The great depression in Argentina, Brazil and Uruguay: revisiting vulnerabilities and policies

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IX. Trade vulnerability and the transmission of the worldwide collapse

In this chapter we analyse and compare the main economic indicators of ABU, starting with the evolution of foreign trade, the international reserves and the fiscal situation during 1928-1934 as an externalization of each country's vulnerabilities. Then we turn to compare those figures, using 1928 as a base year in order to infer the strength of each country's vulnerability to the trade channel swings before the crash. However, in some cases we do not make direct a comparison of figures, since we are conscious that the sources and methodologies applied to build them are significantly different between countries and in some cases even missing. Thus, it is not possible to assess the comparability of data sets. We finally show how much the collapse of trade reached Main Street using GDP figures.

i. The collapse of trade

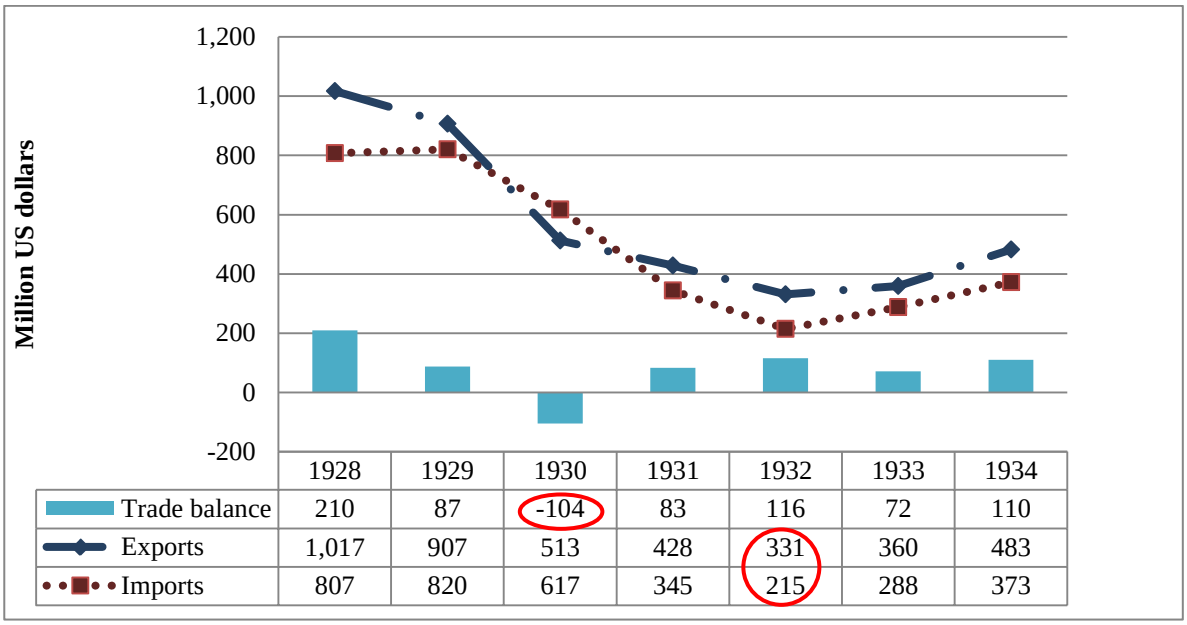
As we have seen in Chapter IV, ABU were strong producers of foodstuffs and deeply interconnected with the main markets in the Northern Hemisphere. However they exported a very limited basket of export products, especially: coffee (Brazil), beef and veal (ABU), wool (Uruguay) and grains (Argentina). This structure resulted in a strong economic vulnerability to the price swings of a few basic export products. Furthermore, the occurrence of natural disasters that hit exports from time to time and the trade policies of their main counterparts also added to the market swings at this juncture. In this section we address the numbers of the contraction in foreign trade during the Great Depression.

As we have already mentioned, Argentina was an exporter of foodstuffs and raw materials which in 1928 ranked tenth among the major trading nations. This country provided around 60% of linseed and 66% of maize' world exports during 1929-1933, for which reason it was known as the 'barn of the world'. During the world depression, and having the UK as its main export customer, it was a victim of the collapse of international trade and the protectionist practices adopted by developed countries.

In this regard, Figure 12 shows the evolution of Argentine foreign trade during 1928-1934 using data from League of Nations and converted to US dollars. As stated, in 1929 exports decreased 10.8% while imports increased 1.6% in relation to 1928 but Argentina still kept a trade surplus.

However, in 1930 foreign trade collapsed. In that year the trade deficit was 104 million dollars and exports fell 50% in comparison with 1928, a situation that was aggravated by harvest failures. It is important to keep in mind that in this period of analysis sometimes Argentina had to face important droughts and at other times it was favoured by droughts in North America, for example in the case of maize. But imports contracted more slowly; in 1930 imports declined 23.5%. In 1931, although Argentina had a trade surplus, lower than the spectacular surplus of 1928, exports and imports continued decreasing to levels of 58% and 57% lower than 1928. Nevertheless, in the year 1932 Argentina was by far worst hit: exports suffered a contraction of 67.5% and imports fell 73.4%. In 1933 this scenario started to change, and exports and imports increased in spite of the fact that export volumes of some main export products were negatively affected by the appearance of locusts in grain crops in certain districts[400]. However, the 'Dust Bowl'[401] in the US benefited Argentina not only because the latter, for example, could export more wheat to the world but also because that crisis of production due to climate factors prompted a remarkable improvement of the international terms of trade. Thus, later, in 1934 there were clear signals of recovery; although without reaching the levels of 1928, exports and imports continued increasing, as well as the trade surplus.

Figure 12 Argentina: Evolution of the foreign trade



	1928	1929	1930	1931	1932	1933	1934
Trade balance	210	87	-104	83	116	72	110
Exports	1,017	907	513	428	331	360	483
Imports	807	820	617	345	215	288	373

Source: calculated from Statistical Yearbook of the League of Nations (various years). Economic Intelligence Service. Geneva. Notes: a) special trade, only merchandises; b) the export values are FOB values and the import values are CIF values, '*valores reales*'; c) original data expressed in paper pesos, in order to obtain the figures in current million US dollars, the US dollars/gold pesos exchange rates from Officer (2011) and the parity 1 gold peso = 2.27 paper pesos were applied; and d) it is important to highlight that the values expressed in current million dollars are the closest possible to the transaction values taking into account the monetary and exchange rate instability for the period of analysis.

If we pay attention to Table 36 about the evolution of the prices of the main export products according to data calculated from Prebisch (1991, p. 261) and converted to current dollars, this

[400] See "State of Trade – July 1933" in C.P. 209 (1933, p. 11).
[401] Recalling words of Arturo O'Connell, the great drought suffered by the US during the thirties, which lasted almost four years, was so important and affected in such a severe way the world economy that John Steinbeck wrote the novel "The Grapes of Wrath" which won the Pulitzer Prize and then was taken by the cinemas.

evolution is directly correlated with the swings in total Argentine foreign trade. In 1930 all prices fell sharply, although it is important to keep in mind that since the late twenties the prices had a downward trend. For example, while in 1929 the price of one tonne of wheat was 41 current dollars; in 1930 that price was 32 dollars and even worse in 1931-1932: around 16 dollars! The situation was similar with maize, linseed, chilled beef, cattle hides and wool. In the most severe year of the depression all these products practically lost more than 50% of their 1928 value. By 1932, the price of maize was 68% lower, linseed 64%, chilled beef 55% (price in ranches) and 42% (price in Smithfield), salted cattle hides 77%, dried cattle hides 78% and wool with an average fall of 79%. Thus, cattle hides and wool were the products worst hit, followed by grain products, and chilled beef was the one that had the lowest fall in prices among these six main export products. However, by 1933 prices expressed in dollars began a weak recovery[402].

Table 36 Argentina: Evolution of agricultural prices (US dollars per tonne)

Year	Wheat	Maize	Linseed	Chilled beef		Cattle hides		Wool	
				Ranches	Smithfield	Salted	Dried	*Cruza gruesa*	Average
1928	45	36	65	183	261	522	718	583	588
1929	41	34	76	188	276	368	486	474	471
1930	32	21	62	169	266	294	316	278	269
1931	16	12	32	118	206	206	226	177	179
1932	16	12	24	78	151	118	156	109	125
1933	17	13	34	93	178	180	208	162	193

Source: calculated from Prebisch (1991, p. 261) obtained from *Banco Central del Uruguay* in the framework of the field study carried out in Uruguay for the region during the period November-December 2010. Note: original data expressed in paper pesos per kilogram, in order to obtain the figures in dollars, the US dollars/gold pesos exchange rates from Officer (2011) and the parity 1 gold peso = 2.27 paper pesos were applied; then, figures were rounded off and converted from kilograms to tonnes.

Furthermore, it is relevant to highlight that, as various researchers have affirmed, for example Rock (1991, p. 19-20), during the worst period of depression in Argentina, world prices fell sharply to their lowest levels in forty years and to 50% of those in 1929. Some products like wheat and maize lost by 1934 more than 60% of their 1929 value. As a consequence, Argentina, which was the first and third-largest exporter of these products respectively, felt the impact. Regarding the poor performance of commodity prices Kindleberger (2000, p. 274) argues that the downward trend in agricultural prices since 1925 (and mineral prices, too) can be explained by the European countries, which after the Great War increased their exports of what were their wartime supplies outside Europe. Then, attempts to hold up prices, for example, in coffee and linseed, accumulated stocks over the market. Latin America contributed to this oversupply

[402] While Table 36 shows that in 1933 agricultural prices were recovering in dollars, in paper pesos this situation is a little bit different. For that year, prices of linseed, cattle hides and wool also increased in paper pesos, but chilled beef had a contraction of 5% in relation to the previous year (in the Smithfield market, from 588 pesos per tonne to 556 pesos), the price of maize declined 12% (from 45 pesos per tonne to 40 pesos) and wheat had a significant contraction of 17.5% (from 64 pesos per tonne to 53) when world cereal prices continued to be depressed (Prebisch, 1991, p. 261).

which accounted for the failure of prices and production to recover quickly after the sharp drop in commodity prices.

Table 37 shows the exports in million US dollars of the main export products which represented around 80% of the total Argentine exports, as well as their share of the total trade. In addition, Table 38 details the exports in thousands of metric tons of those products that grouped had a share of 80% of the total, too. According to these figures the collapse is evident, especially in export values, and also the unfavourable 'commodity lottery' for Argentina. One can see contractions in values higher than 60%. For example, in the case of wheat, which had the highest share in exports in 1928-1929, while in 1929 Argentina exported 264 million dollars, in 1932 it exported 58 million, meaning 78% lower than that year. Moreover, this product was losing ground, decreasing its share in current dollars and having its place taken by maize with the exception of 1930, a year in which the meat was the largest export product. However, the contraction in volume of wheat exported was less (Table 38). After a bad harvest in 1930 and as a result of the actions taken by wheat importing and exporting countries at that time, when they attempted to keep prices unchanged and to close their economies, in 1932 3,442 thousands of tons were exported, that is to say 35% lower than 1928 and 48% than 1929. But in 1933 this situation changed and wheat exports in volume increased, continuing to grow by 1934. In addition, in 1933 contractions in maize and linseed exports in millions of dollars of 71% and 63.5% respectively relative to 1928 verified that the Argentine grain trade was hard hit by the crisis. However, again in volume the history was different. In 1931 the tonnage of maize exported was 53% higher than 1928. But in 1932 these figures declined very fast and in 1933 were below the 1928 level: contractions that were affected by the appearance of locusts in grain crops and the aforementioned complicated international scenario. The decline of export volumes of linseed was not as important as that in wheat and maize; even in 1932 exports were 4% higher than in 1928. But in 1933, the fall was 28% in relation to 1928.

On the other hand, in 1928 meat was the third largest export product with a market share of 12.7% and in this category chilled beef was the most important, representing half of the total share of the meat trade. However, by 1930-1931 this situation changed. The meat trade reached around 20% of total trade in current dollars (as first export product in 1930 and second largest in 1931) and the beef trade doubled its figure in comparison with 1928. Then, by 1932-1934 meat had a share of around 15% in total trade and the share of chilled beef was around 10% of total trade. Thus, chilled beef exports represented by that time more than 60% of the total meat exports. Regarding their evolution, chilled beef exports declined from 69 million dollars in 1928 to practically half of that in 1932. Furthermore, in that year preserved meat and chilled mutton exports had contractions of 80% and 57% respectively in relation to 1928 and in 1933 frozen beef exports fell 89.5%. In addition, during 1928-1934 frozen beef was the one that had a significant contraction in export volumes of almost 75%. In this respect, the reduction on beef imports (chilled and especially frozen beef) by the UK in the framework of the Ottawa Agreements in 1932 was a key factor that forced Argentina to negotiate with this country in 1933. Moreover, cattle hides (dried and salted) exports with a share of around 6% of total exports suffered a slump in 1932 reaching the low value of 13 million dollars, that is to say,

around 80% lower than 1928 when Argentina exported 68 million dollars of cattle hides mostly destined for the US and Germany. Another product very negatively affected by the crisis was wool in the grease. In 1932, the exports of this sort of wool dropped 76% below the 1928 level.

