The Export-Led Growth Model

Jesús Fernández-Villaverde[1], Angel Alvarado[1], Fernando Arteaga[1] and Ivan Luzardo Luna[1]

April 30, 2023

[1]University of Pennsylvania

Outline

- Catching-up and the export-led growth model (1870-1929).

- International trade.

- Foreign investment.

- Migration.

- Institutions in the late 19th century.

Catching-up and the export-led growth model

The late 19th century

- Income gap between Latin America and industrial leaders.

- "Take-off" in terms of economic growth.

- Economic growth across the entire continent, but particularly strong in the southern cone (Argentina, Chile, and Uruguay).

- Export-led growth era (1870-1929) based on commodities: saltpeter, beef, wheat, guano, or coffee.

- First wave of globalization (1870-1914).

The late 19th and early 20th century

- But the export-led growth era was not only about exporting commodities.

- Also important: Foreign (initially British, and later American) investment in transportation (railroads and public utilities) and migration inflows.

- Export-led industrialization (Salvucci, 2008).

- Institutional changes: improvements in stability and state capacity.

Economic growth literature

- Convergence vs conditional convergence.

- Few examples of economic convergence in recent decades (South Korea or Ireland).
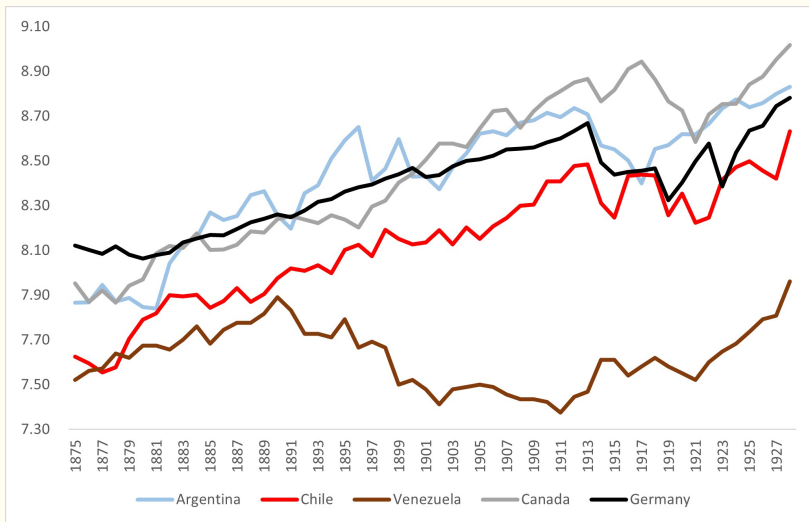
- Barriers to economic growth.

- Catching Up, Forging Ahead, and Falling Behind, JEH (1986)

- Latecomers advantage.

- "Backlog" of unexploited technologies.

- Conditional convergence: "Social capabilities."

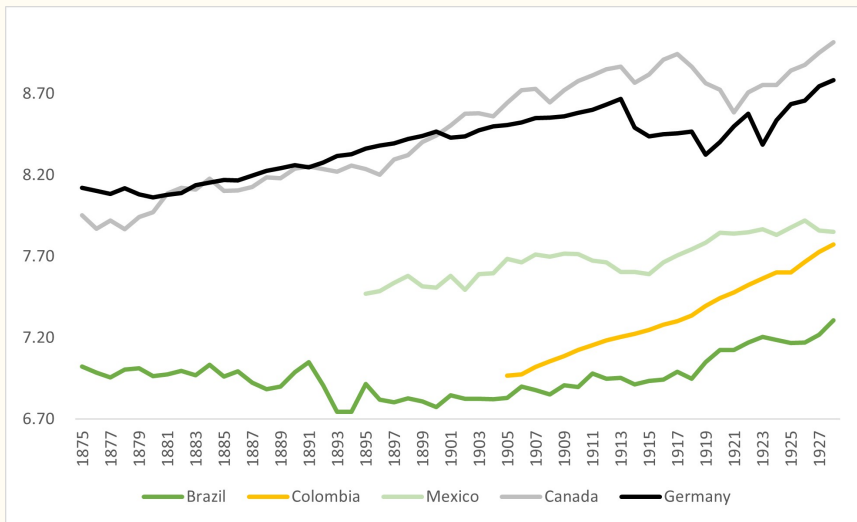# GDP per capita relative to that of Britain, 1875-1928 (%)

Real GDP per capita in logs, 1875-1928 ($2011)

Real GDP per capita in logs, 1875-1928 ($2011)
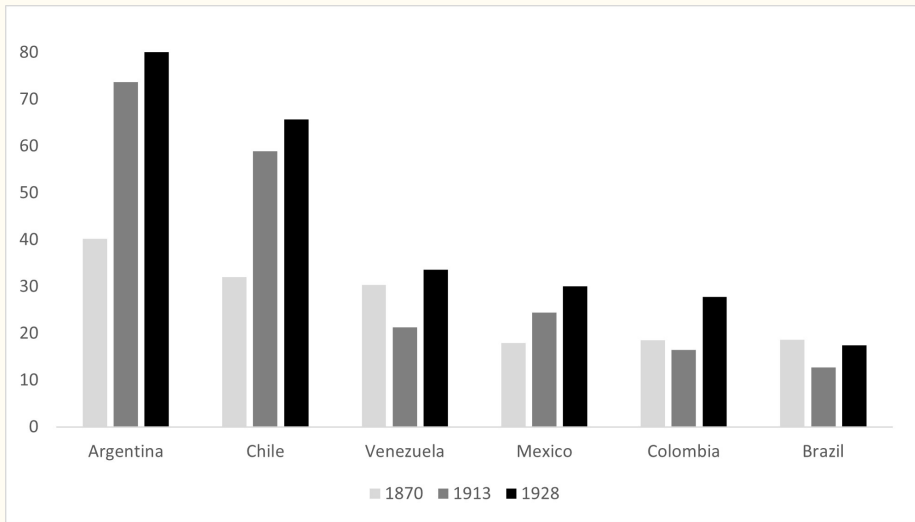
Source: Maddison dataset.

