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## **Working Paper**

# Long waves in Argentine economic development

Kieler Arbeitspapiere, No. 236

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Suggested citation: Foders, Federico; Glismann, Hans H. (1985): Long waves in Argentine economic development, Kieler Arbeitspapiere, No. 236, http://hdl.handle.net/10419/722

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## Kieler Arbeitspapiere Kiel Working Papers

Kiel Working Paper No. 236

LONG WAVES IN ARGENTINE ECONOMIC DEVELOPMENT\*

Federico Foders and Hans H. Glismann July 1985

Institut für Weltwirtschaft an der Universität Kiel

ISSN 0342 - 0787

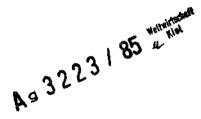
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\* A preliminary version of this paper was presented at the IIASA Conference on "Long-Term Fluctuations in Economic Growth: Their Causes and Consequences" in Weimar, June 10-14, 1985.

We would like to thank Evelyn Jann for computational assistance.

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#### Abstract

Argentine economic development from 1864 to 1983 can be roughly devided into a period of economic progress (1864 -1930) and into one of economic decline (1930 - 1983). Of the many issues that could potentially explain such an unprecedented development of a basically resource-rich country, this paper deals with distributional conflicts, inflation, exogenous shocks and political instability. The analysis shows that redistributive incomes policies in favour of labour and government accomodated by a very loose monetary policy seem to lie at the heart of an institutionalised distributional conflict over a stagnant national income. To the extent that political instability can be associated with the underlying distributional conflict the political cycle hypothesis adds some explanatory power to the above. With the only exception of World War I, which seems to have triggered inward-oriented industrialisation policies, exogenous shocks do not seem to have been of major importance for Argentine economic performance; at best such shocks should have reinforced the negative impact of incomes and monetary policies.

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## Long Waves in Argentine Economic Development

"Every physical and moral development favouring the social order can thus be grasped at one point: an increase in net product".

Mirabeau, 1767

## I. The Big Picture

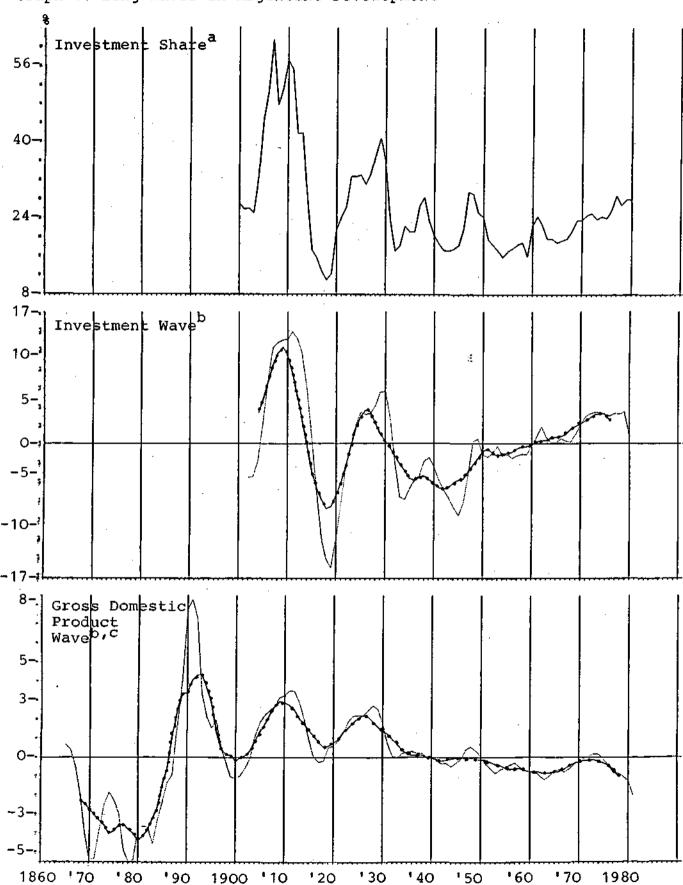
- 1. Argentina's historical pattern of economic development differs in more than one way from that experienced by comparable countries, and particularly so in her poor growth performance during the last 50 years. In this respect Argentina is an outstanding example of a country economically declining both relative to other countries as well as to its own past record [Diaz-Alejandro 1981]. Yet Argentina's slow growth can hardly be explained by low or inadequate resource availability, for she is relatively richly endowed with human and natural resources; in fact Argentina seems to match quite well the paradox of a resource-rich but poor country.
- 2. Analyses of growth cycles in less developed countries are rare 1. This is surprising because slow economic growth is

