine may force the United States, however reluctantly, in flagrant cases of such wrongdoing or impotence, to the exercise of an international police power." (Theodore Roosevelt, December 6, 1904)

I. Introduction

Imperialism has long been associated with economic expansion. Political or military power can be used to acquire natural resources and raw materials, create overseas markets for exports, and expand the investment opportunities for home-country investors. Marx, for example, saw imperialism as a means for sustaining capitalist economies. Imperialism can also transform the economies of supplicants. Reduced sovereignty can lead to political instability and undermine economic growth, but it can also create opportunities for the acquisition of new institutions and technology, direct foreign investment, and expanded trade opportunities. Imperialism can potentially lead to the creation of global public goods, such as peace and stability (Kindleberger, 1981; Lal, 2001).

The demise of the Soviet Union, which has left the U.S. as the last world superpower, and the return of globalization at the end of the twentieth century, which some commentators link to the expansion of cultural and economic power of developed countries such as the United States, have sparked new interest in understanding the linkages between the use of power and economic outcomes. For example, Ferguson

(2003) has argued that British imperialism in the nineteenth century fostered economic growth in its overseas dependents by facilitating the transfer of a set of institutions that made long-term growth possible. On the other hand, looking at the evidence on the cost of capital in Latin America, Taylor (2003) argues that this region did not benefit from (British) empire during the classical gold standard period. Others examining this period, notably Bordo and Rockoff (1996), have stressed that the gold standard rather than empire lowered the cost of capital.

Locating episodes where the effects of empire can be empirically tested, free of thorny estimation issues such as endogeneity, has proved vexing for economists. Rather than attempting to measure and identify the channels through which empire influences economic outcomes, economists have largely confined their empirical tests to examining theoretical interpretations of imperialism (Zevin, 1972).

This paper sheds light on the economic effects of empire by examining the expansion of U.S. imperial power in Latin America that resulted from the announcement of Theodore Roosevelt's 1904 Corollary to the Monroe Doctrine. We make two main contributions to the literature. First, we use the Roosevelt Corollary and the experience of the U.S. in Central America and the Caribbean as a laboratory for testing whether empires or hegemons produce global public goods, as suggested by Kindleberger (1973, 1981), Lal (2001), and others. Second, we provide a quantitative assessment of the Roosevelt Corollary by focusing on how the response to its announcement in the sovereign debt market shaped foreign policy and helped cement U.S. commercial and political objectives. Diplomatic historians and political scientists have argued that the announcement of the Corollary signaled an important shift in political and economic relations between the United States and Latin America as well as between the U.S. and Europe in the Western Hemisphere.[1] Despite its recognized importance in these fields, the Roosevelt Corollary has previously received little direct attention from economic historians.[2] Many standard American economic history texts do not even discuss the Roosevelt corollary, and those that do, assert that the military and political benefits of the doctrine may have been of greater significance than any economic gains (Puth, 1988; Ratner, Soltow, and Sylla, 1993).

In this paper, we focus on the connection between the announcement of the Roosevelt Corollary, the reaction to this policy in British financial markets, and the subsequent expansion of U.S. hegemony in Latin America. We assess how the announcement of the Corollary permitted the U.S. to extend its "sphere of influence" in the Caribbean, Central America, and smaller countries of South America. Our empirical section uses newly-gathered, weekly data on Latin American sovereign bond prices to analyze the effects of the Roosevelt Corollary on financial markets. Because we examine how U.S. diplomatic news affected bond prices for Latin American sovereigns on the London Stock exchange, we are able to assess the impact of *exogenous* political news on market prices. We show that, on average, Central and South American sovereign debt issues listed on the London Stock Exchange rose by 74% after one year, and by 91%

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[1] Historians and political scientists regard Roosevelt as the first internationalist President of the United States and argue that the Corollary marks a significant shift towards a more expansionist U.S. policy in Latin America. For examples, see Rippy (1934), Healy (1988), Becker and Wells (1984), and Field (1978), who reviews the literature by historians.

[2] Zevin (1972) provides an overview of U.S. imperialism dating from the country's founding to later episodes in order to test the Marxist interpretation of imperialism; however, his focus is not the Roosevelt Corollary. Examining the Leninist critique of imperialism, Lebergott (1980) examines what impact U.S. foreign investment from 1890 to 1929 had on Latin American factor returns, and concludes that it had little effect on labor incomes or landholders' capital gains in the recipient countries. LeFeber (1963) argues that America's imperial policy grew out of domestic economic distress of the 1890s (a point disputed by Zevin

nearly two years after the initial pronouncement of the Roosevelt Corollary.[3] Our econometric evidence suggests that the most plausible explanation for the enormous rally that occurred in Latin American sovereign bonds was the announcement of the Corollary.

The specific language contained in the Roosevelt Corollary provides the answer as to why bond markets reacted to the news in such a pronounced manner. Bondholders believed that by "policing" the region and ensuring debt repayment, the U.S. would provide global public goods that were previously missing: peace and financial stability. Foreign investors initially interpreted the 1904 Corollary as evidence that the U.S. would now intervene (with force if necessary) in countries that failed to honor their debt obligations and that were now under the U.S. "umbrella." The new foreign policy towards Central America and the Caribbean was made credible in the eyes of bondholders with action – by sending gunboats to Santo Domingo in 1905 and taking over customs collection to pay foreign creditors after it had defaulted on its external debt. Sovereign debt prices were bid up in the two years after the announcement under the belief that the shift in U.S. foreign policy and intervention in Santo Domingo had increased the prospects of debt settlement for the chronic defaulters in the Caribbean and in Central and South America.

Rising bond prices reduced the incentive for European powers to intervene on behalf of their creditors in the Western hemisphere (as they had done with gunboats in Venezuela in 1902). As the specter of military conflict with Europe fell, the costs to the

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(1972) and Becker and Wells (1984)). Rosenberg (1999) examines the extension of Roosevelt's policies during the Taft administration, so-called "Dollar Diplomacy."

[3] Our results stand in contrast to Cutler, Poterba, and Summers (1989) and others who have argued that important news events (including political and military developments) explain a relatively small portion of financial market movements. In a study on government bond prices and events surrounding World War II, Frey and Kucher (2000) find mixed evidence that political events are reflected in bond prices. Willard,

U.S. of extending its hegemony over the region declined. But after winning the initial approval of bondholders through intervention in Santo Domingo, the Roosevelt administration did not use the repeated application of force to ensure debt settlement in the region. The high political and economic costs of this type of direct intervention made it less attractive than serving as the region's "policeman" and a promoter of peace and regional stability; the latter became the chief goal of Roosevelt's foreign policy towards Latin America. Not only was the promotion of regional security a lower cost alternative, it was compatible with broader U.S. political goals: it further reduced the threat of foreign intervention (by raising the prospects for prosperity in debtor countries) and advanced U.S. commercial and interests (including the construction of the Panama Canal). With peace would come lasting prosperity, better export performance, more stable streams of government revenue, and improved prospects for the repayment of foreign loans. U.S. efforts to promote peace in the region (and provide a global public good) help explain why bondholders did not bid prices of sovereign debt down to their pre-announcement levels. The Roosevelt administration's success in brokering a lasting peace among five Central American states by 1907 improved the probability of repayment. Central American exports grew rapidly after 1905 and many of the defaulting republics later resumed payment under newly negotiated terms.

In the next section, we describe how the provisions of the Roosevelt Corollary affected the perceptions of foreign bondholders, and how the announcement led to an increase in U.S. regional hegemony. Section 3 provides empirical evidence that the announcement of the Corollary had a substantial effect on Latin American bond prices.

Guinnane, and Rosen (1996) and Weidenmier (2002) also find little evidence that political events led to large price changes in Northern and Southern currency prices during the American Civil War.

Section 4 argues that the U.S. made the new policy credible in the eyes of European bondholders by taking over the customs of Santo Domingo in 1905. Section 5 examines whether the power that the U.S. gained as a result of the Corollary was used to provide global public goods as hypothesized by Kindleberger.

II. The Roosevelt Corollary and European Bondholders

Although the Victorian era is generally associated with the military and economic dominance of the British Empire, the last two decades prior to World War I saw the emergence of a new power in international relations, the United States. Its focus began to shift from settling the continent to outward expansion and engagement in world politics. As has been noted elsewhere, the emergence of the United States at the turn of the century as a player in international politics did not signal its dominance, but rather its arrival (Kindleberger, 1973). After securing victory in the brief Spanish-American War in 1898 and modernizing its navy (quadrupling spending between 1898 and 1909)[4], the U.S. emerged from its isolationist past and began to exert itself on the world's stage. With the annexation of Puerto Rico, Cuba, the Philippines, and Guam, and control of the Isthmus of Panama, foreign policy during the first decade of the 1900s became associated with imperialistic motives, as canonized in Theodore Roosevelt's famous quip: "Speak Softly and Carry a Big Stick."

Despite U.S. ambitions in Latin America, its dominance was far from certain at the turn of the century. European powers were extending their empires at the turn of the century, and saw Latin America as an open frontier for expanding finance and trade (Feis, 1964). Britain had used its naval power to seize the port of Corinto in 1895 in order to secure an indemnity from Nicaragua for property damage and it had also intervened to support British Guiana in a boundary dispute with Venezuela in 1895-96 which, at the time, was viewed in the U.S. as a guise for extending its empire (Healy, 1988, p.33). The French were the first to try to build a canal across the Panama Isthmus in 1890s. Although they failed after nine years, their attempt sharpened U.S. attention on the region and reinvigorated U.S. efforts to establish more naval bases and refueling depots around the Caribbean Sea and locate a feasible route for shipping cargo more quickly.

But the greatest threat to U.S. regional hegemony was linked to global finance. The nineteenth century witnessed tremendous growth in sovereign debt issue, much of which funded Latin American countries despite the region's high incidence of default. As long as European creditors were concerned with the ability of Central and South American governments to honor their debts, the specter of European military intervention to enforce creditor claims was present. To varying degrees, European powers had exerted direct control over Egypt, Turkey, Serbia, and Greece after they defaulted in the 19th century (Platt, 1968), and there was concern among U.S. policymakers that a similar pattern would be established in Latin America if the U.S. did not block it.

Intervention in Latin America became a reality in December 1902 when European countries used a naval blockade and gunboats to force Venezuela to come to terms on its defaulted debt. Venezuela had experienced a revolution in 1898, which lasted more than 2 years, during which time substantial foreign property was destroyed and the government ceased payments on its debt. Although property damage was the pretext for British government involvement in the blockade, British creditors had strongly pressed

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[4] Sylla (2000).

their claims for a debt workout with the Venezuelan government, and after they failed, had sought redress with their own government (Borchard, 1951, p.270). President Castro of Venezuela refused to reply to foreign claimants, and in response Britain, Germany, and Italy blockaded the ports of La Guiara and Puerto Cabello and seized customhouses. Germany then unilaterally bombarded the fort at San Carlos. Castro acquiesced in February 1903, and agreed to arbitration and a gradual liquidation of Venezuelan debt. Under the eventual terms agreed to at the Hague conference in 1904, the European countries that blockaded Venezuela were given right to a preferential payment of 30% of claims since they had footed the bill and provided the force that resulted in benefits to all creditors; claims of countries that did not participate in the military occupation, including the U.S., were subordinated.

Even though he was a strong supporter of using the International Court of Arbitration at Hague, Roosevelt saw the Court's 1904 decision regarding Venezuela as setting a dangerous precedent – the use of European gunboats to enforce creditor claims in Latin America.[5] With U.S. interests expanding around the Caribbean Sea after its territorial acquisitions in the 1890s and control of the Panama Isthmus, Roosevelt was concerned that such a decision would provide justification for further European military action or permanent occupation in Central or South America and ultimately conflict with American commercial and strategic goals. As Roosevelt wrote to Secretary of State Root in 1904, "If we are willing to let Germany or England act as the policeman of the Caribbean, then we can afford not to interfere when gross wrongdoing occurs. But if we

[5] Latin American countries were equally disturbed by this ruling and, in response, lobbied for the adoption of the Drago doctrine, which, under international law, would have prohibited the use of armed force to settle debts.

intend to say 'hands off' to the powers of Europe, then sooner or later we must keep order ourselves."[6]

Signaling a dramatic shift in its relations with its neighbors, the Roosevelt administration outlined a new interventionist policy in 1904, which came to be known as the Roosevelt Corollary to the Monroe Doctrine.[7] The United States would police the nations of Central America, northern South America, and the Caribbean (providing peace and stability), and protect the interests of European investors by using its regional power to ensure that sovereign debts of these Latin American nations would be honored. By proposing a larger role for the U.S. in the region, Theodore Roosevelt aimed simultaneously to assert U.S. dominance in the region (which included the construction of the Panama Canal) and to check any military expansion of Europeans.[8] The corollary to the Monroe Doctrine was first articulated by the Roosevelt administration in a speech delivered by Secretary Root on May 20, 1904.[9] As Root explained, the U.S. would henceforth play the role of enforcing creditors' claims in Central America, the Caribbean, and the northern reaches of South America:

"If a nation shows to act with decency with regard to industrial and political matters, if it keeps order and pays its obligations, then it need fear no interference from the United States. Brutal wrong-doing, or an impotence which results in a general loosening of the ties of civilized society, may finally require intervention by some civilized nation, and in

[6] As quoted in Gilderhus (2000, p.29).
[7] Field (1978) argues that U.S. policy through 1898 had largely been a defensive response to Europe.
[8] Prior to this, Roosevelt took a different attitude towards European intervention in the region. In 1901, he wrote "If any South American state misbehaves towards any European state, let the European country spank it." (quoted in Schoultz, 1998, p.180).
[9] The U.S. began contemplating such a policy during the 1890s. In reference to South America, Richard Olney, Secretary of State under Grover Cleveland, stated "Today, the United States is practically sovereign on this continent, and its fiat is law upon the subjects to which it interposes" (Zevin, 1972, p.329). But no explicit policy statement with respect to U.S. policing of bondholders interests was made until the Roosevelt administration's decree in 1904, and Grover Cleveland's administration was largely anti-imperialistic (Field, 1978).

the Western hemisphere the United States cannot ignore the duty." (quoted in Rippy, 1934, p.195.)

Theodore Roosevelt elaborated upon his interpretation of the Monroe Doctrine in two subsequent speeches – to Congress on December 6, 1904 (as quoted in italics above) and on August 11, 1905, when he reiterated the "duty" and "responsibility" of the United States to ensure that countries washed by the Caribbean sea acted with "decency" and paid "their obligations" (*New York Times*, August 12, 1905).

