HOW LATIN AMERICA FELL BEHIND

Essays on the Economic Histories of Brazil and Mexico, 1800–1914

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The Economic Consequences of Brazilian Independence

STEPHEN HABER AND
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Scholars operating in the dependency framework have long argued that Latin American political independence was not economically liberating. They have viewed the process of independence solely as a shift from a dependency on a weak core metropolitan state (Spain or Portugal) to an equal dependence on a powerful new capitalist state: Great Britain throughout most of the nineteenth century and the United States in the twentieth century. Scholars operating in this vein have assumed that Britain's "informal empire" gained it privileged access to new markets at virtually no military or political cost. Britain then flooded these new markets with its manufactures, thereby destroying local American industry in the process.[1] These scholars have further assumed that the British used their economic weight to control commercial and monetary policies in order to promote the importation of British goods at the expense of domestic manufacturing.

The argument that "economic dependence" increased as a result of political independence, and that this economic dependence dampened economic growth, is very hard to test. The process of independence and nation building in most of the major economies of Latin America involved significant destruction of physical capital, the disruption of internal trade, substantial capital flight, and long periods of political instability. Separating the effects of these factors from those related to Latin America's external economic ties is not possible.

In the case of Brazil, however, these other factors did not come into play. Brazilian independence was relatively bloodless, there was little destruction of physical capital or capital flight, and the same royal family that ruled Brazil during the colonial period continued to do so for nearly

70 years afterwards. In short, Brazil provides an excellent test case of the propositions that Latin American political independence increased its economic dependence on Great Britain and that this economic dependence resulted in economic backwardness.

The dominant tradition in Latin American economic historiography has been to assert that both of these propositions hold in the case of Brazil. In E. Bradford Burns's widely used text on Brazilian history, for example, the process of independence meant that Brazil became a virtual colony of Great Britain. "Brazil fell at once under the economic control of Great Britain from whom the Brazilians bought most of their manufactured goods, but to whom they sold only secondary amounts of their exports, a situation which would prevail for over 100 years."[2] Emilia Viotti da Costa's influential book on nineteenth-century Brazil echoes Burns's judgment. "Brazil as an independent nation would continue to have a colonial economy, but would pass from dependence on Portugal to dependence on Great Britain."[3]

It is surprising that this view has never been subjected to a systematic analysis of the relevant data. This lack of empirical research is not unexpected in light of the fact that economic data of the kind generally used by economists and economic historians are extremely scarce for most Latin American countries throughout much of the nineteenth century. While the United States, for example, began to gather population, trade, and output data in a systematic way as early as the 1790's, most Latin American countries did not initiate the compilation of similar data until the end of the nineteenth or the beginning of the twentieth century.

Our purpose here is therefore to utilize the limited data available to shed at least some light on the consequences of Brazilian independence. We test three hypotheses: that Brazil had to forego the ability to follow developmentalist commercial policies in exchange for British assistance in protecting the Portuguese crown against Napoleon; that independence had serious consequences for the direction and quantum of Brazilian trade, that is, that in the years after independence Brazil increasingly became part of Britain's informal empire, with deleterious effects on Brazilian economic growth; and that the inability to chart an independent commercial and monetary policy, coupled with the flooding of the Brazilian market with British manufactures, forestalled Brazilian industrialization. These three hypotheses clearly do not exhaust the range of questions that one could pose about the economic consequences of independence. Given the general paucity of data on the early Brazilian economy, however, these are the three for which we can provide the most complete answers. These three hypotheses also lie at the base of the set of assumptions with which most dependency theorists operate.

Our basic argument runs in the following terms. Political independence clearly did not produce structural transformation and self-sustaining growth in the Brazilian case. Brazil was an agricultural economy prior to independence and continued to be so afterwards. The transition to modern economic growth, in which agricultural productivity rose and industry began to replace traditional economic sectors, did not occur until the last decade of the nineteenth century.