Simon Kuznets [1973] and W. Arthur Lewis [1978] are among the few that worked in this field.

generally acknowledged to be the main problem of these countries. The reason for this deficiency may be that, rather than growth itself, underemployment of factors of production, a lack of complementary factors like physical and human capital and/or basically non-economic aspects (illiteracy, health standards and food shortages) have been held to be the important issues [Lewis 1984, Papanek 1983]. Also, a lack of a sufficiently reliable data basis is probably more common a hindrance for empirical studies regarding less developed than developed countries [Randall 1976].

- 3. Graph 1 gives an overview of Argentine economic performance since 1864. The curves represent investment shares, and 3 and 9 year moving averages of the deviations of real gross domestic product and investment from their exponential trends. At first glance the pattern of Argentina's development does not reflect evidence on long-wave behaviour of industrial countries' aggregate production, which suggests that the current economic downswing, as measured by social products, investment and employment, began in the early (West Germany) or late (France) sixties [van Duijn 1983, Freeman 1983]. Several very particular features deserve to be mentioned:
- the regular pattern of economic upswings and downswings, resembling a sinusoidal curve of the Kuznets type rather than of the Kondratieff type. Measured peak to peak each cycle has a length of about 17 years;
- amplitudes seem to have been declining continuously, in

Graph 1: Long Waves in Argentine Development



aGross real investment as % of real GDP. - b3year (-) and 9year (★) moving averages of deviations from trend, as % of trend value. All values in prices of 1960. - CFigures for 1860 to 1900 are based on estimates.

fact they virtually disappeared in recent years;

- since the late thirties economic development has been persistently below its long-run average.
- 4. Looking at the peaks and troughs reveals that there have been at least three full cycles since 1870. The first had its trough about 1880 and its peak in 1893. The second "began" in 1900 and reached its zenith in 1909. Finally, the third trough can be located around 1918 with the upswing ending in 1926. From then on one may speak of a continuous trough in development, with some small indication of recovery starting around the early 1960s.
- 5. The purpose of this paper is to present and to discuss some hypotheses explaining Argentine development. Specifically, it will focus on
- the distributional conflicts hypothesis,
- the inflation hypothesis,
- the world market hypothesis and
- the political cycle hypothesis.

Not mentioned here is the Schumpeterian innovation hypothesis, because it does not seem to be relevant to developing countries.

### II. Explanation of Argentine Long Waves

- 1. The Distributional Conflicts Hypothesis
- 6. Hypotheses concerning distributional conflicts have been advanced in the 1970s [Glismann et al. 1978] as the main cause of long-run cycles in economic development. Such hypotheses had already been put forward by Karl Marx and his followers, today particularly by Ernest Mandel [1980], and also by Mancur Olson [1982]. Whilst Marxists place special emphasis on the exploitation of the "working class" by "capitalists", non-Marxist authors study distributional conflicts among organised interest groups, i. e. between trade unions and employers' organisations, among entrepreneurs, between consumers and producers, between organised and non-organised labour and, also, between government bureaucracy and private productive factors.
- 7. In the case of Argentina, two kinds of distributional conflicts can be identified. First, the one between organised labour and entrepreneurs. This hypothesis states that any change in the relative position of one party adversely affects the other party in a zero sum fashion. In case labour demands and receives wage increases in excess of productivity growth, profitability of capital investment is reduced. In circumstances where the marginal product of labour is equal to or even below real wages, such wage increases also lead to unemployment. In the wake of falling profit rates investment

in domestic physical capital declines, and thus ultimately social product decreases.

