

EQUALITY OR GROWTH: A 20th CENTURY ARGENTINE DILEMMA *

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ABSTRACT

Argentina's long term economic performance between 1880 and 2000 (convergence with the rich followed by divergence) can be understood in terms of the economic and political consequences of its peculiar factor endowments. Skewed endowments meant huge gains from trade during the First Globalization boom; but, conversely, disintegration of world commerce in the Depression was a heavier blow for such a naturally specialized economy. The extreme protectionism, characteristic of the post-war period, was related to the country's peculiar economic structure: comparative advantages in food production and disadvantages in (labor-intensive) manufacturing implied that closing the economy was a political winner, though it eventually hampered growth. The road to openness followed in the last quarter of the 20th century would have meant, correspondingly, an increase in inequality. Attempts to moderate it through debt accumulation and exchange rate appreciation destabilized the economy and contributed further to Argentina's comparative decline.

Keywords: Argentina, growth, equality, comparative performance, factor endowments

JEL Classification: N16, O11, O41, O47

* Received 05/18/2008. Accepted 10/05/2009.

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RESUMEN

La experiencia económica de la Argentina entre 1880 y 2000, caracterizada por una sucesión de convergencia y divergencia con los países ricos, puede entenderse a partir de las consecuencias económicas y políticas de su dotación de factores de producción. Una sesgada disponibilidad de factores implicó grandes beneficios para la Argentina en la primera globalización; pero la desintegración comercial durante la depresión representó un impacto aciago. El extremo proteccionismo de la Argentina en la posguerra tuvo que ver con su peculiar dotación factorial: las ventajas comparativas en alimentos y desventajas en producción industrial trabajo-intensiva hacían políticamente atractivo el cierre de la economía, aunque a la larga desalentara el crecimiento. El camino de la apertura seguido en el último cuarto de siglo xx implicaría, al contrario, un aumento de la desigualdad. Los intentos por moderarlo con apreciación cambiaria y endeudamiento desestabilizaron la economía y contribuyeron, al cabo, al retraso argentino.

Palabras clave: Argentina, crecimiento, equidad, desempeño comparado, dotación de factores

1. INTRODUCTION

With some reasonable definitions of terms, Argentina is arguably the only nation to have both successfully converged and later significantly diverged from the rich in the modern era. If, for example, the standard for convergence is the 90th percentile of national per capita incomes, Argentina converged between 1870 and 1930, and diverged thereafter. Between 1904 and 1935, Argentina's income normally exceeded 75 per cent of the 90th percentile of a sample taken from Maddison (2006) (Table 1 and Figure 1 below). By the end of the twentieth century, the ratio to that same percentile had fallen to 38 per cent. With the possible exception of neighboring Uruguay, there are simply no other countries with a comparable economic trajectory during the period 1870-2000. An Argentine riddle does exist¹.

The literature on Argentine (success and) failure is large and still growing. Explanations of the rise and fall of Argentina come in two forms: secular and time specific. Among the longer run explanations, those emphasizing political/institutional variables² and those pointing at Argentina's changing

¹ Uruguay was, though, more of a «secular divergence» case: its per capita GDP was just 10 per cent short of that of the U.S. by 1870, while Argentina lagged the U.S. by 45 per cent. Bértola and Porcile (2002) look at the comparative experience of Argentina, Uruguay and their more successful «cousins», Australia and New Zealand.

² For example, Cortés Conde (1998), Della Paolera and Gallo (2003) and Sanz Villaroya (2005), O'Donnell (1977).

relationship with world commodity markets have been paramount³. Time specific arguments indicate a certain moment when some critical factor for economic growth faded or failed to appear, whether protectionist policies in a context of a stagnant frontier⁴, foreign capital to complement a shortage of national savings⁵ or human capital accumulation⁶.

Our own argument starts from the economic consequences of pure geography and goes on to consider the political economy consequences of factor endowments. In a nutshell, we argue that Argentina's factor endowments led to:

(1) Huge dynamic gains from trade during the First Globalization boom. Argentina was particularly blessed by the transport revolution of the second half of the 19th century as the decline in overland transport costs disproportionately benefited bulky products such as cereals.

(2) A political economy with some peculiar tradeoffs between efficiency and equality. Protectionism, pervasive during at least three decades after World War II, allowed for higher real wages in the short run, making it politically irresistible, but it was detrimental to growth. After financial and commercial opening in the latter part of the century, unsustainable episodes of exchange rate overvaluation were tolerated as a way to compensate, in the short run, for the real wage losses associated with freer trade. The private and public deficits associated with currency overvaluation were behind the macroeconomic problems that led to economic instability and stagnation in the last quarter of the 20th century.

In section 2, following this introduction, we present the evidence concerning Argentina's comparative performance and find three different epochs of growth, with breaks in 1930 and 1975. In section 3, we present what we call Argentina's economic identity and anticipate the thrust of our argument, developed further in section 4.

2. THE RISE AND FALL OF ARGENTINA, 1880-2000

Figure 1 shows Argentina's long run economic performance using two yardsticks: (1) a sample of countries for which we have continuous income data since the late nineteenth century, and (2) the highest decile's income of that same sample. Each line represents Argentina's GDP per capita as a share of each of those yardsticks.

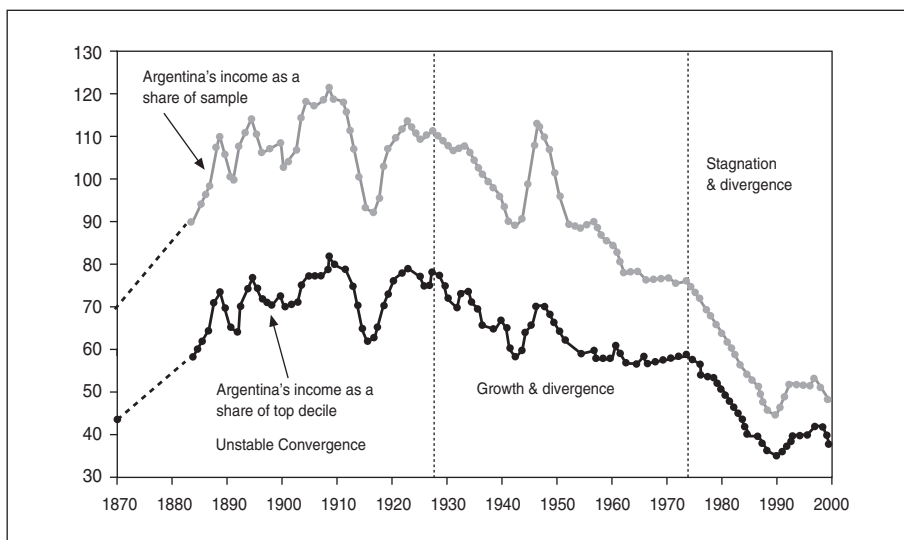
³ Díaz Alejandro (1970) is still the most articulate proposition of this argument and resonates in works such as Taylor (1994) and Waisman (1987).

⁴ Di Tella and Zymelmann (1969).

⁵ Taylor (1994).

⁶ Míguez (2005).

FIGURE 1
ARGENTINA'S COMPARATIVE ECONOMIC PERFORMANCE



Sources: Maddison (2006).

Notes: Higher line: Argentina's per capita GDP as a share of the average GDP of the following countries: 3 Core European (France, Germany, UK), 3 Southern European (Italy, Spain, Portugal), 4 «Western Offshoots» (US, Canada, Australia, New Zealand), 2 South American (Brazil and Uruguay) and Japan. Lower line: Argentina's per capita GDP as a share of the top decile's income of that sample.

Table 1 shows the bilateral comparisons with the same set of countries plus Chile, Mexico and Peru. The short description of the trajectory is a succession of convergence and divergence, with ambiguous periods such as the 1920s, the late 1940s, the 1960s and the 1990s.

