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Four Financial Crises in Argentina: A comparative study into the causes

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Abstract: This study is concerned with exploring the causes for four financial crises in Argentina's history stretching from 1890 to 2002 and with comparing the causes in order to find recurring problems. I will argue that the crisis in 1929-1932 is the one differing from the other three on several aspects: its prime causes were external; the public deficits were modest; there was no sudden stop in inflow of foreign capital; it was better managed; and it was not preceded by financial deregulation. All this meant that Argentina in the 1930s managed to avoid debt default and a major bank crash, which could not be averted in the other crises. Further, I will claim that there is support for the explanation that deregulation of the financial sector can, if badly managed, contribute to financial crisis. Then, I find that an appreciating real exchange rate was a problem in all four periods, and that a rigid currency policy was a central problem in two crises. In all four crises, political turmoil aggravated the economic development by creating uncertainty. Finally, large public deficits in combination with large external capital inflows led to the build-up of debts to unmanageable levels in three of the four crises.

Key words: Argentina, financial crises, external shocks, capital flows, domestic savings, deregulation, fiscal policies, exchange-rate regime, political shocks, crisis management

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1. Introduction

Financial crises have been a frequent recurring feature in the economic history of Argentina from the crisis of the 1820s in connection with the war against Brazil to the economic collapse in the first years of the 21st century. The first half of this long period was a true success story for Argentina. Until World War I the Argentines experienced a strong export led growth, so that Argentina by then was one of the richest countries in the world with a living standard on level with USA. After that growth has stagnated and the living standard has sunk in relation to the world around. In 1985 it was only 30 % of that of USA (Dornbusch/de Pablo 1987, p. 3). In the beginning of the 2000s came another fall. Even if Argentina's long term economic stagnation cannot be entirely explained from financial crises, these have contributed to the decline. Moreover, crises can be moments in history when the fundamental problems appear clearer. To study the crises thus gives vital perspectives to Argentina's long term stagnation.

1.1. Aim and research question

My purpose is to try to explain why the chosen crises occurred, that is to try to find causes to the crises. In doing so, I further want to compare the crises and seek to find similarities, differences and possible patterns concerning the causes of the crises. In this analysis I will try to separate domestic and external causes.

I will strive to describe the context of each crisis and cover several explanatory factors. The starting point for this is the notion that a crisis rarely can be explained by one, specific factor, but that it most often is a question of several factors working together. Consequently, I have chosen not to limit this investigation to some single aspect, which has made this account relatively comprehensive.

1.2. Scope

The investigation is limited to four financial crises: 1890-91, 1929-32, 1980-82 and 2001-2002. My selection is based on wanting to examine crises of different periods covering most of Argentina's economic history. Further, I have chosen crises that all had very serious economic consequences. The crisis of 1914 I decided leave out, partly because of limited time and partly because of its obvious connection with the outbreak of the First World War.

Concerning the crisis of 1989, its causes are largely rooted in the preceding crisis at the beginning of the 1980s, so I only incidentally mention the events in 1989.

I have also limited my investigation to dealing with the causes of the crises leaving the discussion about the solutions and consequences aside.

1.3. Outline of the essay

First, after this introduction I will discuss some theoretical approaches and possible explanations for financial crises. Secondly, each crisis is presented (section 3). Here I will concentrate on a range of quantitative data in order to describe and understand how different aspects of the economy developed before and under the crises. Further, I will go into how the monetary regime worked, describe the development of the financial sector, and give accounts of the political development and the crisis management. Section 4 comprises the comparison, where I will discuss similarities, differences and possible recurring patterns in the Argentine economy. Finally, I will give my conclusions of this investigation.

2. Theory, method and data

A financial crisis is typically characterized by disturbances in financial markets, falling asset prices and insolvency among debtors and intermediaries, which spreads through the financial system and puts the system's allocating function out of order. There are links between debt payment problems, bank failures and disturbances in the currency markets (Eichengreen/Portes 1987, p. 2). Only a number of banks going down, for instance, would not make a financial crisis in this sense.

2.1. Previous research

The academic discussion about causes for the chosen crises is extensive. I have built this essay around a vast body of research, and used some research to a greater extent for the descriptive accounts. For the 1890-91 crisis, Ford, Eichengreen (2003) and Miles are central; for the 1929-32 crisis, Taylor (1997), della Paolera/Taylor, Aldaheff and Maddison; for the 1980-82 crisis, Dornbusch, Maddison and Sachs et al (1996); and for the 2001-02 crisis, della Paolera/Taylor (2003), Perry/Serven, Moreno and de la Torre et al. To my judgement, the sources used are reliable. In section 4.2 I will go into the varying views on the causes of each crisis based on some of the research.