The second distributional conflict pertains to the bureaucracy exploiting the productive sector. The model assumes that there is such a thing as a growth-optimal degree of public goods production by the government. Taking internal security as an example, a too low supply of law enforcement would prevent economic growth to reach its maximum, whereas on the other hand too much law enforcement would obstaculise economic development. This implies that government can be very effective in constraining economic activity by engaging in public goods production. Bureaucratic exploitation also takes place when government supplies protection of any kind, i. e. does not quarantee the openness of markets. The ensueing establishment of a market for protection takes resources away from productive use (in a macroeconomic sense) and allocates them toward unproductive activities. Artificial bureaucratisation of the private sector should be closely related to the size of the official bureaucracy.

8. Trade unions exist in Argentina since the second half of the 19th century and can be closely associated with immigration flows because European immigrants brought with them the idea as well as the know how of labour organisation. The importance of trade unions grew with industrialisation, that is particularly since 1930, when import substitution policies began to be implemented. Concentration of workers in urban

areas helped create favourable conditions for labour organisation. Since the mid-1940s trade unions became a central element in social life, and under Perón (1943 - 1955) a centralised union empowered to raise and allocate membership fees which, due to the quasi-closed-shop system in the manufacturing sector, virtually made trade unions a part of public administration.

As regards distributional conflicts arising from government intervention, two issues in Argentine economic history seem worth mentioning: the nationalisation of manufacturing and services companies, particularly of foreign, companies, and bureaucratic redistribution. Foreigners had been the main source of entrepreneurial impulses since the country's independence in 1810. Especially since the 1940s, nationalisation of "key industries" - directed first against British "imperialism" and later against U.S. domination- brought with it the emergence of a large number of state-owned companies. In the banking sector, in public utilities as well as in industry, government became more and more the dominating entity [Randall 1978].

Also beginning in the 1940s was a policy aiming at distributional justice rather than at economic efficiency. Perón believed that social justice would ultimately lead to economic progress<sup>1</sup>; as it turned out this was an invitation to a per-

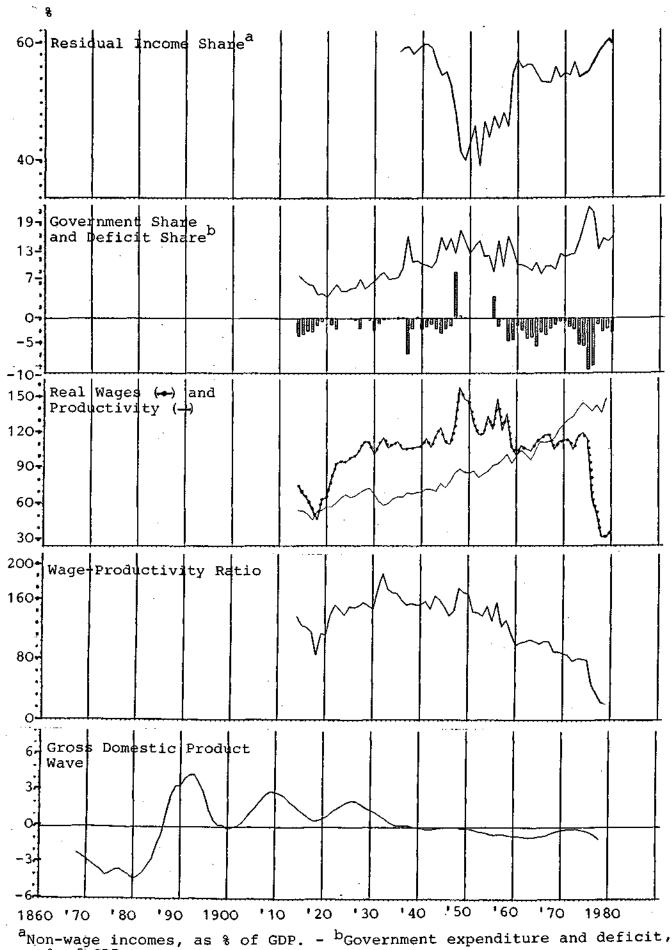
Incidentally, Perón's party called itself "Partido Justicialista", which means "social justice party".