International trade
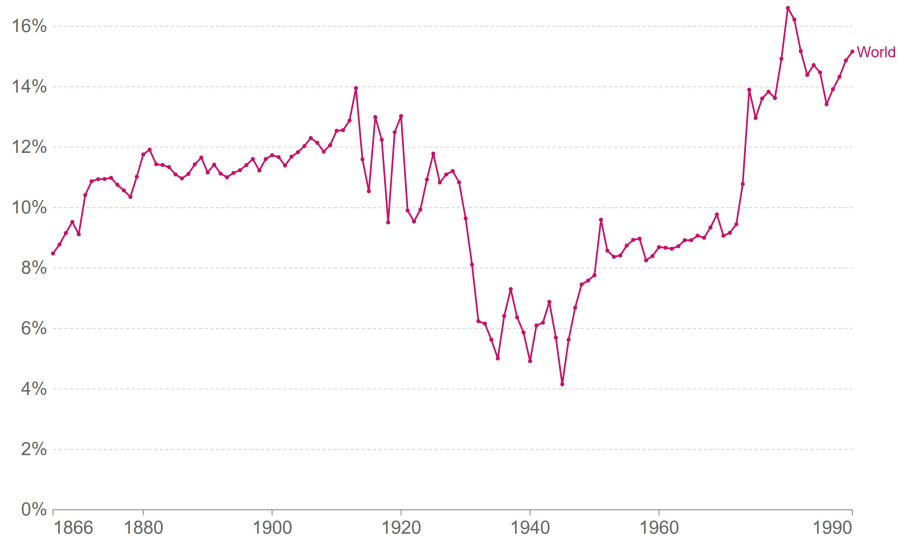
International trade

- Falling transportation costs.

- Exporting high bulk-to-value commodities was now feasible.

- The rise in disposable income (and demand for commodities) in Europe and the US.

- Britain and its free trade policy.

Value of exported goods as share of GDP, 1866 to 1990

Estimates correspond to merchandise export-to-GDP ratios.

World

Source: Fouquin and Hugot (CEPII 2016)

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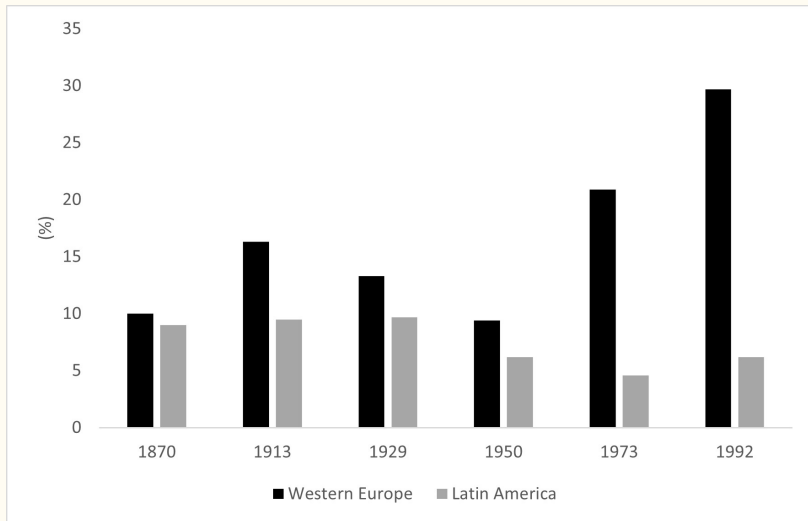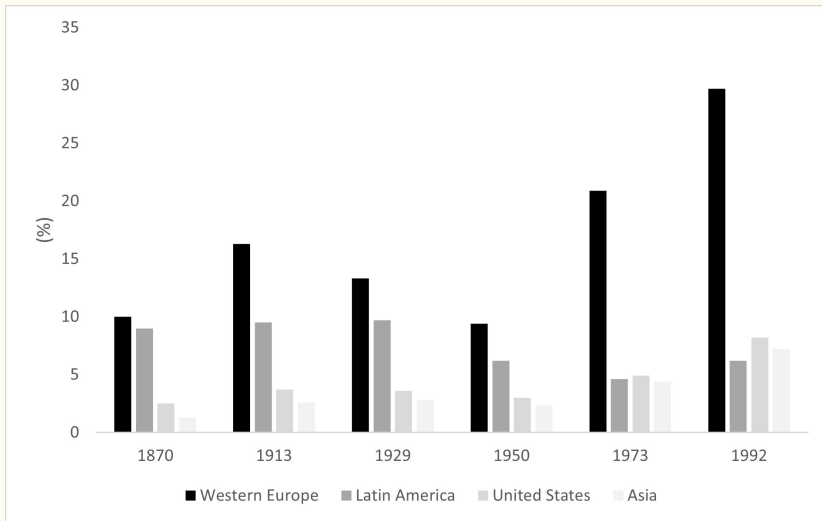
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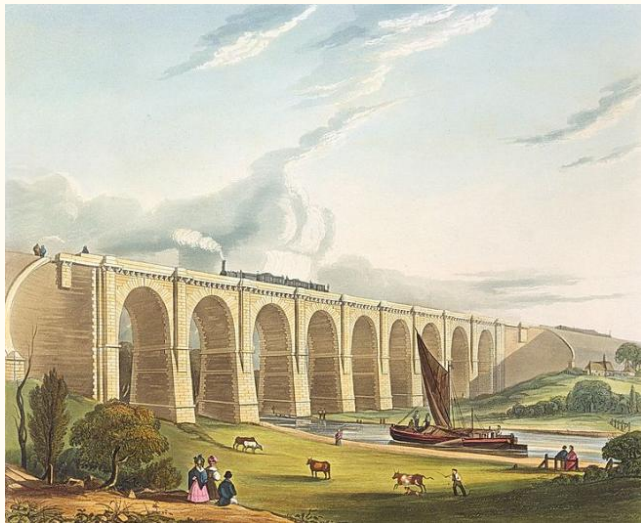
Note: Viaduct across the Sankey Valley, 1831. engraved by Henry Pyall after a painting by Thomas Talbot Bury.