Table 37 Argentina: Evolution of exports by main products

(current US dollars and percentage share)

Main export products	1928		1929		1930		1931		1932		1933		1934	
	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%
Wheat	242	23.8%	264	29.1%	77	14.9%	61	14.3%	58	17.6%	69	19.3%	99	20.5%
Maize	219	21.6%	160	17.6%	89	17.4%	113	26.4%	82	24.9%	63	17.6%	101	21.0%
Meat	129	12.7%	127	14.0%	109	21.3%	80	18.6%	50	15.0%	58	16.2%	67	14.0%
Beef (chilled)	69	6.7%	67	7.3%	59	11.5%	45	10.5%	32	9.8%	37	10.3%	43	8.8%
Beef (frozen)	19	1.9%	20	2.2%	15	2.9%	9	2.2%	3	0.9%	2	0.7%	3	0.5%
Meat, preserved	15	1.5%	16	1.8%	14	2.8%	9	2.2%	3	0.9%	5	1.4%	7	1.4%
Mutton (chilled)	14	1.4%	13	1.5%	12	2.3%	9	2.2%	6	1.8%	6	1.7%	6	1.3%
Meat, other	12	1.2%	11	1.2%	9	1.8%	7	1.6%	5	1.6%	8	2.1%	9	1.8%
Linseed	126	12.4%	114	12.6%	73	14.3%	60	14.0%	48	14.5%	46	12.8%	57	11.9%
Wool in the grease	72	7.1%	61	6.7%	34	6.7%	22	5.3%	17	5.1%	26	7.3%	35	7.3%
Cattle hides (dried and salted)	68	6.7%	40	4.4%	32	6.2%	20	4.7%	13	4.0%	20	5.7%	22	4.6%
Total trade:	**1,017**		**907**		**513**		**428**		**331**		**360**		**483**	

Source: calculated from "Trade Statistics of Sixty-Four Countries" and "International Trade Statistics" in Memorandum on International Trade and Balances of Payments (various years). League of Nations, Geneva. Notes: a) the figures for exports are *valores nominales básicos*; b) original data expressed in gold pesos during the period 1928-1931 and in paper pesos during the period 1932-1934, in order to obtain the figures in current million US dollars, the US dollars/gold pesos exchange rates from Officer (2011) and the parity 1 gold peso = 2.27 paper pesos were applied; and c) it is important to highlight that the values expressed in current million dollars are the closest possible to the transaction values taking into account the monetary and exchange rate instability for the period of analysis.

Table 38 Argentina: Evolution of export volume by main products

(thousands of metric tons)

Main export products	1928	1929	1930	1931	1932	1933	1934
Maize	6,372	5,048	4,670	9,767	7,055	5,019	5,471
Wheat	5,296	6,613	2,213	3,639	3,442	3,929	4,794
Linseed	1,944	1,617	1,170	1,880	2,028	1,392	1,374
Meat	707	688	639	629	574	561	560
Beef (chilled)	383	358	346	352	371	350	350
Beef (frozen)	125	122	99	84	37	32	32
Mutton (chilled)	78	81	80	83	71	62	49
Meat, preserved	67	69	62	56	45	56	63
Meat, other	54	58	52	54	50	61	66
Total trade:	**17,029**	**16,703**	**11,027**	**18,477**	**15,826**	**13,777**	**15,252**

Source: calculated from "Trade Statistics of Sixty-Four Countries" and "International Trade Statistics" in Memorandum on International Trade and Balances of Payments (various years). League of Nations, Geneva.

Table 39 shows the evolution of Argentine exports by main destination in million US dollars and share percentages. The UK's share was increasing until 1931. Then, between 1932 and 1933, because of the impact of the Ottawa Agreements this share decreased reaching around 36% instead of 39% in 1931. Argentina was at risk of losing the British outlet because, as mentioned, that country had granted preferences to the countries of its Empire and had imposed tariffs and quotas on countries outside it. In this regard, Argentina was forced to undertake negotiations with the UK in 1933. Thus, in 1934 the share was at a level similar to 1931 of almost 39%. With Germany, the situation was different. In 1928 the share of this country was around 14%, and then it was declining until 1931, to increase in the following year. But in 1933 this share was at its lowest point, practically half of 1928, the reason being that in that year Argentina started negotiations with this country. By contrast, with the Netherlands and Belgium the evolution was erratic, with a share of around 8-10%, increasing trade with them in 1932, a year in which the trade with the UK was lower. For the case of Italy the share was decreasing and during 1930-1931 became half of 1928; then in 1932 it increased but during 1933-1934 contracted, again reaching the low level of 1930-1931. France's share was increasing until 1932 (from around 6% in 1928 to 9% in 1932) and then in 1933 had a clear fall to a level similar to 1928 and in 1934 this share declined to about 5%. On the other hand, during the period 1928-1930 the US share was increasing from around 8% in 1928 to 10% by 1930. However, in 1931 this share declined and even worse in 1932 was almost half of 1928; in 1933 it increased only to decrease again in 1934 just when trade relations between Argentina and the UK were better. Spain, Sweden and Denmark had shares between 1% and 2% throughout the period. In addition, with regard to regional trade, the trade with Brazil was increasing until 1930; in 1931 it had a contraction from around 5% in 1930 to 3%, and in 1932 the fall was worst, but in the following year the trade between them had a fast recovery, more than doubling that figure and reaching a level superior to 1928. On the other hand, the trade with Chile and Uruguay remained around 1% until 1930. Then, according to these figures, it seems that from 1931 the contraction was more marked with Chile than with Uruguay, a country with profound historical ties with Argentina.

After analysing the severe slump in prices of the main Argentine export products influenced by the reactions of its main trading partners and by Argentina itself, it is not a difficult task to conclude that this country suffered an important terms of trade deterioration during the Great Depression. In this regard, Figure 13 shows the evolution of the terms of trade and trade openness. The terms of trade deteriorated very fast; in 1929 the corresponding index number was 93.2, showing that primary goods prices were lower than manufactured goods prices[403]. Then in 1931 this relation was around 38% lower than in 1928 and in 1933 it reached its lowest point, which meant a deterioration of 41.3%. But, in 1934 the terms of trade started to increase without reaching the 1928 level. Thus, in 1929-1933 import prices fell much less sharply than export prices. Rowe (1965, p. 88) argues, and rightly so, that from 1929 to 1932, the terms of trade moved violently and greatly in favour of the industrialised countries. From 1933 a

[403] For more detailed information about terms of trade methodology see the "Introduction" of this thesis.

reversed relative movement began, and the terms of trade swung slowly back in favour of the primary producing countries, until early 1937.

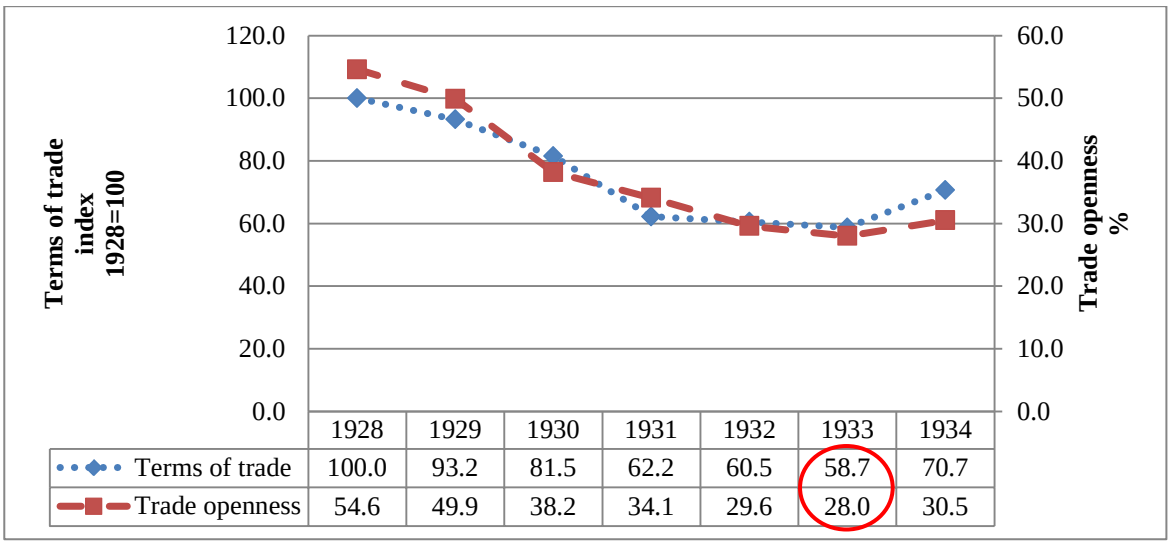
Table 39 Argentina: Evolution of exports by main destination

(current US dollars and percentage share)

Main countries	1928		1929		1930		1931		1932		1933		1934	
	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%	Million US dollars	%
United Kingdom	292	28.7%	292	32.2%	187	36.5%	167	39.0%	120	36.1%	132	36.7%	186	38.5%
Germany	140	13.7%	91	10.0%	45	8.8%	35	8.3%	29	8.8%	28	7.7%	40	8.3%
Netherlands	113	11.1%	88	9.6%	48	9.3%	45	10.6%	41	12.5%	35	9.6%	55	11.4%
Belgium	93	9.2%	97	10.7%	47	9.2%	40	9.3%	36	11.0%	36	10.1%	47	9.8%
Italy	89	8.7%	52	5.7%	22	4.3%	21	4.8%	18	5.4%	14	3.9%	20	4.2%
United States	84	8.3%	89	9.8%	50	9.7%	26	6.0%	11	3.4%	28	7.8%	26	5.5%
France	60	5.9%	65	7.1%	34	6.7%	36	8.5%	31	9.2%	23	6.4%	26	5.4%
Brazil	39	3.8%	35	3.9%	24	4.6%	13	3.0%	5	1.6%	16	4.4%	21	4.3%
Spain	22	2.2%	23	2.6%	5	1.0%	5	1.2%	7	2.1%	3	0.8%	4	0.8%
Sweden	12	1.2%	9	1.0%	7	1.3%	7	1.7%	5	1.6%	6	1.6%	4	0.9%
Denmark	10	0.9%	7	0.7%	4	0.8%	8	1.8%	7	2.1%	4	1.1%	7	1.4%
Chile	7	0.7%	7	0.8%	5	1.0%	2	0.4%	2	0.5%	2	0.7%	2	0.5%
Uruguay	7	0.7%	6	0.6%	6	1.1%	3	0.8%	2	0.6%	4	1.2%	3	0.6%
All others	50	4.9%	46	5.1%	28	5.5%	20	4.6%	17	5.1%	29	8.1%	41	8.5%
Total:	**1,017**	**100.0%**	**907**	**100.0%**	**513**	**100.0%**	**428**	**100.0%**	**331**	**100.0%**	**360**	**100.0%**	**483**	**100.0%**

Source: calculated from "Trade Statistics of Sixty-Four Countries" and "International Trade Statistics" in Memorandum on International Trade and Balances of Payments (various years). League of Nations, Geneva. Notes: a) special trade, only merchandises; b) original data expressed in gold pesos during the period 1928-1931 and in paper pesos during the period 1932-1934, in order to obtain the figures in current million US dollars, the US dollars/gold pesos exchange rates from Officer (2011) and the parity 1 gold peso = 2.27 paper pesos were applied; c) it is important to highlight that the values expressed in current million dollars are the closest possible to the transaction values taking into account the monetary and exchange rate instability for the period of analysis; and d) for 1928 and 1929, the figure for UK includes Irish F. State.

Figure 13 Argentina: Terms of trade and trade openness



Sources: Banco Central de la República Argentina (1952) for terms of trade and Cortés Conde (2009, p. 322) for trade openness. For terms of trade, the base year was recalculated to 1928.

As a result, we can conclude that the recovery of Argentine foreign trade is explained by several factors. Among them, the recovery of international agricultural prices that improved the terms of trade. However, as we will see in the next chapter, the devaluation of November 1933 and, in the framework of an important package of measures of that year, the exchange control implemented since October 1931, had a key role in the recovery. In relation to trade openness, it was directly correlated with the terms of trade. When the score of terms of trade was high, trade openness was high, too. For example, in 1928 the terms of trade index was 100 and the trade openness 54.6%, and the latter was also decreasing very fast: evidence that the Argentine economy was closing. Indeed, in 1933 trade openness was only 28%, almost half lower than 1928 and in 1934 this coefficient increased but keeping around 25% below the 1928 level.