manent struggle for higher shares in national income. Productivity as a criterion for distribution has virtually not mattered since. In Argentina the bulk of transfer payments consisted of direct firm or sectoral subsidies; interpersonal transfers, very common in more developed countries, have rather been of marginal importance.

9. Graph 1 highlights the relationship between the long-run cycles of gross domestic product and investment activity; Graph 2 shows the relationship between gross domestic activity and indicators of income distribution. As regards gross domestic product and gross investment, their respective cyclical patterns match quite well. The first impression is that the peak years of 1909 and 1926 are identical for both indicators and that the same holds true for the trough of investment development at the end of the First World War (1918) as well as for the one in the Second World War (1941). From 1941 onwards mainly shorter cycles of the Juglar-type seem to have dominated. It is noteworthy that the ratio of investment to gross national product also reveals a long-run decline since 1907/1910 up to the present. Investment activity helps to explain the weak performance of the Argentine economy after the peak of 1926: this ratio never again came near to that of the years 1904 to 1914 and 1923 to 1929. In other words, since 1929 consumption seems to have been much more rewarding than savings and domestic investment.

Graph 2: Indicators of Distribution

as % of GDP.



10. Such developments can basically have two explanations. One would be that income has been redistributed from the rich to the poor; this would result in higher consumption. The other one would be that investment profitability declined and thus either consumption or capital exports increased. In Graph 2 the wage/productivity ratio has been taken as an indicator of both redistributional incomes policies and of labour costs. One can observe that from 1919 until 1947 real wages increased faster than productivity. After 1947 the "gap" between real wage growth and productivity declined again, though very slowly at first. In fact, the time span between 1946 and 1956 resembles a high-wage plateau.

Since 1956 the ratio of wages to productivity has been falling; indeed, after 1974 this decline is extraordinary, due to the tremendous fall in real wages (Paldam 1985). The dramatic dip in real wages of about 70 per cent between 1974 and 1978 has no precedent in recorded economic history; one of the factors "explaining" it is the freezing of nominal wages by a new administration in 1976 while inflation continued. The question to be answered is why overall economic activity did not respond to this decline in labour costs: Possibly, the distributional conflicts hypothesis - at least as far as the conflict between labour and entrepreneurs is concerned - may not be symmetrical, i. e. high wages and low profit rates always dampen investment activity whereas the converse - low or declining real wages - does not necessarily encourage investment; other conditions may be important, too. Second, expec-

tations matter. In case entrepreneurs do not believe the wage decline to be lasting they tend to wait rather than to precipitate investment; investment data (graph 1) support this notion. Severe and sudden changes of economic variables, in whatever direction, inhibit investors who prefer graduality to shocks.

The mirror image of the labour income/labour costs pattern is given by the development of the residual incomes share in gross domestic product. Again, there is striking evidence for a low residual incomes share between the mid 40s and the late 50s. This alone may account for the persistently low level of investment activity in this period. Since unions in Argentina had the power to strongly influence the wage level most of the time, the share of wages in total national income can be supposed to have risen above the share which would have been determined by labour productivity alone. Thus, industrialisation appears to have been obstructed by the distributional effects of unionisation. Unionisation may therefore have neutralised any incentives for investment created by import substitution policies.

11. Government's influence as measured by total government expenditure (Graph 2) increased drastically in 1937; however, this may well have been a singular event when compared to the expenditure levels achieved in adjacent years. In 1944, though, government activity expanded again and remained at

high levels until 1958. This does not mean, of course, that government refrained from crowding out productive factors after 1958: today's severe debt problems of the Argentine economy seem to be related to the deficit spending policies implemented since the late 1950s.