Merchandise exports as a share of GDP (%), 1870-1992

Merchandise exports as a share of GDP (%), 1870-1992

TABLE 3.6. *Exports Per Head (US$): 1850, 1870, 1890, and 1912*

	1850	1870	1890	1912	Annual Growth (%) 1850–1912
Argentina	7.7	15.3	27.2	59.3	3.4
Bolivia	5.5	8.6	12.4	17.4	1.9
Brazil	4.7	7.9	9.4	14.5	1.8
Chile	7.5	13.8	19.4	39.5	2.7
Colombia	1.7	3.2	5.9	5.4	1.9
Costa Rica	11.4	21.2	37.9	25.6	1.3
Cuba	34.4	50.8	49.3	65.0	1.0
Dom. Republic	5.1	7.7	10.0	15.7	1.8
Ecuador	2.0	4.1	4.6	9.3	2.6
El Salvador	3.2	7.3	6.8	9.0	1.7
Guatemala	1.7	2.5	7.5	7.3	2.4
Haiti	6.8	5.7	9.8	6.4	−0.1
Honduras	4.9	3.6	8.1	4.7	−0.1
Mexico	4.8	3.7	4.6	9.3	1.1
Nicaragua	3.7	3.5	10.1	10.8	1.7
Paraguay	1.8	7.2	8.5	7.6	2.3
Peru	3.8	10.0	3.2	10.9	1.7
Puerto Rico	13.1	10.4	12.2	39.9	1.8
Uruguay	12.3	34.6	39.1	47.0	2.2
Venezuela	3.2	4.2	9.0	9.5	1.8
Latin America	5.8	8.9	11.2	19.8	2.0
United States	7.4	9.4	14.4	24.7	2.0

Sources: Derived from Appendix 1, and Carter (2006), vol. 3, using three-year averages.

Source: Victor Bulmer-Thomas (1994).

Table 1.4 World Trade, 1876–80 and 1913 ($ millions)

	1876–80			1913		
Region	Exports	Imports	Balance	Exports	Imports	Balance
	Primary Products					
United States and Canada	600	330	270	2,101	1,542	559
United Kingdom	117	1,362	−1,245	760	2,596	−1,836
Northwestern Europe	840	1,800	−960	3,064	5,894	−2,830
Other Europe	750	515	235	1,793	1,689	104
Oceania				455	129	326
Latin America				1,531	595	936
Africa				680	307	373
Asia				1,792	949	843
All four	1,413	575	838			
Total	3,720	4,582	−862	12,176	13,701	−1,525
	Manufactures					
United States and Canada	100	190	−90	734	891	−157
United Kingdom	865	225	640	1,751	601	1,150
Northwestern Europe	1,080	450	630	3,318	1,795	1,523
Other Europe	210	330	−120	578	1,133	−555
Oceania				9	370	−361
Latin America				51	879	−828
Africa				26	451	−425
Asia				461	1,247	−786
All four	35	1,285	−1,250			
Total	2,290	2,480	−190	6,928	7,367	−439

Source: Lamartine Yates (1959).
Note: World trade does not balance due to unrecorded trade.

Source: Bordo, Taylor and Williamson (2001), p. 43.

TABLE 3.2. *Export Commodity Concentration Ratios, circa 1913*

Country	First Product	Percentage	Second Product	Percentage	Total
Argentina	Maize	22.5	Wheat	20.7	43.2
Bolivia	Tin	72.3	Silver	4.3	76.6
Brazil	Coffee	62.3	Rubber	15.9	78.2
Chile	Nitrates	71.3	Copper	7.0	78.3
Colombia	Coffee	37.2	Gold	20.4	57.6
Costa Rica	Bananas	50.9	Coffee	35.2	86.1
Cuba	Sugar	72.0	Tobacco	19.5	91.5
Dominican Republic	Cacao	39.2	Sugar	34.8	74.0
Ecuador	Cacao	64.1	Coffee	5.4	69.5
El Salvador	Coffee	79.6	Precious metals	15.9	95.5
Guatemala	Coffee	84.8	Bananas	5.7	90.5
Haiti	Coffee	64.0	Cacao	6.8	70.8
Honduras	Bananas	50.1	Precious metals	25.9	76.0
Mexico	Silver	30.3	Copper	10.3	40.6
Nicaragua	Coffee	64.9	Precious metals	13.8	78.7
Panama	Bananas	65.0	Coconuts	7.0	72.0
Paraguay	Yerba maté	32.1	Tobacco	15.8	47.9
Peru	Copper	22.0	Sugar	15.4	37.4
Puerto Rico	Sugar	47.0	Coffee	19.0	66.0
Uruguay	Wool	42.0	Meat	24.0	66.0
Venezuela	Coffee	52.0	Cacao	21.4	73.4