III. Data and Analysis

A positive response in bond markets was critical to the success of the Corollary and U.S. regional hegemony. If the U.S. could convince European nations that their creditors' interests would be taken care of, then the likelihood of military intervention or occupation by Europeans in the Western Hemisphere would be reduced. Moreover, if market participants believed the threat of U.S. intervention and potential occupation in countries that shirked on payment was credible, then they would respond by bidding up sovereign debt prices in the London market on countries under the U.S. sphere of influence. This, in turn, would reduce the pressure for European nations to offer assistance to bondholders. We now turn to the data in order to test the effects of the U.S. pronouncement on bond prices. We then examine how the policy announcement was made credible and consider how the reaction in bond markets affected U.S. provision of global public goods.

A. Movements in Central and South American Sovereign Debt Prices

We collected weekly bond price data in the *Economist* for Colombia, Costa Rica, Guatemala, Nicaragua, and Venezuela for the period 1900-1913 – a sample of countries that were covered by the Roosevelt Corollary to the Monroe Doctrine and whose bonds actively traded in London.[10] We also collected monthly bond price data for Honduras from the *Investor's Monthly Manual*. Written accounts summarizing bond market activity from the *Economist* and *Investor's Monthly Manual* indicate that these bonds were actively traded during our sample period.[11] Although one might argue that Mexico and the rest of South America should be included, our reading of U.S. foreign policy and the *Annual Reports* of the Council of Foreign Bondholders suggest that the Roosevelt Administration was primarily concerned with the smaller and less stable countries in the Caribbean, Central America, and northern part of South America. Roosevelt alluded to this point in a 1906 address to Congress:

"There are certain republics to the south of us which have already reached such a point of stability, order, and prosperity that they themselves, though as yet hardly consciously, are among the guarantors of the Monroe Doctrine. These republics we now meet not only on a basis of entire equality, but in a spirit of frank and respectful friendship, which we hope is mutual."[12]

[10] We would like to have included debt prices for Cuba, El Salvador, and Panama. Panama does not issue bonds that trade on the London Stock Exchange prior to the announcement of the Corollary. Cuba, which was already under the U.S. sphere of influence after the Spanish American War, issues a new bond in 1904, which trades above par throughout our sample period. El Salvador's only outstanding foreign debt during our sample period was an issue of 1,000,000 pounds in 1908 by private London banks (Munro, 1918, p.290).

[11] For example, the December issues of the *Investor's Monthly Manual* frequently refers to these countries' bonds as constituting a "busy" or "lively section of the Foreign market" during our sample period, and the *Economist* regularly commented on the active price movements of the "rubbish issues" of Central and South America (since they were often in default) that occurred over the preceding week.

[12] As quoted in Schoultz (1998, p. 190). Later, in his memoirs, Roosevelt singled out "Brazil, the Argentine, and Chile" as countries in South America that had "progress, of such political stability and power and economic prosperity,…it is safe to say that there is no further need for the United States to

All bonds in our sample are in default at the beginning of the sample period, except for Nicaragua and Costa Rica (which defaulted in 1901). Figure 1 shows weekly bond prices for the 1.5 percent 1897 Colombian debt issue that traded on the London stock exchange until 1908. Bond prices for the 2.7 million pounds sterling that were initially floated traded between 10 and 20 pounds in the first few years after the turn of the century. The Colombian security increased nearly one-third in value during the first half of 1903 following the end of a four-year civil war. Debt prices fell again in response to American support of an uprising that led to the establishment of an independent Panama and ultimately to the completion of the Panama Canal in 1914. Colombian bond prices decreased to about 15 pounds sterling before rising more than 125 percent following Roosevelt's declaration that the United States would intervene in the affairs of Latin American countries that did not honor their foreign debt obligations. Prices stabilized after a successful debt workout with bondholders in 1905.

Figure 2 shows sovereign debt prices for Costa Rica. The 3 percent A-Series 1885 bond (with an initial issue of 525,000 pounds) traded for about 30 pounds sterling during 1901, before falling to almost 16 pounds in response to domestic default. The sovereign debt issue then increased from 17 pounds sterling to nearly 60 pounds in the year following Secretary of State Root's speech outlining the Roosevelt Corollary. The prices remain higher than pre-announcement levels and stabilize with the debt settlement that is reached in 1911.

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concern itself about asserting the Monroe Doctrine so far as these powers are concerned" (Quoted in Healy, 1988, p. 144). We also include Mexico in this group as the statement by Roosevelt was written after the long period of the Porfiriato – a period when the U.S. worked alongside Mexico in establishing peace in the region.

Sovereign debt prices for the 1.6 million pound sterling issue of Guatemala's 4 percent bond appear in Figure 3. The bond displays a pattern similar to the Colombian bonds. Debt prices fluctuated between 10 and 25 pounds sterling during the first 3 years of the 1900s, reflecting repeated attempts at resolving their defaulted debt. Sovereign debt prices then increased from 15 pounds to more than 40 pounds sterling between May 1904 and February 1906, again in response to the Roosevelt Corollary. In 1906, hostilities break out between Guatemala, Honduras, and El Salvador, causing bond prices to fall. Following the signing of a peace accord, bond prices recover.

Monthly bond prices for the Honduran 10 percent bond of 1870 are presented in Figure 4. Honduras defaulted on this issue of 2.5 million pounds sterling in 1873. Not surprisingly, the bonds traded for about 6 pounds sterling at the turn of century. The announcement of the Roosevelt Corollary increased expectations regarding repayment that led to a more than doubling of bond prices between March 1904 and the end of 1905. Debt prices then fell following the start of a war with Guatemala and El Salvador, but rebounded with the signing of a treaty. Bond prices fluctuated around 10 to 11 pounds sterling for much of the period leading up to World War I.

Figure 5 shows sovereign debt prices for 4 percent Nicaraguan bonds, with an initial issue of 5 million pounds sterling. The price increased from 50 pounds sterling in 1900 to 60 pounds in early 1902. It then stabilized until late 1904 when the debt issue rose from 58 pounds in late 1904 to 80 pounds in the summer of 1905. Debt prices fell in 1907 following the outbreak of war with Honduras and El Salvador, and then recovered with the cessation of hostilities and the signing of treaties among 5 nations in Washington, D.C., later in that same year.

Figure 6 shows debt prices for the 3 percent Consolidated Debt of Venezuela (with an initial issue of 2.75 million pounds sterling) for the period 1900-1913. Bond prices show no trend up until the foreign blockade of Venezuela commences in December 1902, when they increase in response to positive expectations of debt repayment. Bond prices then begin a dramatic increase in the summer of 1904, from 28 pounds in May of that year to more than 50 pounds in early 1906 – an increase of nearly 90 percent. Prices for the 3 percent issue continued to rise until World War I except for a brief decline in 1907 and 1908, in part because Venezuela reaches agreement with the Corporation of Foreign Bondholders on its defaulted debt.

The individual country plots reveal that both the Roosevelt Corollary and country-specific events moved sovereign debt prices during the first decade of the twentieth century. To measure the average movement of sovereign debt prices for countries under the U.S. sphere of influence, we construct a Latin American/Caribbean Bond Price Index (LAC). The unweighted price index is computed by averaging the sovereign bond prices of Colombia, Costa Rica, Guatemala, Nicaragua, and Venezuela.[13] We then compare fluctuations in the LAC to two bond price indices designed to capture bond market movements in the London and world markets. The Core Bond Price Index (CORE) is an unweighted average of the prices of four "senior" debt obligations issued in London, Paris, Berlin, and Amsterdam – the most important European financial markets. The core index includes long-term debt prices for the 2.75 percent British consol, 3 percent French Rente, 3 percent German Imperial bonds, and 2.5 percent Dutch bonds. With the exception of the German Imperial bonds, all issues are perpetuities. In addition, we also construct an emerging market index (PERIPHERAL) to provide a measure of bond returns in peripheral countries. We compute the average price of 12 long-term emerging market bonds (Argentina, Australia, Brazil, Cape Town, China, Egypt, Greece, Japan, New Zealand, Norway, Spain, Sweden) with a minimum maturity of 10 years to measure sovereign debt returns in the extended market. All data are collected from the *Economist*. Figure 7 plots LAC against the CORE and PERIPHERAL Price Indices. LAC increased approximately 91 percent in the period 1904-1906 while the CORE Index is flat and the PERIPHERAL Index rose only 2 percent. This suggests that the effect we observe in the countries around the Caribbean Sea is not taking place in the markets of Europe or in other developing countries, but is region specific.

Since we have confined the large increase in bond prices to bonds around the Caribbean Sea, we provide an additional check to discriminate our hypothesis (that the run up in bond prices was due to the Roosevelt Corollary) from a more general effect on bonds in Latin America. We compare LAC to prices of 4% British Guiana bonds. Like the sample of countries in LAC, British Guiana is located on the Caribbean Sea; however, this colony was under British control during this time. Therefore, if we are trying to disentangle the effects of the Roosevelt Corollary from any general Caribbean-area effect, British Guiana serves as a useful control country. We would expect British Guiana's bond from 1904 to 1906 to behave differently from the countries in LAC if we are picking up a distinct Roosevelt-Corollary effect and not a general Caribbean effect based on geography or regional factors unrelated to the threat of American intervention.

[13] We do not include Honduras in the LAC Index because that would entail interpolating 3 out of every 4 observations to convert the monthly bond price series into a weekly one. Nevertheless, as suggested by the graphical analysis, including Honduras as part of the LAC Index would not change our results.

Figure 8 shows that bond prices for British Guiana remained stable during the 1904-1906 period while the LAC sovereign debt prices surged.

Additional evidence that price movements were not related to other events can be drawn from the fact that five of the six countries in our sample were in default. Given the displeasure of foreign bondholders with these defaults, one would not expect market participants to begin to purchase their debt.[14] Despite bondholder unhappiness with the state of affairs in these countries, bond prices in Central America and northern South America experienced substantial increases after the announcement of the shift in U.S. foreign policy and before any debt settlements were effected (in the cases of Venezuela and Colombia).

Overall, the graphical analysis suggests that the bull market in selective Latin American debt prices (those under the U.S. "sphere of influence") occurred despite the fact that the majority of these countries had defaulted prior to the policy change; moreover, the rise in bond prices appears to occur at the precise time when foreign policy changed and the U.S. pledged support for foreign creditors holding sovereign debt of countries around the Caribbean Sea. Indeed, the Corporation of Foreign Bondholders also viewed the large increase in bond prices as resulting from the announcement of the new U.S. policy: "the increase in values is largely due to the idea that the recent utterances of President Roosevelt with regard to the Monroe Doctrine" (CFB, *Annual Report*, 1904-05, p.11). The financial press also attributed the rally in Central American and Caribbean

[14] As was written about Guatemala in 1904 by the Council of Foreign Bondholders: "Another year has gone by, and Guatemala still remains in the same discreditable position as regards the payment of its debt. A reference to the history of the Debt prefixed to this Report will show that, all things considered, this Republic has, perhaps, outstripped any of the defaulting States of Spanish America in cynical disregard of its obligations to foreign creditors. In the three successive years the Government of Guatemala has repudiated three separate Agreements for the settlement of the Debt negotiated by its duly accredited representatives" (CFB, 1904-05 *Annual Report*, p.231).

bond prices to the new interventionist approach of the U.S. government. The *Investor's Monthly Manual* commented at the end of 1905 that Roosevelt's new foreign policy towards Central America and its involvement in the construction of the Panama Canal project "having brought the United States government into relations with some of the Republics has raised hopes of settlements of long-outstanding obligations, which in turn have given rise to intermittent spasms of excited speculation in the bonds of the States concerned."[15] And the *New York Times*, on May 5, 1905, commented, "London stockbrokers are driving a roaring trade in South Americans, which have become a subject of lively, speculative interest on the theory that President Roosevelt has practically guaranteed all South American obligations. They bear the endorsement of the 'big stick,' so to speak."[16]

B. Econometric Tests

Although the graphical analysis is suggestive, it does not control for general movements in the bond market. To address this problem and avoid the difficulties in computing yields for bonds in default, we estimate a market model for each of the six Latin American/Caribbean countries, the LAC Index, and debt prices for British Guiana. We compute bond returns by taking the natural logarithm of the bond price for country i at time t divided by the bond price of country i at time t-1. For the bond indices, we take the natural logarithm of the price relative for each country and then compute the average bond return for the six countries. The market model can be written as:

[15] *Investor's Monthly Manual*, December 1905, p.673.

$$R_t^i = a_0 + \beta^i MKTRET_t + \varepsilon_t, \qquad (1)$$

where R_t^i is the bond return for country i at time t, a_0 is a constant, β^i is the time-invariant beta coefficient for country i, $MKTRET_t$ is the market return at time period t, and ε_t is a Gaussian white noise error term (Campbell, Lo, and MacKinley, 1997). β^i is a measure of the correlation of the bond return for country i with the market index. We employ CORE and PERIPHERAL as our measures of market returns in the leading European financial centers and emerging markets, respectively. β^i is a measure of the correlation of the bond return for country i with the market index. As Tables 1 and 2 show, the LAC Index and sovereign debt prices for individual Latin American countries are correlated with market returns at the 1- or 5-percent levels of significance. (British Guiana is the exception in both tables.)

We then use the market model to provide further insight into the period following the announcement of the Roosevelt Corollary. We use it to calculate cumulative abnormal returns (CAR) for each bond series as well as for our different bond price indices.[17] CARs are calculated by taking the partial sum of the residuals in equation (1). A CAR analysis is useful because it provides a week-by-week assessment of bond returns in Latin America relative to the overall market. The CARs can then be used to determine if important political and economic events coincide with excess returns in financial

[16] "Mr. Roosevelt as a Stock Boomer," *New York Times*, May 5, 1905 as cited in Corporation of Foreign Bondholders (1905, p.186).

[17] We converted the weekly bond price indices into monthly ones by using the Friday close nearest to the end of the month as a proxy for the monthly closing price. We then used the monthly bond indices to calculate abnormal returns for Honduras.

markets. The results are then plotted in Figures 9-16. All of the Latin American countries under the U.S. sphere of influence had large abnormal returns by 1905. British Guiana stands out as well, but in that it has no abnormal returns: it did not experience returns substantially different from the market during this period. To test whether the Roosevelt Corollary was statistically significant, we also included a dummy variable in the market model, which was set equal to one for the period May 1904 to May 1905. For all the countries under the U.S. sphere of influence and for the Latin American Index as a whole (LAC), the Roosevelt-Corollary dummy variable was statistically significant at the 5-percent level, except for Honduras, which was significant at the 10-percent level (table 3).[18]

As a robustness test, Figure 17 presents an alternative to the market model – cumulative total returns for the Latin American Index (LAC); this may be useful since the bonds we are considering were in default. The cumulative total returns for countries under the U.S. sphere of influence hover around zero until the announcement of the Corollary, after which they rise to over 60 percent in one year.[19] Overall, we interpret the evidence as consistent with the hypothesis that the announcement of Roosevelt's interventionist foreign policy led to a large increase in Latin American bond prices.