12. All in all, empirical evidence suggests that the economic problems of Argentina did not only start in the 1930s and 1940s as is commonly believed. Rather, incomes and investment indicators exhibit much earlier distortions.

## 2. The Inflation Hypothesis

Inflation generally makes economic efficiency decline 13. for two reasons. One is concerned with the rate of inflation, the other with the variability of the rate of inflation. The first argument says that inflation per se alters resource allocation and produces losers and winners. Losers are those with fixed or lagging incomes; among them are savers and asset holders, employees and pension holders. Winners are those whose incomes overadjust to inflation; usually these are real estate holders, speculators and other "shrewd" people. This reduces allocational efficiency by reducing overall savings in favour of unproductive speculative investment. In addition, inflationary monetary policy does not leave relative prices unchanged because newly created money is injected into certain sectors of the economy and spent only on certain kinds of goods and services, the prices of which rise before

other prices feel the pull [Hayek, 1966]. In this way relative prices are constantly moving, not according to real scarcities but to monetary phenomena; in fact the link between real scarcities and prices becomes very weak under hyperinflationary conditions.

The second argument says that predictability of inflation rates matters, too. Whilst in the case of comparatively steady inflation rates entrepreneurs and consumers already have difficulties to extract information on relative prices from the markets, this information becomes totally blurred in cases of volatile rates of inflation: "the broadcast about relative prices is as if it were being jammed by the noise coming from the inflation broadcast" [Friedman 1977, p. 27]. Overall allocational efficiency consequently further declines with increasing unexpected variation in inflation rates.

14. Argentine monetary history can be divided into three important periods on the basis of the standard by which the peso was defined. The gold exchange standard prevailed until the late thirties; following textbook wisdom, money creation was strictly limited to gold supply during this period 1. According to Mises such a standard is the best insurance against spendthrift governments [Mises 1953]. After a transitional period based on a Sterling standard, the U.S. dollar

It should be noted that there has been one exception to this rule, namely the Baring crisis of 1890/91, when inflationary paper money creation to cope with public deficits disrupted the Argentine financial sector following the suspension of gold convertibility in 1885.

became the new currency standard after World War II. Thus, Argentina became free to pursue monetary policies which were not subject to the automatic discipline of the gold standard.

One of the causes of inflationary growth of money was the nationalisation of bank deposits between 1946 and 1957, and later again between 1973 and 1976. Only up to 1949 did credit expansion of the central bank have an upper limit (credits could be extended up to 25 % of existing gold and foreign currency reserves). In 1949 this limit was dropped, and credit creation has been virtually uncontrollable since. Only in 1957 a fractional reserve system was introduced. However, the legal opportunity to control inflation was not used. The central bank, still in the hands of the government, continued to pursue expansionary monetary policies. The reason may have been the political weakness of governments vis-à-vis unions and other organised interests [Del Canto 1982]. The same applies to the period after 1976.

- 15. Graph 3 presents the highlights of Argentine monetary history. Money supply and inflation, the latter measured by the consumer price index, turn out to be highly correlated during the period studied. It becomes quite clear that
- inflation posed no great problem before 1944. After that money supply virtually exploded, leading to an average level of inflation of roughly 20 per cent per annum between 1940 and the late fifties. After that, rates of inflation

