What have the ~~Romans~~ Americans Ever Done for Us? U.S. intervention and public goods in Latin America, 1895-1929

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Abstract

What is the benefit of empires for their subjects? To paraphrase early British imperial legislation, empires have allegedly provided three public goods: peace, welfare, and good governance. That is to say, empires should have lessened violence, increased trade and investment, and provided more efficient government. We look at the informal American empire in the Western Hemisphere between 1905 and 1929. Using variation in the timing and form of American intervention, we find no evidence that American intervention contributed to peace, political stability, government efficiency or increased trade. We do find that intervention increased returns to existing bondholders, although the effect faded over time and did not lead to greater government borrowing. We also find that intervention diverted exports to the United States but did not increase overall trade. Our results are consistent with a model of political capture, in which private interests in the imperial state manipulate policies into increasing private returns without necessarily providing any commensurate public goods.

"President Roosevelt has undertaken to give the island of Santo Domingo an honest government, economically administered. Philadelphia next!"

— *The Philadelphia Public Ledger, 1907*

"Beyond the specific circumstances at the border, a real President would be making some kind of effort to address the underlying situation in Central America."

— *Matthew Yglesias, 2018*

What do empires do for their subjects? "Empire" is a loaded word with almost as many meanings as there are people who have used it, but the most useful general definition is the "effective domination of one [territorial] political community by another."[1] That is to say, empires arise when one political unit gains control over the policies of another. Empires, in this definition, can be formal or informal; effective control (ultimately backed by the threat of force) is what matters. The question then arises: is such control good or bad for the inhabitants of the dominated unit?

Proponents of empire argue that hegemonic or imperial states provide public goods for their subjects.[2] In the view of their proponents (Charles Kindleberger, Niall Ferguson, and Francis Fukuyama, among others) imperial powers lay down and enforce rules governing interactions between subordinate units. These rules encourage peace and commerce. In addition, in places where local states are too weak or corrupt to prevent political violence or enforce property rights, intervention promotes internal stability and better governance. Less internal violence and more stable property rights should in turn promote investment and trade. In short, in this view, empires reduce political instability and war, provide more efficient institutions, and promote trade and investment. To paraphrase early British imperial legislation, "good" empires provide peace, welfare, and good governance.[3]

There is an alternative view of empire, in which the imperial state extracts resources from its subordinate units. In theory, extraction can be on behalf of the entire population of the metropole.[4] Historically, however, imperial extraction has more often occurred on behalf of a small elite subset of the metropolitan state. In this view, empires are rapacious beasts that extract resources and provide no compensating benefits, even unintentionally. Such "bad" empires should create extractive institutions and divert economic activity towards the metropole. Canonical cases of such empires would be the Belgian Congo and the Soviet satellite states; other examples might include Spanish America and the Dutch East Indies. Modern proponents of foreign

[1] David Lake, "Imperialism: Political Aspects," in the *International Encyclopedia of the Social & Behavioral Sciences* (Amsterdam: Elsevier, 2001), p. 7232.

[2] In this paper, we will generally use the terms "imperial" and "hegemonic" interchangeably. "Imperial" has no set definition, but "hegemonic" generally refers to a state that is capable of intervening in the domestic affairs of its subordinate states, regulating relations between its subordinate states, and preventing other powers from intervening in the affairs of its subordinate state without assuming formal sovereignty over its subordinate states.

[3] For uses of the phrase see, for example, Leonard Woods Labaree, *Royal Instructions to British Colonial Governors, 1670-1776* (New York: Octagon Books, 1935), pp. 622, 812, 819, and 829.

[4] In practice, extraction on the behalf of the imperial states has only occurred in the context of occupying advanced industrial areas. For a general review, see Peter Liberman, *Does Conquest Pay? The Exploitation of Occupied Industrial Societies* (Princeton, N.J.: Princeton University Press, 1996). For an in-depth example of such exploitation, see Filippo Occhino, Kim Oosterlinck, and Eugene N. White, "How Occupied France Financed Its Own Exploitation in World War II," *American Economic Review* Vol. 97, No. 2 (2007), pp. 295-299.

intervention argue that states can provide public goods to foreign peoples — i.e., construct a "good" empire — without overly worrying that their interventions might fail or be twisted to extractive ends.[5]

We ask whether the informal American empire in the Western Hemisphere between 1905 and 1929 provided public goods for the areas under its sway. Relative to other historical empires—emphasis on *relative*—the Americans employed modern tools for liberal ends. The tool employed was the takeover of foreign government agencies—always including customs collection—by American officials. The United States employed this tool on eight occasions.[6] The end was to ensure political stability, primarily in order to keep German influence out of the hemisphere and secondarily to reduce the risks to American direct investors from disorder. Debt repayment was not the focus of U.S. intervention: in fact, the U.S. imposed heavy haircuts on investors and allowed countries under its administration to default. Rather, the point was to provide public goods, even if the motivation was to keep German naval bases far away and protect U.S.-owned mines and plantations.

We find no evidence that U.S. intervention contributed to peace, government efficiency, or increased trade. We do find a reduction in the incidence of unconstitutional regime changes — i.e., coups — but only for those countries in which the United States entirely displaced the existing constitutional regime. Nor do we find that U.S. intervention increased the efficiency of fiscal institutions. Finally, we find no evidence that intervention led to higher levels of trade or capital formation. In short, despite the U.S.'s evident self-interest in increasing Latin American stability and prosperity, there is little evidence that it succeeded in being a "good empire."

In fact, we find evidence that American imperialism was of the "bad" sort. Intervention increased returns to in the secondary market for Latin American sovereign debt without incentivizing any increase in capital formation. We also find that intervention redirected exports towards the United States without prompting any net increase in trade. These results do not mean that Latin Americans nations were necessarily left worse off by U.S. intervention—but they are consistent with the hallmarks of a "bad" empire. These results are consistent with a model of political capture, in which private interests in the imperial state manipulate policies into increasing private returns without necessarily providing any commensurate public goods. To conclude, America's informal empire appears to have been a good empire gone (slightly) bad.

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[5] To give only a few examples: in 2012 and 2015 the former German finance minister twice called for hundreds of German officials to take over the administration of Greek tax collection; American commentators have recently demanded that the U.S. or Canadian governments put an end to corruption and disorder in Central America and Haiti and argued that the American occupation of Iraq could have succeeded; France is deeply engaged in Central and West Africa and faces calls to deepen its involvement in governing its former colonies; Australia has directly taken over parts of the bureaucracy in nearby South Pacific states; and prominent economists have called for outside intervention in Venezuela. See, for example, Robert Kaplan, "Could America Have Won the Iraq War?" *Real Clear Politics* (March 14, 2013);; https://ideas4development.org/en/taxation-aid-dependency-mali/; https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bn-mobilising-domestic-resources-mali-061217-en.pdf; https://www.project-syndicate.org/commentary/venezuela-catastrophe-military-intervention-by-ricardo-hausmann-2018-01.

[6] The U.S. also took over the customs agency and defense force of Liberia, but Liberia is not in the Western Hemisphere. In Cuba in 1904 and Haiti in 1915, Americans temporarily assumed control of the entire government. The U.S. assumed control of the Dominican government in 1915-22, after a more limited intervention in 1905-15 and which continued after 1922.

1 History

At the turn of the twentieth century, the leaders of American foreign policy believed they had identified poor fiscal conditions as the key factor destabilizing the nations of Latin America. In January of 1900, General Leonard Wood, the American military governor of Cuba, wrote to President William McKinley: "When people ask me what I mean by stable government, I tell them, 'money at six percent.'" General Wood was an unusually flat-footed diplomat, but as a trained physician he diagnosed a relationship between fiscal health and political stability in Latin America. Wood's diagnosis was shared by other political leaders. Secretary of state Philander Knox also believed that the root cause of political instability and expropriation was default— and that the root cause of default was corruption in tax and customs collection. It followed from that analysis that placing U.S. officials in charge of Latin American fiscal institutions would decrease corruption. With full control over personnel and administrative rules — and facing a very different set of incentives than their foreign counterparts — the American agents would increase collections. More revenue, in turn, would allow the local government to establish order and borrow at lower rates, which would give further resources to fund the army and police and public infrastructure, thereby accelerating growth (particularly in exports) and increasing trade which would further grow government revenue. The virtuous cycle would end with a stable government in charge of its own territory, at no risk of exposing American investors to violence or asking Germany for political and economic support.