TABLE 1
ARGENTINA'S PERFORMANCE: BILATERAL COMPARISONS

	1870	1884	1913	1929	1939	1950	1960	1975	1990	2000
Argentina's per capita GDP	1330	2044	3668	4246	4127	5036	5554	8141	6646	8464
Argentina's per capita GDP as a share of...										
France	69	91	107	93	93	96	74	60	37	41
Germany	72	94	108	105	78	133	73	66	41	46
United Kingdom	42	57	75	78	64	72	65	68	41	43
Italy	89	130	145	141	120	144	93	74	41	45
Portugal	139	198	292	274	242	239	188	120	62	61
Spain	108	120	182	160	214	224	174	97	55	56

TABLE 1 (Continued)

	1870	1884	1913	1929	1939	1950	1960	1975	1990	2000
Argentina's per capita GDP	1330	2044	3668	4246	4127	5036	5554	8141	6646	8464
Australia	40	46	72	83	69	68	64	61	39	39
New Zealand	43	57	71	83	64	64	58	64	48	53
Canada	77	96	86	85	84	69	63	56	35	39
United States	54	67	72	65	63	53	49	49	29	30
Brazil	186	266	458	381	327	300	238	192	133	154
Uruguay	59	84	116	106	112	107	112	151	102	108
Peru			367	282	227	221	186	193	219	232
Chile			142	132	129	132	129	177	102	86
Mexico			212	243	225	211	178	159	109	120
Japan	180	242	269	217	152	258	139	71	36	41
Sample	69	90	112	110	98	102	84	75	45	48
Top Decile	44	58	75	77	65	66	58	57	36	38

Sources: Maddison (2006).

Notes: Argentina's per capita GDP as a percentage of each country's income, triennial averages. «Sample» includes only the countries with complete data, i.e. leaving aside Peru, Chile and Mexico. «In the first row, Argentina's GDP is expressed in 1990 constant dollars».

The existence of an early convergence of the Argentine economy is undisputable. Starting at 69 per cent of the whole sample (and 44 per cent of the top decile) in 1870, Argentina's income per capita reached 112 per cent of the sample and 75 per cent of the top decile in 1913. As suggested by Figure 1, the process was not smooth but included several temporary setbacks, thus the label of «unstable convergence».

There has been much debate on the beginning of Argentina's comparative decline, with suggested dates in 1899 (Sanz Villaroya, 2005), on the verge of World War I (Di Tella and Zymelmann, 1969; Taylor, 1994; Bértola and Porcile, 2006), or in 1930 (Díaz Alejandro, 1970). Much of the controversy stems from the experience of the twenties. Argentina's growth in the period 1913-1929 was not extraordinary compared to our standard: the income ratio stood at 112 per cent of the full sample in 1913 and was slightly lower (110 per cent) in 1929.

However, if forced to choose, we would rather keep the twenties as a not-yet-diverging decade at the end of the convergence era. When compared to the income of the top decile in our sample—a more meaningful test of convergence—the ratio in the late 1920s is similar to the one prevailing just before World War I (75 per cent in 1913 and 77 per cent in 1929). Also, Argentina's retardation in relation to the full sample in 1913-1929 was entirely

the product of World War I⁷. If we take the decade 1919-1929, for example, Argentina grew faster than the sample. If convergence had progressed further after 1930, there would be no reason to consider the temporary drop of World War I in a different light than the aftermath of the 1890 crisis, when Argentina had already suffered a blip in its quite unstable convergence story. We believe that the future is not a valid criterion with which to judge the past, either today or in 1929⁸.

Divergence started with the Depression. The thirties were even harder on Argentina than on the U.S.; against the sample, Argentina lost twelve points (110 per cent to 98 per cent) between 1929 and 1939. Relative recovery around the mid 1940s was almost pure delusion —a combined result of devastation in the European mainland and Peron's spending away Argentina's exceptional terms of trade in the immediate postwar. The 1950s were back to the new normality of relative decline, with an 18 point loss (102 per cent to 84 per cent) in the decade to 1960. The fifteen years between the developmentalist government of Frondizi (1958-1962) and the quasi-hyperinflationary shock of 1975, meanwhile, stand as another ambiguous period: Argentina grew somewhat less than the sample but held its own against the top 10 per cent. Taking into account the whole period between the Depression and the oil shocks, Argentina accumulated a 37 point loss (112 per cent to 75 per cent) against the full sample and a 20 point loss (77 per cent to 57 per cent) against the income of the richest decile. This occurred in spite of the fact that Argentina's per capita GDP roughly doubled in the period 1929-1975.

Decline after 1975 was of a different nature. During the last quarter of the century the country accumulated no growth at all. Between 1975 and 1990 decline was both absolute and relative, with per capita GDP falling 20 per cent and the ratio to the sample descending from 75 per cent to 45 per cent. As for the period since 1990, extreme growth instability makes a balanced assessment extremely difficult. From a low of 45 per cent in 1990, the ratio reached 53 per cent in 1997, subsequently fell to a local minimum of 43 per cent in 2002 —during the deepest crisis in Argentina's modern history— but recovered thereafter, while the country was enjoying its fastest recorded expansion.

The bilateral comparisons of Table 1 follow, as a rule, the general picture of a rise and fall of Argentina. Between 1870 and 1929 Argentina grew faster than every other country in the sample. In the period 1929-1975, perform-

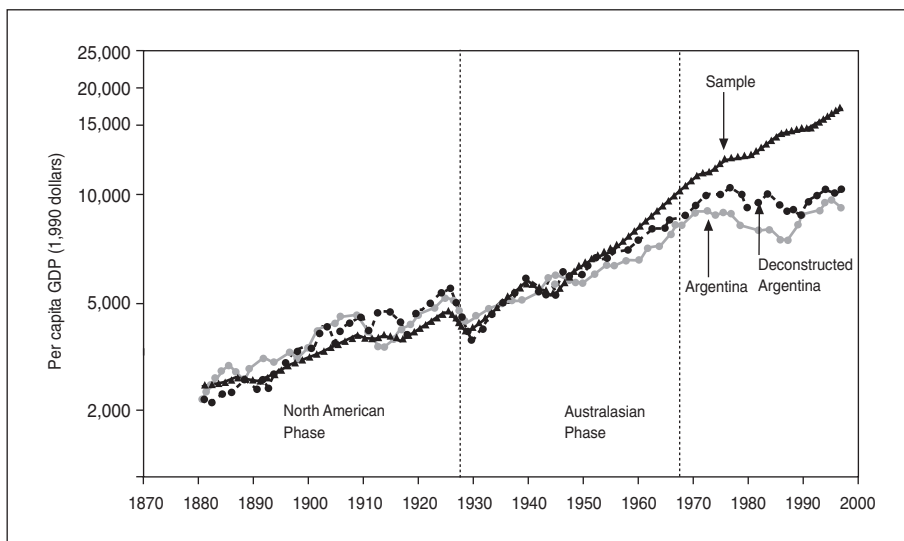
⁷ World War I came as a massive supply shock for the very open Argentine economy. The shortage of imported inputs led to a loss of one fifth of GDP between 1913 and 1917.

⁸ Though not exactly related to the question of per capita convergence, the overall dynamism of the Argentine economy in this period is quite impressive: during the 1920s the country grew at 6 per cent, with massive immigration —at the time, a mark of an economy's success— still pushing population growth to 3.4 per cent. Between the immediate pre-war and 1929, the country almost doubled its size and its export volume.

ance was clearly poorer than Japan, Brazil, Mexico and the five countries of the European mainland, while the loss was more moderate in comparison to the Western Offshoots and Britain and there were actually gains versus Uruguay and Chile. During the last quarter of the twentieth century, however, there are ample losses in every possible comparison except with Peru.

The bilateral comparisons suggest some rich possibilities to illustrate Argentina's long run comparative performance. One such possibility is presented in Figure 2, where Argentina's income is plotted alongside an imaginary country called «Deconstructed Argentina». Deconstructed Argentina is assumed to have had a per capita GDP in 1884 equal to Argentina's at that starting point, and to have grown like an average of Canada and the U.S. until 1933; like an average of Australia and New Zealand between the Depression and 1975; and like an average of Peru, Brazil and Bolivia—the South American countries which, like Argentina, suffered hyperinflation—for the rest of the twentieth century. The result is shown in Figure 2. Such a creature displays a growth trajectory very similar to the actual evolution of Argentina: a «North American Phase» with growth exceeding that of our sample for half a century after 1880; substandard growth during an «Australasian Phase» between the Depression and 1975, and stagnation in the

FIGURE 2
ARGENTINA AND DECONSTRUCTED ARGENTINA



Sources: Maddison (2006).

Notes: Per Capita GDP: Sample, Argentina and *Deconstructed Argentina*, an imaginary country starting in 1884 with Argentina's per capita GDP and growing in 1884-1933 like North America; in 1933-1975 like Australia and New Zealand; and in 1975-2000 like an average of Brazil, Peru and Bolivia (see text).

midst of instability during a «Troubled South American Phase» (1975-2000). Our explanation will stress some of the similarities in economic conditions that Argentina shared with those groups of countries in the corresponding periods.