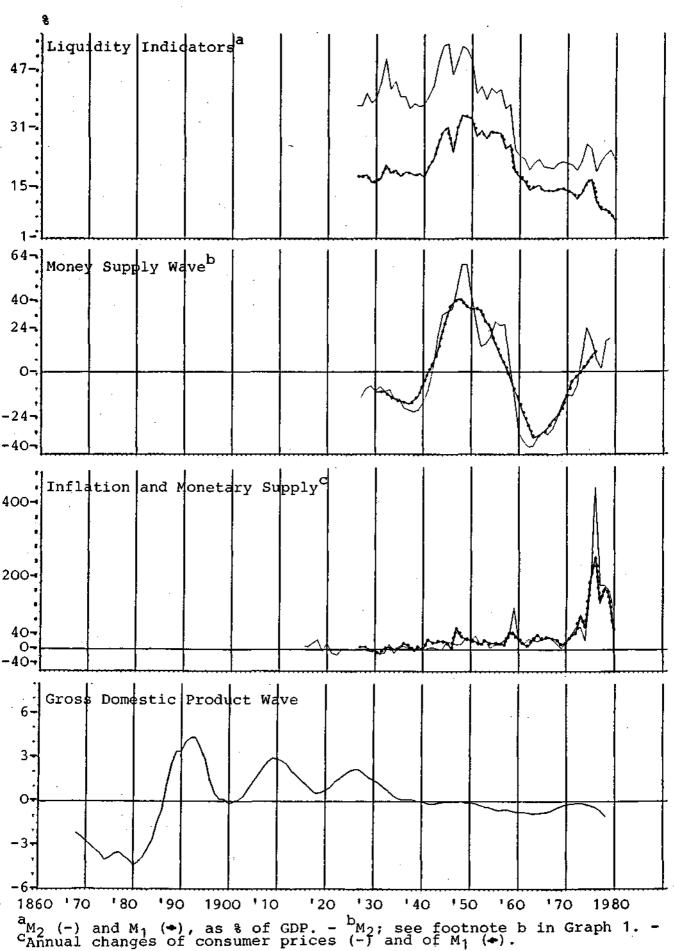
even increased and were followed by hyperinflation from 1970 on;

- with a grain of salt, trend deviations of money supply - as measured by M<sub>2</sub> (i. e. cash plus demand deposits plus time deposits) - support the hypothesis that monetary discipline loosened significantly in the late thirties and early fourties and again during the 1960s and 1970s.

These observations fit extremely well into the history of Argentine monetary institutions. What is more, trend deviations exhibit that monetary policy of the 1960s and 1970s was by no means something unprecedented. The "monetary revolution" took place in the 1940s; today's inflationary money supply rather seems to be a follow up.

- 16. Liquidity coefficients of the Argentine economy as measured by the ratios of M<sub>1</sub> (cash plus demand deposits) and M<sub>2</sub> to GDP show the effects of inflation on money holdings (Bernholz 1985). The gap between the M<sub>1</sub> and the M<sub>2</sub> coefficients partly reflects the effects of inflation on savings. This gap has been decreasing since 1940, with a small and relatively stable gap between, say, 1959 and 1975. The relative level of savings, however, also decreased in the "stable" phase. After 1975, the gap increased again, possibly due to positive real interest rates since 1976.
- 17. All in all, the pattern of inflation does not contradict the long-run development of gross domestic product. Indeed,

Graph 3: Indicators of Inflation



in view of the regularity of the long wave of GDP before the 1930s one could have expected a new upswing starting in the mid-thirties. But this did not happen; in fact under inflationary conditions GDP never recovered again.