The intervention strategy began not with the Spanish-American War — the United States annexed Puerto Rico and occupied Cuba from 1898 to 1902 — but with the 1904-05 Dominican crisis. In 1904, the D.R. was entering its fifth year of civil war. In 1903, the Theodore Roosevelt administration received credible intelligence that the President Alejandro Woss y Gil was prepared to offer Germany the use of Dominican territory for a naval base in return for arms or financial support. Carlos Morales overthrew Woss y Gil in November, but that only shifted the locus of concern: in February 1904, U.S. agents captured a letter from an insurgent leader to the German consul openly requesting military aid. (Rippy 1937, 431-32). Marines briefly landed in January-February 1904 and the Navy shelled insurgent positions from offshore, but with memories of the Philippine War still fresh, President Roosevelt was reluctant to order an open-ended occupation.

A solution came from U.S. naval officials on the ground: put the customhouses under American control, to protect them from insurgent attacks and stamp out corruption, thereby insuring a steady stream of income for the government. President Morales thought that was an excellent idea and explicitly asked the U.S. to intervene.[7] On January 20$^{\text{th}}$, 1905, the D.R. concluded an agreement to place customs collection under American management. The U.S. promised to divert no more than 55 percent of the revenues to debt payments, remitting the remainder to the government. Santo Domingo agreed to refrain from issuing new debt or changing tariff rates

[7] See particularly Dawson to Hay (including enclosures), September 27, 1904, *Foreign Relations of the United States* (1904), pp. 280-82; Secretary of State to Commander Dillingham, January 5, 1905, *Foreign Relations of the United States* (1905), pp. 300-01.

without American approval. In order to reduce the burden on the Dominicans, Roosevelt administration concurrently negotiated a 57% haircut on the net present value of the country's foreign debt.[8] The Senate refused to ratify the agreement, but at the suggestion of the Dominican finance minister President Roosevelt went ahead anyway. On March 31st a retired American colonel, George Colton, took over the administration of the country's customs agency. Colton brought in American to reorganize the customs service and stand up an armed coastal and frontier force to patrol the littoral and the Haitian border.

Unfortunately for the United States, the intervention did not go as planned. Unrest continued throughout the summer and autumn of 1905, breaking into open rebellion in November. President Morales lost the support of his own cabinet. Fearing for his life, he fled the capital on Christmas Eve and joined forces with insurgents in the interior. "It was the anomalous spectacle of a president leading an insurrection against his own government."[9] In January 1906, insurgents attacked Puerto Plata, but the attack was easily repulsed. (The rebel leader Demetrio Rodríguez, who had sought German support for the insurgency, died in the assault.) Morales, suffering from a broken leg, gave himself up to the American legation. On January 12, 1906, Morales left for Puerto Rico on a U.S. naval vessel. Ramón Cáceres took over the presidency.[10] The Roosevelt administration perceived the intervention as a success.

There was therefore little opposition to the U.S. takeover of Cuba in 1906 when its government collapsed into chaos after President Tómas Estrada's fraudulent reelection. The day after a beleaguered Estrada resigned, William Howard Taft discovered that the Cuban government had essentially lost control of everything save a few cities, he printed up his own letterhead reading "Office of the Governor, Republic of Cuba, under the Provisional Administration of the United States" and ordered the marines to land.[11] Taft then handed authority over to Charles Magoon. In theory, Magoon had absolute power to reform the Cuban state. In practice, he decided that the quickest way to restore peace was to create and distribute patronage to the heads of all the prominent political factions. He also liberally overturned convictions for corruption or abuse of power, issuing pardons with abandon.[12] Magoon handed control back to a Cuban administration in 1909; the Americans declared another mission a success.

Unfortunately for the proponents of intervention, the situation in the D.R. began to unravel. On November 19, 1911, insurgents ambushed President Cáceres's horse-drawn carriage; Cáceres died in the shootout.[13] With no constitutionally designated successor, the commander of the army, Alfredo Victoria, seized power. The country quickly slid back into civil war, prompting the United States to withdraw the frontier force from the Haitian border.[14] That move may

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[8] As one might expect from a process that resulted in such a steep haircut for American creditors, the receivership was not designed to protect American creditors. Haircut calculated from data in Wynne (1951, 258).

[9] Otto Schoenrich, Santo Domingo: A Country with a Future (MacMillan: New York, 1918), p. 49.

[10] Schoenrich, Santo Domingo, p. 49.

[11] See Lars Schoultz, That Infernal Little Cuban Republic (Chapel Hill: University of North Carolina Press, 2009), pp. 25–28.

[12] Diaz-Briquets, Sergio, and Jorge F. Pérez-López. *Corruption in Cuba: Castro and Beyond*. Austin: University of Texas Press, 2006, pp. 63-64.

[13] Schoenrich, Santo Domingo, p. 50.

[14] Munro, Intervention, pp. 260–61.

have (temporarily) kept the U.S. out of the war, but it also allowed the large-scale movement of arms and supplies across the border.[15]

Had the U.S. succeeded in increasing Dominican government revenue, then the situation might have stabilized. Unfortunately, the Americans failed to reform customs; collections remained low.[16] The Dominican army remained riddled with corruption: a depressing report from the U.S. legation on August 3, 1912, read: "The revolutionists are no nearer to overthrowing the government than they were eight months ago, and the government is still spending enormous sums in military operations against the revolutionists. It is pretty generally admitted now that this condition of affairs is being purposely prolonged by the government military chiefs, who are enriching themselves at the expense of the troops."[17]

By November 13, 1912, a special U.S. investigatory commission reported, "The revolution, now stronger than ever and confident of ultimate success, is disinclined to make any terms with the government."[18] These words proved prescient when the D.R.'s government collapsed in 1916, prompting the Wilson administration to occupy the country. American troops would remain in charge of the Dominican state until 1922; afterwards, the U.S. retained *de facto* control of Dominican fiscal institutions until 1931 and *de jure* authority until 1940.

Apparent failure in the Dominican Republic did not stop the Taft administration from rolling out the same model in Nicaragua. The U.S. had long butted heads with the government of José Santos Zelaya. Zelaya tried to unite Central America under his rule while expropriating American investments and raising taxes on American businesses. That was not a good combination. In 1909, with American backing, Governor Juan José Estrada of Bluefields province launched a revolt. Zelaya's response, if not exactly swift (owing to poor communications between the Atlantic coast and Managua) was certainly brutal. Zelaya executed two American private contractors, Lee Leroy Cannon and Leonard Groce, captured while attempting to mine the San Juan River.[19]

The execution of the two Americans provoked a firestorm in the United States. On December 20, 1909, a regiment of Marines landed at Corinto, on the Pacific coast, less than a hundred miles from Managua.[20] American force levels quickly escalated to roughly 2,700. Zelaya fled on a Mexican warship, abetted by the Nicaraguan Expeditionary Force's commanding officer.[21] By the end of 1910, the Americans had installed Juan José Estrada in power. The U.S. signed a treaty with the new regime appointing American officials to run customs. Also as with the D.R.,

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[15] Russell to Secretary of State, April 15, 1912, FRUS, 1912, p. 346, and Russell to Secretary of State, September 16, 1912, FRUS, 1912, p. 366.

[16] Abad, Leticia A. and Noel Maurer "Can Foreign Intervention Work? Lessons from U.S. Fiscal Receiverships in Latin America, 1905-31," (2018) mimeo.

[17] Russell to Secretary of State, August 3, 1912, FRUS, 1912, p. 363.

[18] Russell and the Special Commissioners to the Secretary of State, November 13, 1912, FRUS, 1912, p. 375.

[19] Both Americans lived in Bluefields Province; Cannon was a civil engineer and Groce a miner, the latter with a Nicaraguan wife and four children. They owned land in the area, and Cannon served on Estrada's staff. FRUS, 1909, pp. 446–57. See also "Zelaya Broke Faith to Kill Americans," New York Times, November 23, 1909, and Jorge Eduardo Arellano, "La ejecución de los estadounidenses Cannon y Groce," El Nuevo Diario, November 28, 1909.

[20] United States, Annual Report of the Secretary of the Navy: 1910 (Washington, D.C.: GPO, 1910), p. 803. The initial landing force consisted of 700 Marines.

[21] Langley, Banana Wars, p. 59.

the Senate refused to ratify the treaty, forcing President Taft to implement it via executive order. Clifford Ham became the collector of customs and filled the upper echelons of the bureaucracy with Americans.

