Corporate Profitability and Economic Policy During Argentina's Great Depression, 1929–1934

JOSEPH A. FRANCIS
CARLOS NEWLAND

An analysis of corporate profitability leads to a reevaluation of economic policy during Argentina's Great Depression. While the overall profit rate collapsed, some sectors were more affected than others: Commerce, insurance, and agriculture were worst hit, followed by transportation, industry, and finally banking, which was a beneficiary of economic policy, especially the decision not to default on or renegotiate the external public debt. Had a different economic policy been pursued, it is likely that the international crisis would not have affected Argentina so severely. Most importantly, it would have been possible to further devalue the peso, which would have benefitted both agriculture and industry. Moreover, interest rates would have been lower, and continued government borrowing would not have crowded out investment in the private sector. An analysis of corporate profitability thus leads to a less positive view of economic policy during Argentina's Great Depression than is often found in the existing literature.

Introduction

The Great Depression marked the beginning of Argentina's "infamous decade," during which the country's experiment with democracy ended, with electoral fraud once again becoming widespread. For most historians, this marked a turning point in Argentina's history, as the

doi:10.1017/eso.2020.1

Published online March 26, 2020

Joseph A. Francis is an independent scholar. E-mail: joefrancis505@gmail.com.

Carlos Newland is a Professor of Economic History at the Instituto Universitario ESEADE, Argentina. E-mail: newland@eseade.edu.ar.

"true republic" became the "impossible republic."[1] Economic historians have, however, often had a more positive view. To the extent that there is a consensus, it is that the effects of falling international commodity prices and reduced capital inflows were ameliorated by the economic policies pursued after the coup d'état of September 1930. Those policies included, crucially, the decision not to default on or renegotiate the external public debt. The result, it is argued, was to make the effects of the international crisis less severe in Argentina than elsewhere.[2]

This article uses a sectoral analysis of corporate profitability to reassess the economic policy pursued during the administrations of José Félix Uriburu and his successor, Agustín P. Justo.[3] In the business history literature, studies of profitability generally focus on business performance,[4] whereas here it is used to show which sectors gained (or lost out) from economic policy.[5] To do so, the article exploits a previously underutilized source. During the years 1927–1934, the Banco de la Nación's Office of Economic Research compiled statistics on corporate profitability and sporadically published them in its *Revista Económica*.[6] These reports cover hundreds of companies registered in Buenos Aires and are grouped into the following categories: agriculture, industry,

1. See Halperín Donghi, *La república imposible.*

2. Carlos Díaz Alejandro provided inspiration for the more positive view. In his analysis, Argentina recovered rapidly from the crisis, in large part thanks to the government's economic policy. See *Essays on the Economic History*, 94–105. A similar, although more complex, picture is presented in Alhadeff, "Economic Formulae"; and della Paolera and Taylor, "Economic Recovery," "Internal Versus External Convertibility," and also *Straining at the Anchor*, chs. 8 and 9. For a useful overview of the historiography, see López, "Respuestas a la Gran Depresión."

3. There were continuities between the policies pursued by the Uriburu and Justo administrations. See Alhadeff, "Economic Formulae." For a useful summary of economic policy, also see Ortiz Batalla, "Finanzas públicas," 534–542.

4. For example, Cassis, *Big Business*, and Cassis, Colli, and Schröter, *Performance of European Business.* This has also tended to be the focus of the few studies of profitability in Argentina. See, for example, Lanciotti, "Auge y declive"; and Lanciotti and Bartolomé, "Global Strategies."

5. This approach draws some inspiration from the literature on "differential accumulation." See Nitzan and Bichler, *Capital as Power.*

6. Each year includes the data of corporations whose financial year ends in a month of that year (usually in the second half of the year), with the sample consisting of between 50 and 90 percent of all corporations, depending on the year. Overall and sectoral profitability, defined as annual profits divided by net worth, were calculated as the sum of all the companies included in the samples. See *Revista Económica* 6, no. 6 (August 1933): 99; and *Revista Económica* 7, nos. 1–4 (January–April 1934): 238. More details of the samples and the data are given in Appendix A.

Table 1 The *Revista Económica*'s Samples of Corporate Profitability, 1927–1934

	Years covered	Number of corporations
Sample A	1927–1933	868–1,203[a]
Sample B	1929–1931	922
Sample C	1932–1934	636

[a] The number of corporations varies from year to year.
Sources: Compiled from *Revista Económica*, vol. 5, no. 6, July, 1932, 105, 107; vol. 6, no. 6, August, 1933, 99, 101; and vol. 7, nos. 1-4, January–April, 1934, 239, 241.

transportation, banking, insurance, and commerce.[7] They were compiled as three distinct samples, which are summarized in Table 1. The large British railway companies were the main omission from the three samples because they were not registered in Argentina, so data on eight British joint stock railway companies have been added here.[8]

The sectoral analysis of corporate profitability suggests that economic policy had the effect of prioritizing the banking sector at the expense of other sectors. Although agriculture had a relatively stable output, the profitability of agricultural corporations collapsed, primarily due to falling export prices but also thanks to the government's determination not to default on or renegotiate the external public debt. This determination made the government limit devaluation through the imposition of exchange controls in order to prevent debt service from becoming unsustainable. Reduced rural incomes then resulted in lower demand for the goods and services of other sectors, especially commerce, transportation, and insurance, all of which experienced sharp reductions in profitability. The industrial sector did better, by contrast, as many traditional manufacturing activities remained profitable, while there were also new opportunities for import substitution thanks to the devaluation that did take place, as well as some increases in tariffs. Banking was, however, the sector least affected by the crisis, primarily due to the government's decision not to default, which benefited the banks both because it led to a rediscounting policy that effectively subsidized them and because further government borrowing kept commercial interest rates high. This economic policy had less beneficial effects on other sectors, especially once the imposition of exchange controls limited devaluation.

7. Although there were business groups in this period, they were still not of sufficient weight or diversity to make such sectoral classifications redundant. Hence, in their study of corporate networks, Lluch and Salvaj find that even in the cases of the Roberts and Tornquist groups, their core business was finance. Lluch and Salvaj, "Longitudinal Study."

8. The balances were taken from DIA Agency, Inc., *Materials for the History.*

The article is divided into three main sections. The first discusses problems with the statistics that inform the positive view of economic policy during Argentina's Great Depression, specifically estimates of gross domestic product (GDP) and the official wholesale price index (WPI). The second section analyzes the different levels of sectoral profitability. Finally, the conclusion argues that prioritizing the banking sector made the effects of the international crisis more severe in Argentina than if the government had defaulted on or renegotiated the external public debt, as was done in the rest of Latin America. Had the Argentine government done so, it would have been able to permit further devaluation, which comparative studies have found was associated with more rapid recovery from the Great Depression.[9]

Output and Prices

Two pieces of statistical evidence have been particularly important for the positive view of economic policy during Argentina's Great Depression: GDP estimates and the official WPI. The most commonly used GDP estimates show a fairly moderate fall of 14 percent from 1929 to 1932, with recovery beginning in 1933 and the pre-crisis level being passed by 1935.[10] Compared to some of the worst-hit countries, this downturn was mild and the recovery rapid. The official WPI, moreover, indicates that Argentina experienced relatively little deflation, leading economic historians to point toward monetary policy to explain why GDP recovered so rapidly particularly the decision for the Conversion Office to establish a rediscounting facility to provide liquidity to banks in April 1931, which they believe led to a fall in real interest rates.[11]

The commonly used statistics of both output and prices are, however, problematic. The most widely used GDP estimates were produced by the Economic Commission for Latin America in the late 1940s and have long been known to be subject to considerable margins of error. When alternative estimates of industrial output have been made, for instance, they have shown significant inconsistencies between them.[12] What is more, while agricultural output is the most reliable part of

9. Eichengreen and Sachs, "Exchange Rates"; Campa, "Exchange Rates"; Ting and Ho, "Exchange Rates."

10. CEPAL, "El desarrollo económico," 3, cuadro 1. Cortés Conde's reestimations of GDP suggest an even more positive view, with GDP falling by just 9 percent from 1929 to 1932, and the pre-crisis level passed in 1934. Cortés Conde, *La economía argentina*, 230–231, cuadro A1.

11. della Paolera and Taylor, "Economic Recovery."