Sources: The figures have been derived from Mitchell (2007) wherever possible. The exceptions are Bolivia (Walle, 1914), Colombia (Eder, 1912), El Salvador and Guatemala (Young, 1925), Haiti (Benoit, 1954), Mexico (Enock, 1919), Panama (Bureau de Publicidad de la América Latina, 1916–17), Paraguay (Koebel, 1919), Puerto Rico (Dietz, 1986), Uruguay (Finch, 1981), and Venezuela (Dalton, 1916).

Source: Victor Bulmer-Thomas (1994).

TABLE 3.7. *Exports by Main Markets, 1913*

Country	Exports by Value (in millions of US$)	United States (%)	United Kingdom (%)	Germany (%)	France (%)	Total (%)
Argentina	510.3	4.7	24.9	12.0	7.8	49.4
Bolivia	36.5	0.6	80.8	8.5	4.9	94.8
Brazil	315.7	32.2	13.1	14.0	12.2	71.5
Chile	142.8	21.3	38.9	21.5	6.2	87.9
Colombia	33.2	44.5	13.5	7.1	2.0	67.1
Costa Rica	10.5	49.1	41.3	4.8	0.9	96.1
Cuba	164.6	79.7	11.2	2.8	1.0	94.7
Dominican Republic	10.5	53.5	2.3	19.8	8.5	84.1
Ecuador	15.8	24.3	10.3	16.6	34.1	85.3
El Salvador	9.3	29.7	7.4	17.9	21.4	76.4
Guatemala	14.5	27.1	11.1	53.0	0.1	91.3
Haiti	11.3	8.8	7.1	37.2	44.2	97.3
Honduras[a]	3.2	86.9	1.8	5.3	0.2	94.2
Mexico[b]	148.0	75.2	13.5	3.5	2.8	95.0
Nicaragua	7.7	35.3	12.9	24.5	22.9	95.6
Panama	5.1	94.1	1.3	4.3	0.3	99.9
Paraguay	5.5	–	n/a	22.0	0.6	28.1
Peru	43.6	33.2	37.2	6.7	3.5	80.6
Puerto Rico[c]	46.2	84.6	n/a	n/a	n/a	84.6
Uruguay	71.8	4.0	11.2	19.5	17.4	52.1
Venezuela	28.3	29.4	7.6	19.3	34.7	91.0
Latin America[d]	1,588.2	29.7	20.7	12.4	8.0	70.8

[a] Fiscal year 1912–13.
[b] Fiscal year 1911–12.
[c] Data are for 1910.
[d] Excludes Puerto Rico.
Sources: Pan-American Union (1952); Dietz (1986).

Source: Victor Bulmer-Thomas (1994).

Table 7.8. *Sectoral composition of output, 1870–1930 (percentages rounded)*

	Primary	Secondary	Tertiary
Argentina			
1900	49	22	29
1935	33	30	37
Brazil			
1910	36	14	50
1920	32	17	51
1930	31	17	52
Chile			
1930	34	16	50
Mexico			
1900	29	12	59
1910	29	12	60
1920	35	15	50
1930	28	15	53
Peru			
1900	40	15	45
1910	39	18	43
1920	40	17	43
1930	43	15	42
Uruguay			
1870	47	36	18
1910	44	37	19
1930	40	44	16
Venezuela			
1920	35	8	57
1930	37	14	49

Source: Salvucci (2008).

Table 7.6. *Net barter terms of trade. By decades, 1870–1930, and time trend in percent per year*

	Brazil	Mexico	Colombia	Cuba	Chile	Argentina	Uruguay	Peru	Venezuela
1870–79	116	177	102	85			65		127
1880–89	123	140	129	88	70	98	83		136
1890–99	128	119	151	94	64	82	102	108	171
1900–09	100	100	100	100	100	100	100	100	100
1910–19	91	94	107	105	110	101	119	84	97
1920–29	93	73	120	92	91	77		61	

Source: Salvucci (2008).

Foreign investment

Latin America and the first financial globalization

- Capital surplus in Britain.

- Consolidation of the classical Gold Standard.

- Early 19th century in Latin America: low saving rates.

- Funding investment with foreign saving.

- Railways construction.

Gross foreign assets industrialized countries (% GDP), 1870-2000
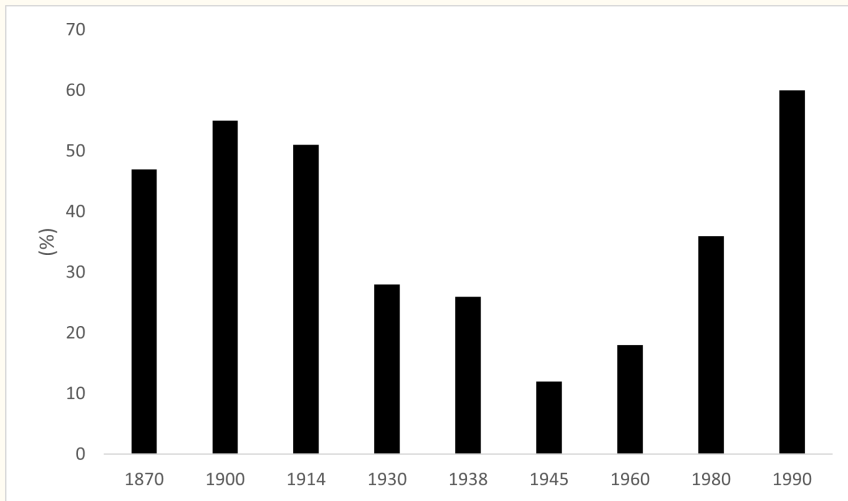
Source: Obstfeld and Taylor (2004).