U.S. intervention failed. Estrada, turned out to be a paranoid drunk who quickly fled the country. His successor, Adolfo Díaz, proved to be a corporate nonentity unable to manage national politics. An emergency visit by Secretary of State Knox to Managua in March of 1912 triggered anti-American protests, graffiti, and veiled insults from Nicaraguan legislators. Rumors flew of assassination attempts and the secretary quickly left the capital.[22] By the end of July, Díaz's own minister of war, General Luis Mena, was in open revolt. Within a week, Taft authorized the use of U.S. Marines stationed in Nicaragua to support the government.[23] Mena surrendered at the end of September — his war-fighting abilities compromised by a severe attack of dysentery — but the United States agreed to station a "legation guard" of marines in Managua in order to keep Díaz in power.[24]

The American managers failed to increase customs revenue, despite pay cuts and layoffs. Worse still, the revolts put Nicaraguan finances in a parlous state. The outgoing Taft administration tried to rush through $3 million in aid under the guise of a treaty granting the U.S. an option to construct a transisthmian canal (which would never be built) and basing rights for the U.S. Navy (which would never be used). The treaty was held up in the Senate; by the time the money came through Nicaragua had defaulted on its debt — with the full support of the American officials who controlled Nicaragua's fiscal institutions.[25]

In 1914, Haitian revolutionaries seized the customhouse at Cap Haitien, while a different set of revolutionary forces under the Zamor brothers took control of the capital.[26] The vice president of the U.S.-controlled Haitian National Bank telegrammed Secretary of State William Jennings Bryan warning that German interests were behind the revolt.[27] Bryan demanded that the Zamor government cede Mole St. Nicholas to the United States and give Washington control over the customhouses, apparently believing in the intervention model that was in the process of collapsing on the other half of Hispaniola.[28] Zamor rebuffed the Americans, but after two more coups resulted in the collapse of the Haitian government in 1915, the U.S. sent in the Marines. The Americans then stage-managed the election of Sudre Dartiguenave as president and signed a treaty under which United States would collect Haitian custom revenues, supervise Haiti's budget, manage Haiti's sanitation and establish public health programs, and organize an American-commanded constabulary—the Gendarmerie—on the Philippine model until enough Haitian officers became qualified.[29] U.S. forces then proceeded to fight a bloody guerrilla war to insure

[22] Langley, Banana Wars, pp. 61–63; Rosenberg, Missionaries, p. 77.

[23] FRUS, 1912, pp. 1028–33.

[24] Langley, Banana Wars, pp. 68–70.

[25] In 1916, the Senate finally approved the treaty providing Nicaragua with $3 million aid. This was not a small amount: measured as a constant share of U.S. GDP, $3 million in 1916 was the equivalent of $1.5 billion in 2017.

[26] Munro, Intervention, p. 333.

[27] Kaplan, Imperialism, p. 58.

[28] With U.S. bases in Cuba and Puerto Rico, acquiring a base at Mole St. Nicholas was irrelevant to U.S. strategic needs. On the other hand, keeping it out of German hands was extremely relevant.

[29] Munro, Intervention, p. 364.

that the new government did not fall. The Marines wouldn't leave until 1934, and the U.S. maintained control of Haitian finances until 1941.[30]

In 1918, the U.S. intervened in Panama after discovering that the government was financing its operating budget from infrastructure loans. Washington pressured Panama City into accepting an American "fiscal agent" who would have complete "control and charge of the national treasury." Addison Ruan, who had been the American financial adviser to Haiti and the disbursing officer for the American government in the Philippines, received the job.[31] Unfortunately, here again the U.S. proved unable to stamp out corruption in Panamanian institutions. In late 1922, a frustrated Addison Ruan—the man who had organized Haiti's chaotic finances—resigned his position.[32] The State Department even began to suspect that Addison Ruan's replacement, Walter Warwick, was on the take.[33]

In Peru, President Augusto Leguía told the American embassy in 1921, "My hope is to put an American in charge of every branch of our government's activities." He pestered the State Department through September, when Secretary of State Charles Evans Hughes finally agreed to nominate William Cumberland, an economics professor from the University of Minnesota, to take charge of customs. The contract gave Cumberland the power to reform administration and collection as he saw fit, including appointment power over all employees and the right to hire American citizens to serve as auditors, customs inspectors, statisticians, and private secretaries.[34]

Leguía appears to have hoped that the receivership would force the United States to support Peru in various territorial disputes with its neighbors. Such hopes went unfulfilled. The United States agreed to arbitrate Peru's disputes with Chile, Colombia, and Ecuador, but it acted as an evenhanded judge, not an advocate for Lima. The Colombian settlement was an especially bitter pill: the Salomón-Lozano Treaty of 1922 placed the border at the Putumayo River, favoring Colombia. Leguía procrastinated on sending the treaty to the Peruvian Congress; he finally did so in 1927 only under American pressure.[35] Leguía also believed that American fiscal control would lead to greater access to the U.S. market, but Washington refused, point-blank, to grant Peruvian sugar the same preference granted to Cuban sugar.[36] Finally, Leguía appears to have hoped that turning customs over to an incorruptible American team would improve collections; as we shall see below, that hope also went unfulfilled. The Peruvian intervention ended when a military coup deposed Leguía in 1930.

[30] Borchard, Edwin, and William H. Wynne, State Insolvency and Foreign Bondholders: Selected Case Histories of Government Foreign Bond Defaults and Debt Readjustments (New Haven: Yale Univ. Press, 1951), p. 279.
[31] Major, Prize Possession, pp. 139–40.
[32] Addison Ruan to Secretary of State, Dec. 18, 1922, State Department, 1910–45, 819.51A/24, NA.
[33] Minister John South to Secretary of State, Apr. 11, 1924, State Department, 1910–49, 819.154/115, NA.
[34] The agreement also gave Cumberland a weekly meeting with President Leguía and a salary of $16,000 — slightly less than $215,000 in 2016 dollars (FRUS 1921, 657-8).
[35] David Mares, Violent Peace: Militarized Interstate Bargaining in Latin America (New York: Columbia University Press, 2001), p. 71, and Rex Hudson, "The Eleven-Year Rule, 1919–30," in Peru: A Country Study (Washington, D.C.: GPO, 1992), http://memory.loc.gov/frd/cs/petoc.html, accessed January 9, 2011.
[36] Chargé Boal to Secretary of State, October 5, 1927, FRUS, 1927, vol. 2, pp. 597–98. The U.S. favoring of Colombia should not be viewed as surprising: Colombia's economic relationship was more important than Peru's. U.S. administrations were particularly "fearful of the possibility of having American [petroleum] properties nationalized," something a Colombian government unsuccessfully attempted in 1919. See Joseph Tulchin, The Aftermath of War: World War I and U.S. Policy towards Latin America (New York: NYU Press, 1971), pp. 140–43.

The idea of turning Ecuadorean government functions over to Americans came from Quito. In 1925, a military junta overthrew the elected government; as a result, the U.S. withdrew its recognition. Two years later, as part of a general effort to improve its international standing, the Ecuadoreans invited American officials to take control of its customs service. The U.S. extended recognition on August 13th, 1928. Probably not coincidentally, the Ecuadoreans removed American authority in 1929, although the American head of the customs service stayed on as an adviser (FRUS 1928, 117-8).

In Bolivia, U.S. officials reported that the finance minister "personally retained" — that is, stole — 20% of all tax collections (Contreras 1990, 274). The Bolivian head of customs estimated that 25% of customs revenue disappeared between collection and delivery to the central government (Gallo 1991). With the approval of the Harding administration, the Bolivian government placed most revenue collection under the control of an organization called the *Comisión Fiscal Permanente* (CFP). The CFP's executive board consisted of one Bolivian and two Americans appointed by the New York banks with the approval of the State Department (Contreras 1990).

2 Data

To assess the effects of the American empire on the Western Hemisphere along the three dimensions of peace, welfare, and good governance, we assembled a collection of datasets from primary and secondary sources. We strive to include all Latin American countries from 1890s to 1929; however, the coverage, either geographical or temporal, varies based on data availability.

Our main outcome variables are grouped in three main categories.

Peace and stability: To quantify conflict, we relied on the Correlates of War (COW) database.[37] This dataset defines war as a violent conflict with at least 1,000 deaths in a year. Conflicts fall in three categories: intrastate, interstate, and extrastate. *Interstate* war involve members of the state system. *Intrastate* wars are between a state and a group within that state, i.e. civil wars. *Extrastate* wars are wars where foreign states either intervene in favor of one or more sides in a civil war or fight armed non-state opposition outside their metropolitan territory.[38] These include imperial and colonial wars.[39] For our analysis, we combined the three categories for each incident involving a Latin American country. Our outcomes include a binary variable with value one when a country was at war in a given year, the duration of the conflict in days, and fatalities per day.

U.S. intervention also could have resulted in a more stable political environment. We proxy this outcome with a binary variable with value one if a country experienced a successful

[37] Palmer, Glenn, Vito D'Orazio, Michael Kenwick, and Matthew Lane. "The Mid4 Dataset, 2002–2010: Procedures, Coding Rules and Description." *Conflict Management and Peace Science* Vol. 32 (2015): 222-42.