In the literature, there are comparisons of different periods, for instance Maddison (1985), but to my knowledge no broad comparison of the four periods I cover here.

2.2. Possible explanations of financial crises

In the literature, there are several general explanations for the rise of financial crises. Below, I will in short give an account of some these, which are mostly based on experience from other historical crises and to some part include theoretical concepts. I will discuss them in my comparison of the causes of the four selected crises in Argentina.

External shocks: First, there is the explanation that a crisis is caused by external factors, for example rising world interest rates, aggravated terms of trade or a world recession. In a fairly open economy, relatively small changes in such exogenous conditions can result in financial unrest, which can lead to costly liquidations of assets, unnecessarily large credit crunches and falls in economic activity (Chang/Velasco 1998, p. 3f).

Sudden stop in the capital flow: Periods of powerful capital inflows may end rather suddenly, which can trigger a financial crisis. Edwards (1998) maintains that very large capital inflows are not sustainable in the long run. In the short term, international investors can overreact to positive investment opportunities. The expenses increase and the real exchange rate appreciates, which becomes a problem when the capital inflow weakens or suddenly stops. The real exchange rate will have appreciated too much and a strong adjustment must take place (Edwards 1998, p. 21ff). Capital flows to developing countries are characterized not only by cyclical patterns, but also by high volatility, which concerns mainly short-term capital in the form of portfolio investments and commercial loans.

Deteriorating domestic savings: Gould asserts that the historic experiences show that foreign lending is most likely to be successful if it promotes and is followed by an increase in the domestic savings. This counteracts the threat of inflation, which can arise if foreign lending is channelled through the banking sector and there gives rise to an expansion of domestic credits. It also neutralizes the danger that foreign lending is used for import consumption and government expenses. If the savings on the other hand fall and credits on a large scale are used for consumption, the risk of a crisis mounts (Gould 1972, p. 199).

Deregulation of the financial sector: Sachs et al (1996) mean that there is a clear connection between deregulation and privatization of the financial sector and a quick, domestic expansion of lending, which can end in banking crises. When the lending increases quickly it

becomes harder to assess the debtors' ability to pay back. Problems with adverse selection and moral hazard grow. The surveillance of the banking system also tends to be insufficient during such periods (Sachs/Tornell/Velasco 1996, p. 4, 25f). In a liberalized environment, competition drives the banks to take higher risks and act carelessly. Even the established banks have a hard time keeping to their normal, careful practice, because it is the aggressive banks that profit in this phase. Bad banking practice tends to crowd out good (Mullineux 1990, p. 78ff).

Rigid exchange-rate regime: When the currency policy is some form of fixed exchange rate, the risk is considerable that the currency becomes strongly overvalued as a consequence of a higher inflation rate compared to the world around, which increases the vulnerability to a financial crisis. If the capital inflow ebbs, the deterioration in the capital balance can temporarily be faced with currency reserves, but in the longer term the current account deficit has to be cut. This can be accomplished either by a falling absorption, i.e. lower consumption, imports and so on, or by a real depreciation, which can be done through either a nominal depreciation or falling prices and wages (Sachs/Tornell/Velasco 1996, p. 2). If the nominal exchange rate is fixed or inert and if there are wage and price rigidities, it may be impossible to bring about the real depreciation that is needed (Edwards 1998, p. 21ff). Further, a fixed exchange rate can collapse in connection with a banking crisis because in such a situation the goal of keeping the exchange rate fixed is not compatible with the goal of stabilizing the financial system. The central bank can try to counter a banking crisis through keeping the interest rates low or by providing the banks with liquidity. But, then the actors will use the growing supply of domestic currency to buy foreign currency, which will force the authorities to abandon the fixed exchange rate (Chang/Velasco 1998, p. 4)

Weak fiscal policies: A fiscal policy with large budget deficits and increasing public debts increases the aggregate demand, which can generate higher inflation than the surrounding world. This leads to an appreciating real exchange rate, which undermines external competitiveness and gives rise to a current account deficit (Kindleberger 1987, p. 7f). Sachs (1989b) has pointed to a pattern in Latin American countries with too expansive economic policy, which is often motivated by problems with poverty and inequality and has a background in social conflicts. The mounting public expenses lead to budget deficits, high inflation and falling real wages and end in serious balance of payment crises (Sachs 1989b, p. 27f). Budget deficits can give rise to capital inflows from abroad if governments finance

higher public expenses directly through loans from abroad or indirectly via growing loans in the domestic market, which raises the interest rate level.