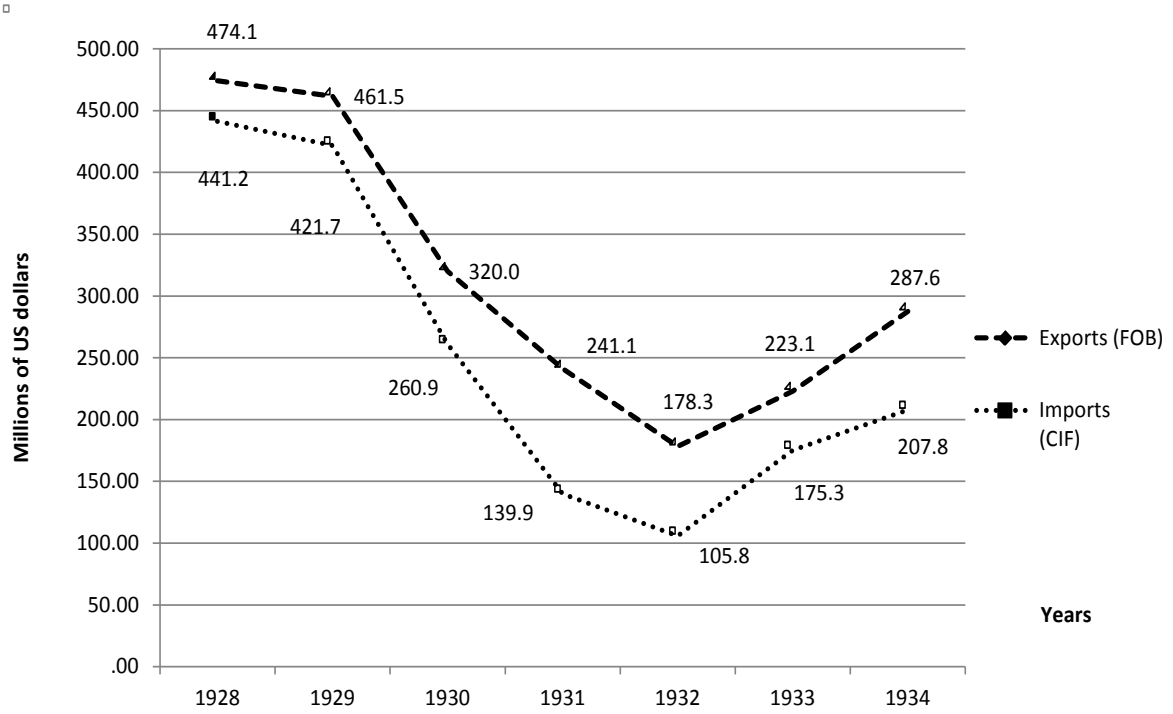
In the case of Brazil, as Figure 14 suggests, the Great Depression signalled a path of constant deterioration in trade from 1928 to 1932[404]. After exports and imports reached a peak of 474.1 million and 441.2 million dollars in 1928, respectively, foreign trade collapsed. By 1932 imports fell to 105.8 million dollars or 76% below the value of 1928, while the exports fell to 178.3 million dollars or 62% below. These figures and particularly the close relationship between imports and exports suggest that the reduced income from exports, especially agriculture, entailed the inability to import foreign products because of the lack of hard currency and diminished internal demand. These figures also mean that the balance of trade improved during 1928-1931, an outcome that can only be explained by the deeper collapse of imports than exports.

In Table 40 the information is presented in more detail on the basis of the League of Nations' figures for some key export products. As we have already mentioned, the Brazilian economy depended heavily on exports of coffee which averaged 68.5% of all the country's export receipts. Coffee receipts fell deeply from 339.2 to 175.8 million dollars during 1928-1932 (-65.4%), although in terms of quantum the decline was only 14% during the same period, a reflexion of the deep collapse of coffee prices[405]. Coffee also lost weight in the Brazilian export profile by reducing its share from 71.5% in 1928 to 61.1% in 1934. But other crops were also hard hit by the crisis. Tobacco, *maté*, cocoa, rubber, cotton and sugar also collapsed with strong declines in values exported that range from 55% (mate and cocoa) to 97% (cotton) during 1928-1932. Although coffee was of course the main driver in the Brazilian export downfall, all the other crops contributed to the scarcity of gold and hard currency during the Great Depression.

[404] It is important to highlight that the statistics used for this work are taken from the League of Nations International Trade Statistics from 1931 to 1934 and from the League of Nations International Trade and Balances of Payments from 1928 to 1930, originally in Gold British pounds, and converted to US dollars, according to the procedure explained in the Introduction of this thesis.

[405] Quantum figures are not presented in the table, but can be consulted in the same sources of the League of Nations.

Figure 14 Brazil: Exports (FOB), Imports (CIF)



Source: calculated from original figures in gold British pounds from League of Nations International Trade Statistics, various years, converted to dollars.

Table 40 Brazil: Export values in millions of current US dollars

Years	Coffee, raw	Hides and skins	Cotton, raw	Cocoa, raw	Maté (Brazilian tea)	Meat	Tobacco	Rubber	Wool	Others	Total
1928	339.2	32.9	4.3	17.8	13.7	9.7	8.3	7.0	3.2	37.8	474.1
1929	327.6	20.2	18.4	12.5	12.7	13.3	7.9	7.3	3.6	37.9	461.5
1930	200.4	15.8	9.3	9.9	10.4	18.6	8.2	3.7	5.0	38.6	320.0
1931	166.0	11.4	4.0	6.8	6.6	7.6	4.5	1.8	2.9	29.5	241.1
1932	127.7	6.8	0.1	8.1	6.2	4.2	2.8	0.8	0.4	21.2	178.3
1933	162.9	8.7	2.3	8.4	5.0	4.0	2.4	1.6	0.6	27.2	223.1
1934	175.8	11.1	38.1	10.9	6.0	3.7	4.3	2.8	1.1	33.8	287.6
Share 1928	71.5%	6.9%	0.9%	3.8%	2.9%	2.1%	1.8%	1.5%	0.7%	8.0%	100.0%
Share 1934	61.1%	3.9%	13.2%	3.8%	2.1%	1.3%	1.5%	1.0%	0.4%	11.7%	100.0%
Average Share 1928-1934	68.5%	4.7%	3.4%	3.5%	2.8%	2.8%	1.7%	1.0%	0.7%	10.9%	100.0%
% change 1928-1932	-62.4%	-79.5%	-97.2%	-54.7%	-54.8%	-57.2%	-65.8%	-89.3%	-86.7%	-43.8%	-62.4%

Source: calculated from original figures in gold British pounds from League of Nations International Trade Statistics, various years, converted to dollars. Values are in million dollars.

Regarding the key issue of coffee, Table 41, Figure 15 and Figure 16 show the magnitude of the problem that affected the Brazilian coffee industry. Most notably, the crisis of coffee is depicted in the deep fall of prices. Taking the figures provided by IBGE (2006) and displayed in Table

41, from the peak of 1928, prices fell 8.4% in 1929, 42.4% in 1930 and 29.2% in 1931[406]. Prices only recovered slightly in 1932, but remained two thirds below the levels reached before the Great Depression. The driving force behind this behaviour is the strong production of the period 1928-1930, shown in Figure 15. The other side of the coin is the collapse of export units of coffee depicted in Figure 16. The strong export quantum of coffee from 1928 through 1931 was encompassed by a step reduction of the value of the exports receipts, a feature that lasted the entire period 1928-1936, and is consistent with the world price contraction during the Great Depression and the supply management of the Brazilian authorities. This last outcome of course is the most indicative feature of the crisis in Brazil during the Great Depression as the foreign receipts depended heavily on the export of coffee, and were key for an economy that struggled to keep itself under the gold standard system first and to curtail the political instability.

Special mention needs to be made of cotton; a product that accounted for less than 1% of the total exports in 1928, but after rollercoaster behaviour ended the period with a 13.2% share, mostly at the expense of coffee. Other products such as hides and skins, cocoa, mate, meat, tobacco, rubber and wool did not surpass individually 4% of total exports in 1934, while rice, nuts and rubber wax were less than 1% and are not included in the corresponding table. As a matter of fact, all those mentioned products averaged 31.5% during 1928-1934, a figure that tells much about the strong concentration of Brazilian exports in coffee. From this data, it is possible to assert that although coffee was hard hit and a major determinant on the deep fall of Brazilian exports, many of the remaining export products fell even harder. Although not presented in tables, some products fell much more strongly in quantum during 1928-1932 than coffee, such as meat (-29.3%), hides and skins (-47.2), cotton (-94.0%) and wool (-60.9%), and in that way also contributed the Brazilian trade decline. This is a feature not so often mentioned in the literature that generally points out the role of coffee in the Brazilian collapse and skips mentioning the importance of the other crops' decline.

Table 41 Brazil: Price index of export coffee (1928=100)

	1928	**1929**	**1930**	**1931**	**1932**	**1933**	**1934**
Index	100.0	91.6	52.7	37.3	44.0	42.4	41.2
Var %	21.5	-8.4	-42.4	-29.2	17.9	-3.5	-2.8

Source: calculated from IBGE (2006).

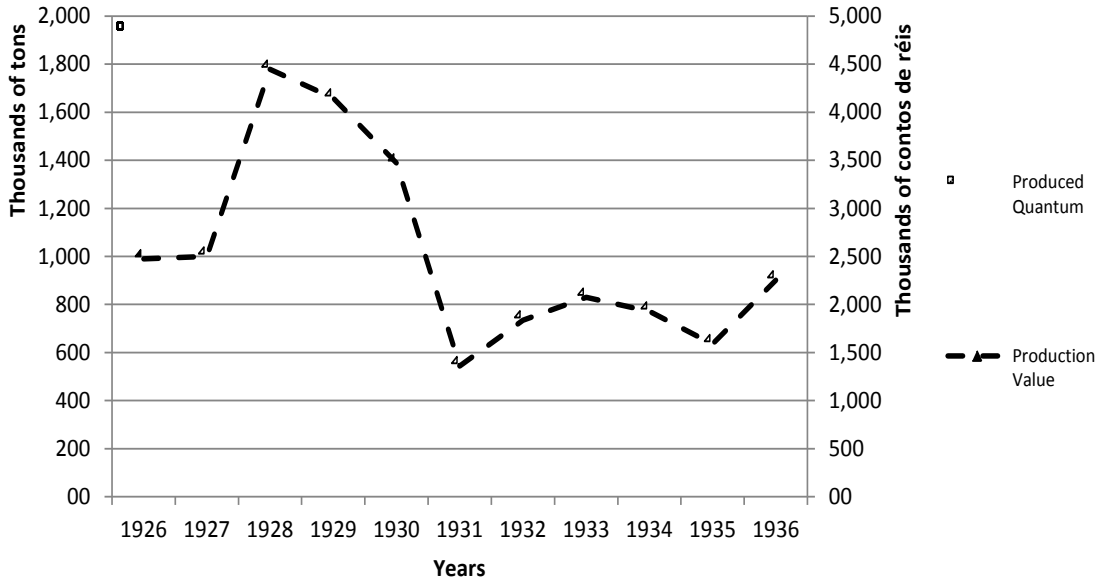
[406] In the following table we show alternative figures from Delfim Netto (2009, pp. 277-278), that show similar results, although a slightly bigger price contraction. According to these figures, prices fell almost 36% in 1930 and another 23% in 1931. Moreover, in the whole period 1929-1933, prices systematically fell year after year, contradicting the figures of IBGE that show a recovery in 1932.

Brazil: Coffee import price into the US (current cents of dollars per pound weight)

	1928	**1929**	**1930**	**1931**	**1932**	**1933**	**1934**
Price	21.3	20.4	13.1	10.1	9.1	7.9	8.8
Var %	15.1	-4.2	-35.8	-22.9	-9.9	-13.2	11.4

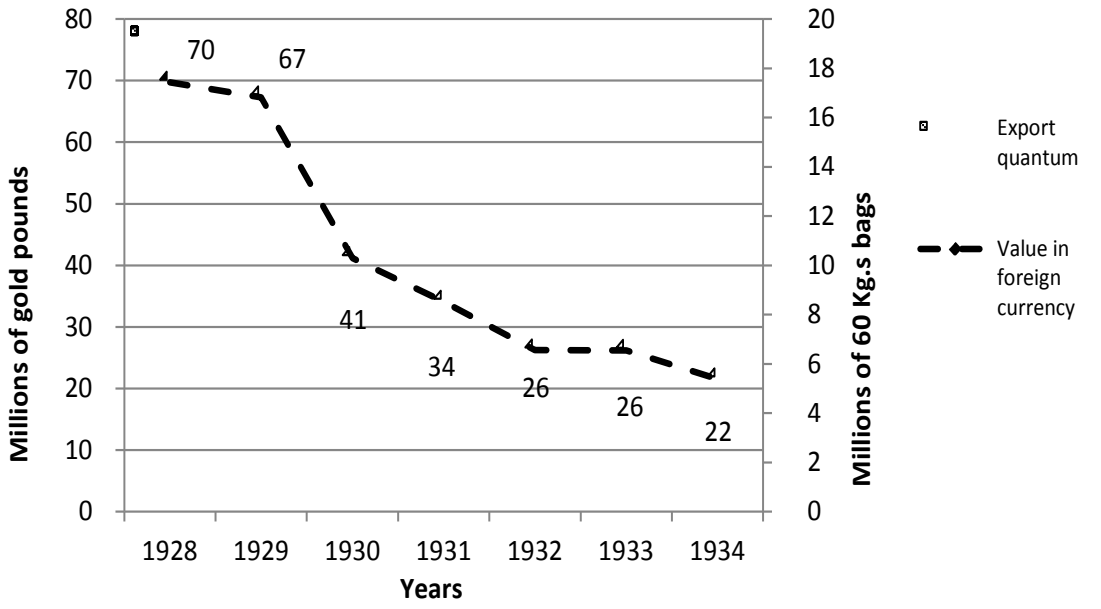
Source: prices in the US, from Delfim Netto (2009, pp. 277-278).

Figure 15 Brazil: Value and quantum of coffee production



Source: IBGE (1990).

Figure 16 Brazil: Coffee export quantum and value



Source: IBGE (1990).

Table 42 depicts the foreign trade of Brazil from figures of the League of Nations[407], which informs us on the potential vulnerability in terms of market destination at the time. As it becomes clear, except for Belgium, Germany, the UK and Uruguay, all other trade partners displayed in the table reduced their share in Brazilian exports. The US was the main Brazilian

[407] It is worth mentioning that these figures are almost identical to the ones available from another important source of information available, namely the IBGE (1990).

buyer and provider, a feature that is consistently strong during the whole period. The Brazilian downturn particularly affected the share of products coming from the US in Brazilian imports: while for example exports fell from 45.4% in 1928 to 39.2% in 1934, imports fell from 26.6% to 23.7% in the same period. It is interesting to note that for 1928 the deficit with the UK (78.7 million dollars) was compensated by the surplus with the US. And while the UK reduced slightly its share in imports, it showed the strongest share increase as a destination for Brazilian products, jumping from 3.4% in 1928 to 12.1% in 1934. Thus, bilateral trade almost balanced in 1934, from a strong deficit negative for Brazil in 1928. The second commercial partner, Germany, also augmented its share in exports and diminished in imports. Argentina was the only commercial partner with which Brazil kept a significant negative trade balance in 1928 and in 1934. Finally, Uruguay, the other main focus of our research, accounted for around 3 % of Brazilian exports and 1% of imports and in spite of its small size ranked among the ten main commercial partners.