[38] For a thorough discussion of the COW classification, see Meredith Reid Sarkees, "The COW typology of war: Defining and categorizing wars (version 4 of the data)." Note with version 4 of the Correlates of War Data (2010). URL: http://cow.la.psu.edu/COW2%20Data/WarData_NEW/COW%20Website%20-%20Typology%20of%20war.pdf, Accessed: June 15, 2018.

[39] The line between the different kinds of war can be delicate: the Vietnam War, for example, is classified as an interstate war since neither the Viet Cong nor the South Vietnamese government could have long survived without the direct involvement of the NVA or U.S. armed forces.

coup in a given year. The dataset is the result of combing through numerous historical sources (see Appendix).

Governance: The dataset is borrowed from Abad and Maurer (2018).

Welfare: To capture the impact of American intervention on welfare, we concentrate on two main aspects: trade and investment. We used the dyadic trade data, imports and exports, from TRADHIST and deflated these flows by the U.S. GDP deflator.

For investment, we used Tafunell (2009, 2013)'s annual data on capital formation.[40] From Lewis (1938), we are able to identify American FDI in Latin American countries by sector.[41]

For portfolio investment, our main source was the *Investor Monthly Manual, 1869-1929* and the *Commercial and Financial Chronicle*.

Our independent variables include our treatment indicator and an array of controls.

Intervention: We identified all the American interventions on the Western Hemisphere from 1890s to 1929. Our main treatment variable—*Intervention*— is a binary variable with value one if a country was under American intervention in a particular year. In some specifications, we include *Duration* to capture span of the intervention in years.[42]

Peace and stability controls: for the larger countries, we use GDP from the Maddison project[43] and population from Yañez et al. (2014), Mitchell, and Population Statistics.[44] For Haiti, we incorporated the data from Henochsberg (2016) until 1915. For the Dominican Republic, we used Martínez Moya (2014)'s estimations. Unfortunately, smaller countries, especially in Central America and the Caribbean, lack historical GDP before 1920. To fill that void, we estimated GDP using the expenditure approach. We assumed consumption and investment followed the imports trends, we added government spending from Abad and Maurer (2018) and trade balance from the TRADHIST database.[45] As all these figures were in nominal terms, we deflated them with Abad and Maurer (2018)'s export and import indices. We applied the real growth rates to 1920 —the earliest data point available in the Maddison project dataset— to obtain GDP figures since 1900. In some specifications, we proxy GDP with rainfall from the World Bank (2018).

Good governance controls: We borrowed them from Abad and Maurer (2018).

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[40] Tafunell, Xavier, "Capital Formation in Machinery in Latin America, 1890–1930," *The Journal of Economic History*, Vol. 69, No. 4 (2009), pp. 928-950, Table 2.
Tafunell, Xavier, "Capital Formation in Latin America: One and a Half Century of Macroeconomic Dynamics," *CEPAL Review* 109 (2013).

[41] Lewis, Cleona, *America's Stake in International Investments*, Washington: Institute of Economics, 1938.

[42] See Abad and Maurer, Foreign Intervention.

[43] Bolt, Jutta, and Jan Luiten Van Zanden. "The Maddison Project: collaborative research on historical national accounts." *The Economic History Review* 67, no. 3 (2014): 627-651.

[44] Yáñez, César, Rodrigo Rivero, Marc Badia-Miró, and Anna Carreras Marín. "Nuevas series anuales de población de América Latina desde el siglo XIX hasta el 2000." *Scripta Nova. Revista Electrónica de Geografía y Ciencias Sociales,* vol. XVIII (2014).

[45] Fouquin, Michel and Jules Hugot. "Two Centuries of Bilateral Trade and Gravity Data: 1827-2014". *CEPII Working Paper*, N°2016-14, May 2016.

Welfare controls: For gravity model estimations, we used standard controls such as distance, common language, and contiguity already provided by TRADHIST. We created an indicator variable for the dyads affected by the opening of the Panama Canal after 1922 based on the work by Maurer and Yu (2011). We added a variable to capture when two countries were at war using the COW dataset. For market size, we used total GDP or population depending on the specification. GDP and population sources are the same as for the peace and stability section. We also added a dyadic indicator variable for the adoption of the gold standard from ClioInfra supplemented with our own research for Latin American countries.[46]

We discussed the sources for investment controls above (GDP, terms of trade, rainfall, etc.).

3 Empirics

If American intervention provided public goods, what would we expect to see? First, we should see less war and conflict, in terms of incidence, duration, and intensity. We should also see more stable governments: that is to say, fewer unconstitutional changes of government. Second, we would expect to see an increase in government efficiency, particularly in customs collections, where the Americans focused their reform efforts. We would also expect to see more portfolio investor confidence. Higher confidence should engender higher investment, which should in turn be accompanied by higher imports of capital goods. Finally, in this era of export-led growth, greater investment would be expected to lead to higher exports and higher overall volumes of trade.

3.1 Peace and stability

Did American intervention contribute to peace and stability? We use data from the Correlates of War (COW) database to test this proposition. The COW database provides annual data on three different measures of conflict. The first is whether a country was engaged in a violent conflict, whether purely domestic or involving another state. The second measures the intensity of the conflict: battle deaths per day. The third measures the length of the conflict. We would expect that if the United States provided international public goods to the areas in which it intervened, then intervention should be associated with a reduction of the duration, incidence and intensity of all three measures.

We therefore estimated following equation:

$$F_{it} = \alpha + \beta Intervention_{it} + X'_{ijt}\gamma + \epsilon_{ijt}$$

where F_{it} represents an indicator of the duration, incidence or intensity of armed conflict, R_{it} is an indicator variable taking on a value of 1 when American officials have control over country i's revenue institutions in year t, and X_{it} represents a vector of control variables associated with the incidence of violence. Following the literature on civil and interstate wars, we control for GDP per capita (lower income per capita is associated with a higher incidence of civil war) and

[46] Clioinfra. URL: https://www.clio-infra.eu/#datasets, Access date: June 4, 2018.

whether the country possessed a modern navy, which would provide a deterrence effect against interstate conflict.

We use three different outcome variables to measure the incidence of violent conflict. "Atwar" is an indicator variable that takes on a value of 1 in any year when a country is involved in an interstate or civil war. "Deaths/day" measures the intensity of conflict: in years when a country is at war, it takes on a value equal to the number of combat deaths per day over the duration of the conflict. Finally, "warduration" takes on a value equal to the number of days the conflict lasted for every country-year observation during with the country in question was at war. (See Table 1.)

Table 1: Effect of intervention on war, deaths per day, and war duration

Dependent variable:	atwar	atwar	Ln(deaths per day)	Ln(deaths per day)	Ln(war duration)	Ln(war duration)
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Intervention	-0.0086	-0.1836	-0.6512	-5.9359	-0.4006	-8.0227
	(0.034)	(0.1527)	(0.7184)	(3.70)	(1.179)	(5.233)
N	553	477	553	477	553	477
R^2	0.0669		0.0853		0.0634	
Controls						
Lagged GDP per capita	✓	✓	✓	✓	✓	✓
Population	✓	✓	✓	✓	✓	✓
First stage						
Freights		-0.2456***		-0.2456***		-0.2456***
		(0.055)		(0.055)		(0.055)
F-test		20.070		20.070		20.07

Intervention is an indicator variable with value of 1 when country i in year t had an intervention in place. *Freights* measure the cost from country i in year t from main port to New York City, respectively.
All specifications include country and year fixed effects. Robust standard errors.
*** p<0.01, ** p<0.05, * p<0.1

Specifications (1), (3), and (5) present the OLS results. We find that American intervention appears to have been completely uncorrelated with the incidence, intensity, or length of conflict. Unfortunately, we cannot immediately conclude that U.S. intervention was ineffective at providing public order. American interventions were not random. It is quite plausible to believe that the American government anticipated worsening conflict and placed its officials on the ground before conditions deteriorated. This would present selection bias of the omitted variable kind.

In order to adjust for potential endogeneity we employed instrumental variable estimation. A suitable instrument would capture the likelihood of U.S. intervention in a given country without directly affecting the likelihood of increased conflict. Washington was more likely to accede to an intervention the greater the American strategic or economic interest in the country which was in turn negatively correlated with distance from the U.S.'s economic heartland in the northeastern United States. Fortunately for our purposes, sailing distance varied over time: the opening of the Panama Canal to commercial traffic in 1921 reduced the distance to the U.S. east coast for all Pacific countries, including Nicaragua, whose main ports faced west. The United

States did *not* open the Panama Canal to increase trade with Latin America. Rather, the purpose was to reduce shipping costs between the east and west coasts of the United States.[47] We therefore employed the both sailing distance between New York City and the country's principal port as an instrument.[48] We added further variation by using shipping costs from New York City to the country's principal port as a second instrument, representing economic distance. The results are presented in Specifications 2, 4, and 6.