3. ARGENTINA'S IDENTITY: THE DILEMMAS OF A FOOD EXPORTER

The year 1880 marked both an institutional and an economic starting point for Argentina. Argentina was a latecomer, even by Latin American standards, in terms of institutional stability. While constitutional organization dates from 1853, and a national authority worthy of that name was established in 1861, significant threats to a national state as such disappeared only after the defeat of Buenos Aires by national forces in 1880. It is natural to look at the decade of the 1880s as a starting point in economic development as well⁹. Immigration and railway building, to mention just two epochal measures of progress, accelerated dramatically: net annual immigration rose from less than 10,000 in the 1860s and 1870s to 63,800 in the 1880s, implying a net annual immigration rate of 3 per cent during that decade¹⁰. The existent railway mileage multiplied by four between 1880 and 1892¹¹.

What were Argentina's most salient characteristics at this starting point? While its institutions were in many ways comparable to those of other countries in Hispanic America, its economic structure was more similar to that of other frontier economies such as Canada, Australia and New Zealand. In terms of population, Argentina was appropriately considered a «desert» by many of her nineteenth century intellectuals. With slightly less than one person per square kilometer, Argentina was in 1880 one of the most sparsely populated countries in the world; only Canada (0.5 people per sq km.) and Australia (0.3), among the 29 countries with Maddison data, were more thinly populated than Argentina. Scant population had already been a feature of these southernmost lands in times of the pre-colonial migrations in the Americas. During the first two and a half centuries after the arrival of the Spaniards, what is now Argentina remained a remote outpost of an empire hardly interested in a region with an aboriginal population too sparse to be profitably exploited, no significant mineral resources, and unable to produce goods with a value to weight ratio high enough to be the object of

⁹ Our graphs start in 1870, a year for which there is an observation in Maddison's data, and shows significant growth between 1870 and 1884, when the continuous series begins. Most of this growth is probably attributable to the boom of the early 1880s. For example: imports stood at 49 million gold pesos in 1870, 46 million in 1880 and 94 million in 1884. Import and export values database are available from the authors.

¹⁰ Anuario Geográfico Argentino (1941).

¹¹ Damus (2002).

commerce before the transport revolution of the nineteenth century. After independence in 1810, Argentina's population represented less than 4 per cent of the combined total of Brazil, Chile, Colombia, Mexico, Peru, Venezuela and Uruguay, compared to 16 per cent in 1930¹².

But this was a desert of sorts, with a gem at its center. Buenos Aires was the empire's natural port to conduct trade between Potosí and Iberia. With the expansion of international commerce that accompanied the Industrial Revolution, Buenos Aires gained early prominence and became the capital of the new Viceroyalty of the River Plate in 1776. Even more importantly, the Pampas, a semicircle with a radius of 500km stemming from around Buenos Aires, constituted a source of potentially incalculable wealth once the new transport technologies were available. Railways allowed for the large scale export of cereals, and refrigeration made the international trade of non-salted beef possible. The combination of this agricultural and pastoral El Dorado with Argentina's scant population defined a very extreme set of factor endowments. By 1880 Argentina shared with Canada a (distant) second place after Australia in terms of fertile land per capita: 10 hectares against 20 in the Antipodes¹³. The quality of land was probably higher in Argentina, though. The ratios between recent estimates of the value of land¹⁴ and population in 1880 yield for that date a higher value of land per capita in Argentina (91,800 dollars of the year 2000) than in Australia (85,500) or Canada (31,300).

Argentina was thus, from the start, a case of skewed factor endowments, with an ample supply of fertile land in relation to its population. The role of factor endowments in economic development can be decisive, not only acting directly on economic performance but also through «the indirect effects that geography and factor endowments have on paths of development through their influences on the ways institutions evolve»¹⁵. We believe that in Argentina endowments affected economic performance by generating a peculiar political economy. The influence of economic geography on policies—and, thus, on performance—followed from two consequences of Argentina's extreme set of factor endowments, which we will call «factorial equality» and «sectorial inequality».

The high fertile land to labor ratio defined a pro-labor income distribution, at least in autarkic conditions. As in any other labor scarce country, returns to labor relative to land or capital tended to be high. However, in the specific case of Argentina those favorable conditions for labor were reinforced by the fact that the comparative advantages defined by factor endow-

¹² Maddison (2006).

¹³ Data for fertile land from current World Bank estimates (*World Development Indicators*). Population data from Maddison (2006).

¹⁴ The World Bank (2006), *Where Is the Wealth of the Nations? Measuring Capital for the 21st Century*.

¹⁵ Engerman and Sokoloff (2002), p. 41.

ments were in the production of basic foodstuffs or its inputs, in contrast to what happened in many other resource rich economies (such as those specialized in mining or cash crops). Scarcity of labor coupled with a low relative price of food (in autarkic conditions) defined an original «factorial equality», i.e. high returns to labor in comparison to other factors of production. This pro-labor income distribution shows up in Williamson's wage datasets. For example: using the wage data of Taylor and Williamson (2006) and Maddison's per capita income data, Argentina was second only to Canada in its 1870 ratio of real wages to real GDP per capita¹⁶. Of course, every Heckscher-Ohlin comes with its own Stolper-Samuelson¹⁷: by closing the gap between local and international prices, pre-World War I globalization increased the price of land intensive goods in land abundant countries, thus inflating rents in relation to wages in the New World—in Argentina, where the wage/rent ratio dropped as much as 80 per cent between the early 1880s and 1910, more than anywhere else¹⁸. Still, by 1913 the Argentine wage/income ratio was 60 per cent higher than in Great Britain, though 12 per cent lower than in the U.S.¹⁹. After rapid wage gains in the 1920s, on the verge of the Depression the ratio was again higher (20 per cent) than in the United States²⁰.

Extreme factor endowments defined not only quite special factor returns but also what we call «sectorial inequality»²¹: the skewed comparative advantages in agricultural production implied, by definition, extreme comparative disadvantages in manufacturing. Though there was some development of light manufactures in the years of the export boom²², accentuated in the 1920s²³, Argentina's fabulous conditions for agricultural exports, ultimately

¹⁶ The ratio of real wages to real GDP per capita differs with the corresponding nominal ratio to the extent that deflators for wages and income are different. Our argument stressing the role of the low relative price of food in Argentina will show up in the real ratio, not in the nominal one.

¹⁷ To be more precise: the Heckscher-Ohlin theorem assumes rather than concludes a relationship between factor abundance and factor prices [In fact, Ohlin defines a relatively abundant factor as the one being relatively cheaper, as underlined by Jones (1956)]. As for the Stolper-Samuelson effects, O'Rourke and Williamson (1999) discuss its relevance for the pre-World War I globalization. The literature discussing potential Stolper-Samuelson effects in the late 20th and early 21th century distributional changes is huge. Goldberg and Pavnic (2007) present a survey.

¹⁸ O'Rourke and Williamson (1999), p. 62.

¹⁹ Wage data from Williamson (1998), per capita GDP from Maddison.

²⁰ A closer measure of functional inequality would be the ratio of wages to GDP per worker rather than GDP per capita. This, however, would not change the picture radically: in 1910, for example, the share of employment in the total population was 38.3 per cent in USA, 45 per cent in Britain and 39 per cent in Argentina. For a wage/GDP per worker ratio of 100 in Britain in 1913, those labor participation rates would imply wage/GDP per worker ratios of 184 for Argentina (rather than 160 using GDP per capita) and 210 in USA (rather than 182 using per capita GDP). Broadberry and Irwin (2005).

²¹ The idea of a sizable productivity differential between exportable rural activities and import-competing manufactures has been stressed most forcefully by Diamand (1972).

²² Gallo (1970), Rocchi (2006).

²³ Villanueva (1972).

driven by factor endowments, meant that the industrial sector would have a hard time unless it was supported by public policies —which to some extent it was from very early on²⁴. Moreover, the country lacked coal and iron, two critical inputs for manufacturing development.