We further argue that the dependency model, while explaining some features of the Brazilian economy at a superficial level, does not hold a great deal of explanatory power when one takes a detailed look at the empirical record. It is clearly the case, for example, that in the years after independence Brazilian trade was heavily biased toward Great Britain. Brazil also granted Britain a low tariff on its manufactured exports. Finally, Brazil's transition to a modern industrial economy was delayed until the last decades of the nineteenth century. But it is not clear that these developments were necessarily a consequence of independence or Brazil's trade relationship with Great Britain. In the first place, Brazil's trade prior to independence (even prior to 1808) was already biased toward Great Britain. Second, while Brazil did provide Great Britain with a favored trading relationship, it is not the case that it completely abdicated control of policy making to the British. Brazilian policy makers were not British puppets. Finally, it is highly unlikely that Brazil would have made the transition to an industrial economy during the early nineteenth century even if it had charted a more developmentalist commercial policy. Indeed, there are a whole host of reasons why Brazilian industrialization was delayed, most of which relate to internal features of Brazil's economic structure, not external economic relations. Let us take up each of these issues in detail.

Trade Policy and Britain's Informal Empire

It was Caio Prado, Jr., who first challenged traditional liberal historiography on Brazil's economic history by asserting that independence was not defined by the political decision to delink from Portugal in 1822 but rather by the declaration of free ports and the end of the Portuguese trade monopoly in 1808.[4] This was soon followed by the 1810 preferential temporary treaty with Great Britain, which initially gave a lower tariff to British imports than to those from Portugal. This was finally codified in the famous commercial treaty of 1827, which lasted until 1844.[5] The 1827 agreement was the only British commercial treaty signed with a Latin American country in the nineteenth century that defined a limit—in this case 15 percent ad valorum—on taxes on British imports.[6] It should be recalled that Great Britain offered no reciprocity, charging 180 percent ad valorum on Brazilian sugar and 300 percent on Brazilian coffee imported into England.[7] In 1828 the low tariff on British goods was extended to all of Brazil's trading partners.

Historians of Brazil have traditionally assumed that this preferential tariff system was the price the Braganza monarchy paid for its transport to America by the British, who extracted tremendous concessions in return for their help. The cost of moving the crown to Rio de Janeiro, the first step in Brazil's independence process, was the end of Portuguese trade monopolies and the granting of a privileged trading position for Great Britain. It was this crucial role for Great Britain in the long, slow process of independence that according to dependency theorists put Brazil on the path from backwardness to underdevelopment.

This interpretation has recently come under attack. To begin with, the decision to break with the Portuguese monopoly on Brazil's trade was probably taken well before 1808. While there is no question that the Braganza monarchy went to America in 1808 only under threat of a Napoleonic invasion and with tremendous British pressure, it is now recognized that much sophisticated planning and rethinking had taken place long before the actual move. Indeed, the process was far different from that portrayed in the standard model. As Fernando Novais and José Jobson de Andrade have shown, the crown, as early as the 1790's, had undertaken detailed studies of imperial trade and realized that Portugal itself was only a minor element in the total trade picture.[8] Brazil was the dominant producer of income in the empire and Portugal played a relatively minor part in its economy. Brazilian products accounted for close to 40 percent of Portugal's export and re-export trade combined and guaranteed the nation's positive balance of trade in the last decades of the eighteenth century (see Table 9.1). The idea of a monarchy and an empire centered in Brazil thus had its supporters at the royal court in Lisbon even before the formal migration.

Even more important was the fact that the colonial Brazilian economy was already integrated into the British economic sphere well before 1808. The concessions gained by Great Britain in the Methuen Treaty of 1703, and in various arrangements even earlier, guaranteed British domination of Brazilian trade. In return for a special opening of the British market for Portuguese wine, the British were granted import tariffs into Portugal and

TABLE 9.1

Brazilian and Portuguese Foreign Trade, 1796–1811

(in milréis)

	Imports from Brazil as % of		Exports to Brazil as % of		Total Portuguese	
Year	Colonial imports	Total imports	Colonial exports	Total exports	Imports	Exports
1796	86	44	93	30	26,066,037	23,541,006
1797	77	21	88	40	20,018,271	21,474,704
1798	84	39	86	39	27,531,329	27,472,616
1799	83	36	77	41	34,924,590	38,146,716
1800	84	36	70	28	34,882,283	34,205,913
1801	84	40	81	28	36,865,149	38,237,327
1802	80	33	79	30	30,908,794	34,205,662
1803	80	39	78	29	29,261,658	34,269,689
1804	82	36	76	32	31,420,910	35,966,924
1805	88	39	78	27	35,500,167	34,899,223
1806	88	43	74	24	32,544,888	34,569,819
1807	82	45	67	22	30,865,128	31,348,109
1808	89	16	89	20	3,355,457	7,505,227
1809	82	33	88	25	14,691,720	13,769,418
1810	93	18	77	18	21,001,206	16,333,180
1811	69	8	80	27	44,008,550	10,393,865
TOTAL	83	34	79	30	453,846,137	436,339,398