IV. Making the Threat Credible

[18] British Guiana was not statistically significant ($p = 0.91$).

[19] We also tested each sovereign debt series for multiple structural breaks using the Bai-Perron structural break methodology (Bai and Perron, 1998). For each country and our Latin American Index, we find a statistically significant structural break in the period following the announcement of the Roosevelt Corollary.

Large and positive abnormal returns persisted in Latin American debt prices even after Root's Speech in May 1904 and Roosevelt's Address to Congress in December 1905 that outlined his revision of the Monroe Doctrine. We attribute the persistence of these prices to actions that the U.S. took to make the policy credible in the eyes of European bondholders and to the provision of global public goods.

A. Making the Threat Credible

The process of convincing the European bond markets that the U.S. would intercede in Latin America on their behalf was reinforced by subsequent pronouncements and actions, including a naval tour of the world to assert American military prowess, official diplomatic visits by Secretary Root to the region, and most notably, fiscal intervention in Santo Domingo in 1905. Under the corrupt regime of dictator Heureux, Santo Domingo (Dominican Republic) had spent profligately and accumulated a large national debt. Heureux was assassinated in 1900, civil war broke out, and Santo Domingo defaulted on its debts. Even after gaining some semblance of political stability, foreign warships were threatening to land troops and seize available customs revenues as payment for delinquent debts in 1904. The Republic of Santo Domingo (Dominican Republic) facing bankruptcy agreed to terms with its international creditors in a treaty signed in July, but then failed to honor the terms of the treaty.

The Roosevelt administration, recognizing that European nations may intervene on behalf of their disgruntled bondholders, as they had done in Venezuela, unilaterally sent gunboats and troops to Santo Domingo to assist in the collection of customs duties; it quickly assumed the role of the fiscal agent of the country – the role that Europeans had previously played when Turkey and Egypt had defaulted. This was especially noteworthy since Great Britain, France, Belgium, Holland, and the U.S. had earlier agreed to mutually intercede and jointly collect customs if Santo Domingo defaulted.[20] It entered into possession of the customs house of Puerto Plata and subsequently, at the invitation of the Dominican Government, into that of Monte Cristy to assure repayment to all creditors. On February 7, 1905, President Carlos Morales signed a treaty with the Roosevelt administration authorizing the U.S. to act as General Receiver and collector of customs. Forty-five percent of the collected revenue was to be used to settle claims, with the remainder placed in a trust and used to pay off creditors according to their claim amounts.

As a further signal to their commitment to the terms of the treaty and the rights of foreign creditors, the U.S. repeatedly sent warships to Santo Domingo to put down numerous attempts at rebellion after the treaty was signed and to protect the customhouses under their control. To stop smuggling so that revenues could be collected and foreign claims honored, the American General Receiver of Customs in Santo Domingo organized a force of 120 Dominicans, the Customs and Frontier Guard, for policing the land and customs offices.

The degree of U.S. intervention in Santo Domingo in 1905 took British bondholders by surprise:

> "The past year has witnessed a new and altogether unexpected development in connection with the Debt of this country especially with regard to the rights of English holders of Santo Domingo Bonds, which were defined and guaranteed by the International Arbitration Award of July, 1904…Payments were duly made by the United States Government to the Improvement Company, and arrangements were in course of

[20] *Fenn on the Funds* (1898, 16th edition, p.471).

completion for a settlement with the English holders of Dominican Bonds included under the Arbitration Award" (Statement of Bondholders of Santo Domingo, CFB, *Annual Report*, 1904-05, p.21).

But it met with bondholder approval and was seen as evidence that the U.S. would intervene elsewhere in the region (Rippy, 1934, p.198). That the actions taken by the U.S. in Santo Domingo reinforced the credibility of the shift in U.S. policy can also be seen by comparing the reaction in the press and by bondholders before and after the Santo Domingo intervention. Prior to the agreement that was reached with President Morales, *The Daily Mail* in London wrote:

> "The little gamble which has been going on in Central American Securities lately naturally finds favor with Stock Exchange speculators. They have read in the recent utterances of President Roosevelt and Mr. Root an intimation that the Monroe Doctrine is capable of being extended into more than a cry of 'Hands off' to European interests. Some good folk even see a hint that the United States is disposed to go gunning in Central America on behalf of the British and other European investors. It is an entertaining idea, but one that unfortunately may end in mere theory."[21]

After the intervention, Europeans who held the debt of other Latin American countries in default were emboldened by the U.S. intervention in Santo Domingo. In a letter to the U.S. State Department on March 10th, 1905, British bondholders of Colombian debt wrote about the need for the U.S. to intervene in Panama to secure payment of Panama's share of Colombian debt:

> "The President then gives as a special reason for the intervention of the United States in the Case of Santo Domingo, that certain Foreign Governments were becoming importunate and pressing their unsatisfied claims against the Dominican Government. We had therefore, we submit, good reason to hope that the President would be prepared to assist the holders of Colombian Bonds, whose claims are at least as good as those of the Santo Domingo Bondholders, and who, we venture to think, have a right to especial [sic] consideration in view of the prejudice which they have suffered in consequence of the secession of Panama from Colombia." (CFB, *Annual Report*, 1904-05, p.97).

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[21] "Central America," *Daily Mail*, January 5, 1905 as cited in Corporation of Foreign Bondholders (1905, p.173).

Similarly, Guatemalan bondholders, who were frustrated at the repeated failure of Guatemala to come to an agreement with the CFB, stated in 1905 that "if the United States Government is really prepared, as it has intimated, to put pressure on the defaulting Spanish American States to respect their obligations, it would be difficult to find a better case to commence with than that of Guatemala." (CFB, *Annual Report*, 1904-05, p.238).[22]

B. Hegemony and Global Public Goods Provision

Kindleberger (1981) and Lal (2000) have suggested that empires are particularly well suited to the provision of global public goods, and argue that peace and financial stability are two "goods" that hegemons or empires might be capable of providing. Wyplosz (1999) suggests international financial stability is a global public good, or more aptly, financial instability is a global public bad, because it is associated with outcomes that affect non-market participants and that potentially spill across national borders. He argues that financial instability produces non-pecuniary negative externalities in the form of "excessive volatility" (that volatility which cannot be priced), and that asymmetric information in financial markets makes policy intervention defensible. Hamburg and Holl (1999) argue that preventing deadly conflict and providing security fosters conditions that are indivisible and non-excludable and that offer benefits or positive externalities to inhabitants of a region, not just among warring parties. The literature on public goods

[22] See also the London-based publication, the *Financier*, 18th edition, 1905, which states that "those who are in touch with Central American affairs are convinced that the establishment of a Protectorate over these Republics by the United States is only a question of time, and in that event Uncle Sam would probably

provision, however, is less clear about the necessary conditions for their provision by a hegemon. For example, the public goods may need to be incentive compatible with broader policy objectives. We therefore examine whether hegemons provide global public goods by first assessing whether the U.S., as a regional hegemon, was capable of furnishing them, and then by evaluating whether it did.

The willingness and ability of the U.S. to provide the public goods of peace and financial stability in the region were made possible by the response of the sovereign debt market in London. If the Corollary had not been seen as credible and if bond prices had not risen, then it is likely that European powers would have wanted to maintain a stronger regional presence to enforce property rights claims rather than acceding to U.S. policing for dealing with recalcitrant debtors. However, by the end of 1905, Britain had deferred to U.S. leadership in the region, and Roosevelt believed that he had successfully impressed upon the Kaiser of Germany that "violation of the Monroe Doctrine by territorial aggrandizement on his part around the Caribbean meant war, not ultimately, but immediately, and without delay."[23]

With Europe pacified, the U.S. could pursue strategic footholds for its Navy around the Caribbean Sea, build and control the Panama Canal with little opposition, and expand its commercial interests in the region. However, maintaining a constant police presence in the region in order to secure these goals was destructive and fiscally and politically costly. A far cheaper means of advancing its interests was to promote peace and regional stability. Free of civil strife, Central American and Caribbean countries would be able to focus on their fiscal balance and governance structures. As J.S. Mill

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establish control over the Customs, as in the case of Santo Domingo." (Corporation of Foreign Bondholders, 1905, p.177).

suggested, a climate of improved stability and lasting peace would draw overseas investment to the region, promote exports, and stimulate growth. Moreover, promoting peace yielded an additional dividend to the United States: improved prospects of debt repayment by sovereigns (which lowered U.S. "collection" costs and reduced the likelihood of European intervention.)

According to political scientists, peace in Central America became the chief goal of American foreign policy after 1905, and for the remainder of Roosevelt's presidency (Healy, 1988).[24] Secretary of State Root rejected the routine use of force as a means for achieving regional stability, and instead vigorously pursued diplomacy. Consistent with the Carnegie Commission on Preventing Deadly Conflict (1997), the Roosevelt administration pursued two broad strategies: (1) operational prevention, or measures to respond to an immediate crisis, and (2) structural prevention, or measures to keep crises from arising and from recurring. Operational prevention included ensuring elections with troops in Cuba in 1906 and in Panama in 1908. (Table 4 provides a list of key interventions from 1904 to 1908.) Structural prevention began in 1906, when the U.S., along with the aid of Mexico, initiated an effort to secure peace in the five unstable nations of Central America: Costa Rica, Honduras, Salvador, Nicaragua, and Guatemala. War broke out in that year, but the U.S. continued to pursue resolution and organized the Marblehead Conference on July 20, 1906 to mediate peace. In one day, the conveners were able to convince the factions to cease fighting and disarm, until a new peace

[23] As quoted in Healy (1988, p.72).

[24] Writing about U.S. foreign policy towards Central America in 1918, Dana Munro wrote, "The establishment of peaceful government in the Isthmus is a matter in which we are deeply interested for political reasons. The Monroe Doctrine must always be a paramount principle of our foreign policy, at least in so far as it deals with the countries of the Caribbean, because the exercise of political influence in that region by a foreign power could not be but a constant menace to our peace and security." (Kinley, 1918).

conference was called in September. War continued sporadically until the U.S. was able to broker a lasting peace among the 5 states at the Central American Conference in Washington, D.C. in 1907. Eight treaties and conventions were signed and ratified, including provisions that made arbitration of disputes in a new Central American Court of Justice compulsory. Under U.S. stewardship, the Court succeeded in bringing peace to the republics for the next several years. In light of these efforts by the Roosevelt administration to stabilize the region, contemporaries, such as Dana G. Munro of the Carnegie Institute of International Peace, argued that the United States had “already achieved one of its main objects, in that revolutions and international wars have been checked throughout the Isthmus” (Munro, 1918, p.307).

The Roosevelt Corollary (and its implied threat of force) and subsequent diplomacy may have managed to reduce conflict in the region, but U.S. strategy in securing regional financial stability was subject to intense scrutiny by European bondholders. Despite the success in extracting payment from Santo Domingo for foreign bondholders, the U.S. did not follow this episode with regular intervention on behalf of bondholders around the Caribbean. To the dismay of some European bondholders, the U.S. was unwilling to apply the Corollary and use force on behalf of foreign bondholders to ensure repayment of debt in “flagrant cases of wrongdoing or impotence.” The frustration of British creditors holding the bonds of countries such as Colombia, Guatemala, and Costa Rica is described in the *Annual Reports* of the Corporation of Foreign Bondholders. For example, writing in the 1908 CFB report, the Council of Foreign Bondholders wrote:

"The President has stated that it is the duty of the United States to see that the Spanish-American Republics 'behaved with decency in industrial matters and paid their obligations.' So far, however, far from putting pressure on Guatemala in order to obtain payment of the long-established Debt due to the Bondholders, the United States Government in 1906 lent its powerful support to a new Contract, made between the Government of Guatemala and an American Syndicate, under which the export duty of Coffee, pledged to Bondholders in 1895, and the 30 per cent of the Customs Duties payable in gold, promised to them under the Agreements of 1903 and 1904, were handed over to the Syndicate." (CFB, 1908 *Annual Report*, p.13).

Did the U.S. default on providing the public good of financial stability as British bondholders' complaints suggest? Our interpretation is that it did not, but that the U.S. chose a policy path that was less costly and also compatible with its broader strategic and commercial goals.[25] A strategy of repeated intervention would have been an inferior policy once the sovereign debt market in Europe responded favorably to the Corollary. The U.S. gained an important strategic advantage when market participants bid up sovereign debt prices: the reduced threat of conflict with Europe made expansion in the region less costly. But their failure to intervene regularly elsewhere in the region does not imply that the U.S. failed to improve financial stability in the region. U.S. involvement in Santo Domingo sent a signal to countries under its sphere of influence that that it was willing to intervene to promote repayment; the threat of lost sovereignty was coupled with its broader effort to secure peace and stability around the Caribbean through diplomacy, which in turn led to improved prospects for defaulting countries to make payments or reach new debt accords.

Since it would be quite difficult to construct the appropriate counterfactual (what would have occurred in the absence of the implied threat of loss of sovereignty and U.S.

efforts to promote regional stability), we present several pieces of supporting evidence that are consistent with the view that the Corollary increased the prospects for the repayment of sovereign debt. First, as we indicated earlier, bond prices in our Latin American sample do not decline following the announcement. If British bondholders truly believed the Roosevelt Corollary had failed, then bond prices would have reflected this change in sentiment by falling. In fact, they remained well above their pre-announcement values at the end of Roosevelt's term, and the markets attributed much of the sustained rally in bond prices to peace and stability. For example, the *Investor's Monthly Manual* wrote that the rise in bond prices was the result of these countries "attaining a stable form of government, and in spite of temporary outbreaks the credit of their official securities is approximating European standards" and that the United States and Mexico "will be able to enforce peace among the quarrelsome States of the isthmus."[26] And the Corporation of Foreign Bondholders even acknowledged how the peace treaties signed in Washington in 1907 raised the prospects for debt repayment for countries in default (CFB, *Annual Report*, 1907, p.15).

Second, even though the U.S. did not always work directly with British bondholders to secure debt relief, and in some instances allowed its citizens to obtain securities preferentially pledged to British bondholders (such as in Guatemala, Honduras, and Nicaragua),[27] debt settlements were nevertheless reached with Colombia and Venezuela in 1905, Costa Rica in 1911, and Guatemala in 1913. Costa Rica even

[25] As historian Jurgen Buchenau has written, "Equally significant, the Washington Conventions diminished the likelihood of future trouble, since all Central American states had signed the treaties. Thus, the treaties promised to reduce the probability of U.S. intervention in Central America" (Buchenau, 1999, p.78).
[26] *Investor's Monthly Manual*, December 1909, p.682. A similar statement regarding improved stability in these countries is made in the *Investor's Monthly Manual* in December 1908, p.678.
[27] CFB, *Annual Report*, 1911, p.13.

managed to float a new issue of bonds bearing 5 percent interest on the Paris Stock Exchange in 1911. The bonds were redeemed in 1925. This is impressive considering most of these countries had been in default for long periods prior to 1904, and the prospects for settlement, as indicated by the very low price of these bonds, were grim.