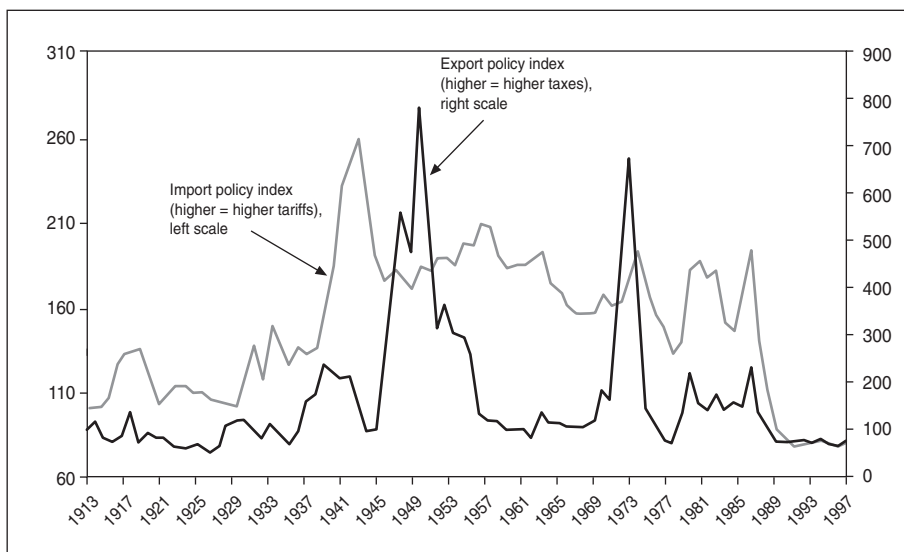
Were skewed endowments and its two corollaries (factorial equality and sectorial inequality) a blessing or a curse for Argentina? The answer should start by observing that a country with skewed endowments will be more affected by integration with or disintegration from international trade than one with a set of endowments closer to those of the world at large: integration or disintegration will have a larger impact on production structure, total income (and, in a dynamic setting, growth) and its distribution. Unfortunately, however, it could be the case that what is good for growth can be bad for equality. In the simplest two good Ricardo model, extreme comparative advantages of any kind imply huge gains from trade and, conversely, heavy losses from disintegration. However, when those comparative advantages are in labor scarce activities, and particularly when they are in food production, integration with world markets would also mean —via both a Stolper-Samuelson mechanism and an increase in relative price of food, the exportable— giving up at least in part the equality that those factor endowments naturally produce in autarkic conditions. To the extent that integration with world markets is a growth-promoting force²⁵, the decision of whether to trade or not could imply, then, a dilemma between equality and growth. With a dynamic international trade and a restricted franchise it would be natural that the growth benefits from integration would be larger than the distributional attraction of closing the economy. If and when international trade becomes less friendly and labor actively participates in politics, the tide may turn against integration.

Commercial policy can stand in the way between international and national relative prices and soften or mute the impact of world conditions on growth, welfare and income distribution. In Argentina, commercial policy included, at different times, not only taxes and/or quantitative restrictions on both exports and imports but also manipulation of foreign exchange through price and quantity mechanisms. The impact of these complex and variable schemes of relative price management is hard to measure directly (say, by analyzing tariff levels), but can be approximated by looking at the relative prices they were supposed to affect. Figure 3 shows the stance of commercial policy towards exports and imports, through two policy indexes. An Export Policy Index is defined as the ratio between the international price of Argentine exports and the local, wholesale price of agricultural and pastoral goods. A higher ratio means, then, a more anti-export commercial

²⁴ Díaz Alejandro (1970), Rocchi (2006).

²⁵ This is probably the case for some historical periods but not others, as observed for example by Vamvakidis (2002).

FIGURE 3
COMMERCIAL POLICY IN ARGENTINA, IMPORTS AND EXPORTS, 1913-2000



Sources and method: see Appendix.

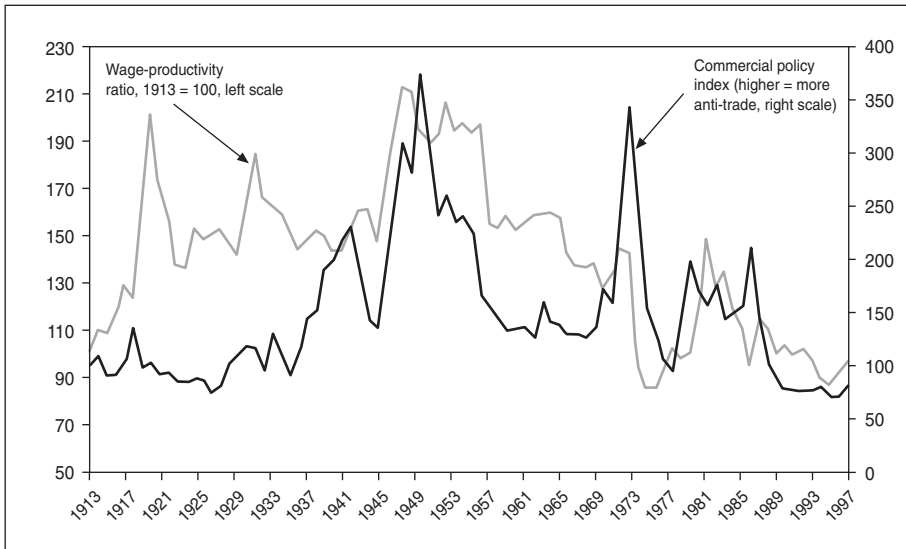
policy. The Import Policy Index, meanwhile, is the ratio of non-agricultural wholesale goods (NAW)—approximately, the price that import-substituting policies were designed to enhance—to a more general price level, the CPI²⁶. Again, a higher number implies a more protectionist policy.

Both indexes capture the historical accounts of commercial policies in Argentina quite well. Direct discrimination against exports was very intense during the governments of Juan Peron (1946-1955 and 1973-1974). The military governments between the 1950s and the 1970s tended to remove anti-export taxes and establish a single price for foreign exchange. Protection from imports, however, remained high until the 1990s, except for brief episodes of commercial opening, as occurred during the *Proceso Militar* of the late 1970s.

The general trend regarding commercial policies is summarized in Figure 4. The Commercial Policy Index results from a combination of the Export and Import Policy indexes. It rises (meaning less trade-friendly policies) during the late 1930s and, particularly, the 1940s, and stabilizes during the 1950s and 1960s at a lower level, though higher than before the Depression.

²⁶ If wholesale goods have a lower non-tradable component than consumer goods, changes in the real exchange rate, in addition to variations in commercial policy, could affect the NAW/CPI ratio. However, the real exchange rate was not a significant regressor of the NAW/CPI ratio.

FIGURE 4
OPENNESS TO TRADE AND INCOME DISTRIBUTION, 1913-2000



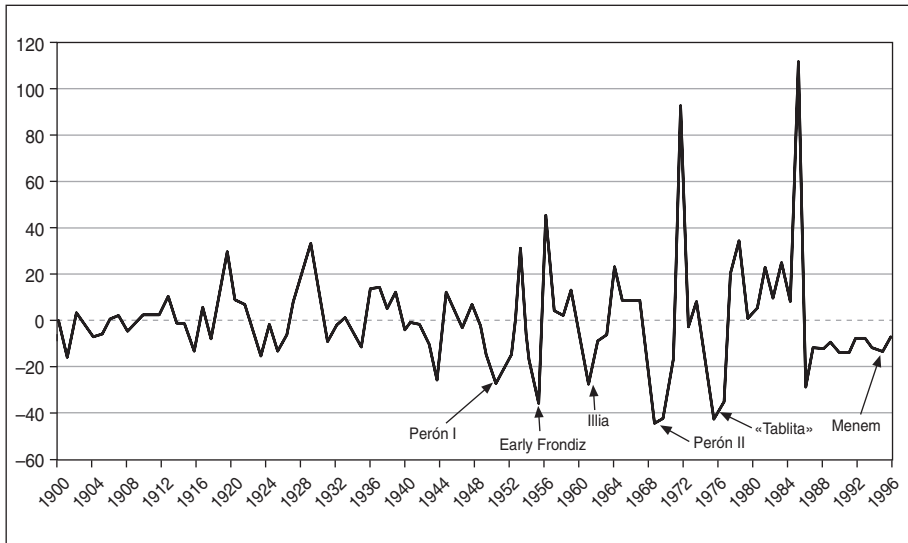
Sources and method: see Appendix.

The two episodes of commercial opening show up very clearly, briefly in the late 1970s and more solidly in the 1990s, after a retreat in the 1980s. Figure 4 plots the Commercial Policy Index against a measure of income distribution, the wage/productivity ratio, suggesting that a dilemma between trade openness and equality did in fact exist in Argentina during the 20th century.