Political shocks: A crisis often has an initiating factor, which may be of economical nature, but also political, for example a coup d'état (Kindleberger 1978, p. 107f). If such political events do not directly trigger a crisis, they can contribute to aggravating it by causing and spreading economic uncertainty among key actors, such as foreign investors. Further, underlying social conflicts, which may grow out of large income differences, can also contribute to weakening the political institutions (Sachs 1989b, p. 7f)

Crisis management: The central authorities, mainly the national government and the central bank, are faced with difficult decisions once the economy has started to run into problems. If they make the right choices, they can limit the damage to the economy and possibly avoid a full-blown crisis. If they fail, they can make the imbalances worse and the problems are likely to escalate into a financial crisis and possibly a crash.

Large capital inflows, domestic credit expansion and government deficits can all cause the money supply to increase more than real output, which will result in inflation. This follows from the quantity theory of money, where the quantity of money determines the nominal value of total output (given constant velocity). The development of the money supply is a key factor in several of the explanations above.

2.3. Method

In this survey, I analyze both qualitative and quantitative data. First, the investigation is based on the study of research, of which I have summarized the central parts, and then tried to systematically account for certain aspects for each of the four periods. Second, I use some general explanations of financial crises put forward in section 2.2 to make a comparative analysis, to which certain quantitative, economic data are essential.

2.4. Data

The economic indicators are also crucial to the descriptive accounts and are gathered in the appendix. The data is collected from several sources, in part other researchers and in part official international statistics. Generally, I have preferred to use data from later sources, when possible, since there are sometimes updates on variables like GDP. In the appendix, I have a few more notes on some indicators.

3. Four financial crises

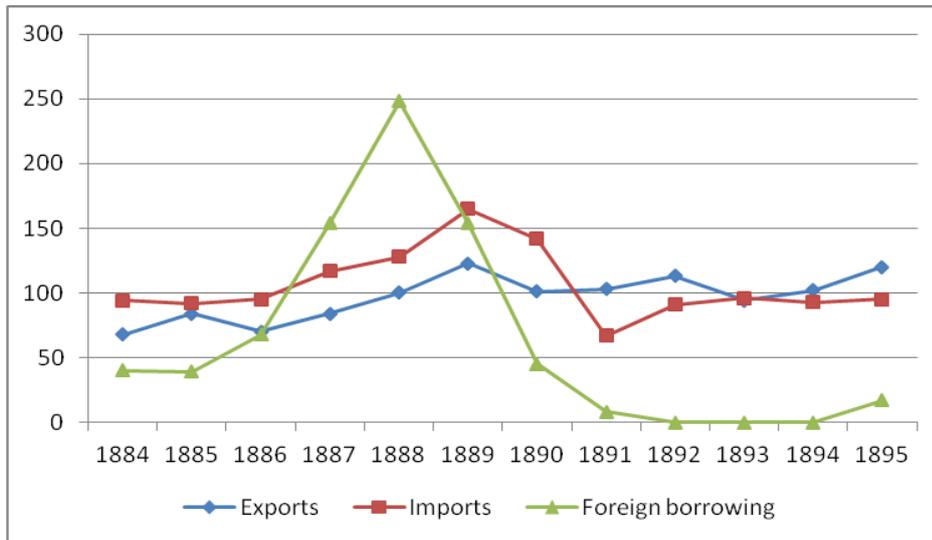
3.1. The crisis of 1890-91

From the middle of the 19th century, Argentina became more and more dependent on trade with Europe and North America. Between 1880 and 1913 the value of the export rose seven times (Ford 1962, p. 83) and 1870-1890 by on average 8,2 % annually (Miles 2002, p. 9). The transport revolution, the opening up of the Pampas, large scale immigration and population growth were important conditions for Argentina's entrance into the world economy. In the 1880s Argentina used large capital inflows to finance long-term investment projects in infrastructure. The crisis 1890-91 forms an interruption in this era until 1914 of strong, export-led growth, which transformed Argentina into one of the richest countries in the world.