Table 1.3 Foreign investment by England, France, and Germany, 1870–1913

	England			France	Germany
	Saving / GDP	Foreign investment / GDP	Foreign investment as % of saving	Foreign investment as % of saving	Foreign investment as % of saving
1870–79	12.3%	4.0%	32.5%	23.9%	10.2%
1880–89	12.2%	4.7%	38.5%	5.1%	18.8%
1890–99	11.0%	3.4%	30.9%	16.5%	12.1%
1900–4	12.6%	3.7%	29.4%	19.1%	8.3%
1905–14	13.1%	6.5%	49.6%	17.3%	7.5%
Net national wealth held overseas in 1914	32.1%				
Share of global foreign investment	41.8%			19.8%	12.8%

Sources: Feis 1930; Edelstein 1982, 2004; Maddison 1995, 2003; Lévy-Leboyer and Bourguignon 1990; Jones and Obstfeld 2001.

Source: Broadberry and O'Rourke (2010).

Table 1.4 Destination of English, French, and German foreign investment, 1870–1913

	England	France	Germany
Europe			
Russia	3.4%	25.1%	7.7%
Ottoman Empire	1.0%	7.3%	7.7%
Austria–Hungary	1.0%	4.9%	12.8%
Spain and Portugal	0.8%	8.7%	7.2%
Italy	1.0%	2.9%	17.9%
Other countries	2.5%	12.2%	
Total (Europe)	9.7%	61.1%	53.3%
Areas of recent settlement (outside Latin America)			
USA	20.5%	4.4%	15.7%
Canada	10.1%		
Australia	8.3%		
New Zealand	2.1%		
Total	41.0%	4.4%	15.7%
Latin America: Areas of recent settlement			
Argentina	8.6%		
Brazil	4.2%		
Total	12.8%		
Total (areas of recent settlement)	53.8%		
Other countries			
Mexico	2.0%		
Chile	1.5%		
Uruguay	0.8%		
Cuba	0.6%		
Total (Latin America)	17.7%	13.3%	16.2%
Africa	9.1%	7.3%	8.5%
Asia			
India	7.8%	4.9%	4.3%
Japan	1.9%		
China	1.8%		
Total (Asia)	11.5%	4.9%	4.3%
Rest	11.0%	9%	2%
Total	100.0%	100.0%	100.0%
Colonies	16.9%	8.9%	2.6%

Note: numbers for Russia and the Ottoman Empire include Asia. "Colonies" does not include Australia, Canada, or New Zealand.
Sources: Feis 1930; Stone 1999; Esteves 2007.

Source: Broadberry and O'Rourke (2010).

Table 2.3. *Gross capital flows from Britain, 1865–1914 (£ million)*

	Government	Private	of which: Railways	Total	Distribution World	Distribution Periphery
World	–	–	–	3,366	100%	–
Periphery of which:	–	–	–	1,571	47%	–
Latin America						
Argentina	78	271	201	349	–	22%
Brazil	79	93	55	173	–	11%
Mexico	16	65	30	82	–	5%
Chile	29	32	15	62	–	4%
Peru	26	11	4	37	–	2%
Uruguay	10	21	16	31	–	2%
Cuba	6	20	13	26	–	2%
Total				760	–	48%
Other periphery						
India	145	172	128	317	–	20%
Russia	70	69	35	139	–	9%
Japan	73	6	2	78	–	5%
China	48	25	15	74	–	5%
Egypt	23	43	1	66	–	4%
Turkey	25	18	9	42	–	3%
Italy	23	18	10	41	–	3%
Spain	8	26	8	34	–	2%
Greece	17	2	0	19	–	1%
Total				812	–	52%

Source: Irving Stone, *The Global Export of Capital from Great Britain, 1865–1914: A Statistical Survey* (New York, 1999).

Source: Taylor (2008).