The relationship between integration with world markets and inequality, then, is interesting from a political economy perspective as it can lead to what may be called «protectionist populism» —i.e. restrictions to trade for the sake of a reduction in inequality, with potential political gains. This mechanism will be stronger when the factor owned by the poor is scarce (be it labor, or unskilled intensive labor in a multi-skilled setting, or even land if ownership is very disperse) and when there is a broader coincidence between the export bundle and the poor's consumption bundle (because the relative price of exports will fall with protection). Protectionist populism was pervasive in Argentina during much of the twentieth century and was one of the obstacles to economic growth.

While the potential for a protectionist populism that sacrifices growth for the sake of equality applies only to countries with a specific set of endowments, there is another type of policy that fosters equality while damaging growth which applies to open economies in general. Episodes of intense

FIGURE 5
DEVIATIONS FROM EQUILIBRIUM EXCHANGE RATE, 1900-2000



Sources and method: see Appendix.

Notes: Higher means a real exchange rate more depreciated than in equilibrium.

external indebtedness cum currency appreciation may have short run benefits in terms of real wages²⁷ but, to the extent that they are unsustainable, they will damage the prospects for growth. While not entirely a policy variable, government actions can influence the degree of national indebtedness and exchange rate appreciation via fiscal, monetary and income policies²⁸. In Figure 7 we present one possible measure of exchange rate over/under

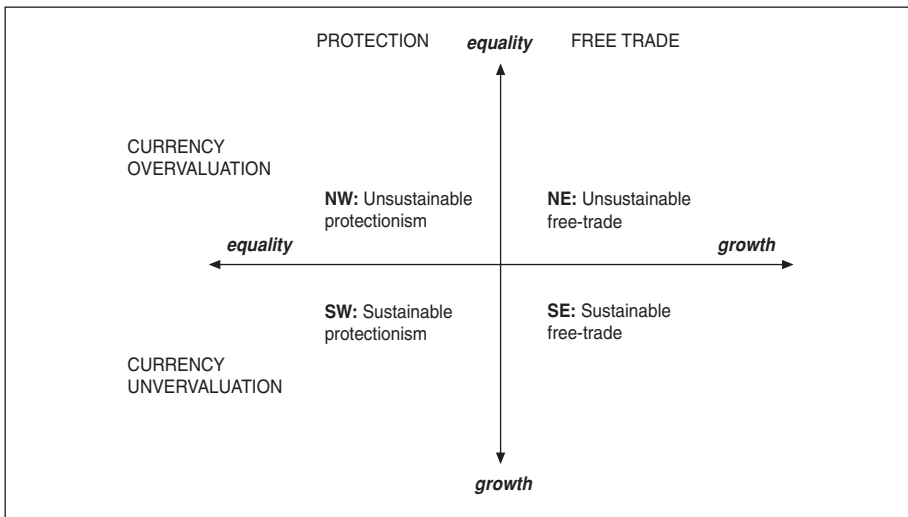
²⁷ For the sake of simplicity, imagine an open economy in which labor is the only factor of production. The general price level (P) will be a combination of the price of tradables (P_t)—which will be the product of the exchange rate (E) and a world price of tradables (P^*), that averages out exportables and importables—and non tradables (P_n). Then, $P = a.E.P^* + (1-a).P_n$. Assume that the price of non tradables is defined by a mark-up over average (labor) costs, $P_n = (W/q).(1+z)$, where q is average productivity and z the mark-up. Then the general price level will be a weighted average of wages (W) and international prices expressed in local currency ($E.P^*$): $P = a.E.P^* + (1-a).W/q.(1+z)$. The general price level will thus move in between wages and international prices in local currency. As a consequence, if productivity and the mark-up rate are constant, the ratio of international prices in local currency to the national price level (i.e. the real exchange rate) and the ratio of wages to the national price level (i.e. the real wage) will move in opposite directions.

²⁸ In an extremely neoclassical setting, neutrality of money would rule out monetary policies as a source of exchange rate overvaluation. However, a temporary rise in public spending will deteriorate the current account and appreciate the exchange rate even in a Ricardian framework, because the increase in private savings that compensates for the new public debt will be distributed through time.

valuation, namely, deviations from an equilibrium exchange rate regression using relative productivity and external terms of trade as explanatory variables (a higher number means a real exchange rate more depreciated than in equilibrium). Episodes of overvaluation can be identified, such as in both the early and the late Peron administrations, as well as during the *Proceso* and, to some extent, the 1990s.

Our two policy-influenced variables, commercial policy and exchange rate alignment, can be used to formulate a 2 x 2 typology in which each combination leads to different outcomes in terms of their short term effect on equality and their long term influence on growth (Figure 6). The more closed the economy and the more overvalued the currency, the greater equality in the short run but the worse the conditions for long run economic growth²⁹. Our schematic story for twentieth-century Argentine economic history can be summarized as a rough ride across the regions of Figure 6.

FIGURE 6
ECONOMIC POLICIES, GROWTH AND INEQUALITY: A TYPOLOGY



²⁹ The label «sustainable» is applied to the southern hemisphere of Figure 6, where no excessive accumulation of foreign debt is taking place. Of course, there are several qualifications to these relationships. To name a few: many factors other than these two policy variables influence both equality and growth; it is not clear when an external deficit becomes unsustainable; policies are not the only influence on the degree of currency alignment; external deficits may or may not be unsustainable, and so on. Other things being equal, however, protectionism and currency overvaluation (i.e. more appreciated than in equilibrium) do have a positive short term effect on equality and probably damage growth. A regression in the Appendix shows the influence of commercial policy and exchange rate overvaluation on real wages. Note that we are not proposing any causal relationship between equality and growth in either direction, but rather arguing that equality and growth are commonly affected by, among other things, trade policy and exchange rate alignment.

4. EQUALITY OR GROWTH, 1880-2000

As noted in section 2, Argentina's performance can be described as a succession of one period of unstable convergence (1880-1930), one with growth but divergence (1930-1975) and one of stagnation and steep divergence (1975-2000), which correspond broadly to the North American, Australasian and Troubled South American phases defined above. In the paragraphs that follow we briefly describe each of those periods and relate them to the policy typology just described.

4.1. The North American Phase (1880-1930)³⁰

The rapid economic growth in Argentina in the half-century after 1880 can safely be attributed to integration with the international markets. Should we refrain from calling «dynamic gains from trade» a process by which a transport revolution substantially increases the returns to factors of production in the export sector, thus stimulating a massive inflow of those resources from abroad? Undoubtedly, some very basic degree of institutional stability was crucial to set the process in motion. However, with its fitful adherence to the gold standard, its banking crises, its rigged elections and its shady reputation in international credit markets, Argentina's experience looks more like a case of «disorder and progress»³¹ rather than a paradigm of the rule of law dating.

Argentina was the fastest growing economy in 1870-1930 not because of its institutional architecture or its political stability, but, rather, thanks to sheer technological luck. The decline in transport costs—maybe the greatest technological news of the 19th century—benefited cereal production probably more than any other industry, as its high weight-value ratio made trade impossible before the advent of railways but very profitable after it. After the overborrowing Baring Crisis in 1890, Argentina's economy enjoyed a golden age of export-led growth and turned out to be a very open economy indeed in terms of export quantities: according to the Maddison's data, for example, Argentina ranked third out of 30 countries in the ratio of export value (in current dollars) to GDP (PPP) in 1913, trailing only the better lo-

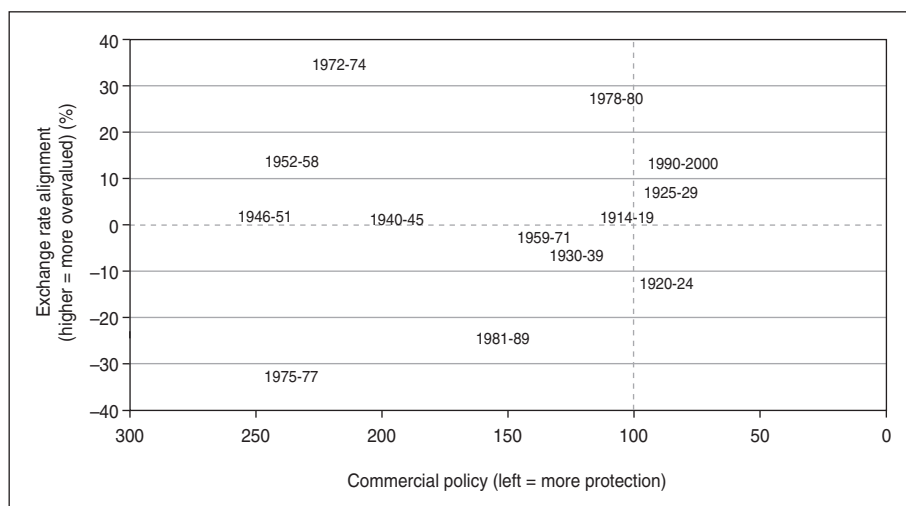
³⁰ Why 1930?: Figure 2 showing Argentina and Deconstructed Argentina has its first break in 1933 rather than 1930, so the breaking point between the «North American Phase» and the «Australasian Phase» should be 1933. This, however, would spoil the symmetry between Argentina's three stages of economic performance and the three phases of comparison presented in the figure. As explained below in the text, Australia's performance during the Great Depression was better than Argentina's. Thus, if 1930 were chosen as a breaking point for the figure, Deconstructed Argentina would later appear with a somewhat higher per capita GDP than what Argentina actually had, also spoiling a symmetry we were keen to keep.