Table 42 Brazil: Exports, imports and trade balance by major partners (current million dollars)

	Years	US	Germany	France	Neth.	Argentina	Italy	UK	Belgium	Uruguay	Others	Total
Exports	1928	215,5	53,1	43,5	27,3	28,1	23,5	16,3	13,0	12,3	41,5	474,1
	1929	194,8	40,4	51,3	22,7	29,3	21,5	30,1	12,9	14,2	44,3	461,5
	1930	129,1	29,2	29,4	16,2	21,8	13,9	26,6	10,1	16,2	27,4	320,0
	1931	105,2	22,3	22,3	13,3	14,3	9,5	17,3	7,1	9,1	20,8	241,1
	1932	81,7	15,9	15,9	7,2	10,7	6,6	12,5	4,6	6,5	16,7	178,3
	1933	104,2	18,1	20,4	10,2	11,6	7,2	16,7	6,3	7,3	21,2	223,1
	1934	112,6	37,7	20,3	12,2	13,6	9,0	34,8	9,8	8,6	29,0	287,6
	Share 1928	45,4%	11,2%	9,2%	5,8%	5,9%	5,0%	3,4%	2,7%	2,6%	8,7%	100,0%
	Share 1934	39,2%	13,1%	7,1%	4,2%	4,7%	3,1%	12,1%	3,4%	3,0%	10,1%	100,0%
	% change 1928-1932	-62,1%	-70,1%	-63,4%	-73,6%	-62,1%	-71,9%	-23,3%	-64,3%	-47,4%	-59,8%	-62,4%
	Years	US	Germany	France	Neth.	Argentina	Italy	UK	Belgium	Uruguay	Others	Total
Imports	1928	117,2	55,0	28,0	8,3	50,9	16,4	95,0	17,4	4,8	48,2	441,2
	1929	127,1	53,5	22,4	7,5	46,1	13,6	81,0	18,8	3,4	48,3	421,7
	1930	63,1	29,7	13,1	7,4	34,9	9,8	50,6	10,2	3,4	38,8	260,9
	1931	35,0	14,7	6,5	4,9	20,5	5,8	24,4	4,6	0,8	22,7	139,9
	1932	32,0	9,5	5,4	3,4	7,8	4,2	20,3	4,2	0,6	18,4	105,8
	1933	37,1	21,0	8,9	6,7	22,2	7,1	34,1	9,3	0,6	28,3	175,3
	1934	49,2	29,1	7,5	8,4	25,8	7,2	35,6	12,1	1,4	31,4	207,8
	Share 1928	26,6%	12,5%	6,3%	1,9%	11,5%	3,7%	21,5%	3,9%	1,1%	10,9%	100,0%
	Share 1934	23,7%	14,0%	3,6%	4,0%	12,4%	3,5%	17,1%	5,8%	0,7%	15,1%	100,0%
	% change 1928-1932	-72,7%	-82,7%	-80,8%	-59,0%	-84,6%	-74,1%	-78,6%	-76,0%	-86,7%	-61,9%	-76,0%
Trade Balance	1928	98,3	-1,9	15,5	19,0	-22,8	7,1	-78,7	-4,4	7,4	-6,7	32,9
	1934	63,4	8,6	12,7	3,7	-12,1	1,7	-0,8	-2,3	7,2	-2,4	79,7

Source: Source: calculated from League of Nations International Trade Statistics (various years). Original figures in British gold pounds, converted into dollars using League of Nations exchange rates.

If we compare exports in 1928 with 1932 as a measure of the Great Depression's shock, no commercial partner presented in the table showed improvement in its exports or imports to Brazil. Except for the UK, which only suffered a 23.3% contraction in its exports, the rest of the

commercial partners collapsed in percentages ranging from 47% to 74%. The US fell 62.1% in exports during the same period, a figure that speaks about the hardship for the coffee economy of Brazil. However, imports fell even more (-72.7%), so that the balance of trade with the US improved for the Brazilian side in that period. But for the whole period 1928-1934, although the trade contracted severely, the Brazilian trade balance improved and more than doubled (from 32.9 to 79.7 million dollars), and that improvement was explained to an important extent by the change in the trade flows with the UK.

In Uruguay, the foreign trade collapse measured in US dollars can be traced in Table 43 for country destinations and Table 44 for principal articles[408]. In 1929 exports diminished by 11.9 million dollars (-11.5%), especially because of the deep fall in wool receipts (-10.8%) and secondly because other important export products with a lesser share in total exports, such as ox-hides and wheat, that had a contraction of 28.7% and 34.3%, respectively, for that year. In the meanwhile, imports decreased less strongly (-4.7%) and consequently the trade surplus of 1928 became a small deficit in 1929. Then, in 1930 the panorama was mixed with the meat exports increasing by 14.4% and wool exports hit by plummeting prices (-18.6%). In that year the exports to the UK increased strongly (39.9%), compensating for falls in other destinations, including the US which had a contraction of 39.6% and several European countries (e.g. Germany, Belgium, and the Netherlands). As a consequence, the trade balance became positive again by 8.3 million dollars.

Nevertheless, the most evident impact of the Great Depression came in 1931, when every export item and every export destination fell sharply, and the economy faced a trade deficit of 4.5 million dollars. The overall contraction in exports was around 58% and in imports 47.5%, with the hardest hit articles with a relevant share in total exports being raw wool (-58.8%) and meat and its by-products (-59.7%). Among the most important trading partners, exports to the UK, Germany, France, Argentina and Italy show contractions between 50% and 60%, the US a slump of 75.2%, and although less important for Uruguayan trade, exports to Brazil declined 88%. When it is considered that almost 100% of chilled beef had as its destination the UK (like in the case of Argentina), and frozen beef also included France, Italy and Germany, it is easy to understand that the trade barriers applied by those nations explain a good deal of the fall in the premium Uruguayan beef. Chilled beef suffered a contraction of 51.8% and frozen beef 66.4%. Although with less severity, the contraction in export receipts was extended through 1932, a year in which export values reached their lowest point. Then, in 1933 the export values recovered and the trade balance improved to a slightly positive level, even under the pressure of the appreciation of the Uruguayan peso, pushed by the US departure from the gold standard in that year. In 1934 there was another contraction of exports and imports, but that was most likely influenced by the depreciation of the peso.

[408] Series calculated from original figures in pesos and converted to US dollars, by using the exchange rates from Maubrigades (2003) and Vaz (1984). The reasoning behind the conversion of all figures to US dollars is that by that time it was the main currency for foreign transactions and consequently it is the most suitable for comparing with other Latin American countries.

Table 43 Uruguay: Exports and imports, by countries (million dollars and percentage change with regard to previous year)

	1928		1929				1930				1931				1932				1933				1934			
	Exp.	Imp.	Exp.	Var %	Imp.	Var %	Exp.	Var %	Imp.	Var %	Exp.	Var %	Imp.	Var %	Exp.	Var %	Imp.	Var %	Exp.	Var %	Imp.	Var %	Exp.	Var %	Imp.	Var %
Total	**103.0**	**96.0**	**91.1**	**-11.5**	**91.5**	**-4.7**	**87.0**	**-4.5**	**78.7**	**-13.9**	**36.8**	**-57.7**	**41.3**	**-47.5**	**27.6**	**-24.9**	**26.3**	**-36.3**	**39.7**	**43.7**	**38.0**	**44.3**	**28.9**	**-27.2**	**26.0**	**-31.6**
United Kingdom	23.3	14.9	21.0	-9.8	15.2	1.5	29.4	39.9	13.6	-10.5	13.0	-55.7	7.9	-42.1	7.7	-40.9	5.0	-36.8	13.2	71.1	7.3	46.2	7.4	-44.1	4.7	-35.8
Germany	15.0	12.0	13.2	-11.8	8.9	-26.1	10.4	-21.6	7.7	-13.3	5.3	-49.1	4.5	-41.4	4.3	-18.5	2.5	-44.0	5.9	36.2	3.3	29.5	4.7	-19.3	2.2	-31.3
France	10.8	5.7	10.9	1.4	3.6	-37.2	10.5	-3.8	2.9	-17.6	4.3	-59.5	1.4	-53.7	3.9	-7.8	0.9	-35.5	3.9	-0.6	1.0	19.2	1.9	-51.3	0.5	-52.0
Argentina	16.9	8.2	11.4	-32.5	8.3	0.9	11.0	-3.7	7.7	-6.5	4.8	-56.4	5.3	-31.8	2.4	-49.1	4.6	-13.1	2.4	-2.7	6.1	33.9	2.1	-11.3	2.4	-61.2
United States	10.7	29.1	10.8	0.9	27.6	-5.0	6.6	-39.6	20.2	-26.7	1.6	-75.2	7.9	-60.7	1.1	-30.5	2.5	-68.3	3.3	192.3	3.3	29.9	3.0	-8.8	3.9	18.3
Italy	6.7	4.1	6.2	-7.7	4.1	0.7	6.7	9.1	3.3	-20.2	2.6	-61.9	1.5	-53.9	3.0	15.4	1.1	-27.8	3.3	9.9	1.9	77.0	2.2	-32.6	1.4	-29.0
Belgium	6.3	4.7	6.4	2.9	5.0	5.9	4.8	-25.1	3.9	-21.8	1.7	-65.4	2.3	-41.2	1.7	3.2	1.1	-51.8	2.5	42.4	1.4	23.6	2.1	-14.0	1.1	-18.1
Brazil	4.8	4.8	2.7	-43.7	6.5	35.0	2.7	0.9	6.1	-5.8	0.3	-88.0	3.9	-36.9	0.3	-0.7	2.7	-30.0	0.7	121.8	4.4	61.0	1.9	162.7	1.9	-55.6
Netherlands	1.4	1.4	1.8	24.3	1.8	25.8	1.2	-33.5	1.9	10.4	1.2	-2.2	1.1	-43.6	0.8	-29.7	0.5	-56.7	1.3	65.5	0.7	42.9	0.9	-32.9	0.7	3.3
U.S.S.R.	1.4	0.2	2.6	91.2	0.9	472.9	0.9	-65.9	1.0	11.1	0.4	-52.6	0.8	-25.5	0.4	-3.4	1.7	114.7	0.1	-71.7	2.6	54.3	0.3	187.8	1.6	-36.9
Spain	0.7	3.6	0.3	-61.2	2.9	-19.0	0.4	23.8	3.2	9.9	0.2	-49.5	1.7	-47.7	0.3	56.4	1.0	-37.7	0.6	130.4	1.0	-0.1	0.3	-49.8	0.4	-58.8
Japan	0.0	1.0	0.1	247.9	1.0	1.6	0.2	182.0	0.7	-27.9	0.1	-43.1	0.2	-72.5	0.0	-63.1	0.2	0.7	0.3	858.8	0.5	120.4	0.2	-27.0	1.0	124.4
Other Countries	4.9	6.4	3.6	-26.3	5.8	-9.2	2.3	-36.4	6.4	9.9	1.4	-39.4	3.0	-53.6	1.6	12.7	2.6	-13.0	2.2	5.5	4.6	12.2	1.8	6.2	4.2	16.0

Source: calculated from International Trade Statistics, League of Nations (various years). Notes: a) special trade, merchandise and bullion (figures for specie not published) in order of importance according to average share in 1928-1934 and b) original figures in Uruguayan pesos, converted to dollars by applying exchange rates from Maubrigades (2003) and Vaz (1984).