12. Randall, "Lies, Damn Lies."

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

the GDP estimates (thanks to the abundance of government statistics on land use, yields, and prices), its evolution is misleading when it comes to the Great Depression: Even though the physical volume of agricultural output remained fairly constant, the current value and purchasing power of that output collapsed due to falling prices. The official WPI, meanwhile, is misleading because it systematically underweights those falling agricultural prices. It was calculated as a simple unweighted average of the prices of 105 goods, which meant, for instance, that sardines were given the same weight as wheat, which was absurd for a country with Argentina's productive structure. Unfortunately, there has been no attempt to reestimate the WPI, and it has been routinely used in the existing literature and reproduced in compilations of Argentina's historical statistics. Nonetheless, although the underlying price series were never published and appear to be unavailable in the archives, it is still possible to get a more accurate impression of the evolution of wholesale prices during the Great Depression. An article published in the *Revista Económica* reproduced the prices of the 105 goods for November 1933 and February 1934, all referenced so that 1926 equaled 100. When those prices are weighted according to value of production, they suggest that by around the end of 1933, wholesale prices had fallen roughly 30 percent relative to 1926, which was a level of deflation similar to that in countries in North America and Western Europe.[13] This impression is reinforced by Argentina's consumer price index, which showed an evolution similar to that of other countries.[14] There are, then, considerable problems with the estimates of both output and prices used in the existing literature. For this reason, it is worth considering alternative indicators.

Corporate Profitability

The statistics of corporate profitability published in the *Revista Económica* suggest that Argentina was severely affected by the Great

13. The procedure used to reestimate Argentina's WPI is detailed in Appendix B. The reestimated index fell by 33 percent from 1926 to November 1933 (see Table B2). According to the standard indices used at the time, the U.S. WPI fell by 29 percent over the same period; the United Kingdom's by 38–39 percent; Germany's by 28 percent; France's by 42 percent; etc. League of Nations, *Statistical Year-book* (1934/1935), 227–228, Table 112.

14. Thus, the official Argentine cost of living index showed prices falling 22 percent from 1929 to 1932. The equivalent indices for other countries showed a 21 percent fall in the United States, 12 percent in the United Kingdom, 22 percent in Germany, 5 percent in France; etc. League of Nations, *Statistical Year-book* (1934/1935), 230–231, Table 121.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

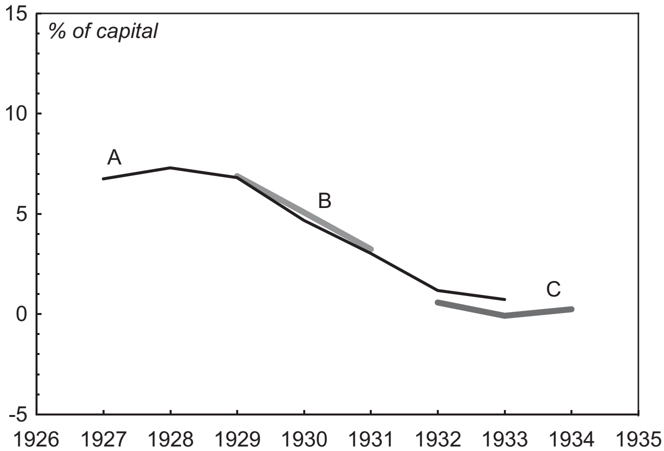

Figure 1 Corporate Profitability 1927–1934.

Note: A is a variable sample that ranges from 876 corporations in 1927 to 1,211 in 1933; B is a fixed sample of 930 corporations; and C is a fixed sample of 644 corporations.
Source: Compiled from the samples summarized in Table 1; and the annual reports of eight British railway companies, as reproduced in DIA Agency, Inc., *Materials for the History*.

Depression.[15] As shown in Figure 1, the average profit rate was around 7 percent during 1927–1929, but then fell rapidly, becoming negative in 1933 before recovering somewhat the following year, although it remained well below the pre-crisis level, suggesting a profound and long-lasting crisis.[16] The crisis did, however, impact some sectors more than others, as shown in Table 2: Commerce, insurance, and agriculture were worst hit, followed by transportation, industry, and finally banking, which was relatively unscathed. To understand why, it is necessary to analyze the profitability data sector by sector.

Agriculture

The crisis severely affected the agricultural sector: The average profit rate fell from around 7 percent in 1928–1929 to negative figures in 1932–1933, before recovering slightly in 1934.[17] The root cause was

15. The *Revista Económica* calculated capital as share equity plus reserves. Profits were calculated as profits after interest, depreciation, and amortization. For further details, see Appendix A.

16. This impression is supported by a long-term study of 26 larger corporations during 1926–1945. The average profitability shows an evolution similar to the sample considered here. It shows recovery beginning in 1934 and continuing thereafter through to the Second World War, when it reached its 1927–1929 level. Newland, "Una aproximación microeconómica," 333, gráfico A.

17. Larger agricultural enterprises tended to be corporations and were therefore included in the *Revista Economíca* samples. They were probably more profitable than smaller enterprises because they enjoyed economies of scale and were able to

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

Table 2 Sectoral Corporate Profitability, 1927–1934

		Average profit rate, %		
	% of capital	1927–1929	1930–1934	Difference
Agriculture	7	6.5	0.4	-6.1
Industry	26	7.4	3.6	-3.8
Transportation	45	5.5	0.8	-4.7
Commerce	13	9.9	2.2	-7.7
Insurance	1	9.6	3.3	-6.3
Banking	6	7.7	5.0	-2.7
Diverse	2	6.1	3.6	-2.6
Total	100	7.0	1.9	-5.1

Note: The three samples were averaged in overlapping years to arrive at annual figures.
Sources: See Figure 1.

falling international agricultural prices, although their impact was compounded by the economic policies pursued by the Uriburu and Justo administrations. In 1929 the gold standard had been abandoned, with the peso allowed to float freely by the administration of Hipólito Yrigoyen. The devaluation that followed favored agriculture, yet it was brought to an end by the Uriburu administration. In October 1931, exchange controls were introduced, and in December the peso was pegged to the dollar and the franc in order to prevent the servicing of bonds denominated in foreign currencies from becoming unaffordable. Then, in November 1933, the Justo administration established a multiple exchange rate, which gave the agricultural sector a rate below that paid by importers and the free rate used for financial transactions. Through this system, the government bought foreign exchange from exporters at a low rate and then sold it on to importers at a higher rate, with the margin between the two acting as a de facto tax.[18] The finance minister responsible for implementing the multiple exchange rate, Federico Pinedo, recognized years later that it implied "a heavy price at the cost of agricultural producers."[19] Hence, all other things being equal, agricultural prices would have been a third higher in 1934 had exporters received the free exchange rate.[20]

Measures belatedly taken by the Justo administration to support agriculture were insufficient to compensate for lower prices. In 1933 the Roca-Runciman Pact guaranteed beef producers access to the

switch their land between arable and livestock activities in response to changes in relative prices. Were the smaller enterprises also included, the fall in profitability would most likely have been greater.

18. See Salera, *Exchange Control*, chs. 2 and 4; Beveraggi Allende, *El servicio del capital extranjero*, ch. 8; Gerchunoff and Machinea, "Going through the Labyrinth."

19. Pinedo, *Siglo y medio*, 116, (authors' translation).

20. For exchange rate statistics, see Balboa, "La evolución del balance de pagos," 159–160, cuadros 2 and 3; and Cottely, "Enigmas de la política cambiaria," 67.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

British market, a mortgage moratorium gave landowners debt relief, an Agrarian Credit department was established within the Banco de la Nación to provide tenants with funds to cover their rent, and new regulatory boards offered minimum prices to grain and dairy producers.[21] The measures were, however, relatively limited: By the end of 1934, the grain board, for example, had provided m$n8.7 million of support and the milk board m$n2 million, whereas the government had made m$n84 million from the margin between the export and import exchange rates,[22] so the support provided was minimal compared to the de facto exchange rate tax.