SOURCE: Novais 1979: appen. tables.

were allowed to establish their merchant houses in Lisbon and Oporto.[9] The Brazilian gold, diamond, and cotton trades of the eighteenth century were particularly under British domination, while the sugar and slave trades tended to be under Portuguese and Brazilian control. The patterns were established early in the eighteenth century and continued with little interruption through the nineteenth century. A study of the crucial gold trade from Brazil in the first half of the nineteenth century shows that Portuguese deficits in trade with Great Britain were made up by the shipping of legal Brazilian gold imports to Britain. Given Portugal's dependence on even basic grain imports to survive and its negative balance of trade with other European nations in the eighteenth century, legal and illegal Brazilian gold imports played a crucial role in financing Portugal's trade deficits. Much of this Brazilian gold then entered the London market, which by the middle of the eighteenth century had replaced Amsterdam as Europe's leading gold and diamond center. The overvaluation of gold by Britain also helped bring much of Brazil's gold, which initially went to other European countries, to London.[10] In fact, Portuguese exports to England accounted for 19 percent of the value of all imports into England at the height of the

Brazilian gold boom from 1736 to 1740.[11] The same pattern—Portugal serving as a mere temporary intermediary between England and Brazil—also occurred in the diamond trade.

As for Brazilian imports, already in the eighteenth century Brazilian gold guaranteed a steady supply of British manufactures to the colony. Given the weakness of the Portuguese manufacturing establishment—which could barely supply domestic needs—and the dominant and privileged role of British merchants in the Portuguese economy, a major trade link between Brazil and Great Britain as well established almost a century before independence.[12] There were, of course, short-term fluctuations in this trade connection. The Seven Years' War, declining Portuguese trade deficits at the end of the eighteenth century, and other factors may have reduced the Brazil-Portugal-Britain connection, but the basic pattern was well established and worked smoothly until 1808.

In short, it is clear that Britain had an advantageous trading relationship with Brazil relative to other countries and that the special tariff of 1827 was a crucial part of this special relationship. What is not clear, however, is that this privileged position was anything new following independence. If Brazil was indeed part of Great Britain's informal empire, then it had been so since the eighteenth century. The concessions given by the Braganza's, both before and after formal political independence, were simply the institutionalization of a trading system that had been in place for some time.

What is also not clear is the relationship between this trading relationship and Brazilian underdevelopment. In fact, the view that liberalized trade had negative consequences for economic growth both before and after independence contains a set of implicit assumptions about the net barter and income terms of trade that may or may not hold. As we discuss below, there is abundant evidence from the nineteenth century to support the view that free trade likely raised, not lowered, Brazilian national income. That is, the origins of Brazilian economic backwardness are not to be found in "immiserating trade" (that is, commerce that causes or increases misery) but are located in internal features of Brazil's economy largely unrelated to its external economic relations.

The Direction and Quantum of Trade

One might of course argue that though Britain's role in Brazil's post-independence economy was nothing new, that role might have expanded in the years after 1822. Thus Brazil's political independence might have

increased its economic dependence on Great Britain. One might argue further that this pattern of trade—particularly Brazil's heavy reliance on primary-product exports—had deleterious effects on the country's long-term economic growth. Let us take up both of these issues in detail.

In contrast to the typical Spanish-American experience, Brazil's independence did not involve a major, short-run shift in the direction of trade. Brazil, at least until the 1830's, was not forced to find new buyers for traditional goods or seek new exports for new markets, except in so far as traditional supplies changed or traditional market demand shifted.