Joining the gold standard was an important economic goal in the 1881 monetary reform in order to become attractive to foreign investors. Argentina was on and off the gold standard from 1867 with periods of floating in between. In January 1885 gold was suspended again after less than two years of convertibility. The failure then was founded in poor confidence in a fixed exchange rate and in the fact that strong economic interests wanted a weaker currency. There was a tradition in economic policy to expand credit in times of crisis and thereby letting the exchange rate depreciate. This was a policy that suited the big landowners, who had strong interests in the export sector and most of the time practically controlled the presidency. President Roca's goal to establish Argentina on the gold standard thus failed and the government fell the year after. The new government headed by president Celman changed course to an expansive policy supported by landowners and export interests. Gold convertibility was no longer on the agenda and the monetary policy became lax, which added to the investment boom driven by the foreign capital inflow (Ford 1962, p. 134ff, 150).

In the late 1880s Argentina experienced a boom with rising export and import, but also a growing current account deficit and an exploding foreign borrowing. The boom was driven by the foreign capital inflow. Rising world market prices of agricultural products resulted in increasing Argentine export revenues in 1886-89, which strengthened the boom. The investment boom was reinforced by the domestic expansionary economic policy, so that the demand for imported goods and with that foreign currency was greater than the supply of foreign currency from export revenues and foreign loans. The result was a depreciating exchange rate. The growth of foreign borrowing collapsed completely in 1890-91. The import

Diagram 1: Exports, imports och foreign borrowing (million gold pesos), Argentina 1884-1895



(Ford 1962, p. 139 (no information available on borrowing 1892-94))

also decreased substantially with the financial crisis 1890-91. After 1895, there was an export-led recovery (Ford 1962, p. 140).

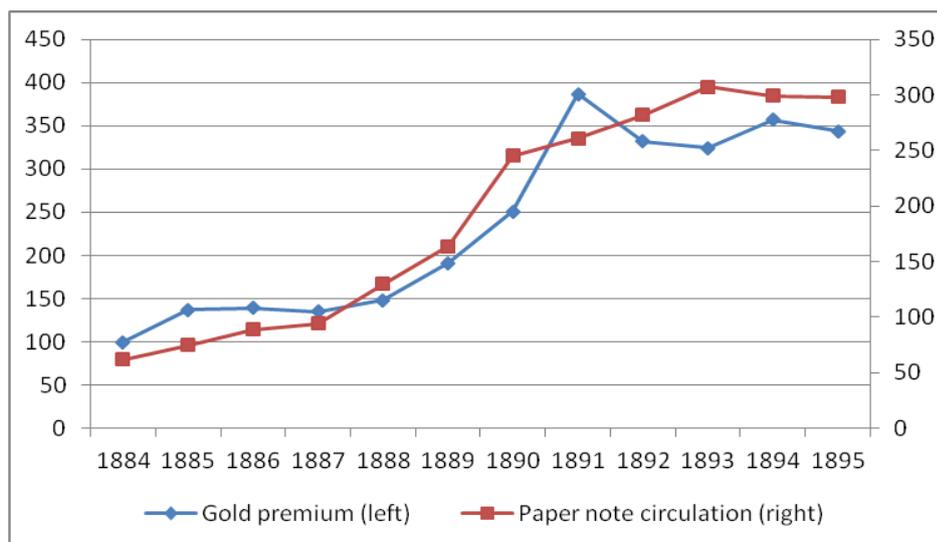
British investments started in the 1860s and grew from 2,7 million pounds in 1865 to 479,8 million pounds in 1913 (Stone 1977, p. 706). In 1878-81, the Argentine government laid the foundation to the investment boom by securing the Pampas area militarily, by establishing a strong national government headed by Julio Roca (1880-86), and by introducing a national currency, the peso (Ford 1962, p. 86f). In 1889, 40-50 % of the British foreign investments went to Argentina (Körnert 2003, p. 189). The Roca government obtained the first loan for two railway lines in 1881 and then the provincial governments established links to the coast. The city of Buenos Aires borrowed to expand and modernise the port and to invest in other infrastructure projects. The British bank, Baring Brothers, was focused on financing such public projects. Between 1888 and 1890 Barings invested 13,6 million pounds in Argentina, by far the largest sum of all foreign banks (Körnert 2003, p. 189). Around two thirds of the British capital that was invested in Argentina 1886-89 went into building railways. The Argentine government used an interest guarantee for investments in railways, which shifted investors' focus from the profitability of the railway companies to the creditworthiness of the government (Eichengreen 2003, p. 194f). Most of the international capital was raised from bond issues in financial markets in developed countries. Towards the end of the 1880s the

current account deficit reached historically high levels, 20-30 % of GDP. After the Baring crash in 1890, the current account turned to a surplus, i. e. a minor outflow of capital.