There was also little progress toward the structural reforms that would have improved agricultural producers' position vis-à-vis the large corporations that transported and exported their goods. No progress was made in constructing a network of grain elevators, which would have allowed farmers to store their crops until prices rose.[23] Partly as a result, when the cost of producing and transporting arable crops exceeded prices at the port during 1930–1933, the farmers were made to absorb the losses.[24] The railway companies only marginally lowered their freight rates, and the grain-trading companies, through their agents in the countryside, used their position in the market to maintain their profit margins. Consequently, there was a substantial fall in the proportion of the wholesale price received by the farmer.[25] Similarly, the Roca-Runciman Pact reinforced the status quo, since it did not affect the meatpackers' buying power over the ranchers, which had seen the margin between Argentine and British beef prices increase substantially during the crisis.[26] This allowed meatpackers to maintain

21. Smith, *Politics and Beef*, 142–155; Lewis, "A Political and Economic History," ch. 3.

22. Departamento de Hacienda, *Memoria correspondente al año 1934*, vol. 1 (Buenos Aires, 1935), 83–84.

23. Lewis, "A Political and Economic History," ch. 3.

24. For estimates of the profitability of arable farming, see Giberti, "Vicissitudes of Arable Farming Enterprise." Giberti appears to have had access to unpublished government estimates of the costs of production and transport of maize, linseed, and wheat, but unfortunately does not reproduce the detailed calculations. Only data for 1925–1926 and 1931–1932 and onward were published by the government. They show a substantial increase in the proportion of costs accounted for by railway tariffs and interest. See *Anuario de Estadística Agropecuaria*, sección A, no. 13 (1925–1926), 144–148; *Anuario Agropecuario* (1932), 404–405; *Anuario Agropecuario* (1935), 520–521; and *Boletín de Estadística y Economía Agropecuaria* (1960), 108.

25. According to government estimates, the price of wheat received by farmers at the local railway station in Buenos Aires Province fell from 86–98 percent of the port price in 1930 to 67–75 percent in 1934; for maize, from 86–87 to 57 percent; for linseed, from 89–98 to 76–79 percent. Calculated from *Anuario Agropecuario* (1932), 265; and *Anuario Agropecuario* (1935), 265, 267, 321.

26. Smith, *Politics and Beef*, 142–150. In 1927 the price per kilo of a young bull on a ranch was equivalent to 70 percent of the wholesale price of fair quality chilled

average profit rates of over 10 percent, even as the ranchers' profits collapsed.[27] Agricultural producers faced, moreover, the increased financial burden of servicing their debts due to high interest rates.

Industry

Industry's performance during the Great Depression was more mixed, reflecting the sector's diversity. The *Revista Económica* treated it as a broad category that included not only manufacturing but also forestry, mining, power generation, and construction. Care must therefore be taken when interpreting the aggregate figures, which show a reduction in the profit rate from 7–8 percent during 1927–1929 to 2 percent in 1933, with some recovery in 1934. There was, then, a pronounced fall in the profit rate, although not to the same extent as in the overall profit rate shown in Figure 1. More disaggregated data published by the *Revista Económica* for 1927–1933 show that some industrial activities were affected more than others.[28] For this reason, it is necessary to look at the winners and losers within the sector.

The effects of the crisis on food and drink producers, the most traditional and largest part of Argentina's manufacturing sector, was mixed. The meatpackers, which were among the largest industrial corporations, continued to enjoy high profit rates, even as their suppliers, the ranchers, struggled to break even. As noted above, this reflected the meatpackers' buying power, which allowed them to protect their profitability by increasing the margin between the prices paid to ranchers and those they charged for the meat, making them the main beneficiaries of the government's determination to retain access to the British market through the Roca-Runciman Pact. The flour mills also remained highly profitable during the crisis, as they were able to prevent the price they charged for their flour from falling to the same extent as the price they paid for wheat.[29] Such businesses were not affected by reduced demand, as they produced basic necessities that people continued to consume at levels similar to before.[30] Producers of foodstuffs that were less essential, by contrast, did worse. Dairy producers, sweet

Argentine beef at the Smithfield market in London, but by 1934 it had fallen to 44 percent. Calculated from *Agricultural Statistics*, vol. LXII, part 1 (1927), 116, Table 24; vol. LXIX, part 1 (1934), 173, Table 23; *Revista Económica* 2, no. 1 (January 1929): 20; *Revista Económica* 7, nos. 9–12 (1934): 247.

27. Smith, *Politics and Beef*, 142.

28. See Appendix A.

29. Relative to 1926, the wholesale price of wheat had fallen by 61 percent by November 1933, whereas flour had fallen by 53 percent. Prebisch, "El momento presente," 232–235.

30. On stable per capita consumption levels of basic necessities, see Salvatore, "Better-Off in the Thirties," Table A1.

and biscuit manufacturers, and vineyards all saw their profits reduced sharply, often recording losses by 1933.

More gravely affected were the industries connected to construction, which saw a sharp fall in activity. The value of building permits granted for the Federal Capital fell by 64 percent from 1929 to 1933,[31] while the federal government's expenditure on public works fell by 61 percent.[32] The resulting contraction in construction gravely impacted the profitability of numerous industries, both within manufacturing (metalworking, building materials, glass, and furniture) as well as within the *Revista Económica*'s broader category of industry, which included both companies making materials for construction (mining and forestry) and the building contractors themselves. The corporations in these industries recorded losses because construction is the activity that is normally most affected by the ups and downs of the business cycle.

There were, by contrast, some new manufacturing activities that prospered during the crisis due to the increased possibilities for import substitution. Much as devaluation and tariff increases after the Baring crisis had led to the rapid growth of many import-substituting industries in the 1890s,[33] the 1930s would see another spurt of import-substituting industrialization. Companies whose products competed with imports were favored by the devaluation of the peso from the abandonment of the gold standard in 1929 to the introduction of exchange controls in late 1931, as well as some increases in tariffs during 1931–1932.[34] Branches of industry that processed locally produced agricultural products were particularly favored, given the falling prices of their raw materials. Textiles, which processed local wool and cotton, expanded rapidly after 1929, having stagnated for much of the 1920s.[35] Petroleum production, meanwhile, continued its expansion from the previous decade, substantially displacing imported petroleum from the domestic market and continuing to replace coal, all of it imported, as an energy source.[36] This expansion was reflected in the

31. Prebisch, "El momento presente," 206, Table 15.

32. Departamento de Hacienda, *Memoria correspondente al año 1937*, vol. 1 (1938), 93, Table 38.

33. See Rocchi, *Chimneys in the Desert*, 29.

34. On tariff policy, see Chu, "Great Depression," 21–28.

35. According to the best estimate, textiles output expanded by 119 percent from 1929 to 1934, whereas it had not grown during the second half of the 1920s. Chu, "Great Depression," 270, Table B-1.23.

36. Petroleum output increased by 38 percent from 1929 to 1934. Chu, "Great Depression," 270, Table B-1.23. Over the same period, imports of petrol and kerosene virtually ceased, although imports of fuel oil remained substantial. The tonnage of petroleum imports fell by 30 percent, whereas coal imports fell by 13 percent. Comité Nacional de Geografía, *Anuario Geográfico*, 351–352, 389.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

high profit rate for both textile and petroleum corporations. Chemical manufacturers also enjoyed high profit rates, although without expanding their output.[37]

Transportation

The fall in transportation's profitability primarily reflected the performance of the large British railway companies that have been added to the *Revista Económica*'s samples. The big four railway companies (the Southern, Central, Western, and the Buenos Ayres & Pacific) operated in the Pampean region, while some smaller railway companies also operated more regional lines. The *Revista Económica*'s samples also included tram companies, which provided urban and suburban passenger transportation, as well as some merchant marine and port companies. Given the railway companies' large size, however, the reduced profitability of the transportation sector as a whole was primarily due to their falling profit rates. The railways' profits were reduced by the crisis because lower incomes meant there were fewer passengers and goods to be transported: The ton-kilometers of goods carried fell by 27 percent from 1929 to 1933, while passenger kilometers fell by 19 percent,[38] driving down transportation's profit rate from around 5 percent in 1929 to negative figures from 1932 onward. The railway companies' performance would have been worse, however, had it not been for farmers' continued dependence upon them. Farmers maintained similar levels of production throughout the crisis, so similar volumes of agricultural produce had to be transported, while they had little success in lobbying the government to impose tariff reductions on the railway companies.[39] Average tariffs on goods fell by just 7 percent from 1929 to 1933,[40] whereas wholesale cereal and oilseed prices fell by around 40 percent over the same period.[41]

Unlike that of other sectors, transportation's profitability did not pick up once recovery began in 1934, mainly due to the steadily increasing competition of automobiles as a means of transportation.[42] Short-distance transportation was first to be affected, most notably in Buenos Aires, where the trams began to sustain substantial losses due to competition with the rapidly proliferating bus companies.[43] Lorries also transported ever more goods. A study in Santa Fe found that in

37. Chu, "Great Depression," 270, Table B-1.23.
38. Calculated from trafico.xls in DIA Agency, Inc., *Materials for the History.*
39. Lewis, "A Political and Economic History," 439–440.
40. Calculated from *Revista de Economía Argentina*, año 21, vol. 38 (1939): 248.
41. See Appendix B.
42. Skupch, "Las consecuencias de la competencia."
43. Ibid., 134–135.