Finally, since regional peace fostered stable political regimes, this made it easier for governments to collect revenue and for export-producing industries to generate earnings, both of which improved the likelihood of debt repayment. As the Governments Stock and Other Securities Investment Company of London wrote in 1905, "If she [the United States] interferes with matters of finance no doubt that will to a certain extent prevent revolutions in these countries…and there is no doubt that the majority of revolutions that take place in the Central and Southern America arise from matters of indifferent finance on the part of the President and the Government generally."[28] As table 5 shows, after peace was secured with the Conference in 1907, government revenues as well as exports in the region expanded. Exports also grew rapidly in comparison to earlier periods, consistent with the view that the Corollary promoted trade. Figure 18 shows a strong positive relationship between export growth and the movement of bond prices (between the announcement of the Corollary and the end of 1907), suggesting that export growth may have increased the probability of repayment on defaulted debt. Since export revenues were the primary means by which sovereign debtors typically repaid their loans (Kelly, 1998), the Corollary, which served as the means for promoting peace, created a favorable environment for trade to flourish and improved the likelihood of debt repayment.

[28] "Governments Stock Investment," February 4, 1905 as cited in Corporation of Foreign Bondholders (1905, p.175).

VI. Conclusion

The history of U.S. imperialism at the turn of the century provides a powerful illustration of the effects of news on financial markets. The announcement of the Roosevelt Corollary prompted one of the largest bond market rallies in the early twentieth century. Abnormal returns on sovereign debt issued by countries around the Caribbean Sea were substantial in 1904 and 1905, but not in other areas of the globe nor in British Guiana, suggesting that the bond rally was the result of Teddy Roosevelt's new policy of intervention. Viewing the policy as credible, market participants bid up the price of bonds in anticipation of greater U.S. involvement in resolving debt disputes.

The costs of securing regional hegemony declined as the threat of European intervention in the region receded. And as prices of sovereign debt rose in London, the need for the U.S. to intervene on behalf of creditors fell because the primary reason for European intervention (to support creditor claims) became less of a concern. However, the U.S. did not have to commit to a long-run policy of direct intervention. Its actions in Santo Domingo sent a signal to countries under its sphere of influence that it was willing to intervene and take away sovereignty, but its chief long-run strategy was to promote peace and regional security. This was cheaper than direct intervention, still improved the prospects of debt settlement (by promoting an environment conducive to trade), and was incentive compatible with U.S. commercial and military interests in the region. The response of financial markets to the Corollary made it possible for the U.S. to provide the public goods of empire, and their provision was a cost effective means of promoting its broader strategic objectives.

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Table 1. Market Model Results with CORE Market Index

Dep.Variable	Constant	$Beta_t$	DW	R-squared	Obs	Sample
Latin Index	.001 (.0007)	.780 (.209)***	1.656	.031	430	1900/1/6-1908/3/28
Colombia	.002 (.001)	1.210 (.344)***	2.119	.017	730	1900/1/6-1913/12/26
Costa Rica	.001 (.002)	.586 (.523)	1.879	.003	430	1900/1/6-1908/3/28
Guatemala	.001 (.001)	.337 (.390)	2.020	-.0003	730	1900/1/6-1913/12/26
Honduras	.008 (.006)	2.141 (.695)***	2.182	.054	167	1900/2-1913/12
Nicaragua	.0006 (.0005)	.404 (.137)***	1.530	.013	686	1900/1/6-1913/2/22
Venezuela	.001 (.0009)*	.981 (.250)***	2.166	.021	730	1900/1/6-1913/12/26
Br. Guiana	-.00007 (.0002)	.100 (.066)	1.990	.005	430	1900/1/6-1908/3/28

Table 2. Market Model Results with PERIPHERAL Market Index

Dep.Variable	Constant	$Beta_t$	DW	R-squared	Obs	Sample
Latin Index	-.0008 (.0007)	1.277 (.220)***	1.674	.073	430	1900/1/6-1908/3/28
Colombia	.002 (.0012)	1.650 (.381)***	2.111	.025	730	1900/1/6-1913/12/26
Costa Rica	.0007 (.0018)	1.432 (.556)***	1.881	.015	430	1900/1/6-1908/3/28
Guatemala	.001 (.002)	1.652 (.524)**	2.083	.017	730	1900/1/6-1913/12/26
Honduras	.004 (.006)	2.571 (.736)***	2.200	.069	167	1900/2-1913/12
Nicaragua	.0006 (.0005)	.943 (.168)***	1.462	.051	686	1900/1/6-1913/2/22
Venezuela	.001 (.001)	1.365 (.352)***	2.200	.025	730	1900/1/6-1913/12/26
Br. Guiana	-.0001 (.0002)	.079 (.071)	1.998	.003	430	1900/1/6-1908/3/28

*denotes significance at the 10 percent level.
**denotes significance at the 5 percent level.
***denotes significance at the 1 percent level.

Table 3. The Roosevelt Corollary and Latin American Bond Prices.

Dep.Variable	Constant	$Beta_t$	Roosevelt Corollary	DW	R-squared	Obs	Sample
Latin Index	-.003 (.0008)	.741 (.204)***	.009 (.002)***	1.741	.083	430	1900/1/6- 1908/3/28
Colombia	.001 (.001)	1.179 (.343)***	.012 (.0045)**	2.142	.025	730	1900/1/6- 1913/12/26
Costa Rica	-.002 (.002)	.502 (.514)	.018 (005)***	1.929	.033	430	1900/1/6- 1908/3/28
Guatemala	.0006 (.001)	.230 (.380)	.010 (005)**	2.048	.007	730	1900/1/6- 1913/12/26
Honduras	.005 (.006)	2.055 (.692)***	.038 (.021)*	2.224	.072	167	1900/2- 1913/12
Nicaragua	.0001 (.0005)	.387 (.136)***	.005 (.0015)***	1.550	.026	686	1900/1/6- 1913/2/22
Venezuela	.0009 (.0009)	.961 (.249)***	.006 (003)**	2.166	.021	730	1900/1/6- 1913/12/26
Br. Guiana	-.0001 (.0003)	.100 (.066)	.0001 (.0001)	1.990	.005	430	1900/1/6- 1908/3/28

Table 4. Important U.S. Interventions in Latin America, 1904 - 1908

Country	Date	Event
Panama	1904	U. S. forces sent to protect American property in face of Insurrection
Santo Domingo	1905	U. S. warships sent to ensure that customs revenue collections
Mexico	1905	U. S. Marines support Porfirio Diaz to quell rebellion in Sonora
Cuba	1906	Under Platt Amendment, U. S. begins occupation to prevent Civil War
Honduras	1907	U. S. troops land in Honduras to settle war with Nicaragua
Panama	1908	U. S. intervenes to ensure election

Table 5. Export and Government Revenue Growth in Latin America
(Percent)

Country	Annual Government Revenue Growth Rate 1907-12	Annual Export Growth Rate 1907-12	Annual Export Growth Rate 1890-1912	Annual Export Growth Rate 1850-1912
Colombia	1.6	17.0	2.4	3.5
Costa Rica	5.1	18.9	0.5	3.5
Guatemala	11.3	5.1	2.4	3.6
Honduras	9.2	12.3	-0.3	1.4
Nicaragua	14.3	0.3	2.3	2.9
Venezuela	28.2	12.9	1.2	2.7
Average	11.6	11.1	1.6	3.0

Sources: Bulmer-Thomas (1994) and CFB *Annual Report* (various years).