Similarly, the quantum of foreign trade over the short run did not see any major changes. As Figure 9.1 illustrates, total Brazilian imports and exports remained virtually unchanged throughout the 1820's. Moreover, in per capita terms the level of imports and exports was quite low. Total export receipts averaged less than £4 million annually throughout the decade. On a per capita basis, the figure was less than £1, roughly 5 mil-réis.[13]

Beginning in the 1830's, Brazil's foreign trade began a gradual process of growth (see Figure 9.1), but this did not mean that Brazilian export dependence increased. Indeed, it was U.S. demand for, and British disinterest in, coffee, in combination with Britain's protection of its own West Indian growers, that accounted for the major market shift in the 1830's. U.S. trade with Brazil doubled in dollar terms from the 1820's to the

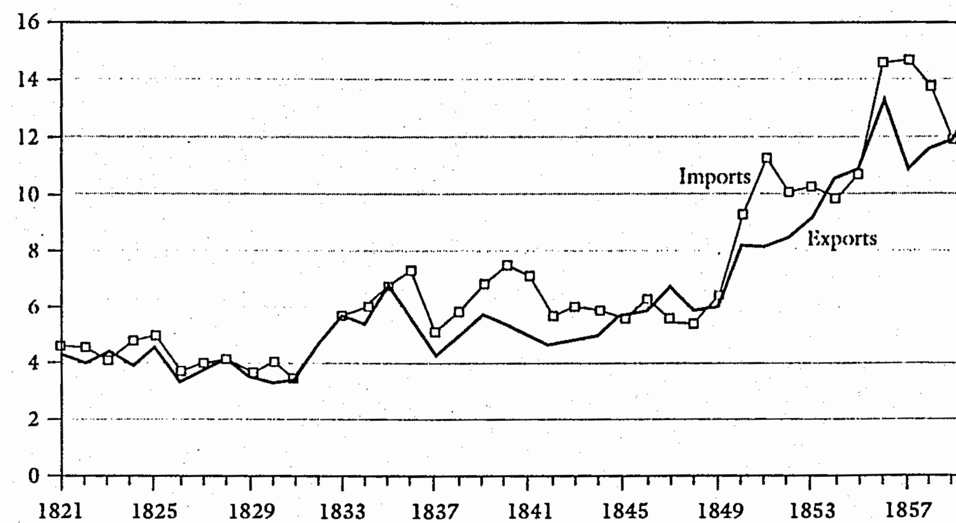

Figure 9.1. Brazil's foreign trade from 1821 to 1860, in millions of pounds. Data are taken from IBGE 1939–40: 68.

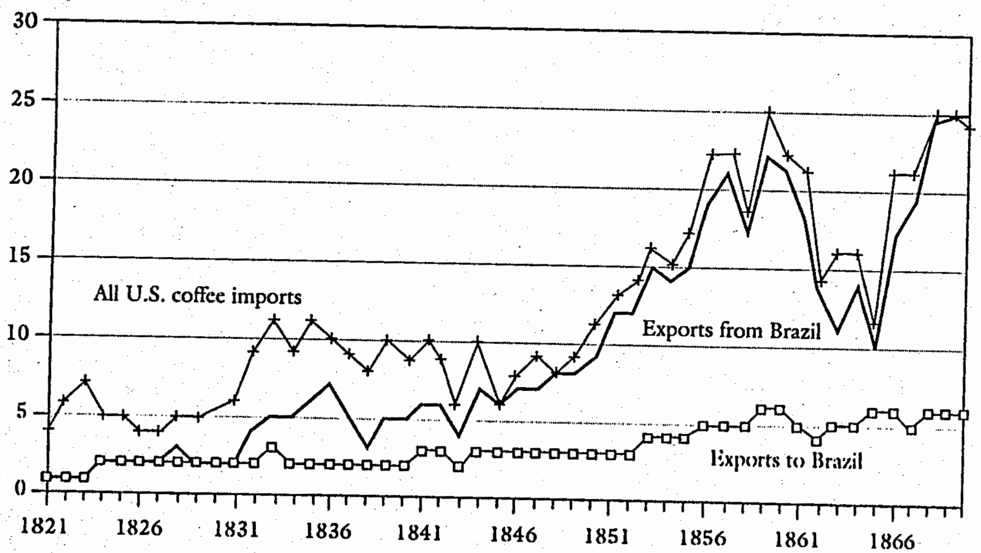

Figure 9.2. Volume of trade between the United States and Brazil from 1821 to 1870, in millions of dollars. Data are taken from U.S. Bureau of the Census 1975, vol. 2: 902, 903, 904, 907.