1934 8 percent of goods arrived at the province's port in lorries, but they already had a virtual monopoly for journeys under 50 kilometers.[44] Motor vehicles' flexibility gave them an advantage over short distances: Multiple buses could run the same line in cities, while lorries could collect produce from the farm gate and take it directly to the port. As small businesses, moreover, the bus companies and truckers did not suffer from the costs that came from the railways' organized labor force, which was able to resist the wage reductions that afflicted most other sectors. Transportation's profitability was thus affected by both the cyclical impact of the Great Depression and the secular effect of competition with a disruptive new technology.

Commerce

Commerce was worst affected by the crisis, as profitability fell from around 10 percent before 1929 to negative values during 1932–1933, with some recovery in 1934. The fall was not, however, uniform across the sector. The *Revista Económica* used "commerce" as a broad category that included much of what would now be considered services. It included strictly commercial companies, such as grain exporters and companies involved in importing, warehousing, wholesaling, and retailing,[45] but also some finance and real estate companies. The more disaggregated profit rates published in the *Revista Económica* suggest that the crisis most affected more strictly commercial companies, whereas finance and real estate companies continued to have healthy profit rates—indeed, their profitability appears to have been little affected by the Great Depression.[46]

Strictly commercial activities were severely impacted by falling consumption. Lower wages reduced the purchasing power of workers, while low returns on capital also limited wealthy people's consumption of luxury goods. Firms linked to importing were particularly affected because the devaluation of the peso raised the prices of imported goods. Department stores in the Federal Capital saw their sales reduced by almost 40 percent from 1929 to 1933,[47] leading to substantial losses. The importation of automobiles all but ceased: The number of vehicles imported dropped from 76,561 in 1929 to just 6,846 in 1933.[48] Companies involved in this previously lucrative activity of

44. Ibid., 137.

45. Some of the larger nominally commercial companies had also diversified. Bunge & Born, for instance, was a large grain trader that acted as a finance company by offering credit to rural producers and also had diversified interests in manufacturing. See Schvarzer, *Bunge & Born*, ch. 1.

46. See Appendix A.

47. Prebisch, "El momento presente," 206, Table 15.

48. Ferreres, *Dos siglos de economía argentina*, Table 4.4.12.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

importing automobiles therefore saw their profitability collapse. The situation of commerce was sufficiently dire that many companies revolted against the government's attempts to raise taxes. In 1931, a new transactions tax was introduced that placed a 2 percent tax on sales at every point in the supply chain, meaning that the same good was taxed as many times as it was sold. Some companies paid the tax, which further ate into their profits, while others, led by the National Congress of Commercial Institutions, protested with a tax strike and other acts of civil disobedience. The tax strike lasted for more than a year, until the government backed down, replacing the transactions tax with another that only affected some exports and industrial products. It also granted a fiscal amnesty to merchants who had previously refused to pay the transactions tax.[49] Given the generally low level of profitability, those that had paid it often had to sacrifice part of their capital to do so.[50]

Finance and real estate companies, on the other hand, were hardly affected by the crisis. Even though the value of real estate transactions fell (the value of properties sold in the Federal Capital dropped by 40 percent from 1929 to 1933),[51] firms were able to remain profitable thanks to high interest rates on the loans they made. The Argentine Building Society, for example, used its own funds to authorize credits to (and build houses for) the *porteño* middle class. During 1929–1933, it maintained high profit rates of around 9 percent, which only fell to 6 percent in 1934, once interest rates were lower.[52] The case of Buenos Aires Building was similar, with the main difference being that this company financed its activities through the emission of bonds. In its 1930/1931 annual report, it stated that "even in the difficult years" its profits were at a "record" level.[53]

Insurance

The profitability of insurance fell from 9–10 percent during 1927–1929 to something more than 5 percent between 1930 and 1931, and was reduced further in 1932–1933, although there is some disagreement between the *Revista Económica*'s samples. Reduced profitability primarily resulted from the 25 percent reduction in the volume of

49. Sánchez Román, "Resistance without Revolt," 427.
50. *Review of the River Plate*, November 3, 1934, 3, 11.
51. Prebisch, "El momento presente," 206, Table 15.
52. *Interés Comercial*, no. 94 (February 1936): 34. The company stated in its annual report for 1933/34 that the reduction in interest rates had reduced its profits. *Boletín Oficial de la Bolsa de Comercio, Buenos Aires*, September 24, 1934, 863.
53. *Boletín Oficial de la Bolsa de Comercio, Buenos Aires*, October 19, 1931, 222.

premiums from 1929 to 1933.[54] Insurance in the countryside was particularly affected because the premiums were based on the estimated value of the harvest, which was severely reduced by the lower agricultural prices: The value of policies against hail damage fell by almost 60 percent from 1929 to 1933.[55] Nonetheless, the effects of lower premiums would have been even more severe were it not for the high interest rates, which generated returns for the insurance companies because of the public bonds they held as reserves as well as the loans they made with their own funds, effectively using life insurance policies as guarantees. Hence, the only activity that grew significantly during the first years of the crisis was life insurance, which included the profits from loans to third parties.[56] In this, then, insurance companies appear to have benefitted from high interest rates, much like the finance and real estate companies included in commerce.

Banking

Banks remained relatively profitable throughout the Great Depression, with the profit rate remaining at around 8 percent during 1930, then falling slightly in 1931, and further to 3 percent in 1933. This reflected the performance of the medium-sized private Argentine banks, as the large public banks were largely excluded from the *Revista Económica*'s samples.[57] The private banks benefited from economic policy during the crisis, especially the decision not to default on or renegotiate the external public debt.[58] To continue servicing the debt, the government obliged the Banco de la Nación to purchase treasury bills with its large deposits from the public. In doing so, the Banco de la Nación's finances were undermined, pushing it toward crisis. In response, Raúl Prebisch, then undersecretary of finance, persuaded the government to use an old rediscounting law that allowed the private banks' nonperforming loans that had been rediscounted by the Banco de la Nación to be rediscounted in turn by the Conversion Office in exchange for cash. Although in theory the delinquent loans still belonged to the entities

54. *Industrias y Finanzas*, July 1935, 4062.

55. *Anuario Agropecuario* (1935), 539.

56. *Industria y Finanzas*, July 1935, 4062; *La Información*, año 6:52 (1935): 3–13.

57. Although they were not a significant part of the sector, the inclusion of the foreign banks would have lowered the profit rate somewhat, since some European and North American banks recorded reduced profits or even losses from 1931 onward. *Revista Económica* 6, no. 1 (January 1933): 67. This reflected their greater exposure to the fluctuations in international trade, given that they were more directly involved in the financing of imports and exports. Exchange controls appear to have especially affected the Bank of London and South America. *South American Journal, London*, December 17, 1932, 580.