Table 44 Uruguay: Exports by principal articles (million dollars, thousands of metric tons and percentage change with regard to previous year)

Years	1928		1929				1930				1931				1932				1933				1934			
Principal articles	Val	WTG	Val	Var %	WTG	Var %	Val	Var %	WTG	Var %	Val	Var %	WTG	Var %	Val	Var %	WTG	Var %	Val	Var %	WTG	Var %	Val	Var %	WTG	Var %
Total	**103.0**		**91.1**	**-11.5**			**87.0**	**-4.5**			**36.4**	**-58.1**			**27.6**	**-24.2**			**39.7**	**43.7**			**28.9**	**-27.2**		
Wool, raw	31.5	53.6	28.1	-10.8	51.1	-4.7	22.8	-18.6	75.3	47.4	9.4	-58.8	65.6	-12.9	8.8	-5.9	43.1	-34.3	15.0	69.4	52.1	20.9	7.5	-50.1	24.0	-53.9
Meat and by-products	28.5	147.9	30.6	7.4	158.1	6.9	35.0	14.4	203.8	28.9	14.1	-59.7	150.8	-26.0	9.1	-35.4	102.0	-32.4	11.1	21.5	106.5	4.4	9.2	-16.9	103.0	-3.3
Beef & mutton, canned	5.4	26.5	6.4	18.2	32.6	23.0	5.9	-7.1	34.4	5.5	2.7	-54.8	28.9	-16.0	1.9	-28.9	20.2	-30.1	3.3	71.8	27.2	34.7	4.0	20.8	32.1	18.0
Beef, frozen	6.5	40.3	6.4	-1.1	39.6	-1.7	10.3	60.6	67.2	69.7	3.5	-66.4	42.3	-37.1	2.8	-17.7	38.9	-8.0	1.9	-31.6	29.3	-24.7	1.3	-35.2	22.9	-21.8
Beef, chilled	5.5	33.7	6.2	12.7	37.1	10.1	6.9	12.3	44.6	20.2	3.3	-51.8	39.6	-11.2	2.2	-34.9	26.6	-32.8	2.9	35.2	29.4	10.5	1.8	-39.4	27.9	-5.1
Mutton, frozen	2.7	14.1	4.6	70.7	22.2	57.4	5.0	9.3	28.3	27.5	1.9	-62.6	18.4	-35.0	0.6	-66.6	6.2	-66.3	1.1	81.5	9.7	56.5	0.7	-38.7	8.1	-16.5
Tallow and beef fat	3.2	17.3	2.6	-17.4	15.5	-10.4	3.3	27.2	20.3	31.0	1.2	-64.0	15.9	-21.7	0.5	-56.0	6.5	-59.1	0.6	21.9	6.7	3.1	0.4	-35.8	6.9	3.0
Meat extract	1.6	0.6	2.1	33.7	0.9	50.0	2.0	-7.1	0.9	0.0	1.0	-47.1	0.9	0.0	0.7	-34.8	0.7	-22.2	0.5	-25.6	0.7	0.0	0.7	28.8	0.8	14.3
Meat pieces, frozen	1.1	5.2	1.0	-10.9	5.0	-3.8	0.8	-13.7	4.9	-2.0	0.3	-64.7	3.3	-32.7	0.3	0.0	2.6	-21.2	0.5	71.2	2.9	11.5	0.3	-46.0	2.9	0.0
Jerked beef (*tasajo*)	2.6	10.2	1.3	-49.4	5.2	-49.0	0.7	-48.6	3.2	-38.5	0.2	-74.1	1.5	-53.1	0.0	-78.0	0.3	-80.0	0.1	129.5	0.6	100.0	0.1	63.7	1.4	133.3
Ox-hides	11.7	24.2	8.4	-28.7	22.0	-9.1	7.6	-8.6	27.1	23.2	3.6	-53.2	23.4	-13.7	2.6	-28.3	18.0	-23.1	3.7	43.6	20.8	15.6	2.9	-21.8	19.4	-6.7
Linseed	3.8	60.4	3.6	-6.3	55.9	-7.5	5.6	57.5	80.6	44.2	3.9	-30.9	133.0	65.0	1.9	-51.5	78.4	-41.1	2.0	4.4	60.5	-22.8	1.9	-1.3	70.9	17.2
Sheep-skins, raw	2.4	6.1	2.9	22.1	7.7	26.2	1.8	-37.3	7.0	-9.1	1.1	-38.5	9.7	38.6	0.8	-26.1	7.3	-24.7	1.3	56.9	7.3	0.0	0.6	-55.8	3.2	-56.2
Wheat	6.2	136.9	4.1	-34.3	97.4	-28.9	1.6	-61.5	42.4	-56.5	0.0	-100.0	0.0	-100.0	0.0		0.0		0.0		0.0		1.7		73.6	
Sand (*arena*)	2.2	2,171.0	2.3	3.9	2,350.0	8.2	2.4	2.8	2,298.0	-2.2	1.2	-49.1	1,994.0	-13.2	0.9	-24.3	1,481.0	-25.7	0.8	-11.5	1,043.0	-29.6	0.5	-41.4	878.0	-15.8
Cattle, living	5.0	136.0	2.1	-59.1	75.0	-44.9	1.2	-39.8	45.0	-40.0	0.1	-91.5	8.0	-82.2	0.2	137.2	17.0	112.5	0.3	38.7	19.0	11.8	1.0	183.6	71.0	273.7
Others	11.6		9.2	-21.1			8.9	-2.9			3.0	-65.9			3.2	6.4			5.5	71.5			3.7	-32.5		

Source: calculated from International Trade Statistics, League of Nations (various years). Notes: a) special trade, merchandise and bullion (figures for specie not published) in order of importance according to average share in 1928-1934, b) original figures in Uruguayan pesos, converted to dollars by applying exchange rates from Maubrigades (2003) and Vaz (1984), c) cattle living expressed in thousands of heads and d) the difference in total export value for 1931 between countries and articles comes from the League of Nations.

ii. The fiscal bottleneck

The governments in ABU were strongly dependent on revenues coming from foreign trade taxation, so that the vulnerability regarding trade was magnified through fiscal accounts. In Argentina, the importance of foreign trade in the fiscal structure is evident in Table 45 from the fact that 55.5% of the government revenues came from customs and port taxes by 1928[409]. And the perceived fiscal vulnerability corresponds with the actual figures. The collapse of foreign trade caused a significant fall in government revenues in the categories of 'customs and port taxes' and 'import duties'. While in 1928 customs and port taxes represented 432 million pesos, in 1932, the worst year for foreign trade in terms of dollars, this value was 34% lower than in 1928. On the other hand, in 1932 import duties had a contraction of 27.6% in relation to 1928. However, in 1933 this situation was reversed in comparison with 1932, as customs and ports taxes and import duties increased 6.3% and 7.5%, respectively, although without reaching the levels of 1928.

Table 45 Argentina: Government revenues (million pesos)

	1928	**1929**	**1930**	**1931**	**1932**	**1933**	**% 1932/1928**	**% 1933/1932**
Customs and port taxes	432	426	352	313	285	303	-34.0	6,3
- Import duties	330	338	281	255	239	257	-27.6	7.5
Other sources of income	347	370	352	442	489	543	40.9	11.0
Total*	**779**	**796**	**704**	**755**	**774**	**846**	**-0.6**	**9.3**
Share of customs and port taxes in total revenues	55.5	53.5	50.0	41.5	36.8	35.8		

Source: Prebisch (1991, p. 207). Note: * in each period the effective revenues during that period were computed without taking into account the correspondence with the financial year.

Table 46 presents a brief summary of the budget accounts for the financial years between 1928 and 1934, which clearly shows the imbalances. During the whole period expenditures of the central government were higher than revenues and policymakers had to overcome this important variable at the time to design the necessary economic policies to get Argentina out of the crisis. By the financial year of 1929 when Yrigoyen had just assumed his second term, the budget deficit had increased by around 30% in relation to the previous year. According to figures from della Paolera & Taylor (1999, p. 571) by that time the consolidated government deficit reached 2.3% of GDP. Later, as Table 46 describes, at the beginning of 1930 this deficit almost doubled, and therefore reached a value that represented around 4% of GDP for the average year! This situation constituted one of the key problems of Yrigoyen's government which prompted his rapid overthrow. Uriburu then accomplished a reduction of the fiscal deficit of almost 50% in comparison with the financial year of 1930. Finally, during Justo's government, that is to say

[409] According to Rock (1991, p. 20) the scenario was so unfavourable during the Great Depression for Argentina that import duties that had provided 54% of revenues in 1930 represented 39% by 1934.

after 1932, the deficit was decreasing erratically to 120-170 million, reaching levels similar to or lower than 1928. In this regard, it is important to add that in 1932 the government expenditure increased because of the monetization of the Patriotic Loan. In addition, by 1934 the expenditure increased as a result of the economic measures implemented during 1933-1934, which constituted the modification of the system of exchange control and the creation of new institutions in order to reactivate the economy, among others.

Table 46 Argentina: A brief summary of the budget accounts (million pesos)

Financial year	Receipts, excluding proceeds of loans	Expenditure	Balance
1928	739	919	-180
1929	748	988	-240
1930	665	1,095	-429
1931	671	886	-215
1932	808	936	-128
1933	755	886	-131
1934	809	980	-171

Source: For receipts and expenditure between 1930 and 1934 Statistical Yearbook of the League of Nations (various years), from official budgetary documents. Economic Intelligence Service. Geneva. For the years 1928 and 1929 Mitchell (1998, p. 672 and p. 691). Notes: a) not including public works, 150 million paper pesos (to be covered by internal debt bonds); b) the budget includes expenditure on public works and armament material, covered from loans issued, amounting in 1930 to 207.2 million, in 1931 to 102.5 million and in 1932 to 61.9 million pesos; c) gross figures, except for railways; and d) closed accounts show actual receipts and commitments, expenditure coverable by proceeds of loans (1932: 97.1 million, 1933: 107.3 million and 1934: 75.5 million). The closed accounts for 1932 include receipts of 36.8 million representing commitments (*imputaciones*) cancelled, and expenditure of 41.6 million, representing settlements of accounts of previous years. As from 1932, the receipts also comprise arrears actually collected during the additional period I-III.

In Brazil, Table 47 shows the series regarding the public finances published by the IBGE in the *Anuário Estatístico do Brasil* 1939-1940[410]. The table shows that the surplus of previous years at the end of the Luís administration became a strong deficit by 1930. This deficit was reduced in 1931, but grew again strongly in 1932. It can be said that the fiscal imbalance of 1930 was a direct consequence of the effects of the Great Depression, but not entirely, as some part of the increased expense was the result of the desperate attempts of the Luís administration to suppress the revolution of October that put Getulio Vargas in office. Similarly, the deficit surge of 1932 does not have as much to do with the economic crisis, but with the extra expenses forced by the *Revolução Constitucionalista* in *São Paulo*.

The vulnerability of the government revenue is clearly described in Figure 17. During 1928-1934 the taxes on imports averaged 42% of total government revenue. Furthermore by 1928 that figure amounted to 47%. Not surprisingly, by 1930 import tax collection had been cut by one-third, as foreign trade collapsed. But, the fiscal crisis was not limited to the import tax. The other taxes were also hard hit, especially the industrialized products tax, which was the second in importance in 1929 (22% of the total revenue) and contracted 18% in the next year. The rest of the revenue sources, namely the income tax, industrial revenue and other taxes also

[410] According to Franco (1985, p. 402), these figures constitute the only available empirical base for the time.

contracted heavily in 1930 (18%, 12% and 21%, respectively), so that the overall government revenue contracted by 24%.

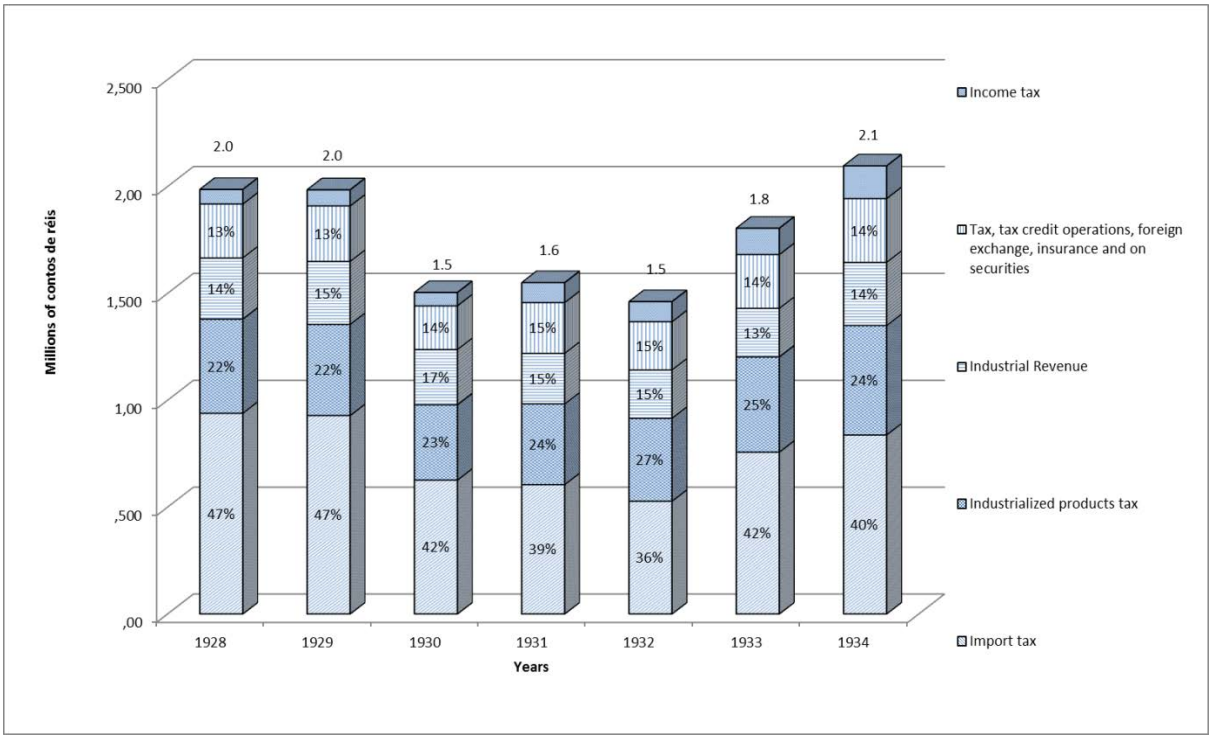
Furthermore, as explained by Abreu (2008, pp. 294-295), the fiscal balance was strongly affected by the exchange position. The Brazilian authorities tried to avoid as much as possible the existing undervaluation of the currency because it entailed three main problems. The first is that since the government was heavily dependent on the import taxes (many of them specific), the undervalued currency reduced the country's imports and ergo the government income. The second is that the expenditure increased since it needed more milréis to obtain the hard currency needed to pay the foreign debt. Finally, it also precipitated the sudden increase of coffee exports, which in turn reduced the international price of the product. For these reasons, the ideal situation for the government and for the coffee producers was an exchange rate neither undervalued nor overvalued. The relative overvaluation of the currency required further measures in order to contain the increase of imports and that explains the introduction of a system of import licensing.

Table 47 Brazil: Federal income and expenditure

Year	Revenue	Expenditure	Surplus (+) or Deficit (-)
1928	2,217	2,018	198
1929	2,400	2,225	175
1930	1,678	2,511	-833
1931	1,753	2,047	-294
1932	1,751	2,860	-1,109
1933	2,078	2,392	-313
1934	2,520	3,050	-531

Source: calculated from IBGE (2006). Note: figures in thousands of contos de réis (1:000$000).