After stripping out endogeneity, American intervention still has no effect on the incidence or duration of armed conflict. It does, however, have a significant effect on the intensity of war. That is to say, organized conflict was just as common when American officials were on the ground as when they were not. Conflicts, however, were less bloody when Americans were on the ground.

How did an American presence, even when unarmed, contribute to a reduction in the intensity of violence? Consider the Dominican Republic. Before the United States seized control of the customhouses, Dominican insurgents targeted them as a source of revenue. Once U.S. officials were on the ground, however, such assaults disappeared for fear of provoking American retaliation. Similar effects could be seen in Nicaragua and Haiti, where the Americans proved unable to quash rural insurgencies but succeeded in dissuading insurgents from casualty-intensive large-scale set-piece battles. The result was far from peace, but it was a diminution in the destructiveness of war.

Unconstitutional regime change

Violent conflict is not the only problem posed by political instability. Short-lived governments that fear for their own survival are bad for economic growth even in the absence of large-scale violence. Consider a government ruled by an income-maximizing despot—the classic "stationary bandit" on Mancur Olson. She can credibly commit to protect property rights as long as she expects herself (or her descendants) to be in power long enough to reap the benefits of the resulting investment. If she believes, however, that her regime could end at any moment, she will have every incentive to steal everything that she can while she can. The higher the probability that his government will fall, the shorter will be her time horizon, and thus the greater the incentive to abrogate property rights. In fact, the logic of political instability will force a stationary bandit to predate on property rights. If she does not predate, someone else will, and will use those resources to overthrow him.

The threat of unconstitutional regime change makes it more likely that even non-despotic governments will abrogate property rights. Even when unconstitutional regime changes are not accompanied by violence, they are always, by definition, carried out under the threat of violence. All constitutions contain implicit or explicit provisions allowing governments to step down voluntarily; unconstitutional regime changes are always involuntary from the point of view of

[47] See Maurer and Yu (2010) for a detailed discussion of American motivations behind the building of the Panama Canal. Our estimates of shipping costs come from the same source.
[48] For Bolivia, we used the Chilean port of Antofagasta, which was Bolivia's main sea outlet at the time (Bureau of Foreign and Domestic Commerce, 1921, p. 56.)

the regime being changed. Any government facing a violent threat to its existence has strong incentives to abrogate property rights because it needs resources to fight its enemies. The threat of violence shortens the time horizons of governments (and of factions aspiring to be governments). They must seize property or tax away all of its income, or be overthrown. The leader of such a government knows, of course, that seizing assets and production today will mean less production (and therefore taxes) tomorrow. The advantage is that she has a higher chance of living to see tomorrow.

American success at reducing unconstitutional regime change therefore held out the change of greatly improving the well-being of the people subject to U.S. authority. In order to test whether the United States succeeded at reducing the incidence of unconstitutional regime change, we needed to construct a database of unconstitutional changes of government across Latin America from 1895 to 1930. (See Appendix.) Specification 1 presents the results of an OLS regression using intervention and the duration of intervention as independent variables to predict the incidence of unconstitutional changes of government. Again, following the literature on political instability, we included GDP per capita as a control.

Intervention itself had no effect but the longer American officials were in place the less likely governments were to change hands unconstitutionally. (See Table 2.) The coefficient is negative and highly significant: broadly speaking, it means that the chance of an unconstitutional regime change decreased by two percent for every year in which American officials were on the ground. The result holds when we apply instrumental variables in order to account for potential endogeneity.

Table 2: Effect of interventions on successful coup

Dependent variable: Successful coup (indicator variable)

	(1)	(2)	(3)	(4)
Intervention	-0.1093*	-0.1	-0.0755	-0.0562
	(0.055)	(0.062)	(0.054)	(0.058)
N	572	541	542	511
R^2	0.0912	0.0792	0.0845	0.0698
Sample	All	Excludes DR	Excludes Haiti	Excludes DR & Haiti

Intervention is an indicator variable with value of 1 when country *i* in year *t* had an intervention in place. We control for GDP per capita. All specifications include country and year fixed effects. Robust standard errors. *** p<0.01, ** p<0.05, * p<0.1

Can we then conclude that American intervention decreased the likelihood of unconstitutional regime change? Unfortunately, the answer to that question is no. Removing the D.R. and Cuba individually (specifications 4 and 5) do not change the effect of American intervention on the incidence of coups; removing Haiti lowers the statistical significance of the result; and removing all three eliminates the effect entirely. In Cuba in 1904-06 and the Dominican Republic in 1916-24, American occupation authorities entirely replaced the local government: "unconstitutional changes of government" become impossible when foreign forces displace the government and suspend the constitution. In a third case, Haiti after 1915, the United States left a Haitian government formally in place but removed its *de facto* authority and imposed a new constitution in 1917. (Franklin Roosevelt famously and untruthfully claimed to have written it.) American officials retained formal vetoes over all Haitian government actions and Marine officers took charge over local departmental governments. Unconstitutionally changing the Haitian government during the occupation would have meant forcing the United States to withdraw the military forces that controlled said government, a virtually impossible task. The American empire, therefore, succeeded in reducing unconstitutional changes of government, but only when it took on the hard form of a complete military occupation.

3.2 Government efficiency

The mechanism by which American policymakers believed that intervention would aid stability worked through higher public revenues. American control was expected to root out corruption and increase public revenues, thereby giving governments more resources to build infrastructure and establish public order. That in turn would encourage growth and further increase public revenues in a virtuous circle that would end with a stable government in charge of its own territory.

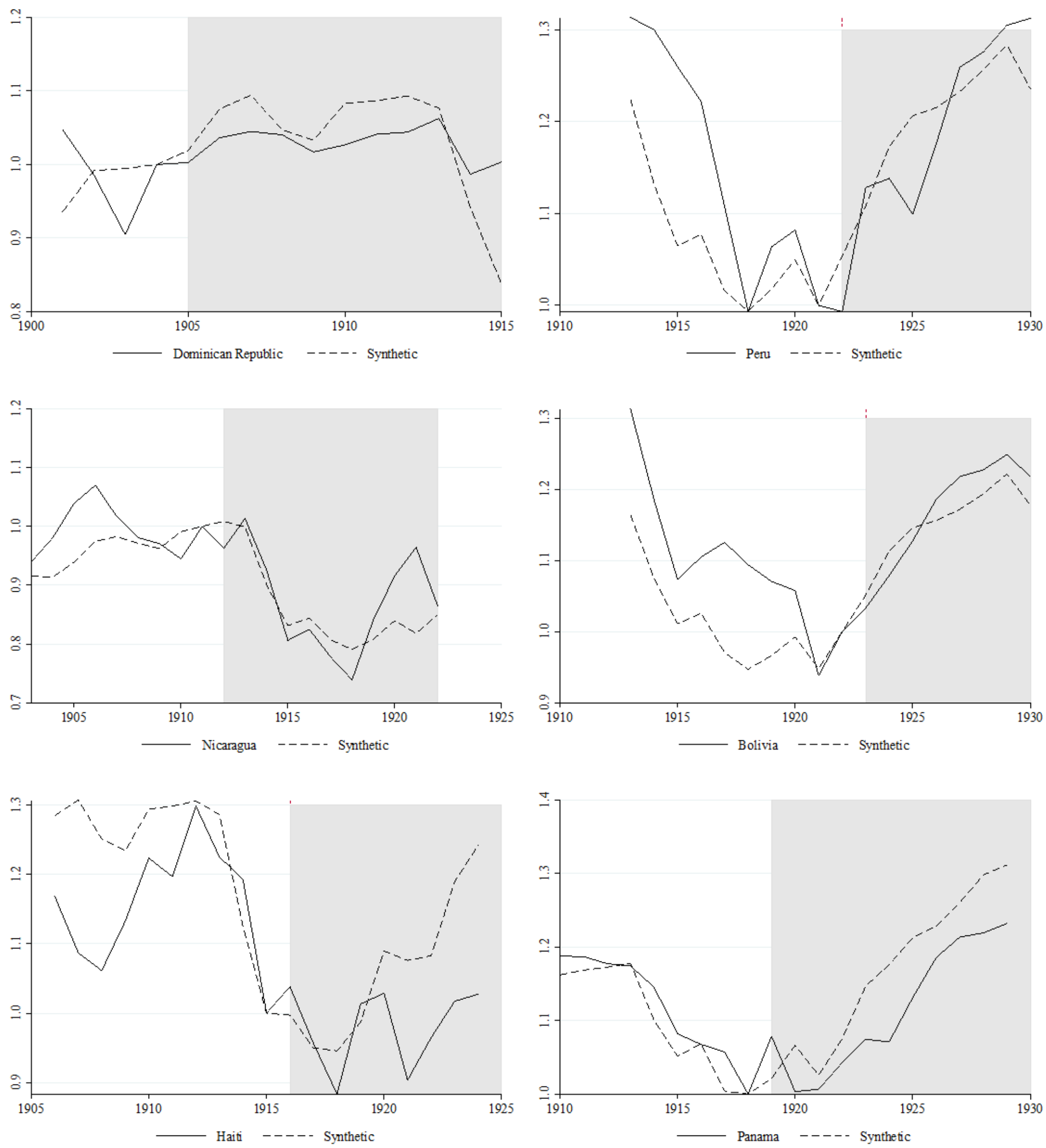
Did this virtual circle take place? We have presented some evidence that American intervention reduced the intensity of violence. We have also presented evidence that in three cases (Haiti, Cuba, and the D.R. in 1916-22) it also managed to reduce the incidence of coups. If the Americans had been even halfway successful at curbing corruption in fiscal institutions, then, one would have expected revenues to rise.