Distribution British gross capital flows in Latin America, 1865-1914
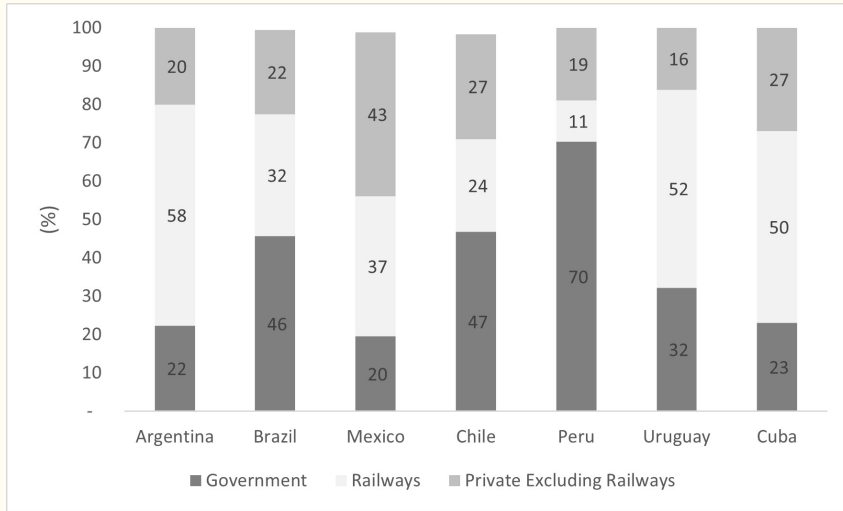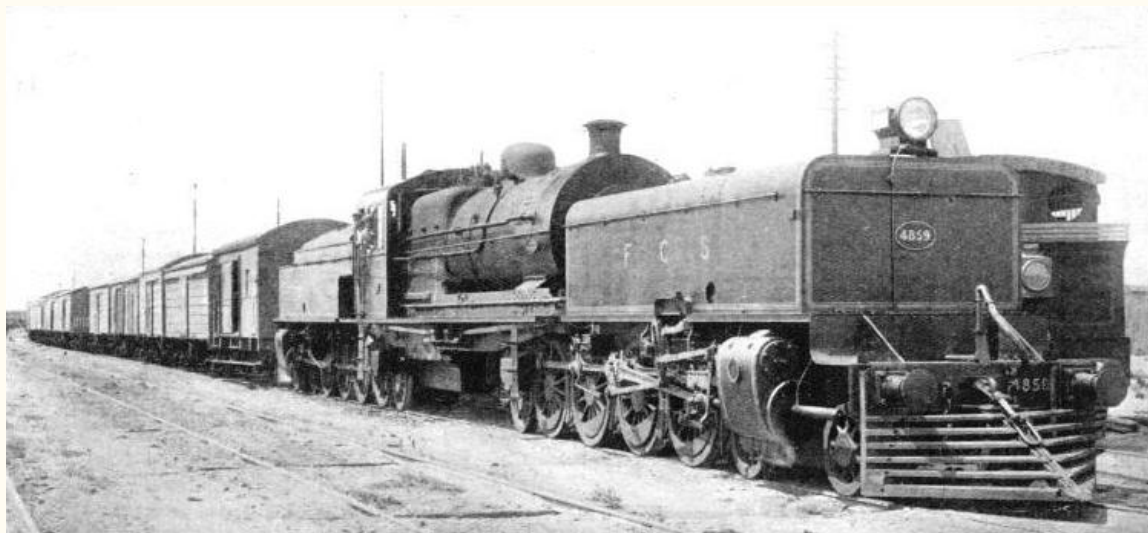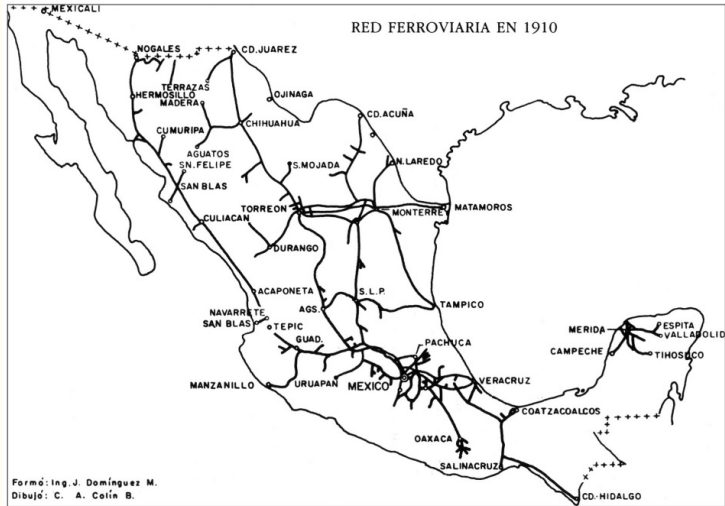
Map 7.3. Mexican railroads, 1910.
Source: Sergio Ortiz Hernán, *Los ferrocarriles de México: Una visión social y económica* (2 vols., Mexico City, 1987), 245.

Bank of London and Rio de la Plata (1880)

Table 2.5. *Counterfactual: Latin America without foreign capital in 1913–14*

| Country | 1900 US$ million | | FI/GDP | Estimated FI/K (COR = 4) | Counterfactual (capital share = 1/3) | |
	GDP	FI			GDP	Change
Argentina	107	279	2.60	0.65	75	−30%
Brazil	23	68	2.96	0.74	15	−36%
Chile	58	122	2.11	0.53	45	−22%
Colombia	38	10	0.27	0.07	37	−2%
Cuba	127	175	1.38	0.35	110	−13%
Guatemala	38	62	1.66	0.42	32	−16%
Honduras	32	50	1.56	0.39	27	−15%
Mexico	49	90	1.83	0.46	40	−18%
Paraguay	41	35	0.86	0.22	38	−8%
Peru	33	40	1.21	0.30	29	−11%
Uruguay	106	172	1.62	0.41	89	−16%
Venezuela	18	17	0.98	0.25	16	−9%
All	670	1120	1.67	0.42	559	−17%

Notes: FI = foreign investment; GDP = gross domestic product; K = capital stock; COR = capital output ratio

Source: Michael J. Twomey, "Patterns of Foreign Investment in Latin America in the Twentieth Century," in John H. Coatsworth and Alan M. Taylor, eds., *Latin America and the World Economy Since 1800* (Cambridge, MA, 1999).