³¹ Gerchunoff, Rocchi and Rossi (2008).

cated Austria and Belgium; by 1929 Argentina was still virtually sharing that third place with Canada and Belgium (following Denmark and New Zealand)³². Of all the «regions of recent settlement» mentioned by Nurkse (1954), Argentina probably resembled more the Canadian prairies and the U.S. Midwest, also cases of cereal-led growth, than Australia, which had already enjoyed an earlier commodity export boom with its gold rushes.

What was Argentina's policy combination, in terms of our typology, during the export boom? There was a unified exchange rate and exports were taxed only in times of crisis, as in 1891 and 1917. Tariffs were more or less in line with those of other Latin American countries —i.e. somewhat higher than in other regions³³— and there were cases of considerable infant industry protection, particularly to regional economies of the Argentine interior and to some urban manufactures, both unable to compete with imports under free trade given the country's sectorial inequality. Still, as Figure 7 makes clear, pre-1930 policies were more open to trade than during most of the rest of the 20th century³⁴. As for currency valuation and external indebtedness,

FIGURE 7
THE EVOLUTION OF COMMERCIAL AND EXCHANGE RATE POLICIES



Source: Based on Figure 4 and Figure 5 above.

³² Maddison (2006). The sample includes all the countries that have both trade and GDP data for 1913.

³³ Coatsworth and Williamson (2002).

³⁴ Figure 7 starts in 1913 because data for our commercial policy index are available from that date onwards. Quantity indicators show that the Argentine economy was very open indeed before World War I. For example, the ratio of trade to tradable GDP averaged 46 per cent between 1884 and 1913, compared to 40 per cent in 1920-1929. Gerchunoff and Llach (2004).

the real exchange rate was more stable during the 1900s (under the gold standard) than between World War I and 1930 (mostly without it). The late twenties witnessed some moderate real appreciation and a corresponding increase in real wages, maybe a first sign of the rewards of overvaluation in democratic politics. Still, there were no apparent episodes of unsustainable debt accumulation after the Baring Crisis.

4.2. The Australasian Phase (1930-1975)

Argentina's affair with import-substituting industrialization was as intense and lasting as her previous infatuation with export-led growth. It started by chance: international conditions turned violently against export-led growth with the Depression. This was true for the world in general (the volume of world exports declined 3 per cent between 1926-29 and 1936-38, and the value by 28 per cent³⁵) but truer still for Argentina: as a result of declines in both prices and quantities, the combined world imports of wheat, corn, beef and wool —i.e. the four major Argentine products— fell from 8.6 per cent of international trade in 1924-1928 to 4.7 per cent in 1934-1938³⁶. The administrations of the early 1930s tried to minimize the damage to the export sector, and in 1933 negotiated the Roca-Runciman agreement to preserve the British market, threatened for Argentina by the Ottawa accords. They also put forward quite an innovative macro policy, including early exchange controls and devaluation —and, in 1935, a Central Bank— which probably softened the immediate consequences of the crash³⁷. The longer term damage, however, was profound. Vamvakidis (2002) has shown that the cross-country growth-openness connection, probably positive for the period after World War II, was negative during the 1930s: the dynamism of the international economy and trade defines the fate of open economies. It is only natural to add a product-specific dimension to the time-specificity of Vamvakidis' analysis. The very open Argentine economy suffered during the Depression from a trade crisis that was particularly hard on her own products. The drop in foreign trade was more profound than elsewhere: the import coefficient fell more drastically (and thus, import substitution proceeded more quickly) than in any other Latin American country in the early days of the Depression³⁸.

The disappointment with the overall performance of the economy in the face of external shocks and the natural impulse to import substitution following the contraction of external trade certainly influenced the policy

³⁵ P. Lamartine Yates (1959).

³⁶ L. Llach (2006).

³⁷ Della Paolera and Taylor (1999).

³⁸ Bulmer Thomas (1995).

switch towards inward-looking industrialization. With the prospect of an additional blow to the Argentine economy following the start of World War II, a consensus began to emerge on the need to stimulate the economy through spending and protection³⁹. As the conflict proceeded, the distributional benefits of industrialization were clearly felt, particularly by Colonel Juan Peron. During his first government (1946-1952), policies favoring import substituting industrialization (ISI) reached a climax, with a combination of tariffs, quotas, exchange controls, credit from the nationalized banking system to manufacturing industries and the appropriation by the government of the high export prices of the immediate postwar⁴⁰. The stimuli to labor intensive industries, coupled with an expansive fiscal policy, took the wage/income ratio to its secular maximum (Figure 4) —Peron and his successors would reap the political gains of such an income redistribution for at least half a century.

When the terms of trade fell, underpayment of exports had to be moderated, but protection remained high and the real exchange rate was kept at an unsustainable value for the new external situation, leading to some short term debt and a loss of reserves. In terms of Figure 7, the policy combination moved slightly to the East but remained in the Western, i.e. protectionist hemisphere, though moving north to a less sustainable external position. Ensuing difficulties in the balance of payments were characteristic of the 1950s, both during and after Peron.

The nucleus of the ISI policies —a radical divorce between the national and international terms of trade of exportable agriculture *vis a vis* import substituting manufactures— remained in place for three decades after the war, though with more variability for exports than for imports. Of course, import substitution was not a specifically Argentine strategy, or even a Latin American one⁴¹. By international standards, however, Argentine inward-looking policies were particularly intense. From being one of the top five economies in the export/GDP ratio of the 31-country Maddison sample before the Depression, it had fallen to 24th place by 1973. Average effective rates of protection for manufactures in Argentina (161 per cent) exceeded those of Brazil (118 per cent) and Mexico (27 per cent) around 1960, though they were lower than in India and Pakistan⁴². The average nominal tariff for manufactures in Argentina (141 per cent) was higher than in all other 34 countries in the study by Conybeare (1983) around 1970. Moreover, Argentina's direct taxation of exports was unmatched in the world.

³⁹ J. Llach (1984).

⁴⁰ Schwartz (1967). As argued by Sourrouille (2006), Argentina's capacity to finance the inputs for industrialization with those high terms of trade was limited by the fact that its sizable surplus with Europe in inconvertible currency could not be used in the area of the dollar. As early as 1948 Argentina had to balance its dollar expenditures with credit granted by the Eximbank.

⁴¹ Bulmer Thomas (1995) compares the degree of ISI in Latin America.

⁴² Little, Scitovski and Scott (1970), p. 174.

The peculiar intensity of Argentina's ISI strategy probably arose from the sectorial inequality described in section 3. Whether inspired by concerns over distribution or over growth, in any case a major industrialization push required in Argentina extreme protection given the vast comparative disadvantages for manufactures. However, the scarcity of appropriate factor endowments (labor and capital) for such an ambitious enterprise was also an impediment to its success. Mexico and Brazil turned out to be two living counterfactuals: with endowments more prone to industrialization, at least in terms of labor, they both managed to grow respectably—and, for some years, indeed rapidly—with their own ISIs between 1929 and 1975: the Argentine-Brazil income ratio fell from 319 per cent to 182 per cent and the Argentina-Mexico quotient from 204 per cent to 150 per cent in the same period. The sheer population numbers probably represented an additional structural difference favoring the Latin giants over Argentina, as their larger internal markets allowed for more manufacturing branches at their efficient scale.