Figure 1
Colombia 1.5% to 3%, 1900-1913

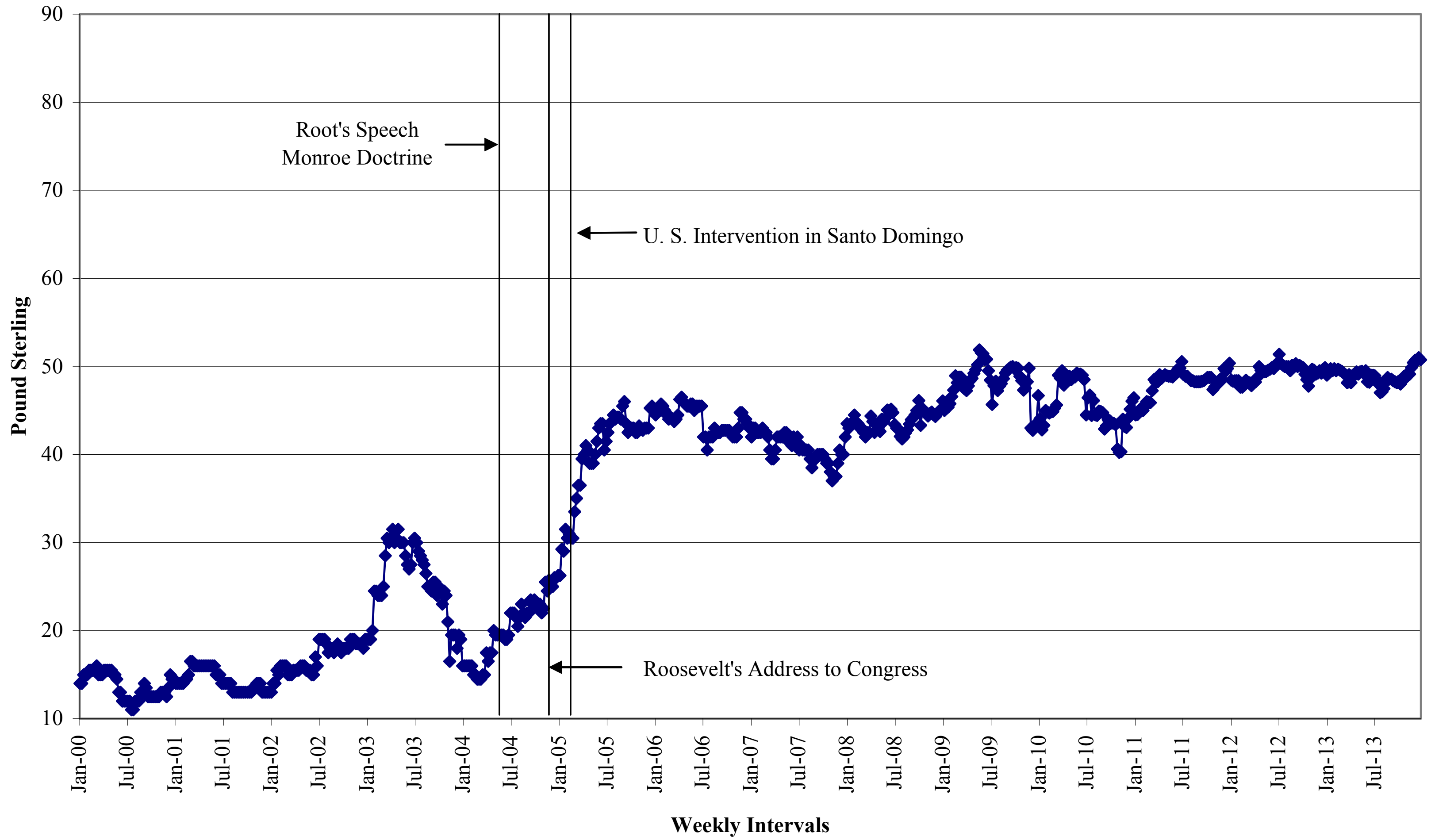

Figure 2
Costa Rica 3% 'A' 1900-July 1912

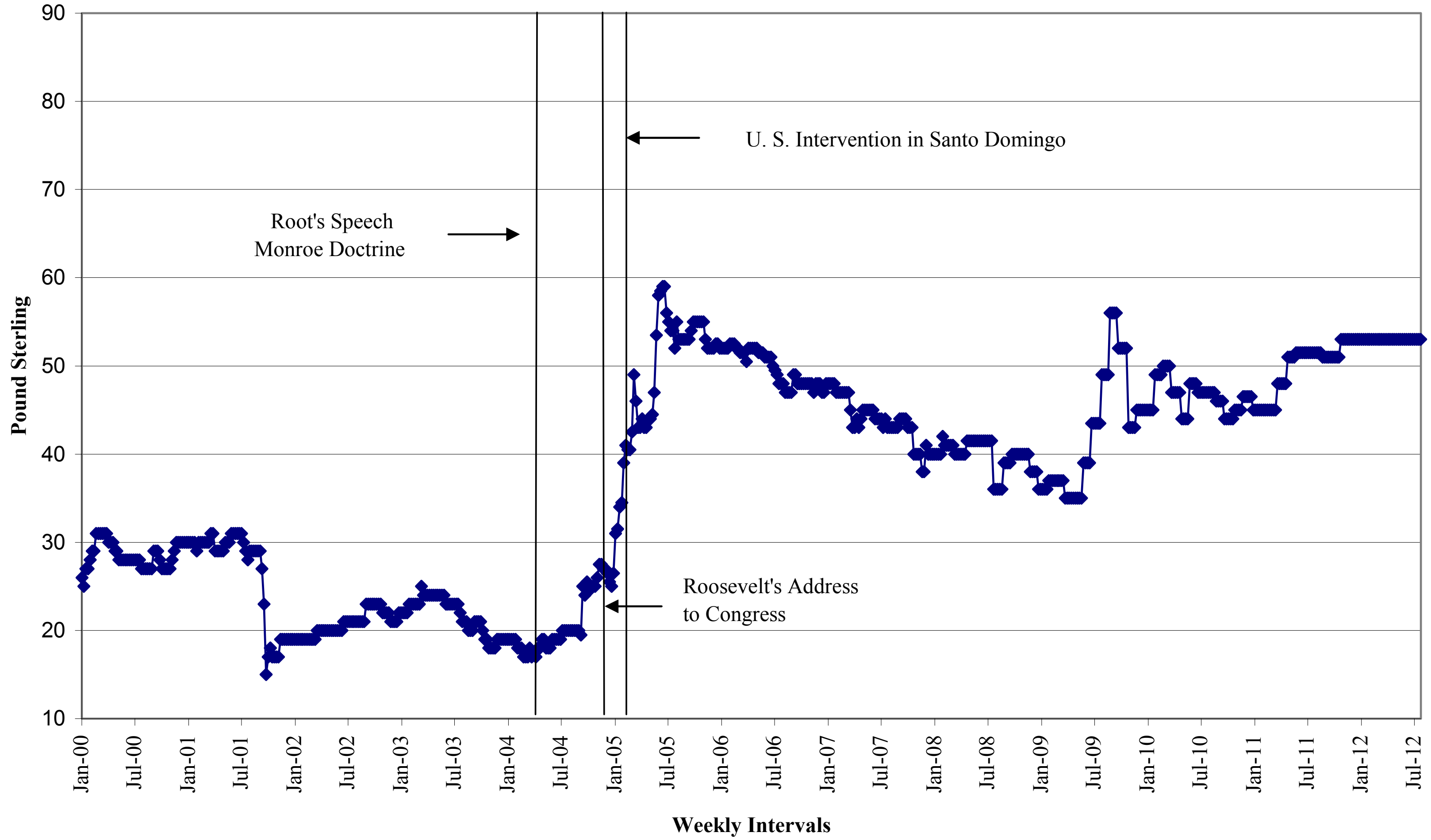

Figure 3
Guatemala 4% 1900-1913

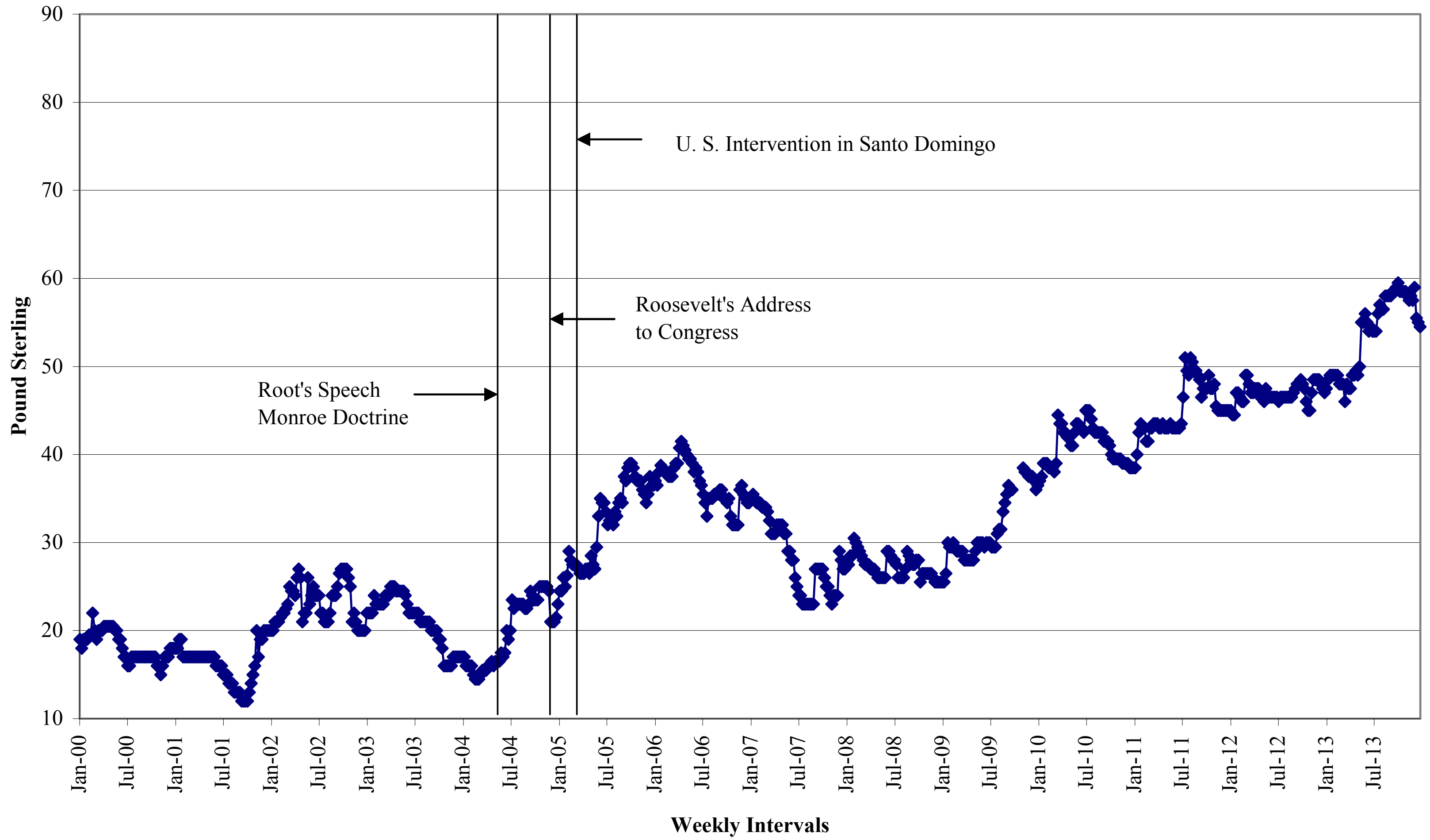

Figure 4
Honduras (1870) 10% 1900-1913

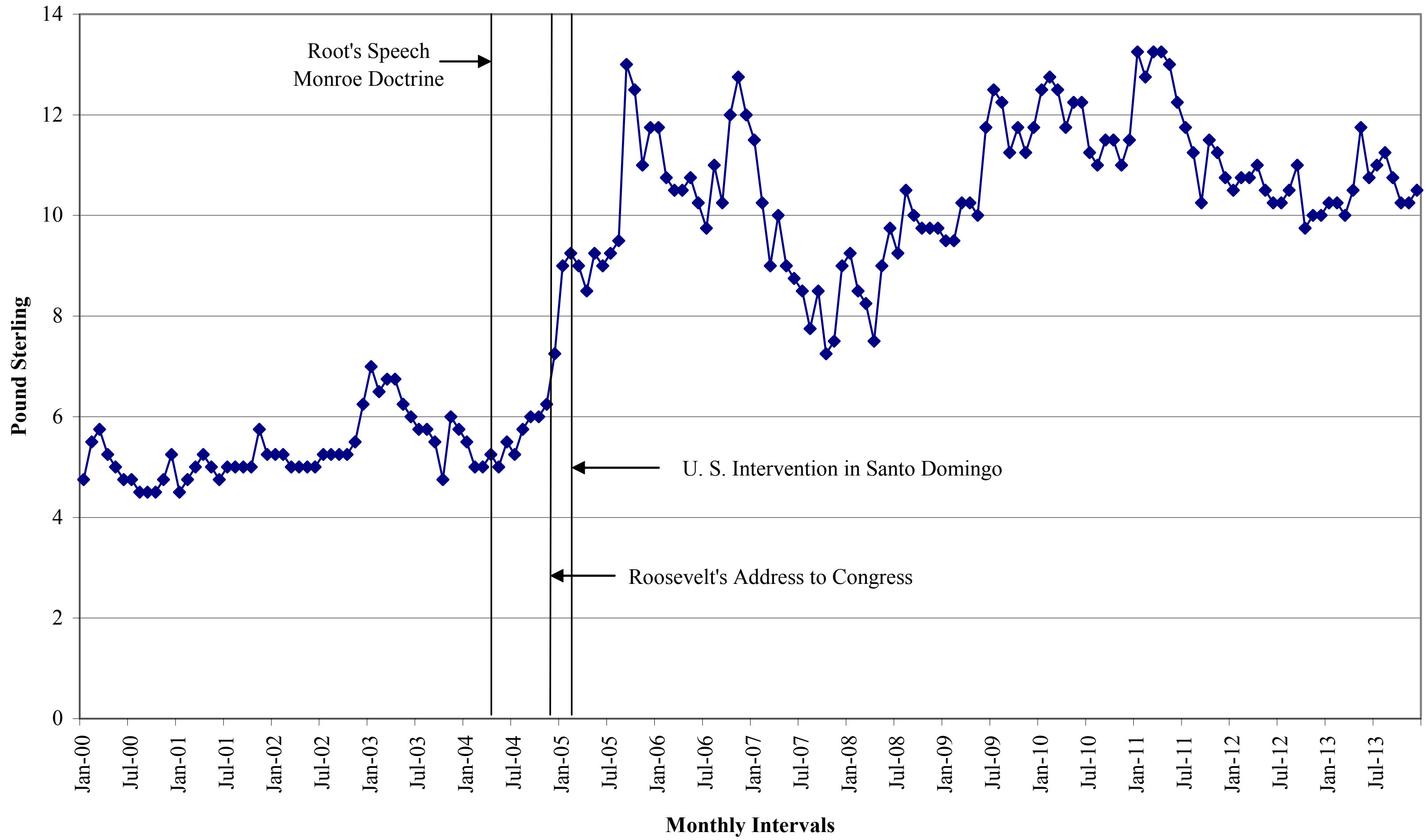

Figure 5
Nicaragua 4% 1900-February 1913

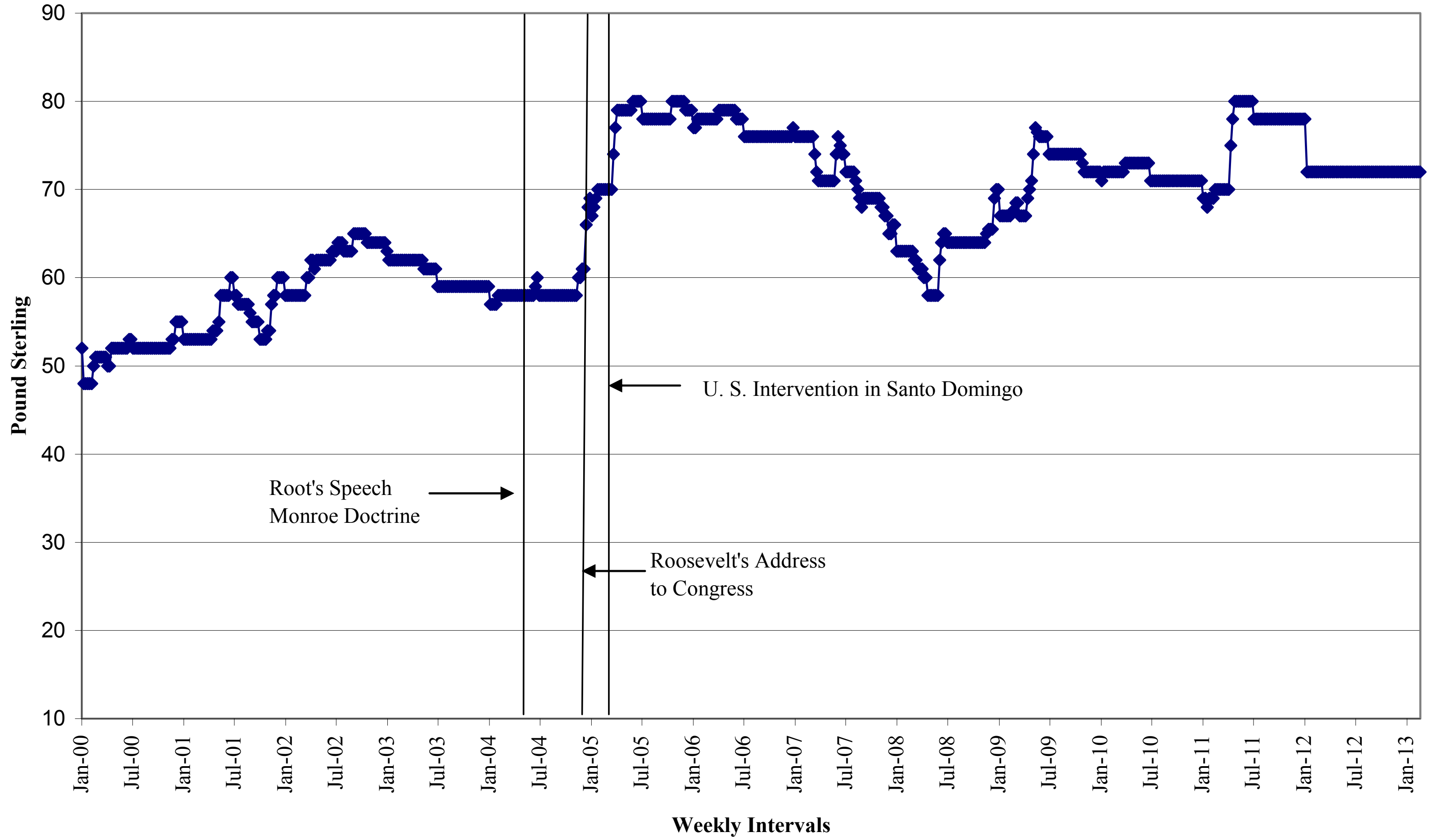

Figure 6
Venezuela Consolidated Debt 3%, 1900-1913

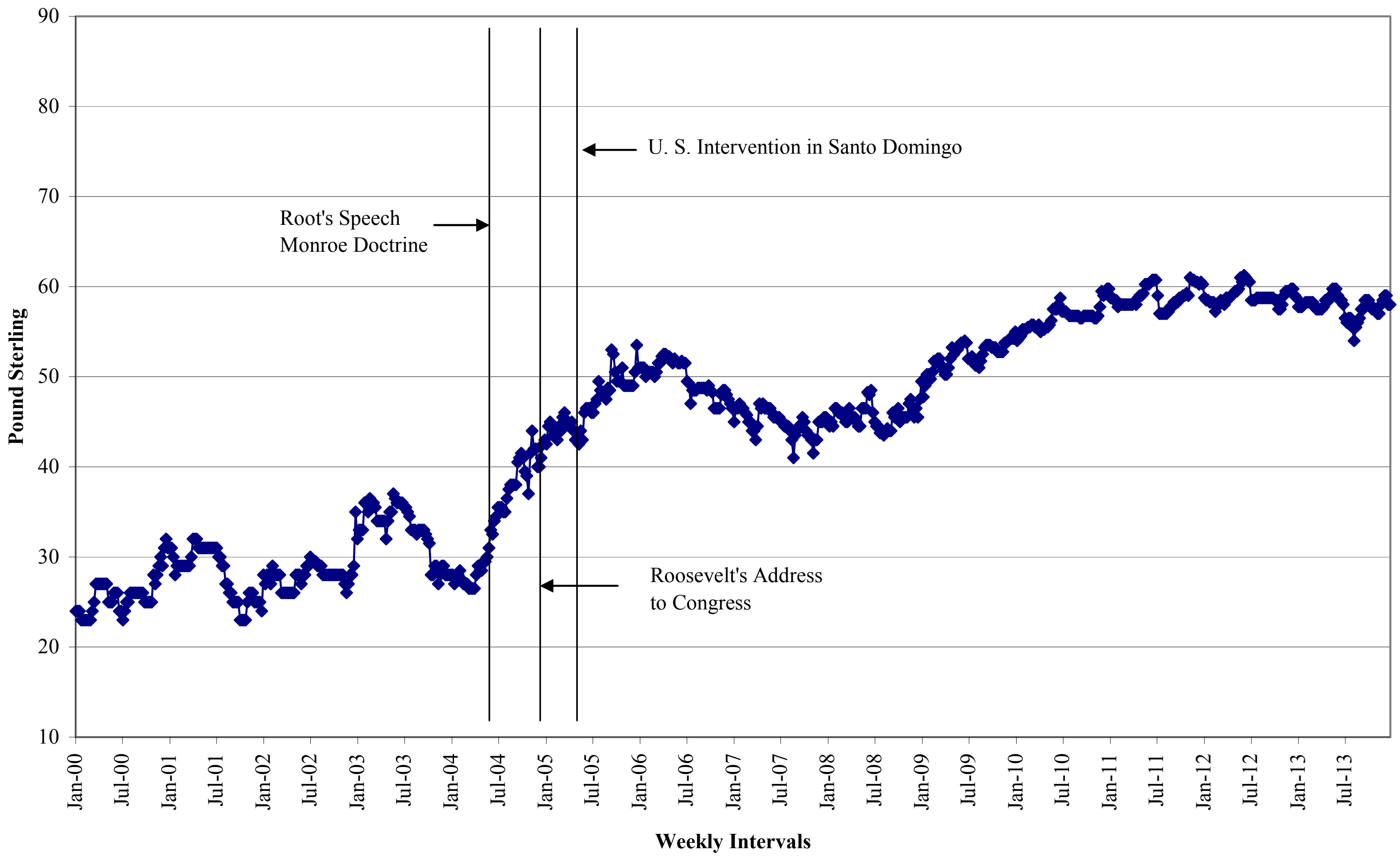

Figure 7
Latin American Bond Index (LAC) vs. CORE and PERIPHERAL Bond Price Indices 1900-1908