Figure 17 Brazil: Main taxes (tax share in total revenue and total revenue)



Source: IBGE (2006).

Turning to Uruguay, the hardships of the depression were also increased by the reduction of government revenue, heavily dependent on export and import taxes. The public finance neutrality of the previous decades had allowed for an increasing government interventionism in the economy which conditioned the design of the economic policy. The strong correlation between the tax revenue and the performance of international trade (customs revenues) explains to a large extent the performance of the public finances.

The importance of foreign trade in fiscal terms becomes clear from the fact that during the period imports, exports and related activities provided 31%-32% of the government's revenues[411]. Thus, the collapse in international trade during the period of analysis affected negatively the fiscal balance. Table 48 reproduces the evolution of the fiscal balance calculated by Azar et al. (2009). On the one hand, it is possible to infer some inflexibility of the central government expenditure in spite of the measures taken to reduce it, only reaching a slight reduction in 1933. On the other hand, the revenues suffered strong setbacks in 1930 and 1933, and recovered in 1934. As a consequence, since 1930, the fiscal balance turned negative and deteriorated steadily until 1933, reaching the bottom line in that year[412].

Table 48 Uruguay: Fiscal balance (million current pesos)

	Central government resources	**Central government spending**	**Fiscal balance**
	(1)	**(2)**	**(3) = (1) - (2)**
1928	60.0	54.6	5.3
1929	58.9	58.2	0.7
1930	55.8	59.2	-3.4
1931	57.9	62.2	-4.3
1932	57.5	62.0	-4.5
1933	54.3	61.0	-6.6
1934	61.8	61.3	0.5

Source: Azar et al. (2009).

During 1930 the economic situation improved for meat exports and the trade balance became positive again, although that was not enough to compensate for the drain on the balance of payments. The peso continued its depreciation, and the actions taken by the BROU could not prevent it[413]. Thus, that year Uruguay assumed with the US banks a loan known as the 'second Hallgarten' of 17 million dollars[414]. Indeed, in Table 49 it is possible to observe that the share of the gross public debt increased year by year during the whole period, but in 1931 it almost doubled from 36.2% of the GDP to 62.4%, a figure that illustrates the strain caused by the conjunction of increasing domestic and foreign debt and diminishing GDP.

[411] These figures were taken from Nahum (2007, p. 145).
[412] It is important to clarify that, in general terms, these data do not entirely coincide with the information provided by Acevedo Álvarez (1934), with the most important difference probably being the fact that Azar et al. (2009) include in the resources the contribution of the public companies.
[413] See Acevedo Álvarez (1934, pp. 75-77).
[414] See Nahum (2008, p. 121).

Table 49 Uruguay: Gross public debt as percentage of GDP

Year	Gross public debt %	Foreign debt share %	Domestic debt share %
1928	30.9	61.9	38.1
1929	32.3	60.8	39.2
1930	36.2	63.7	36.3
1931	62.4	74.8	25.2
1932	68.7	70.5	29.5
1933	69.6	58.3	41.7
1934	55.9	48.3	51.7

Source: Azar et al. (2009).

iii. The economic contraction

The previous analysis of the contraction of foreign trade has profound implications over a range of internal macroeconomic variables that also tell about the way in which the transmission of the crisis through trade operates, from abroad to internal economic activity. Thus, foreign trade difficulties translate into economic contraction, although the magnitude of that translation depends on the overall role or weight of the foreign trade in the economy, as well as other indicators of vulnerability such as the fiscal dependence on foreign trade taxes, the availability of foreign reserves and loans.

In Argentina, the economic situation was getting worse during the period 1930-1933, with companies closing, the unemployment rate increasing and the massive immigration of previous years turning into emigration (from the rural sector to the urban centres or to other countries). In this respect, Picture 3 shows how the citizens felt that the economy lacked direction ('*sin rumbo*') and that they carried the weight of the politics.

The economic data is consistent with this picture. Table 50 shows the evolution of the total GDP and the GDP by sectors in Argentina during the period 1928-1934. Although in 1929 the total GDP increased 5% in relation to the previous year, in 1930 it declined 5% reaching the level of 1928. Then, in 1931 GDP plummeted around 7% and even worse in 1932, when it reached a level 10% lower than in 1928. Thus, GDP fell 15% between 1929 and 1932. It started to increase only after 1933 and already in 1934 GDP was 2% higher than 1928. On the other hand, GDP by sectors shows that by 1932 construction was the sector most negatively affected, followed by trade and transport, the latter linked with the trade sector. In that year construction fell 55% relative to 1928, trade decreased 11% and transport 12%. In 1932 the other sectors also suffered; industry had a fall of 9% and agricultural and livestock sectors had a contraction of 6% and 5% respectively. In this regard, it is important to highlight that expansion in the rural sector was slowing since the late twenties, suffering in 1930 –according to these figures- a fall of 23% in its GDP before increasing in 1931 and having another, but smaller, contraction in 1932[415]. Particularly in 1933 this sector continued to be depressed because of low prices and harvest

[415] In particular, during the period 1929-1932 grain output declined by 20% (Rock, 1991, p. 18).

failures, but thanks to the increase of international agricultural prices and the measures taken by the government to promote the agriculture, in 1934, its economic situation improved. By contrast, the only sector that had a good performance was the government that with its intervention programme in 1930 reached an increase of its output of 16%, 20% in 1932 and 31% in 1934 in comparison with 1928.

Picture 3 '*Sin rumbo*' ('Without direction')

Source*: Caras y Caretas*. "The humour in a context of crisis" (thirties).

Thus, this information shows that in the first place Argentina went through a depression greater than a simple dislocation. This is so because, following the definition of depression used by Marseille (2009)[416], the country suffered a significant fall of around 10% in its GDP during the period 1931-1933 in relation to 1928. The fall is even worse if we compare with the year 1929: in 1932 the GDP was 15% lower. Actually, there were three consecutive contractions during 1930-1932. Secondly, when we analyse the GDP by sectors, it is verifiable that by 1932 the trade sector was one of the most hit sectors by the global crisis pushing down the global GDP. In this regard, as we will see, it is not a coincidence that in 1933 Justo's government took the decision to make rapid changes in its cabinet, replacing Alberto Hueyo with Federico Pinedo as Minister of Finance, who promoted the main package of economic measures applied for the period. Thirdly, it is important to note that when by 1934 international prices started on the path

[416] Marseille (2009, p. 53) argues that a country is going through a recession when its GDP decreases two consecutive months and it is a depression –making reference to a psychological pathology- when the GDP decreases around 10% or the contraction lasts during three consecutive years.

of recovery, the Argentine economy also began its recovery as shown by the GDP growth. Thus, it is possible to confirm the dependence of the Argentine economy on the 'commodity lottery'.

Table 50 Argentina: Total GDP and sectoral GDP, Index (1928=100)

Year	Total GDP	Industry	Agriculture	Livestock	Transport	Trade	Government	Construction
1929	105	98	104	98	102	100	107	115
1930	100	95	77	101	93	91	116	109
1931	93	91	104	91	94	95	113	67
1932	90	91	94	95	88	89	120	45
1933	94	101	91	98	84	93	110	50
1934	102	112	99	101	87	99	131	76

Argentina: Variation rates in relation to previous year

Year	Total GDP	Industry	Agriculture	Livestock	Transport	Trade	Government	Construction
1929	5.0	-2.0	4.0	-2.0	2.0	0.0	7.0	15.0
1930	-4.8	-3.1	-26.0	3.1	-8.8	-9.0	8.4	-5.2
1931	-7.0	-4.2	35.1	-9.9	1.1	4.4	-2.6	-38.5
1932	-3.2	0.0	-9.6	4.4	-6.4	-6.3	6.2	-32.8
1933	4.4	11.0	-3.2	3.2	-4.5	4.5	-8.3	11.1
1934	8.5	10.9	8.8	3.1	3.6	6.5	19.1	52.0

Source: total GDP calculated from Maddison (2010) and sectoral GDP calculated from Cortés Conde (2009, p. 309)[417].
Notes: a) original figures for total GDP from Maddison (2010) are in million 1990 International Geary-Khamis dollars; and b) original figures for sectoral GDP from Cortés Conde (2009, p. 309) are index numbers from figures in million 1914 pesos, 1900=100.

With regard to agriculture production levels in Argentina, Table 51 describes the number of animals slaughtered, the quintals of grain production and the metric tons of wool produced during the period 1928-1934. In this table one can see that in 1929, whilst the production of sheep and pigs had increased, as well as wool, the production of grain products declined with the exception of maize. For example, in that year the country produced 53.4% less wheat than 1928 and 36% less linseed. This situation is not suprising because this sort of production depends on the weather conditions; as mentioned, Argentina used to suffer droughts every 3 or 5 years.

Then, in 1930 the quintals of wheat practically increased by 40% in relation to 1929 but without reaching the level of 1928. On the other hand, the production of maize continued increasing, reaching a value of 106,600 thousands of quintals, 75% higher than 1928. And the production of linseed reached a level similar to 1928 but higher than 1929. Furthermore, the number of sheep slaughtered in 1930 increased as well as the tonnage of wool produced; but the number of cattle, calves and pigs slaughtered decreased slightly. These increases in grain production depressed

[417] For more detailed information about Maddison's or Cortés Conde's methodology see the "Introduction" of this thesis.

prices even more because Argentina was a country with important influence on international prices in products such as maize, linseed and wheat. By contrast, in 1931 the production of wheat and maize decreased again due to harvest failures, as well as the number of cattle and calves slaughtered, but the production of linseed, wool and the number of pigs slaughtered continued increasing. In 1932, the worst year for Argentine foreign trade in terms of dollars, the production of wheat increased and continued increasing until 1933. The production of pigs and wool also increased, but the production of the other products declined. Thus, it is possible to conclude that the growth in production levels of cattle, sheep and grains was erratic with significant falls and increases affecting the prices. However, the number of pigs slaughtered was clearly increasing during 1930-1934. The tonnage of wool was also increasing during the period 1928-1932, starting to decrease in 1933.

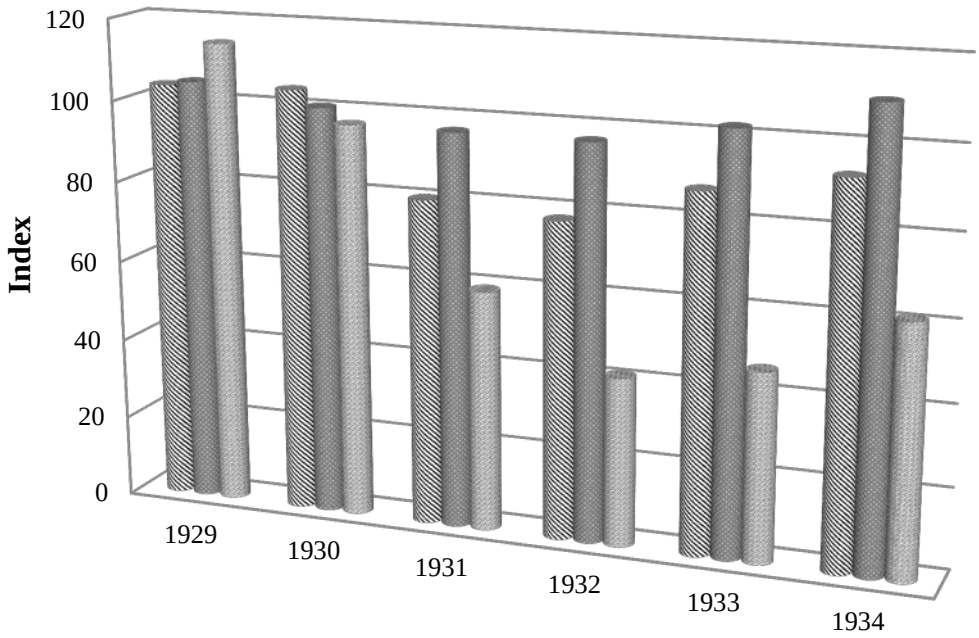
Table 51 Argentina: Production levels

Year	Number of animals slaughtered (thousands)			Thousands of quintals			Thousands of metric tons
	Cattle and calves	Sheep	Pigs	Wheat	Maize	Linseed	Wool
1928	6,267	5,914	815	94,997	61,071	19,909	157.4
1929	6,137	6,557	934	44,246	71,280	12,702	160.1
1930	5,966	7,349	910	63,218	106,600	19,900	163.7
1931	5,383	6,873	986	59,792	76,034	22,624	171.4
1932	5,345	6,767	1,003	65,560	68,015	15,750	176.0
1933	5,702	7,028	1,242	77,870	65,260	15,900	174.6
1934	6,002	6,425	1,383	65,500	114,800	20,250	167.8

Source: compiled from Statistical Yearbook of the League of Nations (various years). Economic Intelligence Service. Geneva. Notes: a) 'cattle' and 'calves' were given separately, the line of demarcation between these two groups was not always drawn along identical lines; b) the sheep include also lambs, and 'goats' include kids; c) animals slaughtered for the chilling, curing and packing industries and private slaughter-houses; and d) the production of wool was estimated on a 'greasy' basis as far as possible, the figures relate to sheep's wool only - i.e. mohair, camel hair and similar fibres were excluded.