1830's, then took off in the 1850's, reaching six times its 1821 value by 1857 (see Figure 9.2). The result was that by the 1850's the United States was nearly as important an importer of Brazilian products as Great Britain, though it lagged behind Britain in exports to Brazil. Germany, France, and Portugal were also significant trading partners (see Table 9.2), to such an extent that British exports to Brazil had little impact on the movement of total Brazilian imports in the period 1821–49 (see Figure 9.3).[14]

One might argue that the direction of trade is less important a factor than the terms of trade. Even though Brazilian trade became more diversified after the 1830's, thereby decreasing the reliance of Brazil on a single trading partner, it may have been the case that the overall model of growth followed by Brazil was deleterious over the long term. Indeed, die-hard ***dependentistas*** might argue that the increase in the quantum of trade from the 1830's onwards is an indication of a deterioration in economic independence and proof positive that Brazil's political elite had been intellectually captured by free-trade ideologies propounded by its neocolonial metropolis. According to this line of reasoning, the price of Britain's role in the independence process was Brazil's abdication of developmentalist ideologies in favor of a free-trade model that over the long run would serve to underdevelop Brazil.

EXPORTS TO MAJOR TRADING PARTNERS

Year	Total exports (In 000 £ sterling)	GB (%)	USA (%)	Ger (%)	France (%)	Port (%)	Total—five major partners (%)
1842	4,584	27.9	16.6	11.8	6.0	7.5	69.7
1852	8,418	33.5	31.5	4.8	5.9	4.1	79.8
1862	13,424	37.8	12.5	4.1	12.6	6.3	73.2
1872	22,392	37.1	29.4	7.7	8.8	6.2	89.1

IMPORTS FROM MAJOR TRADING PARTNERS

Year	Total imports (In 000 £ sterling)	GB (%)	USA (%)	Ger (%)	France (%)	Port (%)	Total—five major partners (%)
1842	5,656	48.4	11.8	6.1	12.0	8.0	86.3
1852	9,982	53.3	8.5	5.9	13.5	6.6	87.8
1862	10,868	51.2	6.1	5.4	18.5	6.0	87.3
1872	16,516	51.0	5.5	6.8	14.4	7.9	85.6

SOURCES: Computed from IBGE 1990: Tables 11.1, 11.3; IBGE 1939–40: 82.
NOTE: Percentages vary from percentages in the original sources. We have recomputed percentages from the absolute values listed in the sources.

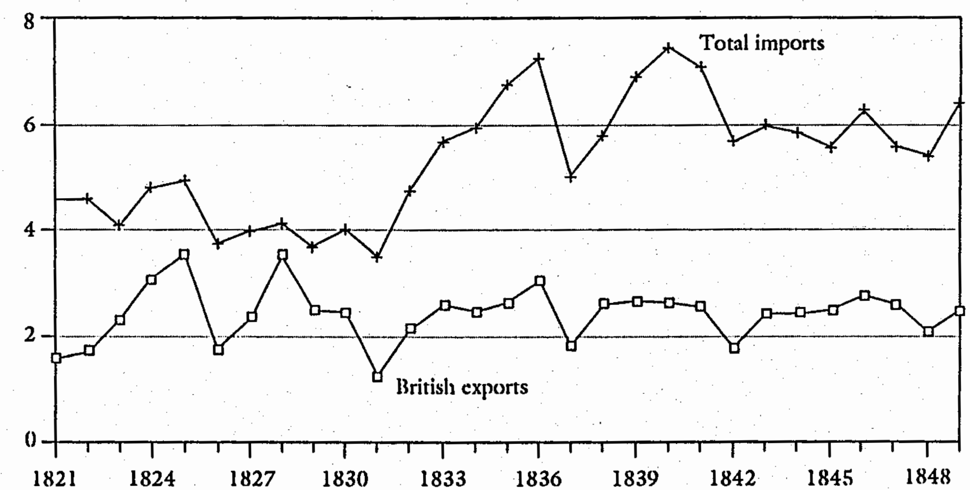

Figure 9.3. Volume of exports from Great Britain to Brazil and total Brazilian imports from 1821 to 1849, in millions of pounds. Data are taken from IBGE 1939–40: 68; Porter 1851: 362–67.