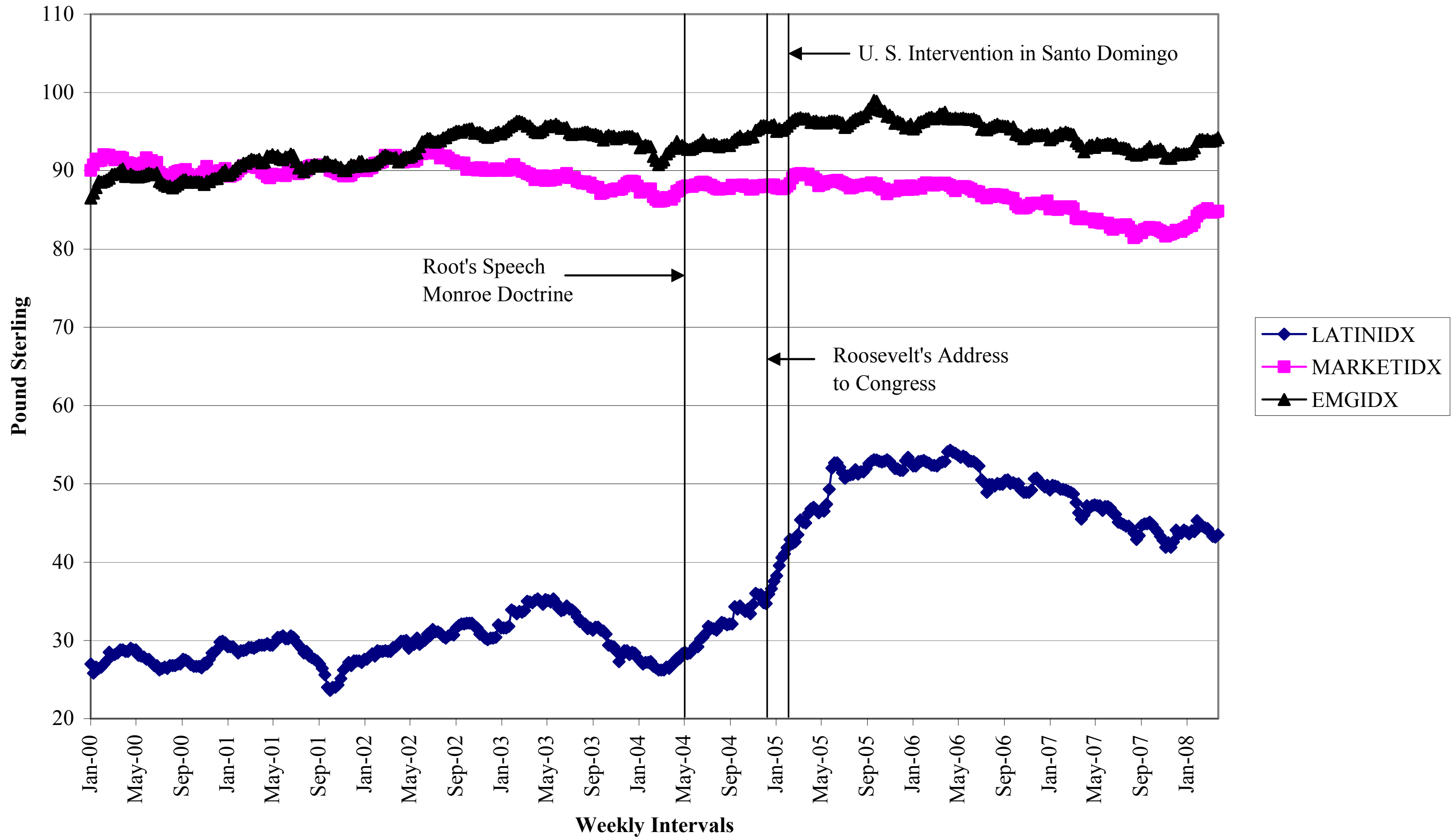

Figure 8
Latin American Bond Index vs. British Guiana 4% Bonds 1900-1908

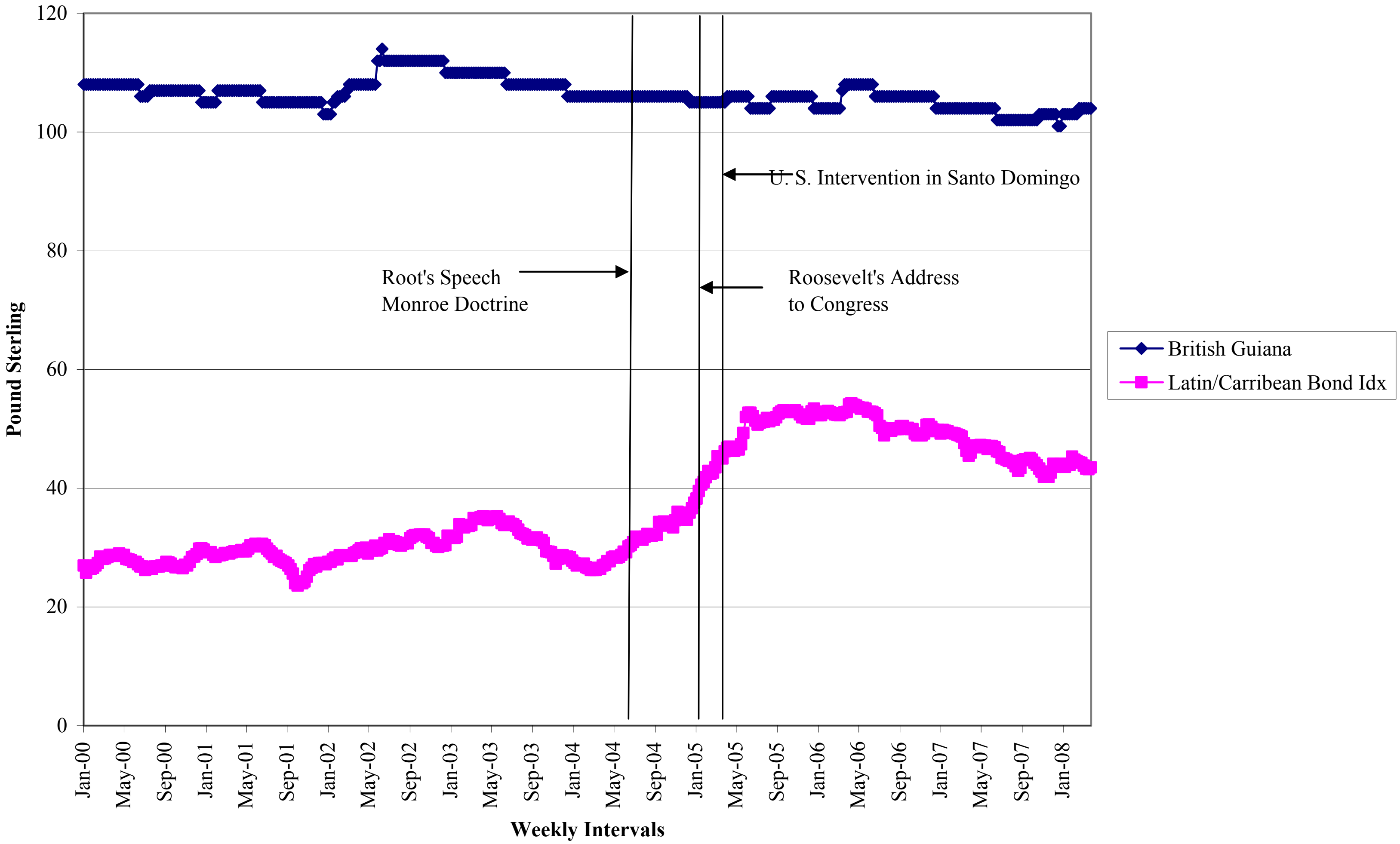

Figure 9
Cumulative Abnormal Returns for Latin American Bond Index 1900-1908

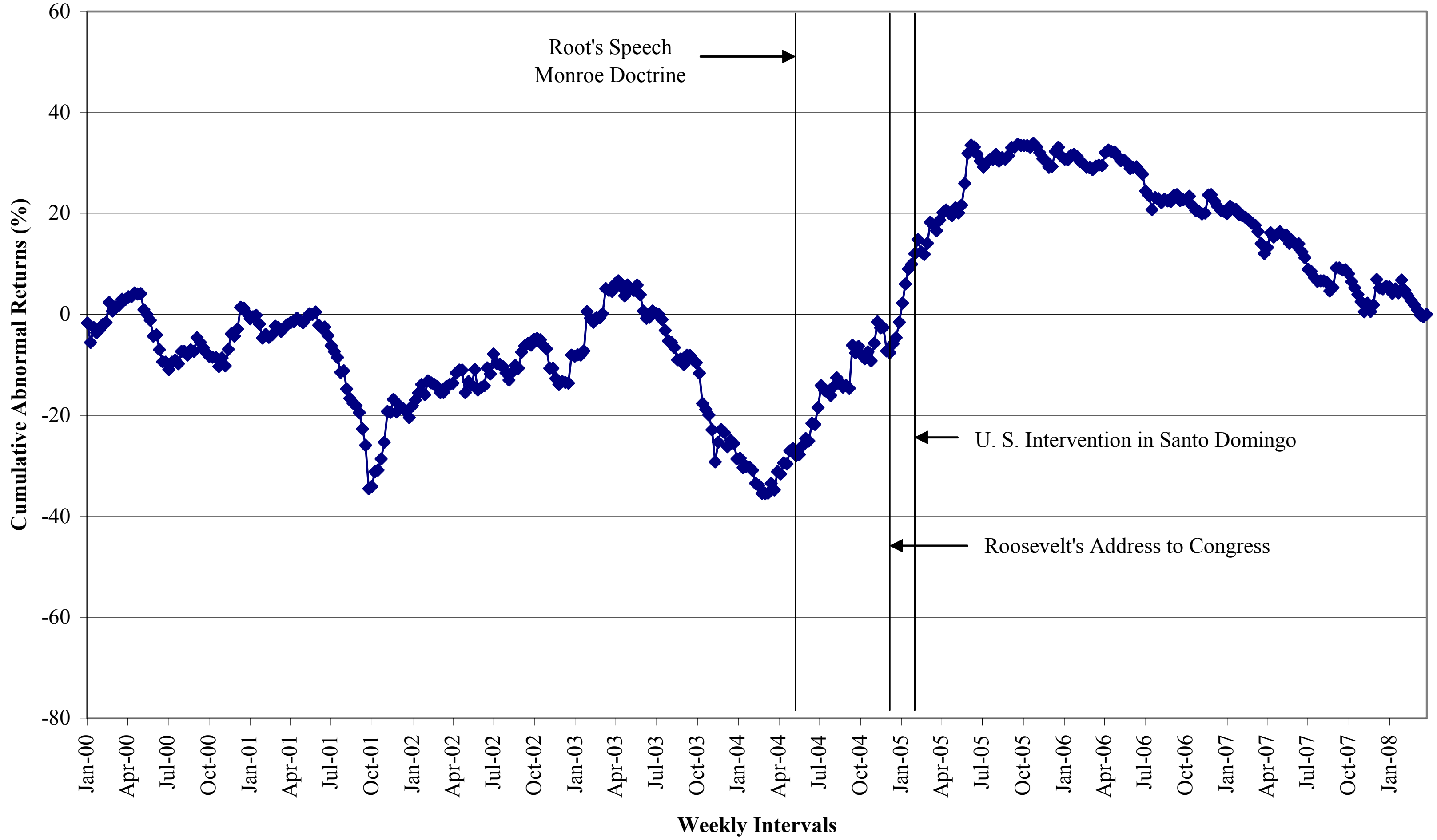

Figure 10
Cumulative Abnormal Returns for Colombia 1900-1913

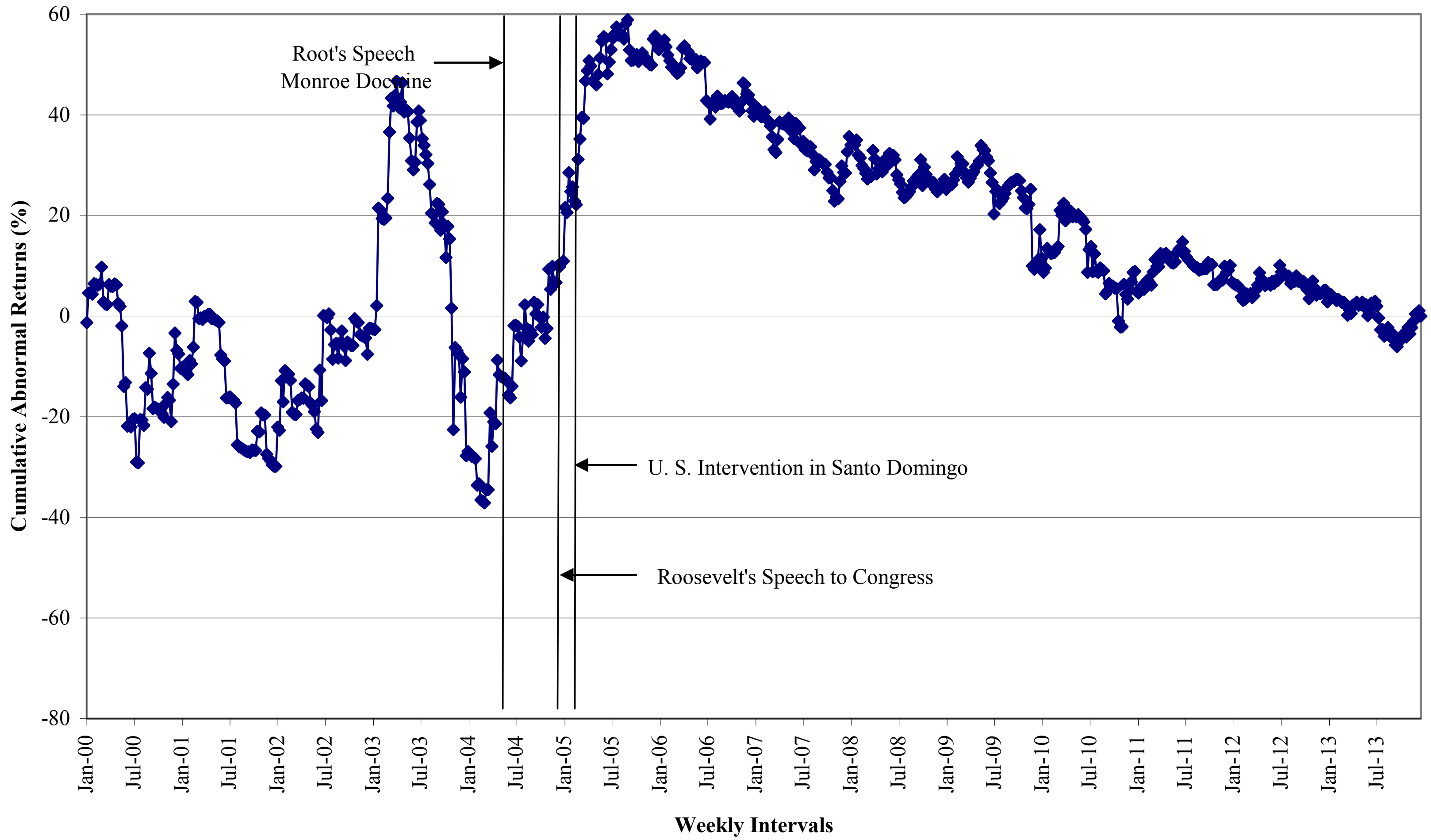

Figure 11