It is worth noting that for Argentina there are other series related to the GDP that are unavailable for Brazil and Uruguay. Figure 18 presents the evolution of consumption and investment. During the period 1928-1934 both of them were declining. Between 1929 and 1930 private consumption remained stable, 4% higher than in 1928. Then, it had a sharp fall of 20% in 1931 in comparison with 1928, and in 1932 the contraction was 22%. This situation improved after 1933 as this sort of consumption increased, but remaining lower than in 1928. Actually, in 1934 it was 7% lower. In addition, in 1930 public consumption decreased after having an increase of 5% in 1929. In 1931 it decreased again and in 1932 remained at the level of 1931, 3% lower than in 1928.

Figure 18 Argentina: Evolution of consumption and investment (1928=100)



	1929	1930	1931	1932	1933	1934
Private consumption	104	104	80	78	87	93
Public consumption	105	100	97	97	102	110
Investment	114	97	59	42	46	62

Source: calculated from della Paolera and Taylor (1999, p. 571). Note: original figures in million paper pesos at 1913 prices.

However, rapidly in 1933 it increased to a level 2% higher than in 1928 and in 1934 it was 10% higher than that year. This situation is not suprising due to the series of relevant expansionary economic policies implemented since 1933. By contrast, the shock for investment was worse than for consumption. Whilst in 1929 investment had increased 14% in relation to the previous year, in 1930 decreased 3%, in 1931 41% and in 1932 58%! During 1933-1934 it started a recovery but reaching levels 54% and 38% lower than 1928, respectively. This fall in investments was also shown by the decline of the value of industrial production. According to figures taken from Thorp (2000, p. 289), while during the period 1929-1930 this value remained 4-5% higher than 1928, in 1931 it contracted 7% in relation to that year. And after a fall of 13% in 1932, it began to increase after 1933, and even more rapidly in 1934, when it reached a level 12% higher than 1928.

The magnitude of a deflation can also give an idea of the economic contraction. Regarding the cost of living only in Buenos Aires and using figures from Cortés Conde (2009, p. 351), Table 52 shows that in 1930, amid a military revolution which overthrew Yrigoyen, it increased 2.1% in relation to the previous year. However, in a context of world deflation, in 1931 it declined 11.3%. Even worse, in 1932, the cost of living reached a level 19.5% lower than 1929! But, in 1933 the tide changed as international prices started to recover, the peso devalued and the government implemented expansionary measures. Thus, the cost of living increased, but without reaching the 1929 level. In 1934 it decreased again, keeping a value 17.6% lower than 1929.

Table 52 Argentina: Cost of living (1929=100)

Year	Cost of living index
1930	102.1
1931	88.7
1932	80.5
1933	91.9
1934	82.4

Source: Cortés Conde (2009, p. 351) from "*Costo del Nivel de Vida en la Capital Federal*", *Dirección Nacional de Estadísticas y Censos*, Argentine Census Bureau, March 1968. Note: only Buenos Aires.

In relation to the unemployment rate, Rock (1991, p. 19) argues that the visible unemployment remained remarkably low, at perhaps 5 to 6%, but in a context of growing disputes and working lost days in the industrial sector[418]. In 1933 the British commercial attaché in Buenos Aires even calculated unemployment at a mere 2.8%. A year later his successor stated that in comparison with the rest of the world, Argentina may be said to be free of any serious unemployment problem. However, official statistics may have seriously underestimated real unemployment. They failed to take account of women workers, who made up perhaps one-fifth of the total, and they defined unemployment, quite misleadingly, as a percentage of the total population as opposed to the total labour force.

In Brazil, the available statistics, although basic and mostly unreliable, suggest that the effects of the Great Depression were mild if compared with the experience elsewhere. Table 53 shows that the most contractive effects occurred during 1930-1931, being the first to be hit the industry and commerce. During 1930 all sectors contracted except agriculture, although the latter contracted strongly in 1931. The government sector expanded during the worst years of the crisis, which gives an indication of the expansionary policy applied. These figures mainly coincide with other research such as that by Abreu (1990, p. 78), although they must be taken with care given the lack of primary reliable information for the period.

Table 53 Brazil: Sectoral indices of real product (1928=100)

SECTORS	1929		1930		1931		1932		1933		1934	
	Index	Var %	Index	Var %	Index	Var %	Index	Var %	Index	Var %	Index	Var %
TOTAL	101.1	1.1	98.9	- 2.1	95.7	- 3.3	99.8	4.3	108.7	8.9	118.7	9.2
Agriculture	100.3	0.3	101.4	1.2	95.0	- 6.3	100.8	6.0	112.9	12.0	119.9	6.2
Industry	97.8	- 2.2	91.3	- 6.7	92.3	1.2	93.6	1.4	104.6	11.7	116.2	11.1
Transport and comunications	103.7	3.7	88.9	- 14.3	93.2	4.9	85.3	- 8.5	92.4	8.3	96.1	4.0
Commerce	99.1	- 0.9	90.6	- 8.6	86.0	- 5.0	87.2	1.4	100.4	15.2	109.7	9.2
Government	112.6	12.6	128.6	14.2	127.9	- 0.6	149.8	17.2	134.4	- 10.3	157.4	17.2

Source: calculated from Haddad (1978, p. 8).

[418] See League of Nations (1933c, p. 51).

Regarding industry, and in line with the previous table, in Table 54 it is possible to see that the index of industrial production fell 2.4% in 1929 and 7.1% in 1930. From then on, the industry recovered at an anaemic annual rate of 1.4% in 1931-1932 and at more than 11% yearly between 1933 and 1934[419]. In that table it is also possible to verify those activities that were hardest hit. In general terms, all the sectors but foods and skins fell in 1930, being footwear, chemistry, paper, hats, steelworks and furniture the hardest hit. And taking the annual average during the first three years after the crisis (1929-1932), only some of the most protected sectors managed to grow: textile, paper, cement and steelworks. Although they fell in comparison modestly in 1930, they recovered strongly afterwards.

Table 54 Brazil: Index of annual industrial production according to industrial sector 1928-1934 (1928=100)

SECTORS	1929		1930		1931		1932		1933		1934		Var % Average 1929-1932	Var % Average 1930-1932
	Index	Var %	Index	Var %	Index	Var %	Index	Var %	Index	Var %	Index	Var %		
TOTAL	97.6	**- 2.4**	90.7	**- 7.1**	92.0	**1.4**	93.3	**1.4**	104.4	**11.9**	116.2	**11.3**	**- 1.7**	**- 1.4**
Textile	80.0	- 20.0	76.9	- 3.8	96.5	25.5	99.8	3.4	111.6	11.8	125.7	12.7	**1.3**	**8.3**
Footwear	116.1	16.1	85.1	- 26.7	87.4	2.7	76.5	- 12.4	80.4	5.1	87.4	8.6	**- 5.1**	**- 12.1**
Tobacco	104.1	4.1	93.9	- 9.8	96.8	3.1	94.5	- 2.5	98.0	3.8	149.5	52.6	**- 1.3**	**- 3.0**
Foods	104.5	4.5	113.0	8.1	105.2	- 6.9	104.0	- 1.2	118.5	14.0	125.3	5.7	**1.1**	**0.0**
Drinks	103.5	3.5	86.3	- 16.6	75.2	- 12.9	77.5	3.0	80.5	3.9	82.8	2.8	**- 5.7**	**- 8.8**
Chemistry	111.9	11.9	79.0	- 29.4	78.3	- 0.9	91.7	17.1	90.0	- 1.8	101.7	13.0	**- 0.3**	**- 4.4**
Hats	87.6	- 12.4	46.9	- 46.5	46.9	0.0	42.5	- 9.4	52.2	22.8	55.8	6.9	**- 17.1**	**- 18.6**
Skins	97.2	- 2.8	111.1	14.2	108.3	- 2.5	100.0	- 7.7	122.1	22.1	127.6	4.5	**0.3**	**1.4**
Paper	132.3	32.3	96.0	- 27.5	124.2	29.4	112.1	- 9.7	176.2	57.2	228.3	29.5	**6.1**	**- 2.6**
Furniture	85.6	- 14.4	63.0	- 26.4	71.6	13.6	71.6	0.0	74.3	3.8	91.4	23.0	**- 6.8**	**- 4.3**
Cements	109.5	9.5	99.2	- 9.4	189.7	91.2	169.8	- 10.5	257.1	51.4	368.3	43.2	**20.2**	**23.8**
Siderurgical	122.1	22.1	106.1	- 13.1	88.7	- 16.4	127.2	43.4	189.7	49.1	223.0	17.6	**9.0**	**4.6**
Editorial/graph.	114.1	14.1	105.6	- 7.4	70.4	- 33.3	76.1	8.0	94.4	24.1	108.5	14.9	**- 4.7**	**- 10.9**

Source: calculated from IBGE 1990. The order displayed takes into account the Industrial Census of 1912.
Note: original figures reproduced by IBGE from consumption tax records.

One symptom of the magnitude of the Great Depression in Brazil was the financial strains on main industrial companies. Many firms, financially exposed after the surge of credit during 1927, started to feel the impact of the credit crunch in 1928. The hardest hit was the State of São Paulo, not only because of the difficult times for the coffee industry, but also because of the agonies of the textile industry, which had grown importantly during the twenties, but faced fierce competition from abroad. This industry is also a good example of the experience of the Brazilian industry in general during the Great Depression, because it was the major industrial activity, accounting for up to 30% of the industrial output and also held the biggest share in industrial employment. Eleven important companies (P.G. Meireles, Morais Barros & Cia and others) asked for a moratorium on their debt payment of about 55 mil contos[420]. The moratorium

[419] According to the Industrial Census of 1912, the main activities in terms of personnel employed were textile (73 thousand), footwear (20), tobacco (15), foods (14), drinks (10), chemistry (8) and hats (5) (see IBGE 1990, Table 7.3). Table 54 takes into account this order.

[420] *Conto de réis* was an expression used in Brazil to indicate one million *réis*. The *Real* was the monetary unit of Brazil while *conto* is an expression adopted to indicate a million of réis (the plural of Real). The *conto de réis* corresponded to a thousand times the importance of a thousand-réis, which was the divisional unit. As a

was reluctantly granted because of the grave consequences of the possible failure of companies and the fear that the reduction of the value of stocks would jeopardize further the ability of industry and commerce to pay debts[421]. According to Stein (1979), 23 of 57 textile factories had suspended production from 1927 to 1930. And Haber (1992, pp. 351-362) affirms that by 1929, with reserve funds exhausted and revenues severely depressed, most companies stopped paying dividends. Recalling Table 54, the textile industry fell significantly in 1929-1930, and recovered also strongly afterwards. However, there is evidence that the contraction was stronger than those IBGE's figures suggest. According to Stein (1979), from 1927 to 1930 the quantum of production had fallen 20%. Furthermore, the *Centro Industrial Fiação e Tecelagem de Algodão* (CIFTA) output series confirm a dramatic decline revealed by the firm-level financial statistics: production declined by 9.4% in 1928, 12.1% in 1929 and 23.8% in 1930. In 1931 and 1932 the industry slowly began to stabilize, though its level of output was significantly below that from 1925 to 1927.

Regarding the evolution of prices, there was also deflation as in the case of Argentina. According to Salgado Guimarães et al. (1982, p. 56), the monetary contractive policy probably induced a deflation of about 40%. It is hard, however, to find reliable statistics about the consumer prices at the time. One possibility is the cost of living in Rio de Janeiro reproduced from IBGE (1990) shown in Table 55. According to this source, the cost of living fell around 9% in 1930 and 3.7% in 1931, with the total deflation in the period 1928-1933 being around 13.4%. Although these figures have to be taken with caution as discussed in our Introduction, they are consistent with the intuitive outcome, which is the probable deflation as a consequence of the fall in demand and the contraction of the circulating medium during the first two years of the crisis.

Table 55 Brazil: Cost of living at Rio de Janeiro (1928=100)

	1928	**1929**	**1930**	**1931**	**1932**	**1933**	**1934**
Index	100.0	99.3	90.3	87.0	87.4	86.6	93.3
Var %	-1.5	-0.7	-9.0	-3.7	0.4	-0.9	7.7

Source: calculated from IBGE (1990).

In Uruguay, the impact of the depression was important because the collapse of exports prompted a chain effect in the economy, harming imports and reducing economic activity. In the following tables it is possible to track these effects. Table 56 shows that during 1928-1934, the annual average GDP growth rate was -0.6%. However, between 1931 and 1933 the average contraction was around 12%, a number consistent with an economy in depression. However, this number hides an unequal growth distribution for the period: while cattle farming GDP contracted by 1.6%, industrial GDP grew 0.5%. The most negative effects were better perceived

consequence, a *conto* was depicted as Rs. 1:000$000. This currency was substituted by the *Cruzeiro* in 1942 at a rate of 1 *Cruzeiro* per thousand-réis.

[421] See document from an unknown author dated November 1929, in Salgado Guimarães et al. (1982, pp. 56-57).

by 1931, so it is not a mere coincidence that since that year the government started to exert strong intervention and regulation in economic activity. For the cattle farming sector the worst year was 1931 with a contraction in its GDP of 33.3%, although in 1932 this sector also shows a strong contraction (-17.5%). On the other hand, for industry 1931 and 1933 were difficult years with falls in GDP of 13.6% and 14.6% respectively in relation to the previous year. Regarding the onset of the recovery, the cattle farming sector started to present signs of improvement in 1933, a year before industry did.