58. The following draws on Gondra, *Elementos de economía política*, 407–409; and della Paolera and Taylor, "Internal Versus External Convertibility," 368–370.

from which they originated, they entered a kind of limbo in which it was assumed that their repayment would not be asked for at short notice. At the same time, the private banks made loans to the government, which permitted it to get around a clause in the Banco de la Nación's statutes that prevented it from loaning more than 25 percent of its capital to the government. Through this system, the private banks could supplement the funds borrowed directly from the Banco de la Nación. For the private banks, this was highly profitable because the interest rate paid to the Banco de la Nación was less—probably around half—the interest rate paid by the government. The government's demand for funds also had the effect of pushing up interest rates charged to the private sector: The rate applied to commercial loans was around 7 percent during 1929–1932, only falling slightly during 1933–1934. In this way, the private banks were not only able to transfer their nonperforming loans to the government, but they also continued to receive high interest rates for loans to both the public and private sectors. As a result, the private banks declared substantial profits (and paid dividends) throughout the first half of the decade.[59] This privileged position was reflected on the Buenos Aires Stock Exchange, where bank shares remained relatively buoyant as other shares fell.[60] The question of why economic policy appears to have prioritized the banking sector remains an open question that is beyond the scope of this paper.[61]

Conclusions

An analysis of corporate profitability thus leads to a reevaluation of economic policy during Argentina's Great Depression. Looking primarily at statistics of output and prices, much of the existing literature has found that Argentina was only mildly affected by the international crisis and quickly recovered from it. The statistics of corporate profitability for 1927–1934, by contrast, suggest a less positive assessment, since the profit rate fell dramatically and remained low. The sectoral profit rates suggest, moreover, that it would have been possible for

59. For example, the Banco Español, the Banco Hogar Argentino, and the Banco Argentino Uruguayo. See *Revista Económica* 6, no. 4 (May–June 1933): 67.

60. Nakamura, and Zarazaga, "Banking and Finance," 311–312, Table 10.4 (the columns for bank and nonbank share prices appear to have been mislabeled in this table).

61. Della Paolera and Taylor are themselves unable to explain why economic policy prioritized the banks: "We do not know what incentives the private banks used to secure their bailouts, but get them they did…." della Paolera and Taylor, "Internal Versus External Convertibility," 369.

Argentina to have been less negatively affected by the Great Depression if economic policy had not prioritized the banking sector. Maintaining debt service meant that the government had to overvalue the peso and continue borrowing, which pushed up interest rates and crowded out investment from the private sector.

What would have happened if the government had defaulted on the external public debt earlier is the most interesting counterfactual of Argentina's Great Depression, primarily because a different exchange rate policy could have been pursued. If the government had defaulted, it would not have needed to revalue the peso in 1931 to reduce the cost of debt service. Had the peso devalued more, it would have increased incomes in the agricultural sector by raising the prices received for agricultural exports. The prices of imported manufactured goods would have also gone up, thereby increasing opportunities for import substitution in the industrial sector. These gains would have outweighed the reduced incomes in the banking sector.[62] It is possible to imagine, then, a counterfactual in which the government defaulted on or renegotiated its debt, thereby allowing it to further devalue the peso, which would have improved the profitability of both agriculture and industry, leading to greater investment and growth. Such a counterfactual is supported by the international evidence, which shows that the countries that devalued their currencies the most during the Great Depression tended to be the least affected by it.[63]

Default or renegotiation of the external public debt would have also made more funds available to finance growth. As it was, the government took on short-term loans from the private banks in order to maintain debt service,[64] which pushed up commercial interest rates to almost 8 percent in 1932. In "real" terms, moreover, interest rates were

62. The banks' income would have fallen for two reasons. Firstly, the rediscounting facility would not have been required—or at least not required to the same extent—because the government would not have needed to take on short-term loans from the banks to maintain debt service. Secondly, lower government borrowing would have reduced interest rates for the private sector. On the other hand, the situation of the Banco de la Nación, the cornerstone of the banking system, would have been better because the government would not have required the same degree of funding. Some rediscounting could, moreover, have been provided for banks with excessive amounts of nonperforming loans.

63. See Eichengreen and Sachs, "Exchange Rates"; Campa, "Exchange Rates"; Ting and Ho, "Exchange Rates." Argentina is included in Campa's sample and fits the Eichengreen-Sachs model well. The independent variable is the degree to which the exchange rate changed from 1929 to 1935, and the most important dependent variables are changes in industrial production and export volume. Despite its early abandonment of the gold standard in 1929, the decision to revalue in 1931 meant that the overall level of devaluation in 1935 was moderate relative to 1929, as were the growth of industry and exports compared to other countries in Latin America that devalued more. Campa, "Exchange Rates," esp. 680, 681, figures 1 and 2.

64. Alhadeff, "Finance," 37–39.

much higher, as Argentina underwent significant deflation during the early 1930s—a fact not recognized in the existing literature due to an official WPI that significantly underestimates the degree to which prices fell.[65] Raising funds through borrowing was therefore prohibitively expensive for businesses. On top of this, the government's refusal to default also crowded out equity investment in the private sector, since investors could receive a higher rate of return from government bonds. In 1933, for instance, the 6 percent bonds of the so-called Patriotic Loan, which had been issued the previous year, sold at a 15 percent discount, giving a yield of 7 percent.[66] It therefore made little sense to invest in an industrial sector with a 2 percent profit rate. As one of the country's main business associations put it:

> All the businessmen of production, commerce, and industry attempt to obtain, as a minimum, a profitability equal to public bonds, given the risks that exist and that are not found when investing in bonds. If they do not obtain this return, they become disheartened, as is natural, and try to liquidate their businesses and, if they can, put their capital into public bonds. This process, on becoming generalized, has caused a worsening of the overall situation.… The profitability that today is obtained from production is extremely low, far below the official [interest] rate.[67]

The analysis of corporate profitability in this way leads to a less positive assessment of economic policy during Argentina's Great Depression. It has been argued here that the economic policy pursued had the effect of prioritizing the banking sector. Crucially, the government chose not to default on or renegotiate its external debts, becoming the only Latin American country not to do so. The banking sector benefited from these policies because the government used the rediscounting facility to provide the private banks with liquidity so that they could then continue to lend to the government, while continued government borrowing allowed the banks to keep interest rates high for private enterprises. For other sectors, by contrast, economic policy was less favorable. Most notably, further devaluation could have ameliorated the effect of international prices on agricultural incomes while increasing opportunities for import substitution in industry. More funds would have also been freed up for investment in the private sector because interest rates would have been lower and the crowding out effect of public borrowing would have been reduced. Had a different economic

65. This is a problem in della Paolera and Taylor, "Economic Recovery."

66. Prebisch, "El momento presente," 215.

67. Confederación Argentina del Comercio, de la Industria y de la Producción, *Tres sugestiones*, 8 (authors' translation).

policy been pursued, it is therefore likely that Argentina would have been less severely affected by the Great Depression.

Bibliography of Works Cited

Books

Beveraggi Allende, Walter M. *El servicio del capital extranjero y el control de cambios: la experiencia argentina de 1900 a 1943*. México: Fondo de Cultura Económica, 1954.

Cassis, Youssef. *Big Business: The European Experience in the Twentieth Century*. Oxford: Oxford University Press, 1997.

Cassis, Youssef, Andrea Colli, and Harm Schröter, eds. *The Performance of European Business in the Twentieth Century*. Oxford: Oxford University Press, 2016.

Comité Nacional de Geografía. *Anuario Geográfico Argentino*. Buenos Aires: Comité Nacional de Geografía, 1941.

Confederación Argentina del Comercio, de la Industria y de la Producción (CACIP). *Tres sugestiones para aliviar la crisis*. Buenos Aires: CACIP, 1933.

Cortés Conde, Roberto. *La economía argentina en el largo plazo: ensayos de historia económica de los siglos XIX y XX*. Buenos Aires: Editioral Sudamerica, 1997.

della Paolera, Gerardo, and Alan M. Taylor. *Straining at the Anchor: The Argentine Currency Board and the Search for Macroeconomic Stability, 1880–1935*. Chicago: University of Chicago Press, 2001.

Díaz Alejandro, Carlos. *Essays on the Economic History of the Argentine Republic*. New Haven: Yale University Press, 1970.

Ferreres, Orlando J. *Dos siglos de economía argentina, 1810–2004: historia argentina en cifras*. Buenos Aires: Fundación Norte y Sur, 2005.

Gondra, Luis Roque. *Elementos de economía política*. Buenos Aires: Librería La Facultad, 1933.

Halperín Donghi, Tulio. *La república imposible*. Buenos Aires: Ariel, 2004.

Nitzan, Jonathan, and Shimshon Bichler. *Capital as Power: A Study of Order and Creorder*. Abingdon: Routledge, 2009.

Ortiz Batalla, Javier. "Finanzas públicas, moneda y bancos (1914–1945)." In *Nueva Historia de la Nacion Argentina*, edited by Academia Nacional de la Historia, vol. 8, pp. 525–549. Buenos Aires: Sudamericana, 2002.