This argument fails on two grounds. In the first place, it was not the case that Brazilian political elites were British puppets. Brazil may have conceded an unequal tariff structure to Britain until 1844, but it by no means abdicated control of the state to the British. The best example of this can be found in the long history of Britain's attempt to force Brazil to abolish the slave trade. Though there were international agreements to control the trade going back until the 1830's, Brazilians persisted in importing slaves until 1850, when the British navy finally enforced a naval blockade of Brazil's ports. In addition, after the 1827 trade agreement ran out in 1844, Brazilian policy makers doubled the tariff on imported goods. Though this was still too little to provide adequate protection for domestic industry (a subject we will return to in some detail later), the point still holds that the Brazilians were able to do this even though the change in policy clearly did not benefit British interests. In short, Brazilian policy makers did not lay down and die the minute they were confronted by a demand from London.[15]

In the second place, it is not clear that free trade hurt Brazil. In fact, as Nathaniel Leff has shown, the terms of trade improved for Brazil throughout the nineteenth century. Brazil's export prices increased by some 22 percent from the late 1820's to the mid-1860's, while import prices fell by roughly the same amount, producing an improvement in the barter terms of trade of 70 percent.[16] It is therefore not clear that Brazil would have been better off had it opted for a protectionist, antitrade development strategy early in the nineteenth century. Given movements in relative prices favorable to traditional Brazilian exports, it is hard to argue that the postindependence free-trade system was deleterious to national economic growth.

Forestalled Industrialization

For historians of the dependency school, the effects of independence on the growth of manufacturing were negative. The onslaught of British goods forestalled domestic industrial development.

It is clear that Brazil's postindependence experience of industrialization in no way mirrors that of the United States. In fact, one of the striking aspects of Brazil's nineteenth-century economic history was the slow transition to the factory system. As late as 1853 the entire modern sector of the cotton textile manufacture (the first industry in most countries to switch to the factory system) consisted of but eight firms employing 4,500 spindles, 178 looms, and 424 workers. This, at most, gave the modern sector of the industry a 10-percent market share of total factory-made cloth, the rest going to British imports.[17] Over the next 30 years the industry expanded but was still restricted to 43 mills employing 80,420 spindles, 2,631 looms, and 3,600 workers in 1881. By comparison, the United States in 1850 employed 92,286 workers in 1,094 mills in the modern sector of its cotton textile industry (machinery data are not available). By 1880 the U.S. cotton industry had grown to 756 mills employing nearly 11 million spindles, 227,383 looms, and 172,541 workers.[18] In short, the vision of political independence being translated into the structural transformation of the economy does not appear to hold in the Brazilian case.

It is one thing to say that Brazil did not industrialize after independence the way the United States did; it is quite another to argue that this lack of industrialization was the product of Brazil's peculiar process of independence. There are a number of reasons to think that Brazil's slow transition to an industrial economy was more the function of internal features of the Brazilian economy than it was a function of a low tariff regime imposed by the British in the years before 1844.

The argument that it was the 15 percent ad valorum tariff of 1827 that prevented the onset of industrialization in Brazil carries with it a number of implicit counterfactual assumptions. First, it assumes that Brazil could have pursued a more protectionist commercial policy. Second, it assumes that the British presence in the market meant that there was no niche in the market for domestic producers to fill. Third, it assumes that it was both technologically and financially feasible for Brazil to industrialize in the early nineteenth century. That is, this argument assumes that the internal obstacles to industrialization were negligible. An examination of the empirical record suggests that these are not reasonable assumptions.