## Two Other Hypotheses

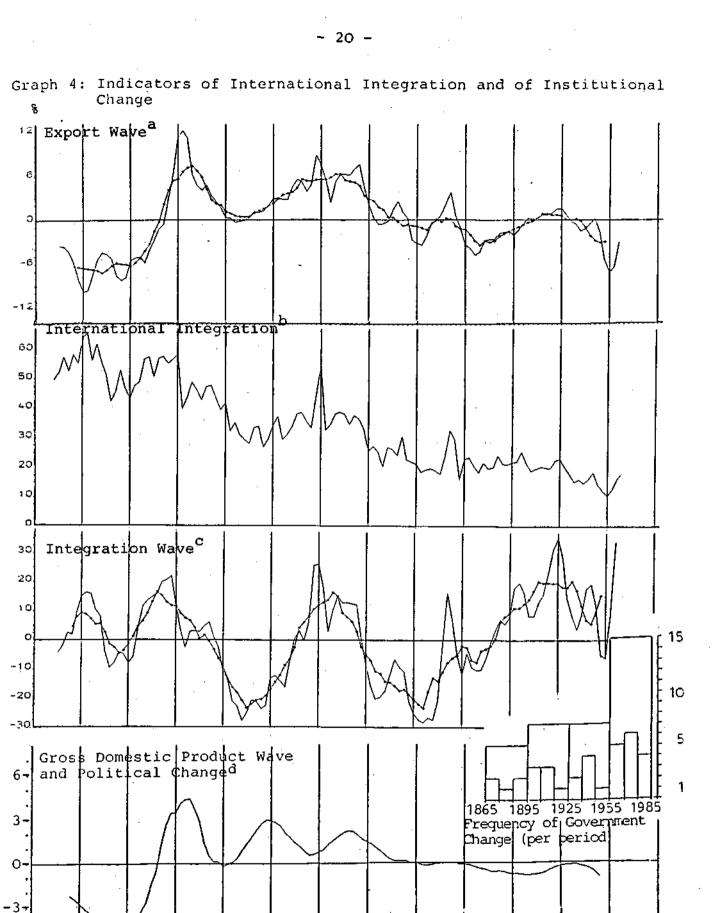
- 18. The explanatory power of the distributional conflicts hypothesis and of the inflation hypothesis does seem to be quite strong. Nonetheless, other hypotheses may also be important, given that our analysis covers a fairly long period of Argentine history, involving substantial institutional and policy changes. Of the many other approaches that would seem to also fit the Argentine case the following two seem to be most promising:
- changes in world market conditions had an impact on domestic economic activity;
- uncertainties introduced into the Argentine economy through frequent changes in political power obstaculised investment and production.
- 19. Argentina's international economic relations, both with respect to trade and capital flows has been characterised by concentration [Kawata 1972]. Export trade was not only highly concentrated regarding commodity composition but also regarding regional distribution. The main customer for Argentine agricultural goods was the United Kingdom, from independence until, say, the end of World War II. Since World War I also

the United States gained importance as a market for Argentine products. In the last 40 years the US gradually became the dominant trade partner, followed (until 1973, when trade relations with EC countries were brusquely reduced due to the EC's agricultural protection) by Western European countries, notably by Italy. Commodity imports followed similar regional (though not product-specific) patterns, with the United States being the most important source of Argentine imports. Capital inflows into Argentina as well as its capital outflows exhibit a similar geographical distribution.

Thus, it can be hypothesised that major changes in the 20. world markets are very likely to have had severe income effects. Examples of such exogenous events can be seen in the two world wars and in the Great Depression. Also, ad hoc discrimination of Argentine exports on political grounds falls under this heading, as the EC's boycott in the wake of the Falkland/Malvinas conflict in 1982, or as the one imposed on Argentina in the years of World War II. Non-tariff barriers to imports from Argentina, particularly beef imports, have been applied by the United States (since the 1950s; the official reason given was the danger of transmitting hoof-andmouth disease) as well as by the European Community (since 1973 within the framework of the Common Agricultural Policy). The hypothesis following from these experiences would be that the Argentine economy had strong incentives to insure against such export risks - either by diversifying exports, or through a reduction of imports and consequently through import substitution. Indeed, import substitution has been the "Leitmotiv" of Argentine economic policies since the 1930s [Foders 1983].

- 21. As regards the political cycle hypothesis it rests on the observation that investment as well as capital imports react sensibly to political risk. Such risk can be seen in unexpected and frequent changes in government, particularly if this is associated with fundamental changes in policy.
- 22. Graph 4 shows the long-run development of the index of international integration of the Argentine economy, measured as the share of exports plus imports in GDP and as the deviation of this indicator from its long-run trend. The degree of international integration of Argentina has been constantly declining over the whole period between 1865 and 1980; since 1950, the average share of foreign trade in GDP was about 20 percent. One may distinguish three phases of international integration: the first and highest lasted until the turn of the century; the second, on a considerably lower level, can be observed between 1900 and 1920; then came a strong decline over 25 years until, in 1950, the current and relatively low level was reached.