Source: Taylor (2008).
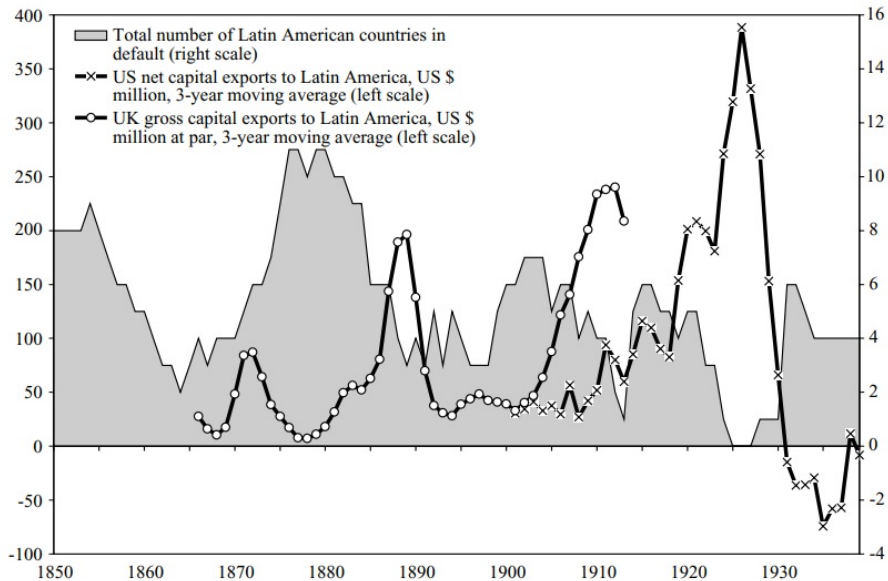
Figure 2.2. Boom and bust cycles in Latin America, 1850–1940.

Migration

Table 7.1
Migration Rates by Decade (per 1,000 mean population)

Country	1851–1860	1861–1870	1871–1880	1881–1890	1891–1900	1901–1910
European emigration rates						
Austria-Hungary			2.9	10.6	16.1	47.6
Belgium				8.6	3.5	6.1
British Isles	58.0	51.8	50.4	70.2	43.8	65.3
Denmark			20.6	39.4	22.3	28.2
Finland				13.2	23.2	54.5
France	1.1	1.2	1.5	3.1	1.3	1.4
Germany			14.7	28.7	10.1	4.5
Ireland			66.1	141.7	88.5	69.8
Italy			10.5	33.6	50.2	107.7
Netherlands	5.0	5.9	4.6	12.3	5.0	5.1
Norway	24.2	57.6	47.3	95.2	44.9	83.3
Portugal		19.0	28.9	38.0	50.8	56.9
Spain				36.2	43.8	56.6
Sweden	4.6	30.5	23.5	70.1	41.2	42.0
Switzerland			13.0	32.0	14.1	13.9
New World immigration rates						
Argentina	38.5	99.1	117.0	221.7	163.9	291.8
Brazil			20.4	41.1	72.3	33.8
Canada	99.2	83.2	54.8	78.4	48.8	167.6
Cuba						118.4
United States	92.8	64.9	54.6	85.8	53.0	102.0

Source: Hatton and Williamson (1998, table 2.1) based on Ferenczi and Willcox (1929, 200–201).

Sources: O'Rourke and Williamson (1999).

Table 10.4. *Real wage performance by decade relative to the Mediterranean countries (weighted average of Italy, Portugal, and Spain)*

	Argentina	Brazil SE	Brazil NE	Colombia	Cuba	Mexico	Uruguay
1850s		35.8					
1870s	207.7	48.9	15.5	53.1			
1890s	267.8	47.5	10.1	79.1		173.2	324.8
1909–1913	212.1	47.8	16.8	53.1	160.5	140.9	211.5
1930s	201.1			94.4	152.2	63	187

Source: Jeffrey Williamson, "Real Wages and Relative Factor Prices in the Third World, 1820–1940: Latin America" (Discussion Paper no. 1853, Harvard Institute of Economic Research, October 1998).

Sources: Sanchez-Alonso (2008).
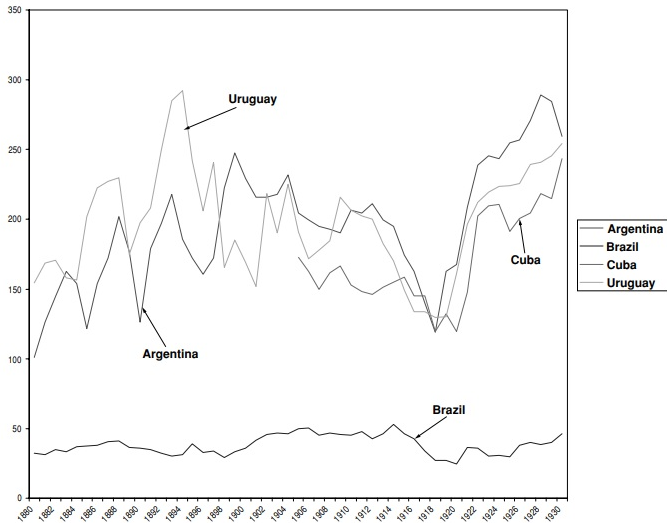
Figure 10.3. Real wages relative to the Mediterranean countries (1913 = 100).
Source: Williamson, "Real Wages, Inequality and Globalization in Latin America before 1940," 101–42.

Sources: Sanchez-Alonso (2008).