In the first place, the assumption that Brazil could have operated under a more protectionist tariff regime does not take into account the fact that the government relied on import taxes for the largest part of its income. Truly protectionist tariffs would therefore have undermined the tax base of the state. In fact, when the 1827 agreement expired, the Brazilian Finance Minister, Manuel Alves Branco, tried to pursue a protectionist commercial policy but had to give it up because of the crisis it created for the public fisc. Indeed, the commission named to write the new tariff code recommended that the textile industry receive a 50- to 60-percent tariff in order to provide it with protection from British imports, but the Alves Branco tariff, when it was finally drafted, established only a 30-percent tariff. Alves Branco's explanation for this discrepancy was that fiscal exigencies prevented him from elevating the tariff to the level necessary to provide a reasonable amount of protection for domestic industry.[19]

The assumption that British imports prevented Brazilian manufacturers from filling a market niche also does not hold up under scrutiny. While Brazil did not have much of a modern textile industry, it had developed a large cottage textile manufacture during the eighteenth century. Surprisingly, English-made cotton goods did not wipe out this protoindustrial base. Although the history of Brazilian cottage manufacturing is still far from written, Douglas Libby's research on Minas Gerais (the most important center of cottage industry) indicates that the manufacturing base built up during the late colonial period was not eliminated by the importation of British, machine-made cloth. In fact, as late as 1827–28 the state of Minas Gerais exported some 2.3 million meters of cotton cloth and 1,964 pounds of spun cotton yarn. Home consumption, according to a contemporary observer, amounted to an additional 5.8 million meters of cloth. In the early 1830's, this industry gave employment to some 8,607 workers. Exports of cotton cloth to other parts of Brazil from Minas Gerais fell over the next decade, reaching a low of 1.2 million meters in 1839–40 under the weight of British competition in lowland areas such as Rio de Janeiro. Nevertheless, through the 1840's the industry witnessed a strong recuperation, reaching a peak of 2.6 million meters in exports in 1847–48. The survival of the spinners and weavers of Minas was likely due to the resistance and durability of the coarse *mineiro* cloth, which was favored by slave owners for clothing their bondsmen.[20]

The third assumption of the dependency argument, that Brazil had the technological and financial ability to industrialize during the early nineteenth century, is heroic at best. Brazil's lack of a domestic engineering and scientific establishment would not have been a problem at this historical juncture. Given the low technical requirements of most industrial processes during this early phase of world industrialization, and the fact that the capital goods required to establish most industries were readily purchasable on the international market (despite attempts to control their flow by the British), obtaining the required machinery and other equipment would not have been a problem for Brazil. Paying for this imported technology, however, would have been a problem. Brazilian industrialists had higher start-up costs than did industrialists in the advanced industrial economies; not only did they have to pay for the foreign-produced machinery, they also had to set aside funds to cover the cost of transport, insurance in transit, and the salaries of the technical personnel who set up their plants.[21]

At the same time that Brazilian manufacturers faced higher costs of

entry, they had to operate in an economy whose ability to mobilize capital was severely constrained. Industrial firms could neither sell equity on the stock exchange in order to raise capital funds nor appeal to the banking system for loans. Between 1850 and 1885, only one cotton textile company was even listed on the Rio de Janeiro exchange, and its shares only traded hands in 3 of those 36 years.[22] The credit market was an equally primitive affair. Most credit was handled through merchant houses, not through commercial and savings banks, because formal banks were so scarce as to be almost nonexistent. As late as 1888 Brazil had but 26 banks whose combined capital totalled only 145,000 contos—roughly $48 million. Only seven of the country's states had any banks at all, while half of all deposits were held by a few banks in Rio de Janeiro.[23]

The upshot was that manufacturers could not appeal to impersonal sources of capital in order to finance their mills. The result was both a slow rate of industrial growth and a concentrated industrial structure. Significantly, when institutional innovations in the credit and capital markets took place in the last decade of the nineteenth century, Brazilian industry underwent a rapid process of growth and diversification.[24] In short, the requisite technology to industrialize was widely available, but the finance capital to purchase it was not.

In addition, there were numerous constraints on the possibilities of industrialization on the demand side as well. The fundamental problems were two. The first, as William Summerhill makes clear in his contribution to this volume (Chapter 4), was high transport costs. Until the introduction of the railroad in the last decades of the nineteenth century, the primary mode of transport was mule trains, which was an expensive alternative.[25] Indeed, the social savings provided by the railroad were quite substantial and may have accounted in 1910 for nearly 23 percent of gross national product.[26] As Nathaniel Leff explains in his chapter in this volume (chapter 2), the high cost of transport discouraged productive investment because of the low net receipts that producers received for bulky, low-value goods. This both reduced incomes in the domestic agricultural sector and lowered the returns to capital, thereby dampening technological change and the rate of growth of productivity. In short, high transport costs lowered domestic incomes by preventing the development of integrated product markets. The second problem was rural incomes; in addition to being low, they were also unevenly distributed. The existence of slavery until 1888 insured that a substantial portion of the population received less than its marginal product. In sum, the lack of industry in Brazil was largely the product of the lack of a vibrant domestic agricultural sector, the existence of slavery, high internal transport costs, and poorly developed financial intermediaries. None of these factors was the product of Brazil's relationship to external economic powers.