In a perfect world, we would be able to compare every intervened country against a country that looked just like it, save that it was not placed under a customs intervention. We would then compare the path of revenues after intervention between the two countries. Unfortunately, no such counterfactual countries exist. Synthetic controls, however, allow us to approximate a counterfactual country by creating a weighted average of non-intervened countries with roughly the same characteristics as the intervened country before the intervention. More formally, the synthetic control method creates a convex combination of comparison countries to approximate the characteristics of the treatment country, in this case the one intervened. The resulting synthetic control is a linear combination of the untreated units with weights adding up to one (Abadie and Haimueller 2010). For a given outcome, the effect of American intervention is judged on the comparison between the intervened country and the synthetic control.

The synthetic customs revenue per capita for the "control" will be a linear combination of the per capita customs revenue of control units given their respective weights. The identification assumption on synthetic controls is that the outcome variable (per capita customs revenue) is generated by the same structural process before the intervention. In other words, the synthetic control must exhibit the same (or very similar) pre-trends as the intervened country. This method also allows us to cross-check our regression results for every intervention using as close to an experimental technique as is possible for social scientists to get using historical data.

We applied the synthetic controls to six intervened countries using the never intervened countries as controls (see Figure 1).[49] In every case, the intervened countries underperformed for several years following the intervention. Tariff rates rose under intervention in the D.R., Nicaragua, Haiti, and Bolivia; they remained broadly unchanged in Peru and Panama; nonetheless revenue in the intervened countries did not significantly outpace the controls. The best that can be said by a generous observer is that the Nicaraguan and Bolivian interventions performed roughly the same as the non-intervened control over the entire course of the period, despite significant rate increases.

Figure 1: Normalized real revenue per capita, actual vs synthetic (year before intervention=1.0)



[49] Due to the Mexican Revolution, we lack fiscal data from the years 1914-1917. As we need a balanced panel, having Mexico in the sample resulted in a notable reduction of the dataset. Hence, we excluded Mexico from the control group. Cuba and Ecuador had too many gaps in the data to use synthetic controls.

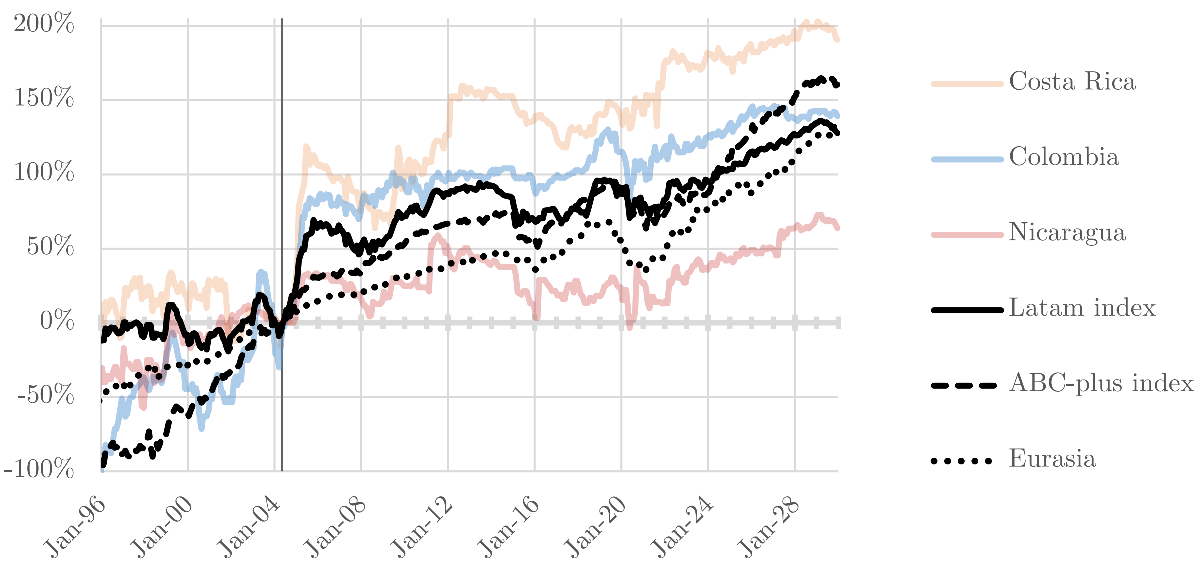
3.3 Investor sentiment

In May 1904, with the Dominican crisis proceeding apace, President Roosevelt wrote a letter outlining American aims to Secretary of State Elihu Root. Root read the letter before the press in New York City at a celebration of the second year of Cuban independence:

> It is not true that the United States has any land hunger, or entertains any projects as regards other nations, save such as are for their welfare. All that we desire is to see all neighboring countries stable, orderly, and prosperous. Any country whose people conduct themselves well can count upon our hearty friendliness. If a nation shows that it knows how to act with decency in industrial and political matters; if it keeps order and pays its obligations, then it need fear no interference from the United States. Brutal wrongdoing, 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 the Western Hemisphere the United States cannot ignore this duty. But it remains true that our interests and those of our southern neighbors are in reality identical. All that we ask is that they shall govern themselves well and be prosperous and orderly. Where this is the case, they will find only helpfulness from us.

U.S. newspapers worried that the new doctrine was a bit too sweeping. The New York World, for example, asked whether "the formation of a Peruvian shipbuilding trust or the discharge of a postmistress in Ecuador for political reasons would constitute indecent action," and went on to warn its readers that the United States could become the debt-collector for speculators.[50]

Figure 2: Cumulative returns for emerging market bonds, 1895-1929
May 1904 benchmarked as zero



Source: see Appendix.

[50] "The Roosevelt-Monroe Doctrine," *Public Opinion* Vol. 36, No. 22, (2 June 1904), p. 681.

Investors in Latin American sovereign debt, as Mitchener and Weidenmeir (2006) noted, reached the same conclusion but had a far less trepidacious reaction. The bonds of Latin American countries spiked upon the announcement, and then spiked again in December when Roosevelt reiterated his new doctrine in a second speech. They rose further when Roosevelt repeated his statements in December and continued to rise as U.S. authorities demonstrated their willingness to intervene in the Dominican Republic. By the time the rally peaked in October 1905, someone who had bought a basket of Latin American bonds in May 1904 would have earned a 69% return on their investment, including coupon payments. The rally did not affect the bonds of the big southern cone states—Argentina, Brazil, and Chile—which along with Uruguay and Paraguay rose only 31% over the same period. (See Figure 2.)

Investors were not dissuaded by 57% haircut on the NPV of Dominican debt that the U.S. government crammed down creditors' throats in 1905. It is worth noting that a 57% haircut is large by any standard: had it occurred in the 1978-2010 period, it would have ranked in the 81st percentile of all sovereign haircuts. Investors appear to have already priced in an even large haircut on Dominican bonds, so even an extraordinarily debtor-friendly restructuring did not quickly disillusion them about the benefits of U.S. intervention.

Over time it appears that investor enthusiasm wore off. We constructed two other indices of emerging market bonds for the period. The first was an index of the ABC-plus countries, based on the assumption — supported by Mitchener and Weidenmeir — that the big three Southern Cone states (and their *de facto* protectorates) were not going to be targets of American intervention. Considering as the ABC states were the only states in Latin America to possess modern navies capable of standing up the United States (if not large enough to actually defeat the U.S. Navy) this assumption was not unreasonable. Our second Eurasian index included eight relatively poor sovereign countries in Europe and Asia: Bulgaria, China, Egypt, Greece, Portugal, Norway, Siam, Spain, and Turkey. By the beginning of 1915, an investor who had bought an index of ABC-plus bonds in May 1904 would have matched someone who purchased bonds from the rest of Latin America. By the end of our sample period, in 1929, an investor in Eurasian bonds would have caught up as well.