Cumulative Abnormal Returns for Costa Rica 1900- March 1908

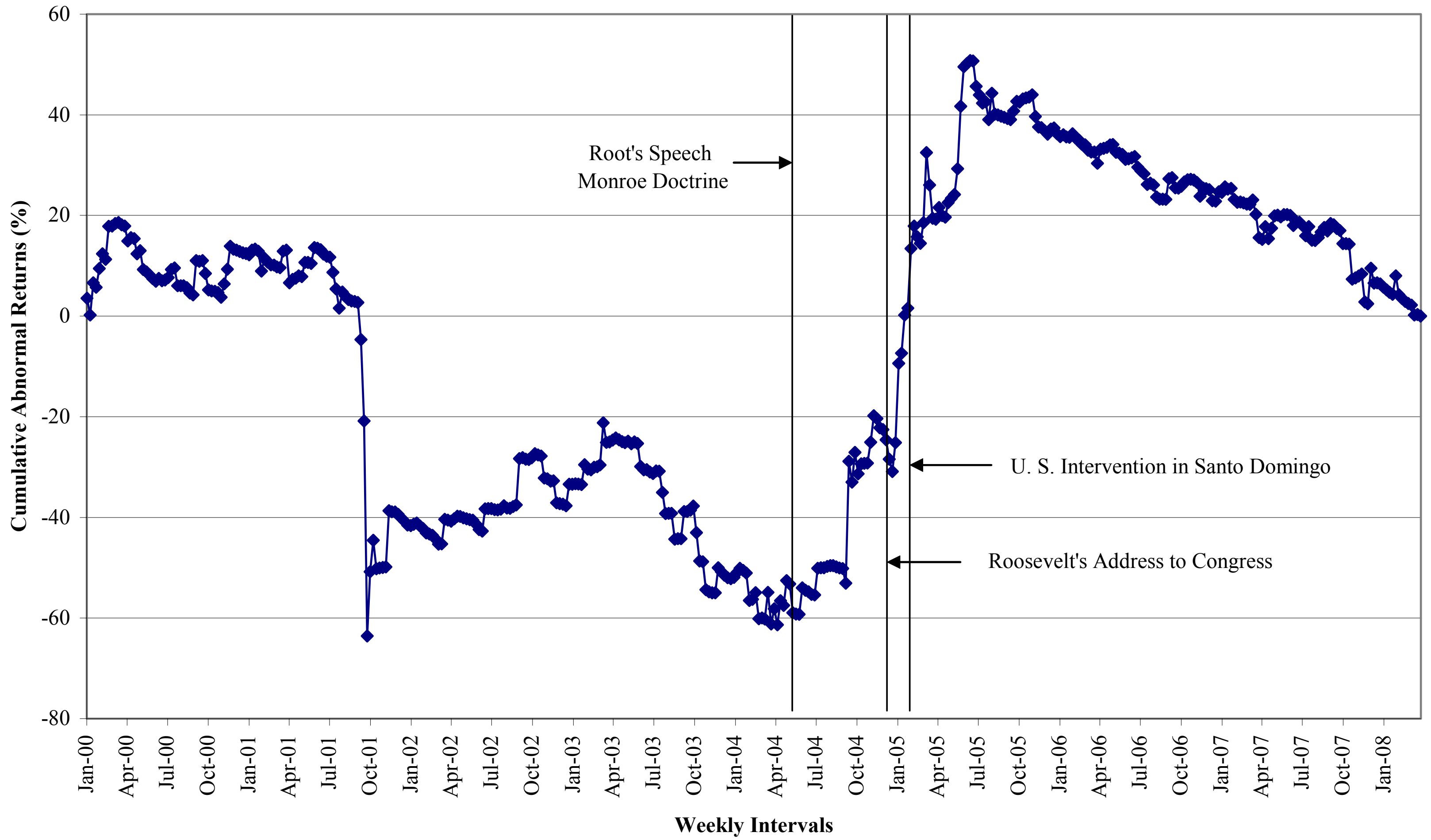

Figure 12
Cumulative Abnormal Returns Guatemala 1900-1913

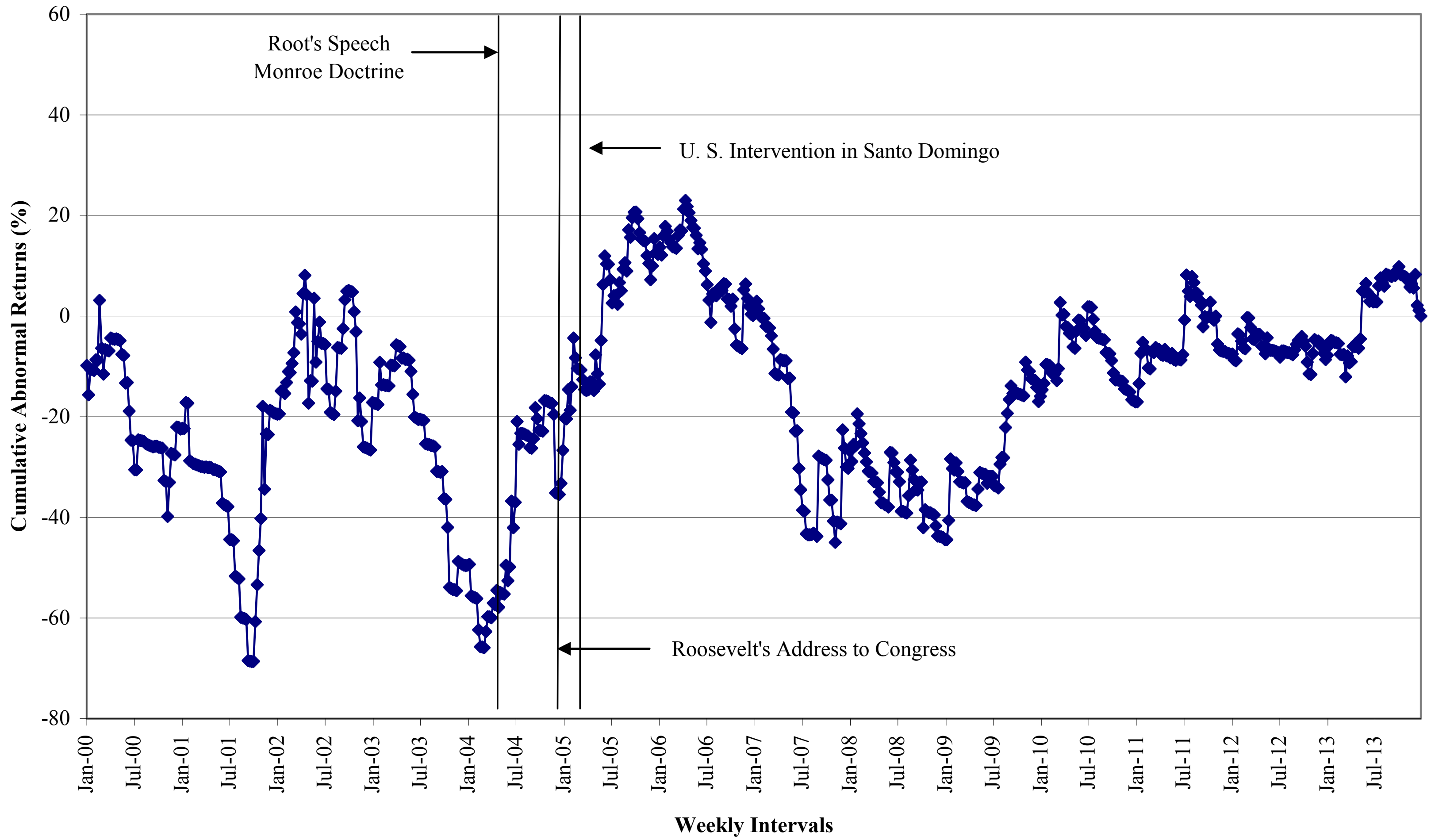

Figure 13
Cumulative Abnormal Returns for Honduras 1900-1913

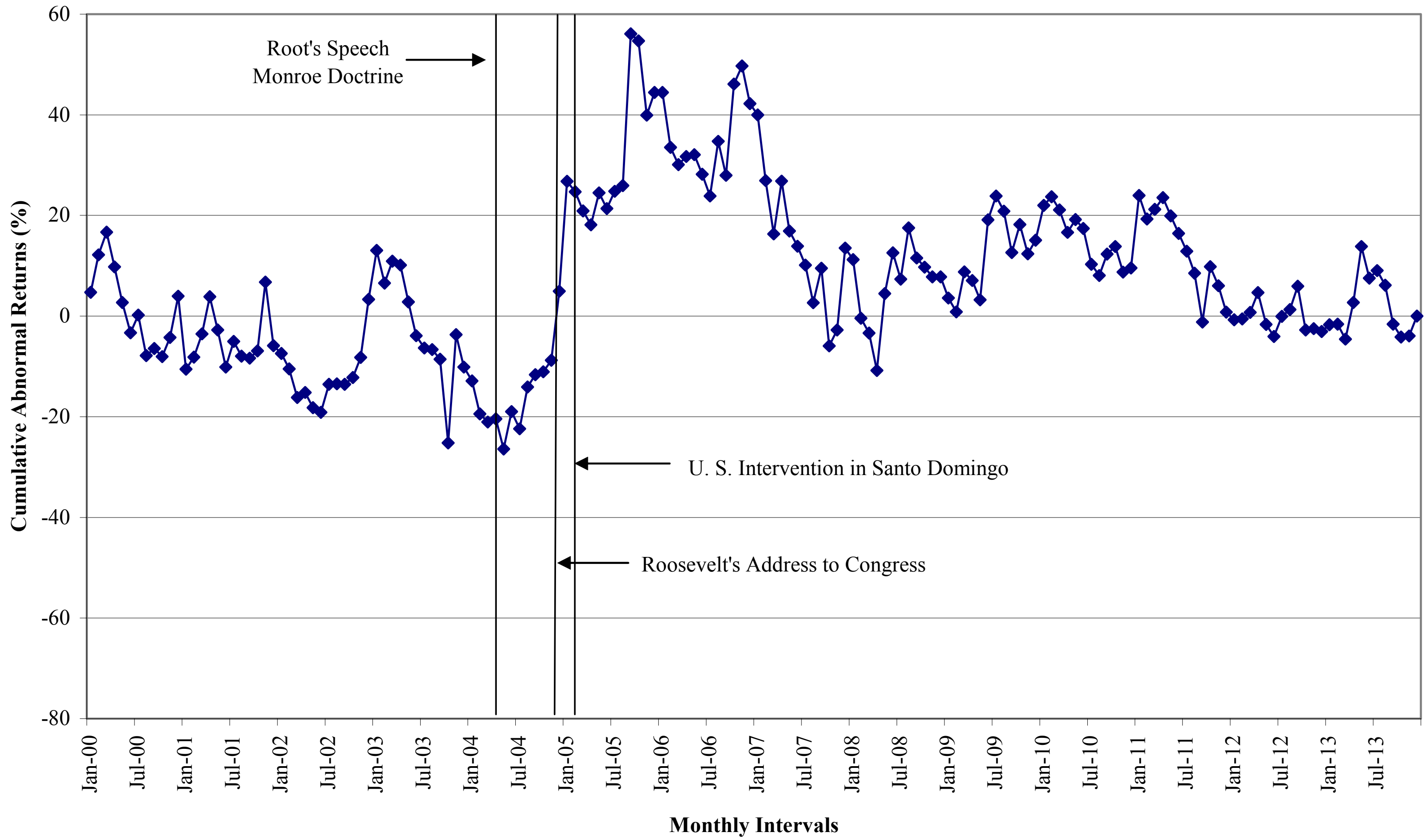

Figure 14
Cumulative Abnormal Returns for Nicaragua 1900-February 1913

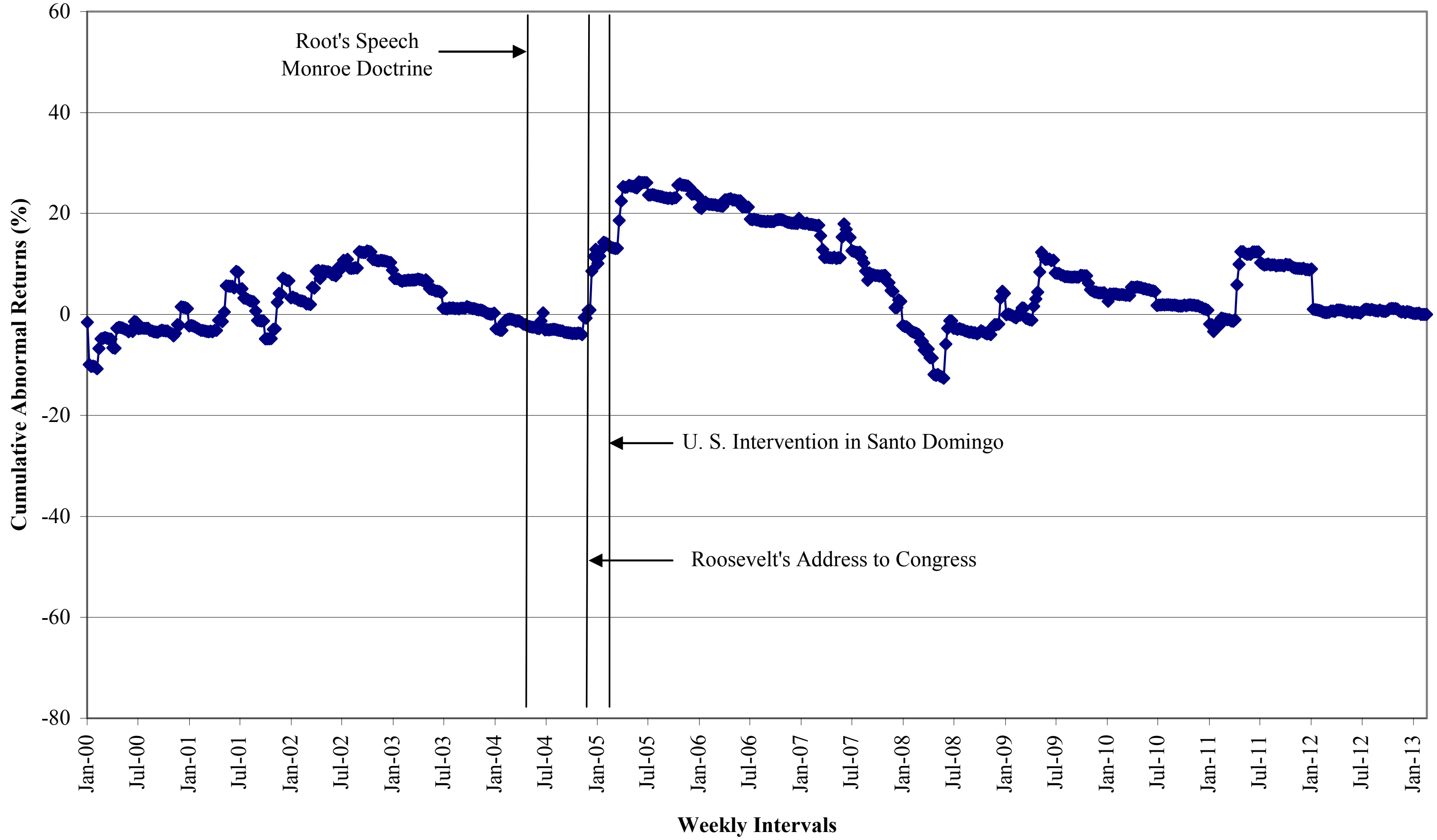

Figure 15