The dependency model of the effects of independence contains limited explanatory power when applied to the Brazilian case. The major tenets of the model do not appear to hold. Brazilian trade in the short run was not reoriented away from the colonial mother country to a new metropolis; that had already occurred in the eighteenth century. Moreover, during the course of the nineteenth century Brazilian exports became more diversified by country of destination; Brazil did not become increasingly dependent on a new, capitalist metropolis, as the dependency model suggests. Finally, Brazil's relationship with Great Britain was not the causal factor of Brazil's slow transition to an industrial economy. Factors internal to Brazil, which grew out of the country's domestic economic and social structures, were far more important.

The short answer, then, to the question of the effects of independence on the Brazilian economy is that it had virtually no effect, at least in regard to the hypotheses that we have been able to test. That Brazil had a nineteenth-century economy characterized by low rates of economic growth, free trade, and limited structural transformation is indisputable. It is difficult, however, to explain any of these features as a consequence of independence.

Notes

1. See, for example, Cardoso and Faletto 1979: 38–39.
2. Burns 1970: 102.
3. Viotti da Costa 1985: 23. Also see Frank 1967: 162–64.
4. "With the opening of Brazilian ports and the foreign competition, especially English . . . what really substantially existed of metropolitan domination was abolished in one blow. From then on, it could be considered virtually extinguished" (our translation). Prado 1967: 28.
5. The best analysis of the treaty and its background is found in Manchester 1933: chap. 8.
6. Platt 1968: 315.
7. Bethell and Murilho de Carvalho 1985: 689.
8. Novais 1979; Jobson de A. Arruda 1980.
9. See Fisher 1971; Sideri 1970.
10. Noya Pinto 1975: chap. 4.
11. Sideri 1970: 234.
12. Noya Pinto 1975: 273–74. It has recently been argued that Portuguese industry depended on Brazilian markets for survival and that Brazilian independence was crucial in destroying nascent Portuguese industrialization and in causing its economic retardation in the nineteenth century. But critics have effectively challenged these assumptions, showing the dominance of English manufactures in the Brazilian trade even in the 1790's and the orientation of much of Portugal's fragile textile industry toward Spanish markets. For the former position, see Borges de Macedo 1982; Alexandre 1986. For the critique of this work, see Noya Pinto 1975; Lains 1989; Lains 1991; Pedreira 1993.
13. Leff 1982: 80.
14. For the British data, see Porter 1851: 362–67. The correlation between exports of Great Britain to Brazil and the total volume of foreign imports into Brazil was insignificant at 0.33. Even breaking these figures down by decade shows that British influence in total Brazilian imports was only moderately significant in the 1830's and insignificant in the decades before and after that period.
15. See Bethell 1970; Eltis 1987.
16. Leff 1982: 82.
17. The market-share data are calculated from Stein 1957: appen. 1; Great Britain 1845: 355.
18. Haber 1991: Table 1.
19. Vilela Luz 1978: 24–25. It should be noted that Vilela Luz found no evidence that there was any pressure from Great Britain to keep tariffs low.
20. Libby 1991: 23–33.
21. These extra charges could increase start-up costs by as much as 60 percent. See Clark 1987: 146.
22. Levy 1977: 109–12.
23. Topik 1987: 28. By contrast, the United States in 1890 had 10,679 commercial banks controlling deposits of $3.1 billion. For a more complete discussion, see Haber, chap. 6, this volume.
24. Haber, chap. 6, this volume. Economic historians of the United States have made similar kinds of arguments about the failure of the U.S. south to industrialize, noting that the capital and credit markets of the U.S. northeast gave it a decided advantage over the south in the development of the cotton textile industry. See Davis 1957; Davis 1958.
25. Klein: 1990.
26. Summerhill, chap. 4, this volume.

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