Pinedo, Federico. *Siglo y medio de economía argentina*. Buenos Aires: Centro de Estudios Monetarios Latinoamericanos, 1961.

Rocchi, Fernando. *Chimneys in the Desert: Industrialization in Argentina during the Export Boom Years*. Stanford: Stanford University Press, 2006.

Salera, Virgil. *Exchange Control and the Argentine Market*. New York: Columbia University Press, 1941.

Schvarzer, Jorge. *Bunge & Born: crecimiento y diversificación de un grupo económico*. Buenos Aires: CISEA, 1989.

Smith, Peter H. *Politics and Beef in Argentina: Patterns of Conflict and Change*. New York: Columbia University Press, 1969.

Vázquez Presedo, Vicente. *Estadísticas históricas argentinas (comparadas)*. Vol. 2, *Segunda parte 1914–1939*. Buenos Aires: Ediciones Macchi, 1971.

Articles, Chapters in Books, and Dissertations

Alhadeff, Peter. "The Economic Formulae of the 1930s: A Reassessment." In *The Political Economy of Argentina, 1880–1946*, edited by Guido Di Tella, 95–119. London: Palgrave Macmillan, 1986.

———. "*Finance and the Economic Management of the Argentine Government in the 1930s*." PhD diss., St Anthony's College, 1983.

Balboa, Manuel. "La evolución del balance de pagos de la República Argentina, 1913–1950." *Desarrollo Económico* 12, no. 45 (1972): 151–172.

Campa, José Manuel. "Exchange Rates and Economic Recovery in the 1930s: An Extension to Latin America." *Journal of Economic History* 50, no. 3 (1990): 677–682.

Chu, David S. C. "*The Great Depression and the Industrialization in Latin America: Response to Relative Price Incentives in Argentina and Colombia 1930–45*." PhD diss., Yale University, 1972.

Cottely, Esteban. "Enigmas de la política cambiaria." *Boletín Techint*, no. 262 (1990): 29–78.

della Paolera, Gerardo, and Alan M. Taylor. "Economic Recovery from the Argentine Great Depression: Institutions, Expectations, and the Change of Macroeconomic Regime." *Journal of Economic History* 59, no. 3 (1999): 567–599.

———. "Internal Versus External Convertibility and Emerging-Market Crises: Lessons from Argentine History." *Explorations in Economic History* 39, issue 4 (2002): 357–389.

Eichengreen, Barry, and Jeffrey Sachs. "Exchange Rates and Economic Recovery in the 1930s." *Journal of Economic History* 45, no. 4 (1985): 925–946.

Gerchunoff, Pablo, and José Luis Machinea, "Going through the Labyrinth: The Political Economy of Argentina's Abandonment of the Gold Standard (1929–1933)." *CEPAL Review*, no. 117 (2015): 102–120.

Giberti, Horacio. "Vicissitudes of Arable Farming Enterprise in Argentina during the Past Twenty Years." *Review of the River Plate*, July 12, 1950: 15–21.

Lanciotti, Norma S. "Auge y declive de las empresas financieras e hipotecarias de origen británico en la argentina, 1885–1960." *Avances del Cesor* 11, no. 11 (2014): 175–197.

Lanciotti, Norma S., and Isabel Bartolomé. "Global Strategies, Differing Experiences: Electricity Companies in Two Late-Industrialising Countries: Spain and Argentina, 1890–1950." *Business History* 56, no. 5 (2014): 724–145.

Lewis, Daniel Kent. "*A Political and Economic History of Grain Farming in Buenos Aires Province, Argentina, 1914 to 1943*." PhD diss., University of California, 1990.

Lluch, Andrea, and Erica Salvaj. "Longitudinal Study of Interlocking Directorates in Argentina and Foreign Firms' Integration into Local Capitalism (1923–2000)." In *The Power of Corporate Networks: A Comparative and Historical Perspective*, edited by Thomas David and Gerard Westerhuis, 257–75. New York: Routledge, 2014.

Nakamura, Leonard I., and Carlos E.J.M. Zarazaga. "Banking and Finance, 1900–35." In *A New Economic History of Argentina*, edited by Gerardo della Paolera and Alan M. Taylor, 295–323. Cambridge: Cambridge University Press, 2003.

Newland, Carlos. "Una aproximación microeconómica al cambio estructural argentino 1926–1945." *Desarrollo Económico* 57, no. 222 (2017): 329–352.

Prebisch, Raúl. "El momento presente de nuestra economía." In *Obras 1919–1948*, vol. 2, 158–306. Buenos Aires: Fundación Raúl Prebisch, 1991.

Randall, Laura. "Lies, Damn Lies, and Argentine GDP." *Latin American Research Review* 11, no. 1 (1976): 137–58.

Salvatore, Ricardo D. "Better-Off in the Thirties: Welfare Indices for Argentina, 1900–1940." In *Living Standards in Latin American History: Height, Welfare, and Development, 1750–2000*, edited by Ricardo D. Salvatore, John H. Coatsworth, and Amílcar E. Challú, 127–165. Cambridge: Harvard University Press, 2010.

Sánchez Román, José Antonio. "Resistance without Revolt: The Shaping of a Tax Culture in Modern Argentina (1930–1955)." *Journal of Policy History* 25, no. 3 (2015): 422–443.

Skupch, Pedro R. "Las consecuencias de la competencia de transportes sobre la hegemonía británica en la Argentina (1919–1939)." *Económica* 17, no. 1 (1971): 119–141.

Ting, Chien-Jung, and Tai-Kuang Ho. "Exchange Rates and Economic Recovery in the 1930s: An Extension to Asia." *Australian Economic History Review* 58, no. 2 (2018): 134–152.

Newspapers, Magazines, Reports

Boletín Oficial de la Bolsa de Comercio, 1934.

Bolsa de Cereales de Buenos Aires, *Numero Estadístico*, 1986.

Industrias y Finanzas, 1935.

Interés Comercial, 1936.

La Información, 1935.

Review of the River Plate, 1934.

Revista de Economía Argentina, 1939.

Revista Económica, various years.

South American Journal, 1932.

Official Publications

Departamento de Hacienda. *Memoria correspondente al año* 1934, Vol. 1.

———. *Memoria correspondente al año* 1937, Vol. 1.

League of Nations. *Statistical Year-book*, various years.

República Argentina. *Censo industrial de 1935*, Buenos Aires, 1938.

———. *Anuario Agropecuario*, various years.

———. *Anuario de Estadística Agropecuaria*, 1925–1926.

———. *Boletín de Estadística y Economía Agropecuaria*, 1960.

United Kingdom, *Agricultural Statistics*, various years.

U.S. Department of Commerce, *Guide to Industry Classifications for International Surveys*, 2012.

Unpublished Materials

CEPAL. "El desarrollo económico de la Argentina: anexo: algunos estudios especiales y estadísticas macroeconómicas preparados para el informe." Mimeo. 1958.

DIA Agency, Inc. *Materials for the History of Argentine Railways.* Data DVD. 2010.

López, Damián. "Respuestas a la Gran Depresión: un estado de la cuestión sobre las nuevas modalidades de intervención del Estado en la economía, 1930–1943." Paper presented at XXII Jornadas de Historia Económica de la AAHE, Río Cuarto, September 21–24, 2010. Accessed November 20, 2017. http://www.aahe.fahce.unlp.edu.ar/jornadas-de-historia-economica/xxii-jornadas-de-historia-economica-rio-cuarto-2010/ponencias/lopez.pdf.