Table 56 Uruguay: GDP index (total, industry and cattle farming, 1928=100)

Indices	1929		1930		1931		1932		1933		1934		Av.%
	Index	Var %	Index	Var %	Index	Var %	Index	Var %	Index	Var %	Index	Var %	1928 -1934
GDP cattle farming	106.4	6.4	133.2	25.2	88.9	-33.3	73.3	-17.5	80.9	10.4	80.2	-1.0	-1.6
GDP industry	103.6	3.6	112.4	8.5	97.1	-13.6	90.6	-6.7	77.4	-14.6	97.4	25.8	0.5
GDP total	**100.8**	**0.8**	**114.6**	**13.6**	**94.8**	**-17.3**	**88.0**	**-7.2**	**77.0**	**-12.5**	**91.6**	**19.1**	**-0.6**

Source: calculated from Bértola (1998, p. 61) and the base year recalculated to 1928, except total GDP (million 1990 International Geary-Khamis dollars) calculated from Maddison (2010).

The data about the cost of living for Uruguay is lacking for the period. However, the figures presented from Argentina and Uruguay suggest that the situation of the region was not different from other regions in the world. Indeed, as we have seen, deflation predominated in many countries after 1929, a phenomenon that was fuelled by the initial allegiance of governments to the mechanics of the gold standard, as well as because of the depression itself.

iv. Conclusion

In Table 57, we summarize through percentage changes the information regarding exports of ABU presented in Table 39, Table 42 and Table 43. Recalling Chapter IV, according to our calculations using the Herfindahl-Hirschmann index (HHI), Brazil shows the most concentrated foreign trade structure in terms of country and product destinations among the three countries. Thus, those figures suggest that Brazil was a priori the most vulnerable to a trade shock of the three. This is indeed an intuitively correct outcome, taking into account its outstanding concentration in coffee exports. However, the actual figures show that although the most dramatic fall for Brazil was in 1930, that contraction[422] was more than 10 percentage points below the Argentine shrinkage. And although during 1931-1932 the contraction of Brazilian exports was moderately bigger than in Argentina, they outperformed those of Argentina during the period 1933-1934. This is explained by the fact that the increase of the export quantum surpassed the fall of prices, so that coffee export values actually grew 37.7% during that period. Besides, cotton exports were also significant in 1934. In any case, the Brazilian fall (-5%) was not as strong as the HHI suggested, as compared with Argentina (-8.4%) and especially Uruguay (-13.7) during 1929-1934. In Argentina exports also grew as soon as 1933, and the recovery continued in 1934.

[422] Nevertheless, it is important to take into account that these dollar figures of the Brazilian trade contraction might be overvalued, since the Brazilian exports were expressed originally in British pounds that were devalued against major currencies due to the British departure from the gold standard.

The case of Uruguay is different. Although it was a priori the second most concentrated in terms of products according to the HHI, it proved more vulnerable to the trade channel than the HHI suggested. Indeed, the bulk of the negative effects of the Great Depression came one year later than in Argentina and Brazil, but they were devastating. The contraction of exports in 1930 was significantly lower than the other two, but in 1931, the situation reversed, and the contraction of Uruguayan exports was twice bigger that in Brazil and more than three times that in Argentina. After a partial recovery in 1933, there is another strong contraction of the Uruguayan foreign trade in 1934 due to the significant fall of meat (-16.9%) and wool (-50.1%) exports.

Uruguay was not only unlucky in the 'lottery ticket' of commodities, but also especially affected by the trade policies of the UK. For example, the fall in Uruguayan meat exports (-16.9%) contrasts with the increase of Argentina's exports (+15.5%). While Uruguayan exports to the UK fell 44.1% in 1934, Argentine exports to that country grew 40.9%. Probably, the poor performance of Uruguayan meat exports to the UK in comparison with Argentina can be blamed on the fact that those exports did not benefit from the Roca-Runciman Treaty signed in 1933 between Argentina and the UK. As we analyse in detail in Chapter XII, British policies were especially detrimental because the Uruguayan government lacked the capability to persuade British counterparts to engage swift negotiations as Argentina was able to do. In fact, when the cold averages of the inter-annual variation rates during 1929-1934 are taken into account, the strongest fall of foreign trade was in Uruguay.

Table 57 ABU: Exports – variation rates (annual and average)

	1929	**1930**	**1931**	**1932**	**1933**	**1934**	**Average variation rate 1929-1934**
Argentina	-10.8	-43.4	-16.6	-22.7	8.8	34.2	**-8.4**
Brazil	-2.7	-30.7	-24.7	-26.0	25.1	28.9	**-5.0**
Uruguay	-11.6	-4.5	-57.7	-25.0	43.8	-27.2	**-13.7**

Source: Table 39, Table 42 and Table 43.

If we compare the international prices of the main export products of ABU presented in Table 58, it is possible to give coherence to the aforementioned evolution of exports of each of these countries. In general, most of the agricultural prices relevant for Argentina are also relevant for Uruguay and to a lesser extent to Brazil. In this regard, the average inter-annual variation rate of cattle hides (-18.7%), wool (-17.2%), coffee (-17.2%), maize (-15.7%), wheat (-14.9%) and chilled beef (-10.4%) are among the most outstanding (-18.7%, -17.2% and -10.4%, respectively) for the period 1929-1933, significantly hitting all the three countries.

However, the evolution of important staples hides some key differences. In spite of the annual swings, if we take the average of the annual variation rates during 1929-1934, Uruguay shows the biggest fall of exports and the strongest swings, too. Exports were more concentrated in beef and wool, so that the drop of those staples was translated completely through the trade channel. In the case of Argentina, the export basket was more diversified. Thus, this country could balance up to some extent the overall negative performance of the foreign sector.

By contrast, the case of Brazil is interesting because of coffee. This product accounted for almost 70% of the Brazilian exports, and coffee prices had also a consistent fall (-17.2% inter-annual average during 1929-1933). However, as we showed before, that contraction was up to some extent compensated for by more cotton exports at the end of the period. Although it was a priori the most vulnerable to the swings of coffee prices, it did not fall so much as Argentina in 1930, and recovered steadily during 1933-1934.

In the case of Argentina, the falls of wheat (-14.9%) and maize (-15.7%) prices were also strongly detrimental. Those international prices fell very severely during 1929-1931. However, they stabilized in 1932 and recovered in 1933, giving Argentina some relief in face of the fall of beef and cattle hide prices. In this respect, the Imperial preferences applied by the UK were especially felt during 1931-1933, and hit evenly Argentina and Uruguay and to a lesser extent Brazil.

Table 58 International prices of main products exported by ABU

Year	Wheat		Maize		Linseed		Chilled beef (Ranches)		Cattle hides (Dried)		Wool (Cruza gruesa)		Coffee	
	Price	Var %	Price	Var %	Price	Var %	Price	Var %	Price	Var %	Price	Var %	Price	Var %
1929	41	-8.9	34	-5.6	76	16.9	188	2.7	486	-32.3	474	-18.7	20.4	-4.2
1930	32	-22.0	21	-38.2	62	-18.4	169	-10.1	316	-35.0	278	-41.4	13.1	-35.8
1931	16	-50.0	12	-42.9	32	-48.4	118	-30.2	226	-28.5	177	-36.3	10.1	-22.9
1932	16	0.0	12	0.0	24	-25.0	78	-33.9	156	-31.0	109	-38.4	9.1	-9.9
1933	17	6.3	13	8.3	34	41.7	93	19.2	208	33.3	162	48.6	7.9	-13.2
Average Var %		**-14.9**		**-15.7**		**-6.6**		**-10.4**		**-18.7**		**-17.2**		**-17.2**

Source: Except coffee, calculated from Prebisch (1991, p. 261) obtained from Banco Central del Uruguay in the framework of the field study carried out in Uruguay for the region during the period November-December 2010. Note: original data expressed in paper pesos per kilogram, in order to obtain the figures in dollars, the US dollars/gold pesos exchange rates from Officer (2011) and the parity 1 gold peso = 2.27 paper pesos were applied; then, figures were rounded off and converted from kilograms to tonnes. Coffee import prices into the US (current cents of dollars per pound weight), from Delfim Netto (2009, pp. 277-278)

For these countries, the vulnerabilities through trade entailed vulnerabilities in the fiscal position. In order to facilitate the comparison among ABU, in Table 59 we show the percentage of import and other foreign trade taxes in 1928 and the percentage of fiscal deficit over the government revenues during 1930-1931. The first calculation gives an idea of the fiscal vulnerability just before the Great Depression arrived. The second, not having a harmonized deflator to contrast with, gives an idea of the evolution and weight of the fiscal deficit.

The tables show that all the three governments were strongly dependent on the income from foreign trade. In Table 59 and Table 60 it is possible to see that the most vulnerable of the three from the fiscal point of view was Argentina, as its income came almost 56% from taxes linked to foreign trade. Its deficit was also comparatively high, especially in 1930-1931. This outcome, added to the political decision of the Argentina government to keep paying the foreign debt, explains why the fiscal cuts of Argentina were so sharp. In Table 61 it is possible to verify that by comparing the years 1930 and 1932 with the base fiscal revenue figure of 1928, on both accounts the Brazilian government was the hardest hit of all, and Uruguay less affected.

However, it is important to keep in mind that the figure of 1932 for Brazil is biased because of the *Revolução Constitucionalista* that was not directly linked to the Great Depression. Counterintuitively, the case of Uruguay is interesting because, at least in the figures presented, this country shows the soundest structure, either in terms of share of import taxes or fiscal deficit. Nevertheless, the strong fiscal cuts and tax rises are consistent with the high overall dependence of the Uruguayan economy onforeign trade. In the case of Brazil, the deterioration of 1932 is a consequence of the costs associated to suppress the revolution of São Paulo.

Table 59 ABU: Percentage of import and other foreign trade taxes and revenues in 1928

Argentina	Brazil	Uruguay
55.5%	47.0%	32.0%

Source: calculated from Table 45, Figure 17 and Nahum (2007, p. 145).

Table 60 ABU: Percentage of fiscal deficit over the government revenues

Year	Argentina	Brazil	Uruguay
1930	64.5%	49.6%	6.1%
1931	32.0%	16.8%	7.4%
1932	15.8%	63.3%	7.8%

Source: calculated from Table 46, Table 47 and Table 48.

Table 61 ABU: Percentage change of fiscal revenues

	Argentina	Brazil	Uruguay
1928 - 1930	-0.6%	-21%	4.1%
1928 - 1932	-9.6%	-24.3%	-7.0%

Source: calculated from Table 46, Table 47 and Table 48.

Beyond the fiscal implications of the trade contraction, our analysis confirms that economic activity fell in ABU strongly as a consequence of the transmission of the crisis from the North through trade. Also recalling our analysis in Chapter IV, particularly the GDP numbers presented in Table 9, the GDP contraction lasted three years for Argentina (1930-1932) and Uruguay (1931-1933), and two years for Brazil (1930-1931). The case of Uruguay is notable because the economic contraction started later and lasted longer. While the economy of Argentina contracted almost 7% in 1931 and Brazil 6% in 1930, Uruguay slumped by more than double those figures (-17.3%) in 1931. And worse still, it contracted again in 1932 (-7.2) and in 1933 (-12.5%). Thus, according to these figures, while Brazil had a strong recession and Argentina reached a depression, Uruguay was the hardest hit. By 1934, the latter was still far away from reaching the pre-crisis level, while Argentina was able to do so and Brazil clearly did since 1933.

In Table 62 and Table 63 we present the sectoral behaviour. The slump of total GDP can be explained in the three cases by the collapse of key agricultural sectors. Again, the case of Uruguay is outstanding. Although in the three countries the landing activities were severely hit, the contraction in 1931 of the Uruguayan GDP cattle farming index (-33.3%) simply does not have a match with the other two cases. However, industrial activity also contributed to the slump and the recovery. Similarly to agriculture, the industrial contraction in Uruguay was late, but lasted longer, during 1931-1933. By contrast, the Brazilian fall of industrial activity was only verified at the beginning of the crisis, during 1929-1930. And in Argentina, it also contracted in 1931. As a matter of fact, in both major countries some industrial sectors grew during 1931-1934, compensating in this way for the contraction of other sectors.

Table 62 ABU: Industry GDP Index - Annual Variation rates (%)

	1929	1930	1931	1932	1933	1934
Argentina	-2.0	-3.1	-4.2	0.0	11.0	10.9
Brazil	-2.2	-6.7	1.2	1.4	11.7	11.1
Uruguay	3.6	8.5	-13.6	-6.7	-14.6	25.8

Source: Table 50, Table 53 and Table 56.

Table 63 ABU: Landing activities GDP Index - Annual Variation rates (%)

	1929	1930	1931	1932	1933	1934
Argentina – Agriculture	4.0	-26	35.1	-9.6	-3.2	8.8
Argentina - Cattle farming	-2.0	3.1	-9.9	4.4	3.2	3.1
Brazil	0.3	1.2	-6.3	6.0	12	6.2
Uruguay	6.4	25.2	-33.3	-17.5	10.4	-1.0

Source: Table 50, Table 53 and Table 56.

From this assessment, it is possible to conclude that even though the degree of trade concentration, along with a better fiscal profile, a priori told us that Uruguay was not among the most vulnerable countries of the three, the actual figures of trade and economic contraction tell us that the perceived vulnerability gave the wrong impression. This outcome needs to be explained otherwise, by recurring to explanations in terms of patterns of dependence and structural links to the world system.

Similarly, as we analyse in more detail in Chapter XII, the statistical evidence in the Brazilian case about trade vulnerability did not translate fully into trade contraction. One possible answer to this is that the main destination of its coffee, the US, did not use all its leverage as much as it could to turn Brazilian policies around. By contrast, the other two neighbours were highly dependent on the British market, and the UK government was more committed to exerting its leverage during commercial negotiations.

Now that we have shown the magnitude of the economic contraction associated to the vulnerabilities of ABU, we turn to the fate of the gold standard in these countries and policies applied by each of the governments to face the downturn.