The deviations from the long-run trend are further evidence for the importance of these three phases. It turns out, that the largest and longest deviation from the trend of integration lies between the mid-twenties and the 1960s. According to the world market developments discussed above this may be labelled the "import substitution belly". Thus, neither World



1860 '70 '80 '90 1900 '10 '20 '30 '40 '50 '60 '70 1980

aReal exports; see footnote b in Graph 1. - Exports plus imports, as sof GDP. - Exports plus imports as sof GDP; see footnote b in Graph (expressed as sof exports plus imports). - Bars indicate time of change in government.

War I, nor the Great Depression nor World War II have been the origin of the stepwise decline - unless, of course, there are hidden time lags.

- Export performance can contribute to explain the pattern of international integration. One can interprete the data as follows: exports have been relatively increasing from 1860 until 1917. From then on came a steady decline until the early fifties; exports did not recover fully in the sense of exceeding the long-run trend. These developments can serve to reconsider the above refutation of the hypothesis concerning the impact of world wars. It seems that at first World War I contributed to the expansion of Argentine exports, but that in the longer run Argentine exports have been severly hampered - either by a misguided domestic economic policy (import substitution), or by some sort of discrimination by its main trading partners. It should be noted that at this time (in the 1930s) the British Commonwealth was consolidated. Since Argentina was not invited to participate in spite of the fact that the British were the main customers for Argentine goods at that time, this meant an important loss of foreign markets to Argentina . Neither the Great Depression nor World War II had any direct or discernible effect on exports or on the integration of the Argentine economy into the international division of labour.
- 24. The political development of Argentina can be divided into four periods. First, a long and stable period prevailed

Argentina tried to overcome this discrimination by signing a treaty with Great Britain, known as the Roca-Runciman treaty. But this did not improve the situation much.

until 1930 (still Graph 4). In the "transition period" from 1930 to 1943 governmental instability increased for the first time in this century. After 1943 again a stable period began which came to an end in 1955. Since then a fairly long period of high instability has prevailed. This pattern by and large fits into the picture of economic development - with the apparent exception of the years between 1943 and 1955. The latter was the period of income redistribution, government expansion and high rates of inflation.

### III. Summary and Conclusions

- 25. Argentine economic development from 1864 to 1983 can be roughly divided into a period of economic progress featuring significant waves of the Kuznets type (1864-1934), and into a period of economic decline with virtually no long-run fluctuations of gross domestic product (1934-1983). Of the many issues that could potentially explain such an unprecedented development of a basically resource-rich country, this paper has dealt with distributional conflicts, inflation, exogenous shocks and political instability. The analysis shows that redistributive incomes policies in favour of labour and government accomodated by a very loose monetary policy seem to lie at the heart of an institutionalised distributional conflict over a stagnant national income.
- 26. The explanatory power of each of these hypotheses, however, has varied over time. Argentine economic history may be

described like this: The first incisive event in Argentine economic development in the period under observation was World War I. This was an exogenous shock for a country heavily depending on foreign trade. In the years thereafter the degree of integration of Argentina into the world economy has been decreasing, and consequently gross domestic product expansion slowed down. Starting in the 1930s, this trend triggered inappropriate domestic policies aiming at income distribution rather than at economic growth. The rise of trade unions, of populism (Peronism), and the implementation of import substitution policies characterised the years since. Government gradually became the main actor, besides trade unions and entrepreneurs, also in economic matters. In order to try to satisfy the demands of the conflicting interest groups the government resorted to an easy monetary policy. The consequence was that in periods when one would have expected economic recovery in the wake of improved profits, high rates of inflation and political instability obstaculised economic activity.

Exogenous shocks on world markets that occured after World War I do not seem to have been of major importance for Argentine economic decline. Nevertheless, such shocks - like the Great Depression, World War II, the embargoes on Argentine exports by the United States and the United Kingdom, and factually also due to the EC's agricultural policies - have presumably reinforced the negative effects of incomes and monetary policies.

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