In any case, Argentina was not alone in her problematic industrialization. Chile and, to some extent, Uruguay were close companions. They both faced similar though earlier troubles with their small scale ISIs, and grew even less than Argentina in 1929-1975. Australia provides another interesting comparison. Though remote in many ways and initially richer, Australia's performance was not much brighter than Argentina's between the 1930s and the 1970s. In fact, most of the Argentine decline *vis a vis* Australia in 1929-1975 can be attributed to the Depression period: the income ratio was 83 per cent in 1929, 69 per cent in 1939 and 61 per cent in 1975⁴³. Like Argentina, Australia attempted industrialization motivated by distributional concerns, in spite of unfavorable endowments. The timing of Australian protectionism was, however, different⁴⁴. The origins of a social protectionism can be traced back to the comparatively high tariffs of the state of Victoria since the 1880s. Protection was raised with the economic crisis of the 1890s, coinciding with the exhaustion of gold. Early in the twentieth century Australian advances in social legislation were accompanied by the New Protection, which awarded tariff increases to branches of industry that most improved the conditions of their workers⁴⁵. In the 1920s the Greene Tariff extended the scope of protected activities⁴⁶. This earlier Australian protectionism sheltered a more diversified manufacturing base than in Argentina—allegedly one of the reasons why Australia suffered less the decline in international trade

⁴³ The question of relative economic decline has been, and still is, paramount among Australian economic historians. For example, McLean (2004).

⁴⁴ One of the periods considered in the entry «Economic History of Australia from 1788: an Introduction» in the eh.net project is labeled «Manufacturing and the Protected Economy, 1891-1973». <http://eh.net/encyclopedia/article/attard.australia>.

⁴⁵ Reitsma (1960).

⁴⁶ Forster (1953).

during the Depression⁴⁷. Export markets also explain part of the smoother Australian adjustment in the 1930s: the Roca-Runciman pact hardly compensated for the preferences granted to Australia —mostly at the expense of Argentina⁴⁸— by the Ottawa agreements; and Australian mineral exports revived with the revaluation of gold.

Between World War II and the oil crisis, Argentina and Australia were both semi-industrialized economies enjoying a moderate rate of growth, though lagging behind the main protagonists of the Golden Age, namely, Western Europe and Japan. They faced the recurrent balance of payments crises typical of primary exporters attempting to industrialize, accompanied, more often than not, by devaluation-cum-inflation. Starting in the late 1950s, Argentina and Australia attempted industrialization deepening. By substituting locally for critical imports such as oil and steel, Argentina's «developmentalist» attempt tried to overcome the balance of payments bottlenecks that arose as soon as the economy initiated an expansion. This strategy probably had some cost in terms of equality, as the new branches were less labor-intensive than those of the «easy» industrialization stage (Figure 4)⁴⁹. Also working against the equality of early Peronism was the fact that the discrimination against exports was replaced by a less unfriendly policy, which allowed Argentina to at least reach its pre-Depression volume of exports, as late as 1969.

In retrospect, however, the similarities between Argentina in its «Australasian Phase» and Australia would blur and eventually fade in the contrast with several other differences. While maintaining its redistributive protectionism and, like Argentina, attempting a deepening of industrialization so as to reduce dependence on foreign inputs, Australia sought ways to compensate for the decline of traditional export markets. The complementarity treaty of 1957 with Japan signaled the beginning of what would turn out to be a fruitful relationship with Asia: between 1940 and 1980, Japan's share in Australian exports rose from 3 per cent to 28 per cent, and those of the earlier (Korea, Taiwan, Singapore, Hong Kong) and later (Malaysia, Thailand, Indonesia) Asian tigers plus China, from 3 to 18 per cent. Several mining developments (including oil) changed the Australian export basket radically. As Australia switched to trade openness in the 1970s and 1980s, the basis for a new integration with world markets had already been established, particularly through those links with the most dynamic markets of the world. The switch to commercial openness was not smooth and Australia faced unprecedented levels of unemployment, inflation and political conflict in the 1970s and early 1980s. Eventually, however, Australia managed to reintegrate into world markets. The distributive cost of openness in Australia was probably

⁴⁷ Dyster and Meredith (1999).

⁴⁸ Duncan (1963).

⁴⁹ Katz (1976).

softened by the larger role of services characteristic of richer economies: the weight of wage-goods in the consumption basket and the share of industrial labor in overall employment were both smaller than in Argentina. Liberalization proceeded through a gradual, negotiated agreement with industrialists and workers, in the context of a free floating exchange rate that cushioned its deflationary effect on products competing with imports⁵⁰. In contrast, the demise of protectionist populism in Argentina took place not as a patient deactivation but as an explosion—and one with several blasts at that.

4.3. The Troubled South American Phase (1975-2000)

In spite of respectable growth after 1963, by the early 1970s Argentina's ISI was showing clear signs of stress. The rate of inflation, around 60 per cent in 1972-73, was its most notorious symptom. What was then called the «monetarist» view of Latin American inflation was obviously right in identifying monetary issues covering budget imbalances as the prime suspect behind that inflation. However, the «structuralist» approach, which associated inflation with the ISI model, could also be right: deficits were to some extent a result of the demands on the budget of pushing industrialization forward through subsidies and public enterprises; and the link between money and prices operated through successive rounds of devaluations (the only way to correct an external imbalance if deflation is ruled out by unions as strong as the ones active at this time) and, at the other phase of the balance of payment cycle, wage gains. Inflation inertia—or, in «monetarist» parlance, increasing inflationary expectations—guaranteed that each round of relative price changes associated with the balance of payments cycle required a higher inflation level than the previous one. By 1973-1974, the substantial political authority of Peron after his return and the fabulous terms of trade could only afford one year of very precarious stability in the egalitarian Northwestern quadrant.

This, however, was before the first quasi-hyperinflationary blast in 1975. From the military coup in 1976 until the end of the century Argentina's economic policies can be understood as a toilsome return to world markets, characterized by macroeconomic instability and, until 1991, extremely high inflation. The distributional—and thus, political—effects of commercial and exchange rate policies played a crucial role in the political economy of macroeconomic instability. There was either commercial openness with current account deficits (late 1970s and 1990s) or a more devalued exchange rate combined with obstacles to foreign trade (the 1980s). The two episodes of indebtedness ultimately led to a combination of default and devaluation

⁵⁰ Argy (1992).

that contributed to instability. Why was it hard for commercial openness to coexist with an equilibrium exchange rate? That unequal Southeastern quadrant was a hard political sell as it would have meant a double blow to Argentina's egalitarian post-war society.

The dictatorship (1976-1983) was quite bold in opening the economy, but this was accompanied by a system of predefined exchange rates (the infamous *tablita*) which, in combination with continued fiscal deficit and inertial inflation, led to massive currency overvaluation. By admitting higher real wages than the alternative, exchange rate appreciation pushed by private and public indebtedness was a way, deliberate or not, to defer the political costs of openness. True, tradable sectors were harmed by the overvalued exchange rate and opposed the *tablita*. However, currency appreciation did not immediately hurt the service sector —by now much larger than in previous decades— which was able to adjust prices to costs. In the short run, it also benefited wage earners, and more so the middle class (which consumed more imported goods, cheaper with trade openness) than poorer workers (who consumed more exportable foodstuffs, more expensive at international prices). Openness with *tablita* was, in any case, an unsustainable policy combination, which eventually achieved neither growth nor stability and ended with another blast in 1981, with devaluation and continued inflation.

During the 1980s, depreciated exchange rates were unavoidable given the precarious external and fiscal positions stemming from the debt crisis. For the newborn and fragile Argentine democracy, keeping that weak currency while simultaneously remaining open to trade and producing a fiscal adjustment was ruled out by distributional concerns. On the contrary, the 1980s saw some reversion of the commercial liberalization, particularly through quantitative restrictions to imports and the re-imposition of taxes on exports⁵¹. In this sense, the Chilean experience, similar to that of Argentina until their crises of the early 1980s, presents an interesting contrast. Chile did stick to a combination of depreciated exchange rate and trade openness, which was facilitated by a combination of economics and politics. The impact of ISI had been less profound, so its reversal was not as painful, and could be imposed due to continuous military dictatorship throughout the 1980s. For the nascent Argentine democracy, high inflation and, eventually, hyperinflation in 1989-1990, turned out to be the line of least political resistance —as it was for Brazil, Bolivia and Peru, three other Latin democracies with a decade of growth lost to inflation and instability in the 1980s.