Appendix A: Corporate Profit Rates

Table A1 includes the capital and profit data for the samples published by *Revista Económica*, as well as the eight British railway companies added for this paper. To clarify, *Revista Económica* calculated capital as the book value of share equity issued plus reserves plus the balance carried forward from the previous year. Profits were calculated as profits after interest, depreciation, and amortization (and included dividend payments) minus the balance carried forward from the previous year. The British railways' capital and profits were calculated in the same way from the annual accounts data. Table A2 contains the profit rates for the various subsectors of commerce and industry in Sample A. Unfortunately, when reproducing these profits rates, the *Revista Económica* did not publish the underlying series for capital and profits, except for 1932–1933.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

Table A1 Corporate Capital and Profits, 1927–1934

			Transportation							
	Agriculture	Industry	*Revista Económica*	British railways	Total	Commerce	Insurance	Banking	Diverse	Total
Number										
Sample A										
1927	120	319	31	8	39	295	53	22	28	1,324
1928	117	322	38	8	46	314	57	26	56	1,427
1929	126	322	38	8	46	335	63	29	69	1,509
1930	137	365	40	8	48	360	63	31	73	1,627
1931	141	385	44	8	52	381	63	31	73	1,705
1932	138	407	47	8	55	430	61	34	84	1,844
1933	132	413	52	8	60	439	55	30	82	1,855
Sample B										
1929	122	305	35	8	43	308	61	29	62	1,414
1930	122	305	35	8	43	308	61	29	62	1,414
1931	122	305	35	8	43	308	61	29	62	1,414
Sample C										
1932	93	203	20	8	28	225	30	16	49	971
1933	93	203	20	8	28	225	30	16	49	971
1934	93	203	20	8	28	225	30	16	49	971
Capital										
Sample A										
1927	331,696	1,275,261	88,126	1,797,806	1,885,932	640,403	75,144	297,822	40,459	9,331,950
1928	365,282	1,325,123	98,867	1,884,133	1,983,000	760,778	80,279	354,645	94,048	10,124,858
1929	409,261	1,452,226	63,538	1,956,429	2,019,967	848,990	87,639	361,596	106,036	10,623,874
1930	425,239	2,150,548	66,913	2,301,768	2,368,681	884,045	90,100	368,729	130,585	12,498,164

(*Continued*)

Table A1 (Continued)

	Agriculture	Industry	Transportation: *Revista Económica*	Transportation: British railways	Transportation: Total	Commerce	Insurance	Banking	Diverse	Total
1931	428,702	2,208,519	91,878	2,649,748	2,741,626	901,371	90,324	373,486	147,675	13,740,135
1932	406,484	2,215,820	218,340	2,351,761	2,570,101	933,998	80,801	377,301	152,021	13,268,827
1933	387,435	2,248,540	213,028	2,286,418	2,499,446	887,000	70,025	342,546	155,828	12,889,284
Sample B										
1929	400,509	1,388,778	55,403	1,956,429	2,011,832	828,521	85,863	361,597	100,709	10,477,454
1930	405,480	1,465,405	56,873	2,301,768	2,358,641	854,401	88,306	367,898	113,509	11,681,528
1931	406,438	1,503,955	57,236	2,649,748	2,706,984	858,915	89,124	372,537	117,592	12,790,088
Sample C										
1932	320,588	784,415	162,175	2,351,761	2,513,936	466,202	49,336	258,593	72,737	10,267,809
1933	316,812	782,631	156,830	2,286,418	2,443,248	455,889	49,662	258,611	75,314	10,032,826
1934	309,468	758,505	142,721	3,358,680	3,501,401	434,787	48,191	257,054	73,616	13,125,856
Profits										
Sample A										
1927	20,663	89,277	7,682	95,814	103,496	61,306	6,884	23,077	2,386	605,349
1928	25,060	105,189	5,929	105,040	110,969	80,090	8,260	26,693	6,114	699,356
1929	27,742	102,982	1,156	106,994	108,150	79,450	8,119	27,865	6,233	692,276
1930	11,772	99,877	504	87,567	88,071	59,442	4,995	28,478	8,171	569,862
1931	4,848	92,399	3,340	44,071	47,411	28,988	5,158	24,690	5,244	362,396
1932	-7,927	58,231	-4,945	1,353	-3,592	17,193	-271	12,815	3,370	102,371
1933	-5,936	41,945	-13,723	6,876	-6,847	4,897	1,097	11,061	2,270	51,847
Sample B										
1929	24,825	101,963	1,973	106,994	108,967	79,299	7,899	27,865	6,216	690,032
1930	11,950	87,628	2,133	87,567	89,700	58,889	4,755	28,421	6,282	559,089
1931	4,349	83,087	3,431	44,071	47,502	27,744	5,097	24,641	4,436	349,342

Table A1 (Continued)

	Agriculture	Industry	Transportation: *Revista Económica*	Transportation: British railways	Total	Commerce	Insurance	Banking	Diverse	Total
Sample C										
1932	-4,355	20,851	-6,647	1,353	-5,294	-2,355	1,989	11,935	3,287	27,038
1933	-4,820	15,477	-14,063	6,876	-7,187	-14,654	80	7,082	799	-25,090
1934	3,668	25,120	-7,249	-27,633	-34,882	6,894	1,260	8,821	2,693	-39,215
Profit rate										
Sample A										
1927	6.2	7.0	8.7	5.3	5.5	9.6	9.2	7.7	5.9	6.5
1928	6.9	7.9	6.0	5.6	5.6	10.5	10.3	7.5	6.5	6.9
1929	6.8	7.1	1.8	5.5	5.4	9.4	9.3	7.7	5.9	6.5
1930	2.8	4.6	0.8	3.8	3.7	6.7	5.5	7.7	6.3	4.6
1931	1.1	4.2	3.6	1.7	1.7	3.2	5.7	6.6	3.6	2.6
1932	-2.0	2.6	-2.3	0.1	-0.1	1.8	-0.3	3.4	2.2	0.8
1933	-1.5	1.9	-6.4	0.3	-0.3	0.6	1.6	3.2	1.5	0.4
Sample B										
1929	6.2	7.3	3.6	5.5	5.4	9.6	9.2	7.7	6.2	6.6
1930	2.9	6.0	3.8	3.8	3.8	6.9	5.4	7.7	5.5	4.8
1931	1.1	5.5	6.0	1.7	1.8	3.2	5.7	6.6	3.8	2.7
Sample C										
1932	-1.4	2.7	-4.1	0.1	-0.2	-0.5	4.0	4.6	4.5	0.3
1933	-1.5	2.0	-9.0	0.3	-0.3	-3.2	0.2	2.7	1.1	-0.3
1934	1.2	3.3	-5.1	-0.8	-1.0	1.6	2.6	3.4	3.7	-0.3

Note: All figures are in 1,000 pesos, except for the profit rate, which is profits as a percentage of capital.
Source: See Figure 1.

Table A2 Profits Rates for Commerce and Industry, 1927–1933

	1927	1928	1929	1930	1931	1932	1933
Commerce							
Automobiles	49.7	59.2	26.3	3.4	-10.3	-12.3	-7.5
Department stores and shops	1.3	3.6	0.4	1.6	-1.2	-4.5	-11.7
Finance	6.3	9.7	12.1	10.8	9.5	6.7	6.8
Grain trading	16.7	12	6.8	6.7	-5.9	0.8	5.3
Import and export	13.4	13.7	9.9	8.6	5.3	1.2	1.1
Large commercial corporations	4.6	17.7	12.2	3.6	-2.5	-5.4	-0.6
Loans and building	7.7	7.6	5.8	7.8	4.4	5.7	4.3
Real estate	4.6	4.2	5.2	4.8	4.5	1.3	-7.5
Industry							
Alcoholic drinks	12.4	9.8	17.9	15.6	11.7	8.5	2.4
Beer	8.8	13.3	13.8	12.8	8.8	5.0	3.6
Building contractors	11.2	14.6	9.6	11.4	8.6	4.4	-1.6
Building materials	14.3	15.0	14.1	12.8	10.3	1.9	-2.4
Chemicals	14.6	7.8	8.5	7.6	6.9	6.3	5.2
Chocolates and sweets	15	13.1	11.5	12.2	6.6	2.0	0.0
Electricity general	8.6	8.8	7.6	3.5	2.1	1.0	1.2
Flourmilling	8.1	5.8	5.8	7	12.5	4.7	8.5
Forestry	9.6	6.8	4.4	4.3	-0.1	-2.4	-4.9
Large industrial corporations	7	7.1	6.6	1.5	4.7	1.4	2
Meatpacking	1.7	6.7	10.3	11.5	11.1	9.9	3.2
Metalworking	5.9	9.0	10.3	6.8	3.4	2.4	-2.2
Milk	9.7	5.4	7.7	2.9	2.8	0.5	-3
Petroleum	9.5	5.7	2.6	-1.3	3.7	7.3	8.6
Sugar	-0.4	1.8	0.8	-1.9	1.4	0.3	3.1
Textiles	8.1	8.8	6	0.6	1.1	8.8	6.9
Tobacco	7.8	11.7	12.7	10.9	8.5	4.2	2.6
Wine	8.0	3.0	-2.6	2.7	-10	-1.3	-3.9

Source: Compiled from *Revista Económica*, vol. 5, no. 6, July, 1932, 106; vol. 7, nos. 9-12, 1934, 241.