We also estimated the effect that each U.S. interventions had on the bond prices. We first calculated the monthly period returns from holding government debt (including coupons). We then coded for changes in returns for various windows around the start date of American interventions: three months, six months, and twelve months.[51] We looked at both the Circum-Caribbean region and Latin America as a whole. (See Table 3.)

The impact of intervention on investor returns fell over time. The initial intervention in Panama, as Figure 2 amply illustrated, was positive and long-lasting. The second two interventions in Cuba and Nicaragua also appear to have reassured investors in Latin American bonds. By the time of the Peruvian intervention, investors appear to have become neutral about the effect; when the Ecuadorean intervention rolls around, investor sentiment has become decidedly bearish. Considering our earlier results, declining investor enthusiasm is entirely understandable. Interventions do appear to have marginally contributed to political stability, but they failed to

[51] Our results, to our surprise, did not significantly change when we restricted the sample to just the Circum-Caribbean countries plus El Salvador.

increase government revenue in any significant way. Less destructive wars and (for those countries fully occupied by American troops) a slight reduction in the incidence of coups were not enough in the absence of successful institutional reform.

Table 3: Effect of custom interventions on bond return

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intervention:	**DR**	**Cuba**	**Nicaragua**	**Haiti**	**Peru**	**Panama**	**Bolivia**	**Ecuador**
Window								
3 months	0.0455***	0.0123***	0.0121**	0.0118	0.0106	-0.005	-0.0061	-0.0165**
	-0.014	-0.004	-0.006	-0.012	-0.008	-0.011	-0.006	-0.007
6 months	0.0345**	0.0094**	0.0143***	0.0033	0.0095	-0.0200*	0.0040*	-0.0165**
	-0.014	-0.003	-0.005	-0.007	-0.006	-0.012	-0.002	-0.007
12 months	0.0189**	0.0049	0.0078	0.0134*	-0.0137	-0.0078	0.0048*	-0.0165**
	-0.007	-0.004	-0.005	-0.007	-0.012	-0.005	-0.003	-0.007
N	6,125	6,125	6,125	6,125	6,125	6,125	6,125	6,125
Countries	20	20	20	20	20	20	20	20

Year and country fixed effects included. Standard errors clustered at country level. Intervened countries are excluded from the samples.

3.4 Investment

Did the increased profitability in the secondary market translate into more real investment? The excess returns from the declaration of the Roosevelt Corollary lasted more than twenty years. It would be reasonable to conclude that American intervention therefore produced significant increases in investment. There are no reliable annual estimates of the flow of foreign investment during this period. We have, however, estimates of the real annual gross fixed capital formation (GFCF) for 17 Latin American countries during our sample period. If American intervention facilitated the inflow of foreign investment, and if foreign investment complemented domestic investment, then we would expect American intervention to produce significant leaps in gross fixed capital formation.

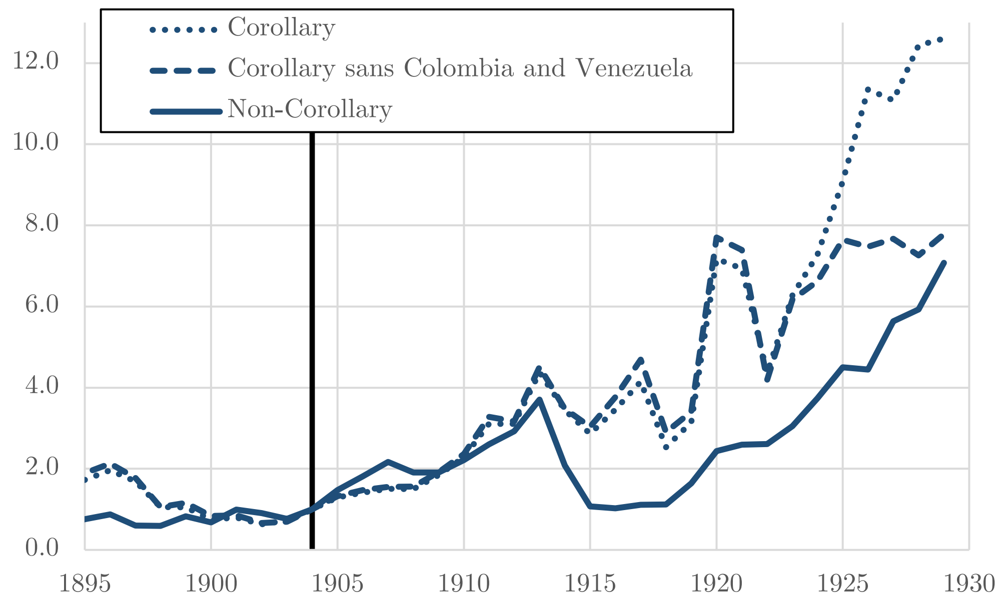
The data indicate that there was no difference between Corollary and non-Corollary countries before 1913. Figure 3 presents an index of annual gross fixed capital formation for three sets of countries, with 1913 set equal to 1.00.[52] The first are the nations subject to the Roosevelt Corollary. We follow Mitchener and Weidenmeir (2006) in defining those countries as all the nations with a Caribbean coastline, plus El Salvador and excluding Mexico.[53] The second series excludes Colombia and Venezuela. The third series is an average of all non-Corollary countries.

[52] The indices are weighted by the amount of GFCF for each country in the index.

[53] Mitchener and Weidenmeir (2006) excluded Mexico because President Theodore Roosevelt believed that Mexico was a stable nation. Their characterization of T.R.'s attitude towards Mexico is incomplete, but when Mexico fell into chaos after 1910 the United States refrained from intervening because the fiscal and military cost would be enormous. Maurer (2013) estimates that a lower-bound estimate of the cost of executing the invasion plans developed by the U.S. Army would have come to 1.3% of U.S. GDP. Occupying Mexico would have absorbed an addition 2.6% of GDP per year. (Maurer 2013: 142.) Considering that U.S. intervention in Mexico never amounted to more than a brief occupation of Veracruz followed by an inconclusive expedition into northern Mexico that deliberately avoided engaging Mexican forces, federal or irregular, we think their characterization of Mexico as outside the remit of the Corollary to be reasonable.

We index all countries to 1904, the year before the Dominican intervention begins the era of American hegemony. Between 1905 and 1913 there is no discernable difference between "treated" nations and untreated nations. A gap opens between them in 1914 because World War I deeply affected Argentina and Brazil: the Southern Cone countries depended heavily on British capital. The war interrupted British capital flows to both countries. As a result gross fixed capital formation collapsed during the war and took some time to recover once peace returned.

Figure 3: Annual real gross fixed capital formation, 1904 = 1.00



Source: see Appendix.

The postwar gap between the Corollary and non-Corollary countries looks even less impressive once we exclude Colombia and Venezuela. Colombia and Venezuela experienced extraordinary oil booms after 1917. Production in Venezuela went from less than one barrel per day in 1917 to 9.2% of world petroleum output by 1929; Colombia started commercial production in 1921 and hit 1.4% of world output by 1929.[54] American investment in Venezuela's oil sector rose from $18 million in 1919 to $240 million a decade later; U.S. investment in Colombian petroleum rose from $20 million to $136 million.[55] Not surprisingly, the oil boom caused both countries' annual GFCF to skyrocket. The 1929 value of both countries' annual GFCF (as a multiple of its 1913 level) exceeded the next-best performer (Ecuador) by almost twice.[56]

Table 4 uses GFCF (in 1950 dollars) as our dependent variable and indicator variables for American intervention and the Roosevelt Corollary as our independent variables of interest. We

[54] Venezuelan and world production from Brian McBeth, "El Impacto Económico, Político y Social de las Compañías Petroleras en el Zulia, 1922-1935," in Tomás Straka, ed., *La Nación Petrolera: Venezuela, 1914-2014* (Caracas: Universidad Metropolitana, 2016), p. 209. Colombian data from Enrique López, Enrique Montes, and Aarón Garavito, "La economía petrolera en Colombia," *Borradores de Economía* (No. 692, 2012), p. 85.

[55] The proportion of total U.S. FDI in Colombia accounted for by the oil sector rose from 44% in 1919 to 74% by 1929. Cleona Lewis, American Investments in Oil Production Abroad.