Even by the inflationary Latin American standards, Argentina was an outlier: in 1975-1990, Argentina's median annual inflation was 180 per cent, followed by Brazil (117 per cent) and Peru (77 per cent), and like them and Bolivia suffered hyperinflation at some point. Both Brazil and Peru had attempted, like Argentina, their own ISI, though with different timings, moti-

⁵¹ Berlinski (2003), p. 215.

vations and results. In Brazil, industrialization had more of a developmentalist rather than a populist underpinning. In fact, the Brazilian military were leading advocates of ISI, from Vargas in the 1930s to Geisel in the 1970s, while the Argentine armed forces were not uniformly in favor of inward-looking policies and actually started their reversal in 1976. Peru tried a radical industrialization push in the 1960s, including heavy government involvement in manufacturing production and an agrarian reform, both leading quickly to fiscal problems. Compared to Argentina, the ISI ended later in Brazil and started later in Peru—a larger market seems to have granted longer life to the ISI policies. In all three cases, however, the fiscal cost of ISI was producing high inflation before the debt crisis: by 1981 all three had inflation rates over 75 per cent. Whether indebtedness had been used in the late 1970s to keep the stream of development going in spite of a severe terms of trade shock to an oil importer (Brazil) or to finance the euphoria of consumption, football and war (Argentina), inflation could only rise with the reversal of capital flows after the Mexican moratorium in 1981.

It is easier to write about the end of this period, the decade of the 1990s, with the benefit of hindsight. During the 1990s Argentina did finally open its economy and reentered world markets. The country's share in world exports increased from 0.3 per cent in 1990 to 0.48 per cent in 1998. As was pointed out in the introduction, the income ratio with the sample average recovered (from 45 per cent to 53 per cent) between 1990 and 1997. Moreover, convertibility with the dollar led to ten years of price stability. It is less clear, however, whether Argentina's stabilization through privatization, fiscal reform and convertibility with the dollar produced a situation of exchange rate equilibrium—in retrospect, it looks as if this did not happen. Whether the ultimate source of the 2001-2002 crisis was exchange rate misalignment, budget imbalances or a combination of both⁵², the disappointment that followed the 1990s can also be understood as stemming ultimately from the egalitarian resistance of a society unwilling to sacrifice all of its former distributional gains in the name of a doubtful promise of growth. In other words: would Menem have won elections as he did without currency appreciation and external indebtedness? It is telling that proposals to overcome the impending crisis of 2001 with a major fiscal correction or a devaluation were all but unanimously resisted until the very end, when they were forced with a vengeance through exchange rate overshooting and debt default. As easily as the political dividends of protectionist populism were built up in the 1940s, deactivating it without compensation through fiscal means or external indebtedness would not take place by a deliberate decision entailing symmetrical political costs.

⁵² For an articulated formulation of the monetary explanation of Argentina's 2001-2002 crisis, see Perry and Servén (2002); for the fiscal hypothesis, Mussa (2002). Llach (2004) presents a critical survey of these and other explanations of Argentina's «millennium crisis».

5. CONCLUDING REMARKS

Case studies of economic growth are relevant in themselves and from the point of view of growth theory. When a long time frame is considered, an individual country can be not just one case, but many. Argentina is in this respect a prime example. Argentina just was not simply a failure or a success, but different things at different times. In this paper we have tried to weave together three epochs of Argentina's economic performance (unstable convergence until 1930, slow divergence in 1930-1975, steep divergence thereafter) through a rationale that links Argentina's political economy to the combination of its factor endowments and the changing international economic conditions.

The centrality of economic policies, factor endowments and international circumstances in our argument does not imply that all other elements were not important. «Institutions» may appear to be the most notable omission. In fact, they are not absent at all. To take just two examples: an «institutional» event such as the consolidation of a national authority defines the beginning of our study, and the extension of franchise in 1912 also appears as a major event. We do believe, however, that attributing the earlier successes of the Argentine economy to institutional stability and the rule of law and its later failures to instability and frequent violation of property rights misses the underlying plot of the story. Without producing a general statement on the relationship between institutions and growth, we would be prepared to defend, for the specific case of Argentina, a line of causality running from economic outcomes to the debilitation of property rights. For example: the major episodes of violations of property rights occurring at both ends of our story (the default with the Barings crisis in 1890 and the debt repudiation of 2001) were the result of major macroeconomic crises predating them, rather than independent factors affecting economic performance (incidentally: debt arrangements after both defaults were immediately followed by record figures of economic growth). It is harder to establish such a direct influence of economic outcomes on the larger and more diffuse question of political instability—but the reverse is also true.

Under favorable circumstances, Argentina managed to grow and converge; but changes for the worse in the international economy had both a direct effect and a policy response (extreme protectionism) which entailed huge costs in terms of long run economic growth. The short run distributional benefits of those policies, however, guaranteed their persistence; reversing them turned out to be time-taking and painful as it implied significant increases in inequality and corresponding political costs. Attempts to reduce those costs through currency overvaluation contributed to the macroeconomic instability of the last quarter of the 20th century.

Only in the early 2000s, after four major macroeconomic (1975, 1981, 1989 and 2001) crisis and many minor ones, did Argentina visit for the first

time in one hundred years the hemisphere of integration to world markets without stepping at the same time into the Northeastern quadrant of debt accumulation. Has Argentina learned to refrain from taking shortcuts to equality that risk long run growth? Is the increasing share of non-food exports (both primary and manufactured) helping to dampen the impact of trade openness on inequality, thus making it more palatable? As these pages are written it is too early to speculate whether abstinence from currency overvaluation and protectionism will last; and whether that is all it takes to attain at least a normal rate of economic growth.

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APPENDIX

COMMERCIAL POLICY MEASURES

Import policy index (IPE, 1913=100). Ratio of Non-Agricultural Wholesale Goods to Consumer Price Index, both from Ferreres (2005).

Export policy index (EPI, 1913=100)

$$EPI = PX_{INT}/E.PX_{EXT} \text{ where}$$

E: Average of official and free exchange rates, from Ferreres (2005).

PX_{EXT}: Dollar price of exports, from Gerchunoff and Llach (2006).

PX_{INT}: Agricultural Wholesale Goods, from Ferreres (2005).

$$\text{Commercial policy index} = EPE^{0.5} * IPI^{0.5}$$

EXCHANGE RATE MEASURES

Our measure of currency misalignment is the series of residuals of the following regression:

Dependent Variable: TCRCOM

Method: Least Squares

Sample (adjusted): 1901 2000

Included observations: 100 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	151.0817	94.24099	1.603142	0.1122
LOG(TIEMUV)	-35.18195	9.522626	-3.694564	0.0004
LOG(PRODUSA)	-18.74130	8.627968	-2.172157	0.0323
LOG(TCRCOM(-1))	44.84525	11.12969	4.029336	0.0001
R-squared	0.558497	Mean dependent var		123.4810
Adjusted R-squared	0.544700	S.D. dependent var		32.58110
S.E. of regression	21.98440	Akaike info criterion		9.057722
Sum squared resid	46398.14	Schwarz criterion		9.161928
Log likelihood	-448.8861	F-statistic		40.47966
Durbin-Watson stat	1.792985	Prob(F-statistic)		0.000000

where

TCRCOM: Commercial exchange rate (average import and export), from Ferreres (2005).

TIEMUV: External terms of trade. Export prices from Gerchunoff and Llach (2006), import prices are the Manufacture Unit Value Index (MUV) from Pfaffenzeller et. al (2007).

PRODUSA: Argentine-U.S. per capita income ratio from Maddison (2006).

ECONOMIC POLICY AND REAL WAGES

The following regression links real wages (W) to economic policy:

Dependent Variable: W

Method: Least Squares

Sample (adjusted): 1914 2000

Included observations: 87 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-124.3046	79.77781	-1.558134	0.1231
RESIDTCR	-0.766291	0.228676	-3.350984	0.0012
LOG(COMPOLICY)	37.09899	17.39574	2.132648	0.0359
PROD	0.263028	0.125679	2.092856	0.0395
W(-1)	0.744990	0.078279	9.517117	0.0000
R-squared	0.861444	Mean dependent var	440.7249	
Adjusted R-squared	0.854685	S.D. dependent var	124.5526	
S.E. of regression	47.47968	Akaike info criterion	10.61423	
Sum squared resid	184854.2	Schwarz criterion	10.75595	
Log likelihood	-456.7192	F-statistic	127.4547	
Durbin-Watson stat	1.875666	Prob(F-statistic)	0.000000	

RESIDTCR is our measure of currency overvaluation.

PROD: is average labor productivity, i.e. the ratio between GDP from Maddison (2006) and the labor force. Until 1973, labor force is assumed to be equal to 94% of the labor supply (i.e. 6% unemployment). Participation rates from CEPAL (1958) and INDEC.