Appendix B: Real Interest Rates

Real interest rates have featured prominently in some of the literature on Argentina's Great Depression,[68] yet their measurement is far from straightforward. Nominal interest rates were high in Argentina, as can be seen in Table B1. The argument that Argentina's government successfully reduced real interest rates rests instead on a WPI that appears to show Argentina suffering from relatively little deflation during the Great Depression. Thus, the official index, which has been reproduced in numerous statistical compendia,[69] shows Argentina's wholesale prices falling by 11 percent from 1929 to 1933, whereas the U.S. WPI, for example, fell by 31 percent.[70] Less deflation thus appears to compensate for higher nominal interest rates, resulting in broadly similar real interest rates in Argentina as in the other countries. That conclusion appears to be based, however, on an unreliable WPI that understates the extent of deflation during Argentina's Great Depression.

The official WPI is of poor quality. It was calculated by Prebisch's team at the Banco de la Nación as the unweighted average of the prices of 105 goods, referenced so that 1926 equaled 100. Two subindices were also calculated as the unweighted average of 23 agricultural goods and 82 non-agricultural goods.[71] Two problems with this methodology can be noted. First, most of the "agricultural goods" should actually be classified as "non-agricultural" because flour, chilled and frozen meat, hides, butter, and the like were, according to any standard industrial classification,[72] products of Argentina's manufacturing sector, even if they were processed agricultural goods. Second, the lack of weighting makes the indices unrepresentative of Argentina's productive structure, giving, for instance, sardines the same weight as wheat, even though Argentines produced little of the former but considerable quantities of the latter.

Fortunately, it is possible to arrive at a more accurate indication of the degree of deflation during Argentina's Great Depression. As yet, it has not been possible to locate the complete price series that underlie the official price index. In an article in the *Revista Económica*, however, Prebisch reproduced the prices of the 105 goods for November 1933 and February 1934, all referenced so that 1926 equaled 100. Those prices can be used to calculate a new weighted WPI, as shown in Table B2, where it is compared to the official index. The weights in the new index are calculated from the gross value of production in 1935, which has been estimated from the industrial census of that year and statistics of trade, physical output, and prices. The result clearly shows that the degree of deflation during this period was far greater than has previously been supposed: Around the end of 1933, wholesale prices had fallen roughly 30 percent relative to 1926.[73] Table B3 demonstrates that such a level of deflation was similar to that in countries in Europe and North America. Less deflation cannot, therefore, have compensated for higher nominal interest rates in Argentina, so real interest rates must have been extraordinarily high.

68. della Paolera and Taylor, "Economic Recovery."
69. For example, Ferreres, *Dos siglos de economía argentina*, Table 5.1.2.
70. League of Nations, *Statistical Year-book* (1937/1938), 236, Table 123.
71. Prebisch, "El momento presente," 223–236.
72. For example, U.S. Department of Commerce, *Guide to Industry.*
73. The degree of deflation would probably appear even more pronounced if a pre-crisis year had been chosen for the base, as the post-depression base gives greater weights to goods whose prices did not fall so much. Nevertheless, 1935 was chosen due to the industrial census of that year, which provides the necessary data on the country's productive structure. Also worth noting is that the new index contains 94 prices, compared to 105 in the official index. This is because several prices were included twice in the official index, whereas other prices were included for imports that were hardly, if at all, produced domestically. One price series, for young bulls on ranches, was added to make the weighted index more representative. Finally, it should be noted that the new index was calculated as a weighted geometric Laspeyres index.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press

Table B1 International Interest Rates, 1927–1933

	1927	1928	1929	1930	1931	1932	1933	1934
Argentina								
Commercial paper, 1–6 months			7.2	7.0	7.6	7.7	6.5	5.5
Canada								
Treasury bills, 3 months								2.7
China								
Day-to-day money			5.0	2.5	4.7	3.6	1.8	3.2
France								
Commercial paper, 45–90 days		3.0	3.5	2.3	1.6	1.3	1.8	2.1
Treasury bills, 1–3 months				2.3	1.4	1.0	1.8	2.1
Day-to-day money			3.0	2.1	1.3	0.7	1.4	1.6
Germany								
56–90 days' bills	5.5	6.5	6.9	4.4	6.1	5.0	3.9	3.8
Day-to-day money								4.2
India								
Treasury bills, 3 months			5.0	5.3	6.4	4.1	1.5	1.7
Italy								
Commercial bills, 4 months			6.4	6.0	6.0	5.9	3.9	3.8
Japan								
Commercial paper, 60 days	6.6	5.6	4.9	4.9	4.9	5.2	4.5	4.4
Day-to-day money				3.6	3.5	4.5	2.6	2.6
United Kingdom								
Bank bills, 3 months	4.2	4.2	5.3	2.6	3.6	1.9	0.7	0.8
Treasury bills, 3 months			5.3	2.5	3.6	1.5	0.6	0.7
Day-to-day money			4.5	2.3	2.9	1.6	0.7	0.8
United States								
Commercial paper, 4–6 months	4.1	4.8	5.8	3.6	2.7	2.8	1.7	1.0
Bankers' acceptances, 90 days	3.5	4.1	5.0	2.5	1.6	1.3	0.6	0.3
Treasury bills			3.3	2.5	1.5	0.9	0.5	0.3
Call loan rate			7.6	2.9	1.7	2.1	1.1	1.0

Source: League of Nations, *Statistical Year-book*, 1934/1935, 243, Table 118; 1937/1938, 252–253, Table 129.

Table B2 Wholesale Price Indices, 1926–1934

	Number of price series	Weight in index	1926 = 100		
			1926	Nov. 33	Feb. 34
Official WPI	105	100.0	100	84	96
Agricultural	23	21.9	100	56	68
Non-agricultural	82	78.1	100	92	103
National	22	21.0	100	72	74
Foreign	57	54.3	100	98	114
New weighted WPI	94	100.0	100	67	77
Agricultural	8	41.9	100	58	68
Cereals	6	26.1	100	50	63
Livestock	2	15.8	100	73	79
Non-agricultural	86	58.1	100	75	84
Food and drink	22	24.3	100	65	69
Flour products	2	4.6	100	49	51
Meat	5	10.1	100	61	70
Dairy products	2	1.9	100	58	48
Oils	1	1.0	100	90	106
Sugar	1	2.4	100	116	117
Wine	1	1.0	100	69	70
Others	10	0.5	100	73	78
Textiles and apparel	10	10.6	100	87	103
Leather products	3	3.0	100	62	87
Wood products	7	1.8	100	83	86
Paper products	4	0.7	100	96	109
Petroleum products	5	2.6	100	95	97
Chemical products	17	3.2	100	80	93
Rubber products	2	0.5	100	59	61
Building materials	4	1.3	100	87	92
Metals	12	3.9	100	103	126

Sources: Official WPI: Prebisch, "Momento presente," 228–229. New WPI: Prices: ibid., 232–235; *Revista Económica*, vol. 7, nos. 1-4, January–April, 1934, 43; vol. 7, nos. 9-12, 1934, 247. Weights: República Argentina, *Censo industrial de 1935*, 44–53, Cuadro 3; Comité Nacional de Geografía, *Anuario geográfico*; Vázquez Presedo, *Estadísticas históricas*, 194–221; and Bolsa de Cereales de Buenos Aires, *Numero Estadístico*, 1986, passim.

Table B3 International Wholesale Price Indices, 1926–34

	1926	Nov. 1933	Feb. 1934
Argentina			
Official	100	84	96
New	100	67	77
Canada	100	69	72
China	100	100	98
France	100	58	58
Germany	100	72	72
India	100	59	60
Italy	100	45	46
Japan	100	75	75
United Kingdom	100	70	71
United States	100	71	73

Sources: League of Nations, *Statistical Year-book*, 1934/1935, 228, Table 112.

https://doi.org/10.1017/eso.2020.1 Published online by Cambridge University Press