Cumulative Abnormal Returns for Venezuela 1900-1913

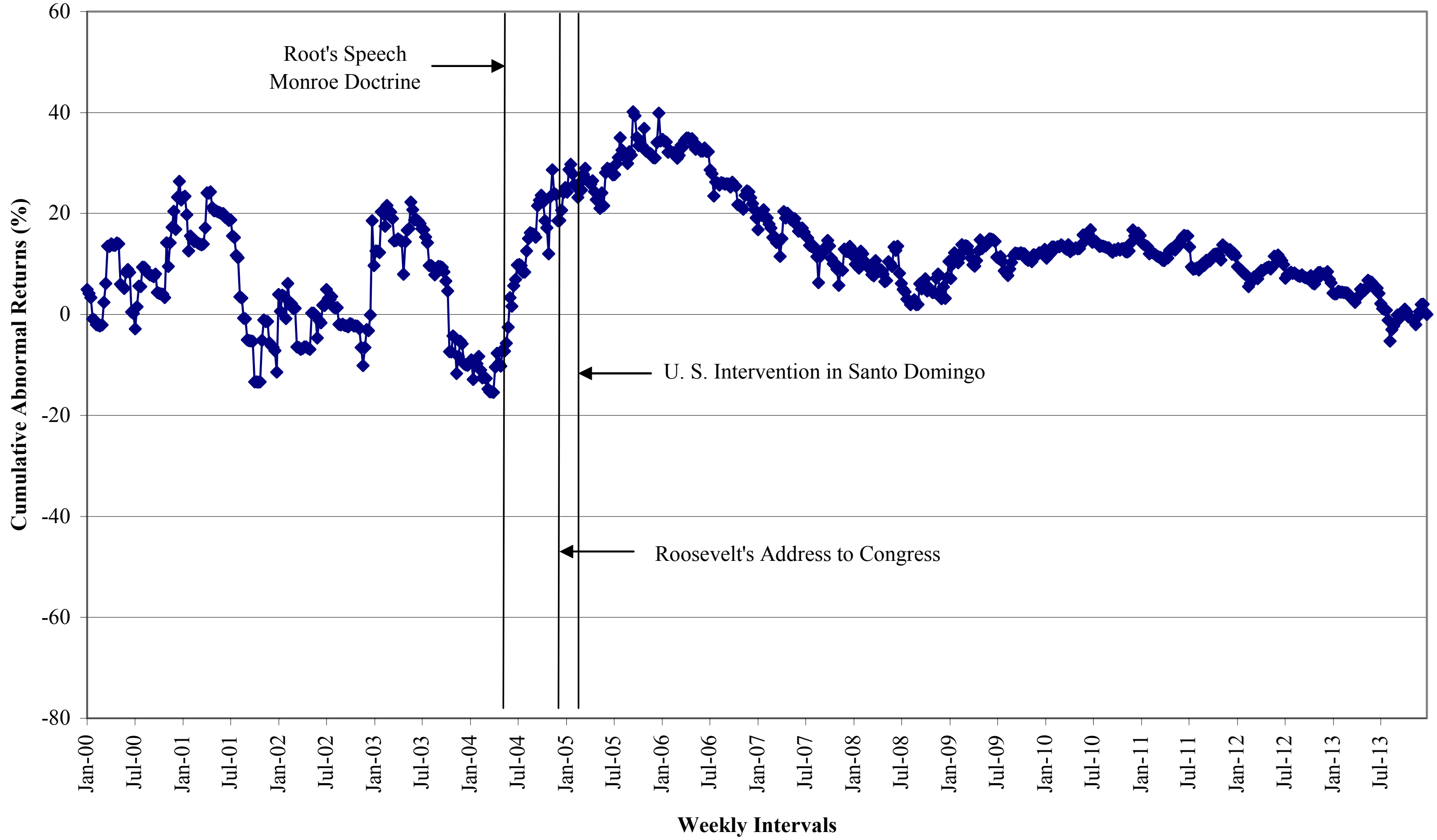

Figure 16
Cumulative Abnormal Returns for British Guiana 1900-1908

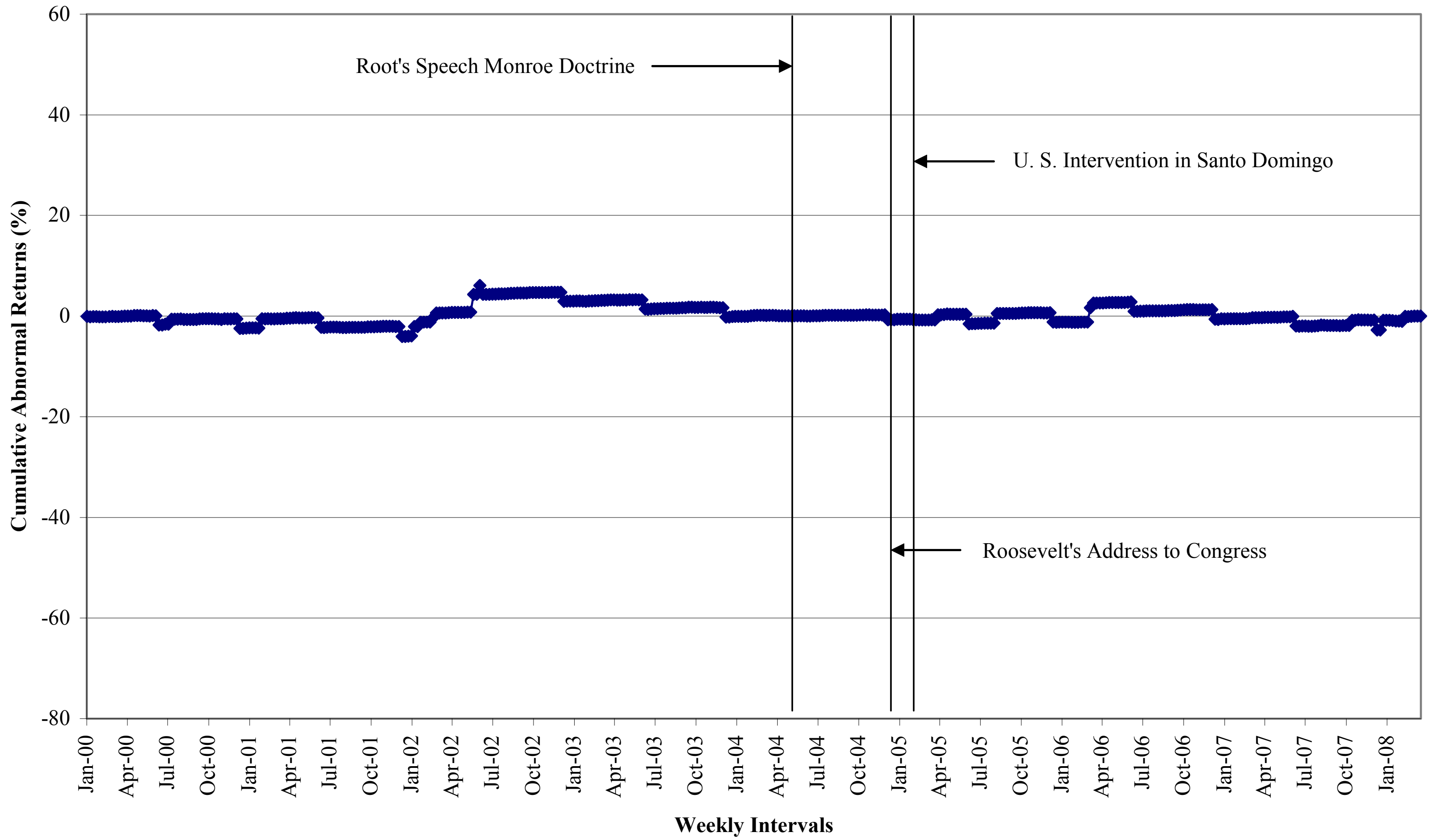

Figure 17
Cumulative Total Returns Latin American Bond Index
January 1900-March 1908

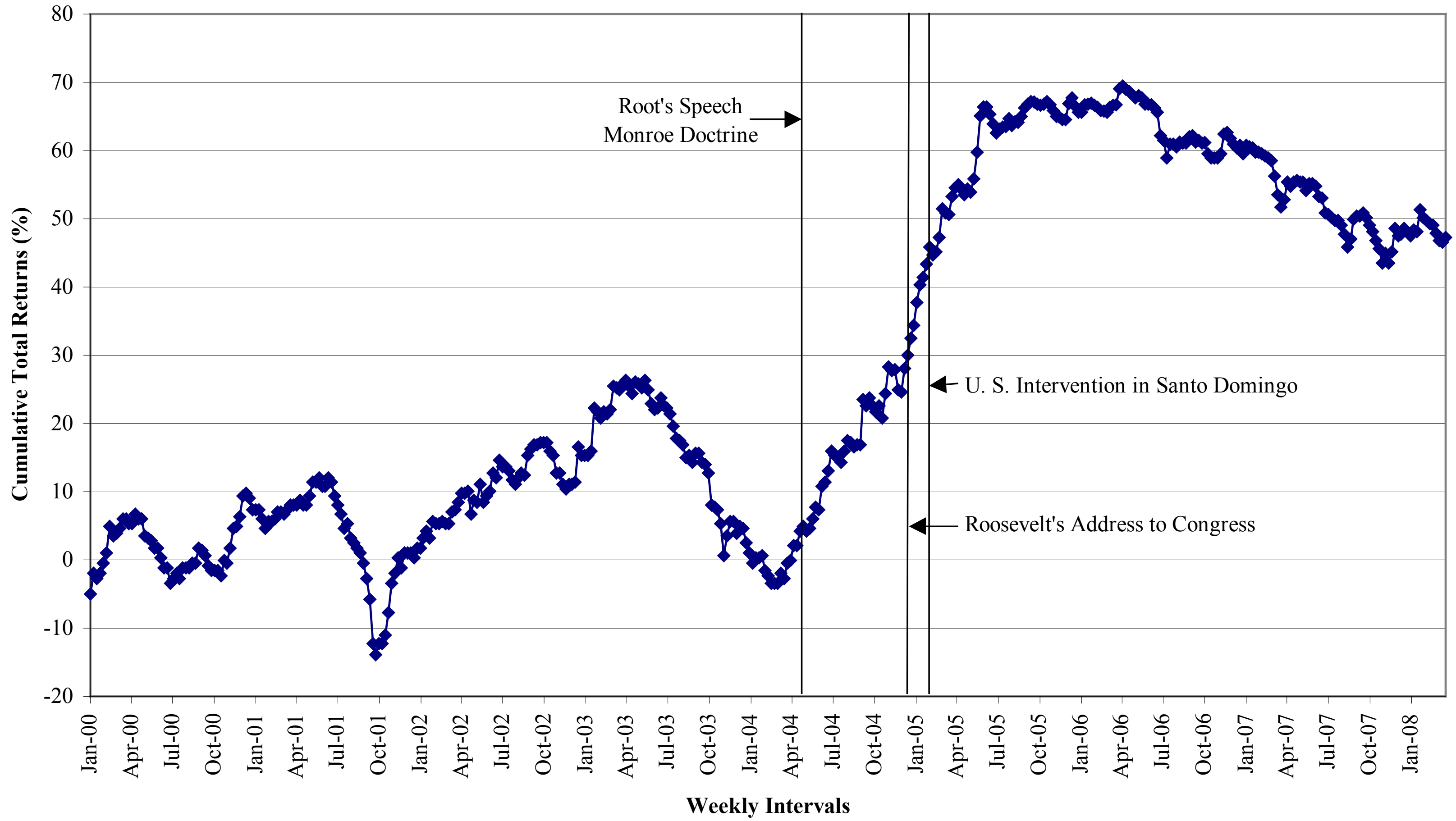

Figure 18
Annual Export Growth 1907-1912 vs. Corollary Effect on Bond Prices