Asian migration

- Middle-East (Lebanese and Syrian) and East (China and Japan) Asian migrants.

- Indentured workers.

- The Japanese migration in Brazil during the early 20th century.

- Chinese workers during the Panama canal construction.

Also internal migration

- Relocation toward low density areas.

- Patagonia.

- Western Colombia.

- Northern Mexico and Chile.

Institutions in the late 19th century

Ulterior causes of export-led growth in the late 19th century

Beyond globalization:

- Higher political stability (substantial reductions in civil wars by 1870s).

- Constitutions: Argentina (1853, reformed in 1860), Brazil (1891), Chile (1833), Colombia (1863), Peru (1860), Venezuela (1864) .

- Higher state capacity in terms of centralization of power.

- Introduction of modern commercial legislation (commercial codes, stock exchanges).

- Creation of banks.

- But, limited progress in terms of constraints on the executive.

Sovereign bond yields, 1824-1914
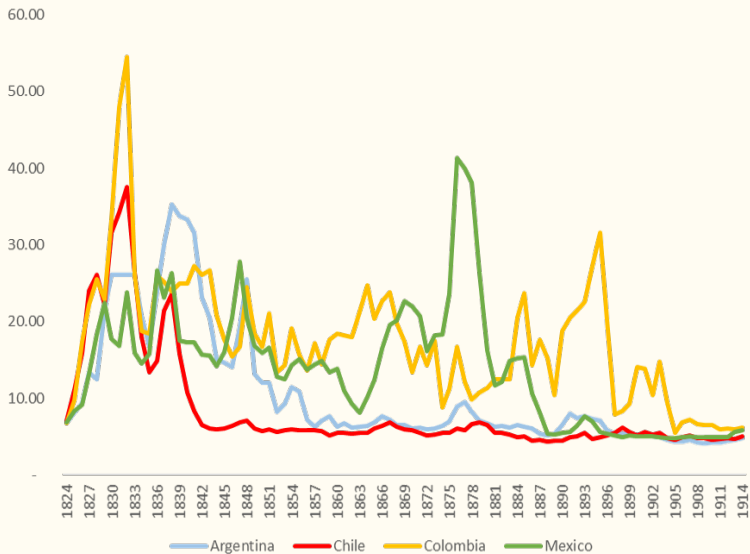
Figure 4
Default, 1825–1940

Notes: Fraction of years in default shown in parentheses. Poyais is omitted.
Source: Taylor (2003). Default data from Tomz (2001), issue dates from Marichal (1989).

Source: Paolera and Taylor (2012).

Constraints on the executive, 1820 to 1929

Based on the classification and assessment by Polity 5 (2021).
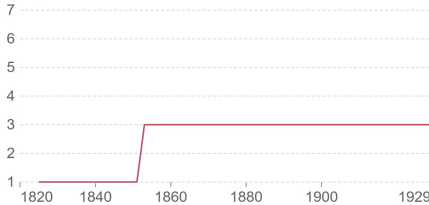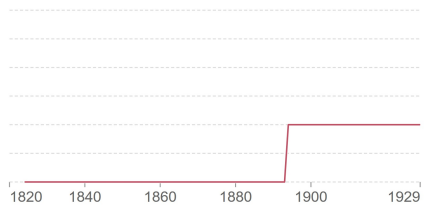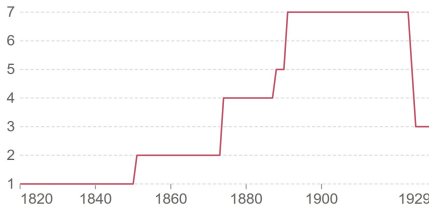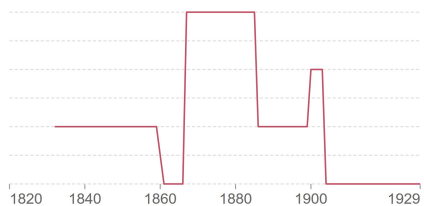
Source: Polity 5 (2021)

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Note: The Chart tab uses numeric values, ranging from 7 for an subordinated or on-par executive, to 1 if executive is unconstrained.

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Constraints on the executive, 1821 to 1929

Based on the classification and assessment by Polity 5 (2021).

Ecuador

Mexico

Peru

Venezuela

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Note: The Chart tab uses numeric values, ranging from 7 for an subordinated or on-par executive, to 1 if executive is unconstrained.

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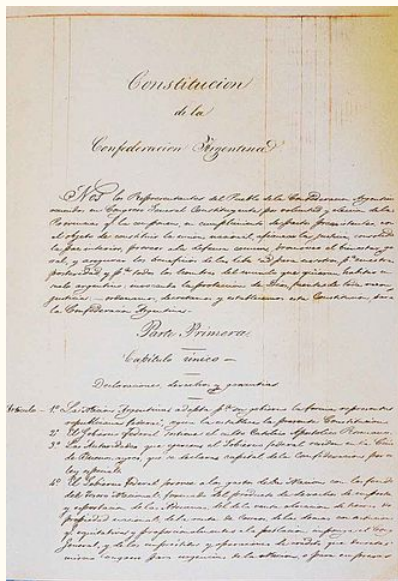
Las presidencias "históricas" (1862-1880):
Mitre, Sarmiento, and Avellaneda

La Regeneration (1880–98)

Presidents Rafael Nuñez (1880-1882, 1884-1886, 1887-1888, and 1892-1894) and Miguel Antonio Caro (1894-1898)