[56] The 1929 index value was 8.9 for Venezuela, 6.1 for Colombia, and 3.7 for Ecuador.

also added an array of standard controls. American intervention has no effect in any specification. As expected from Figure 3, the Corollary has an effect over the entire 1905-29 period but the effect disappears for the years before 1913. In order to sustain the hypothesis that the Roosevelt Corollary promoted investment, one would have to believe two things: (a) that the positive effects of the declaration of the Corollary did not show up for eight years, and (b) neither Venezuela nor Colombia would have experienced their oil booms had the United States not declared its willingness to intervene across the hemisphere. Neither assumption appears particularly reasonable.

Table 4: Effect of receiverships on Gross Fixed Capital Formation

The dependent variable is Ln(Gross Fixed Capital Formation)

	(1)	(2)	(3)	(4)	(5)
Intervention	0.0831	0.1714	0.0098	0.0534	0.0778
	(0.145)	(0.238)	(0.138)	(0.1699)	(0.1255)
Corollary			0.6694**	0.4366	0.5960
			(0.3074)	(0.3944)	(0.3432)
N	491	236	491	236	433
R^2	0.3427	0.1517	0.3503	0.1552	0.3070
Sample					
Period	All	1900-1914	All	1900-1914	All
Countries	All	All	All	All	Excludes Colombia and Venezuela
Controls					
Lagged GDP	✓	✓	✓	✓	✓
Lagged Terms of trade	✓	✓	✓	✓	✓
Distance	✓		✓		✓

All specifications include country and year fixed effects. Robust standard errors.
*** p<0.01, ** p<0.05, * p<0.1

American investors appear to have benefitted from the 1905 beginning of American intervention. Higher returns in the secondary market for government debt, however, do not appear to have led to higher levels of real investment for the countries involved. Nor did actual American intervention lead to higher fixed capital formation: if U.S. imperialism led to higher American investment, it appears to have crowded out the domestic kind.

3.5 Trade Creation and Diversion

American intervention may have opened up opportunities to increase economic integration through trade. Alternatively, it may redirect trade with United States. In this sense, we can think of these interventions as institutional arrangements with potential welfare effects akin to regional trade agreements.

To test for the effect of American intervention on trade, we use an augmented gravity model. We include the standard covariates to capture the influence of geography, political links, transportation technology, and culture on trade flows. We also control for whether bilateral trade flows affected by the opening of the Panama Canal, which greatly reduced transportation costs for a subset of country pairs. Depending on the specification, we included total GDP, total population for each country and bilateral controls for country-pair gold standard adoption and country-pair at war. Our main variable of interest is the whether a country was subject to American intervention. The basic estimation takes the following form:

$$ln(Trade_{ijt}) = \alpha + \beta Intervention_{ijt} + \theta PanCanal_{ijt} + X'_{ijt}\gamma + \epsilon_{ijt}$$

where *ijt* denotes the country-pair for year *t*, *Intervention* is an indicator variable with value 1 if either country *i* or *j* was under American intervention at time *t*, *PanCanal* is an indicator variable with value 1 if the maritime distance in country-pair *ij* was affected by the opening of the Panama Canal starting in 1920. The controls (X_{ijt}) include —depending on the specification— population for each country, GDP per capita per country, country-pair at war, country-pair on gold standard, border, common language, and distance. Finally, ϵ_{ijt} is the error term.

Our dataset includes all dyadic trade flows between Latin America countries and their trade partners. Our main results indicate that in the worst case, American intervention did not result in more trade for the affected countries. Columns (1) and (2) in Table 3 show negative and significant coefficients. These estimates, however, do not capture the effect of American intervention as they ignore unobservable multilateral resistances —the trade barriers that countries face with all their partners (Anderson and van Wincoop, 2003). Failure to include these resistances is the gold medal mistake in gravity model estimations. Without them we obtain biased coefficients due to one of the most common issues in our profession: omitted variable bias (Baldwin and Taglioni, 2006). For example, a fall in the bilateral trade cost between, say Chile and Argentina, would lead to an increase in trade between these two countries. But it will also affect trade with third parties, let's say Brazil. This change could divert trade away from Chile-Argentina, in favor Chile-Brazil. Following standard practice in gravity model estimation, we address this issue by including (importer and exporter) country-year fixed effects in column (3). In this case, we observe no relationship between American intervention and trade during this period.

So far, our most reliable estimate points at no link between American intervention and trade creation. The next logical step is to find out whether these interventions led to trade diversion. To this end, we construct country-pair indicator variables for trade during American intervention with intervened countries with the major industrial core in this period: United States, Germany, France, and United Kingdom.[57] The results on columns (4) to (6) tell a story of trade diversion. Specifications (4) and (5) find a complex story of trade diversion, but the results are not reliable because they do not account for multilateral resistance. Specification (6) includes country-year fixed effects to account for such resistances and finds nothing.

Finally, we tested whether imports and exports might be affected differently. If U.S. intervention caused American-owned investments to crowd out other investments (assuming that investment concentrated in export industries) then the result could be export diversion towards the United States. Specification (7) breaks out exports and imports separately; it also accounts

[57] As a robustness check, we included the Netherlands and Belgium, our results still hold.

for multilateral resistances. We find a large and significant shift in exports from intervened countries towards the United States.

Table 5: Effect of American intervention on bilateral trade, OLS results
Dependent variable is ln(trade)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intervention	-0.20*	-0.17*	-0.89	-0.18	-0.21**	-0.92	-0.91
	(0.11)	(0.09)	(0.73)	(0.12)	(0.10)	(0.73)	(0.74)
Intervention#(X+M) w/ USA				0.35	0.48	0.45	
				(0.30)	(0.32)	(0.30)	
Intervention#(X+M) w/ Germany				-0.36	0.52*	-0.29	
				(0.31)	(0.31)	(0.32)	
Intervention#(X+M) w/ U.K.				-0.34	-0.48***	0.04	
				(0.33)	(0.18)	(0.42)	
Intervention#X to Germany							0.03
							(0.32)
Intervention#M from Germany							-0.63
							(0.52)
Intervention#X to U.K.							0.25
							(0.36)
Intervention#M from U.K.							-0.17
							(0.73)
Intervention#X to USA							0.56*
							(0.32)
Intervention#M from USA							0.34
							(0.50)
N	13,756	13,756	15,355	13,756	13,756	15,355	15,355
R2	0.69	0.85	0.78	0.69	0.85	0.78	0.78
Controls							
Distance	✓		✓	✓		✓	✓
Language	✓		✓	✓		✓	✓
Gold standard	✓	✓	✓	✓	✓	✓	✓
GDP	✓	✓		✓	✓		
Contiguous	✓		✓	✓		✓	✓
At war	✓	✓	✓	✓	✓	✓	✓
Panama pair	✓	✓	✓	✓	✓	✓	✓
Fixed effects							
Country FE	✓		✓	✓		✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓
Country-year FE			✓			✓	✓
Dyadic FE		✓			✓		

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. *Intervention* is an indicator variable with value of 1 when country *i* in year *t* had a receivership in place. We further disaggregate the intervention by interacting with indicator variables to identify trade flows to and fro core countries –denoted by "#" followed by type of trade flow, "X" for exports, "M" for imports, "X+M" for total bilateral trade flows. *Distance* is measured as the crow-flies. *Gold standard, Contiguous, At war, Panama Pair* are indicator variables with value of 1 if the country-pair adopted the gold standard, shared a border, was at war with each other, was affected by the opening by the Panama Canal respectively.

4 Conclusions

All the historical evidence points to fear of Germany as the primary motivation behind the burst of American interventionism that began in 1905. This fear dovetailed with pressure from American direct investors to ensure political and financial stability in order to protect their investments from violence, expropriation or punitive taxation. Accomplishing the twin goals of keeping Germany out and Latin countries stable required the United States to reduce the incidence of war, the number of violent coups and the level of corruption. Accomplishing those goals should in turn have led to greater investment and trade, in a virtuous circle.

All of the quantitative evidence that we have mustered points to a failure by the United States to accomplish this virtuous circle. The Americans failed to establish political stability or improve the quality of government. Nor did they succeed in fostering more investment or increasing trade. Rather, American investment managed to increase returns for the existing bondholders of government debt on the secondary market. These interventions managed to divert trade from other markets to the United States, also without increasing the overall level of trade. One possible channel for these results is that U.S. intervention prompted American investment to crowd out investment from other countries; we are currently gathering data to test this hypothesis. If it holds, then the obvious and unpleasant conclusion is that for all its laudable motives, the United States succeeded only in creating yet another “bad” empire.

We would also suggest that it is worth replicating an exercise like the above for the European empires. Many historians have suggested that the British in particular created a liberal empire that provided public goods for its subjects. Many economic historians have concluded that a drop in sovereign risk implies that public goods are being provided. We would suggest that neither conclusion is foregone and encourage more research into the actual effects of formal or informal imperial rule.

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