The principal factor driving the capital to Argentina and others was that the conditions for investments in Britain were poor during most of the 1880s with recession and low interest rates. Investors sought higher returns abroad, primarily securities in developing economies. Further, the competition between the foreign commercial banks in the Argentine bond market resulted in increasing capital inflows. Baring's attempt to dominate the Argentine market was also a push to take over Rothschild's role as the leading commercial bank. Another indication that the capital flow was determined primarily by exogenous factors was that capital continued to pour in despite lots of negative news about the development of the Argentine economy – the suspension of gold in 1885, the dramatically rising gold premium and money supply, the chronic budget deficits, corruption etc (Miles 2002, p. 14, 19ff).

After the currency crisis 1885, a supervision authority was set up to restrain the banks in printing money. However, a decree issued in October 1885 allowed the semi-official Banco Nacional to double its banknotes issue. Notes in circulation increased from 62 million paper pesos in 1884 to 89 millions in 1886. In 1887 the financial sector was liberalised through the passing of the Free banking law, which resulted in a dramatically rising number of banks, especially public sector banks. Other banks were also able to issue notes backed by government bonds, which they bought with money borrowed abroad. The fact that the foreign capital was channelled through the banks increased its effect on aggregate demand. The foreign capital financed the increasing expenses of the government and at the same time paid for the banks' issues of bank notes. The financial stability was disturbed by these measures (Eichengreen 2003, p. 204f). The foreign capital poured into the country and simultaneously the bank notes issues rose by 38 % in 1888, by 26 % in 1889 and by 49 % in 1890. The demand for money rose with the fast economic growth, but did not keep pace with the supply of notes. Consequently, the exchange rate depreciated by 10 % in 1888, by 29 % in 1889 and by 31 % in 1890. The gold premium of the peso rose from par in 1884 to of 39 % in 1886 and 91 % in 1889.

Diagram 2: Notes in circulation (mill paper pesos) and the gold premium 1884-1895



(Ford 1962, p. 139)

There were provincial banks in Argentina that borrowed abroad to provide the provincial governments with credit and back up the issues of bank notes. Some of these were banks only by name. Their actual role was to bring in the foreign capital that was needed for the expenses of the provincial governments. Some of them gave advances directly to politicians. There were reports that these banks falsified their balance sheets and stated that they had non-existing dividends (Eichengreen 2003, p. 197).

The financial liberalisation led to rising asset prices, more of speculations, frauds and wasteful credits, and the extensive capital inflow aggravated these phenomena. One example was the cedulas, mortgage bonds, which became much overvalued and threatened the stability of the financial sector (Eichengreen 2003, p. 197f). With the increase in export revenues and loans abroad followed a higher liquidity in the economy and consequently falling interest rates (until 1889). The great number of borrowers, including the national and provincial governments and authorities, led to an increase in the credit demand. Credit became looser, and the risk of a growing ratio of bad loans rose. The banking sector thus became more vulnerable to changes in the capital flow. Pressure on the currency also increased. The wasteful credit practices should be viewed in the light that the government later rescued the banks in the wake of the crash (Miles 2002, p. 8).

In 1889 there were signals of diminishing growth, which caused alarm over the Argentine economy's ability to service the foreign debt. Eichengreen (2003) maintains that the cause of the slowing growth in Argentina at the end of the 1880s, was that too little of the capital

inflow was saved and directed into investments. 60 % of the increase in imports 1886-1890 came in the form of consumption, according to Eichengreen. Dramatically rising prices at the end of the 1880s indicates that the domestic consumption was over-stimulated. Real estate sales were ten times bigger in 1889 compared to 1886 and the national savings decreased after 1885 (Eichengreen 2003, p. 198ff). Taylor's (1997) figures show a negative savings ratio 1886-1890. Low wages and a high share of the population below 15 years or over 65 also give reasons to believe that the propensity to consumption was high (Taylor 2003, p. 179).¹

In 1889, the business cycle in England recovered strongly. Bank of England raised its discount rate from 2,5 % to 6 % in the course of six months, followed by other central banks. The result was that investments in other countries became less profitable. This contributed to Barings' failure in placing the Buenos Aires Water supply and drainage company ltd (BWSD) loan in the market. This failed emission precipitated the crisis for the bank. New British emissions to Argentina fell from 23 million pounds in 1888 to 12 million pounds in 1889 and 5 million pounds in 1890 (Eichengreen 2003, p. 193).

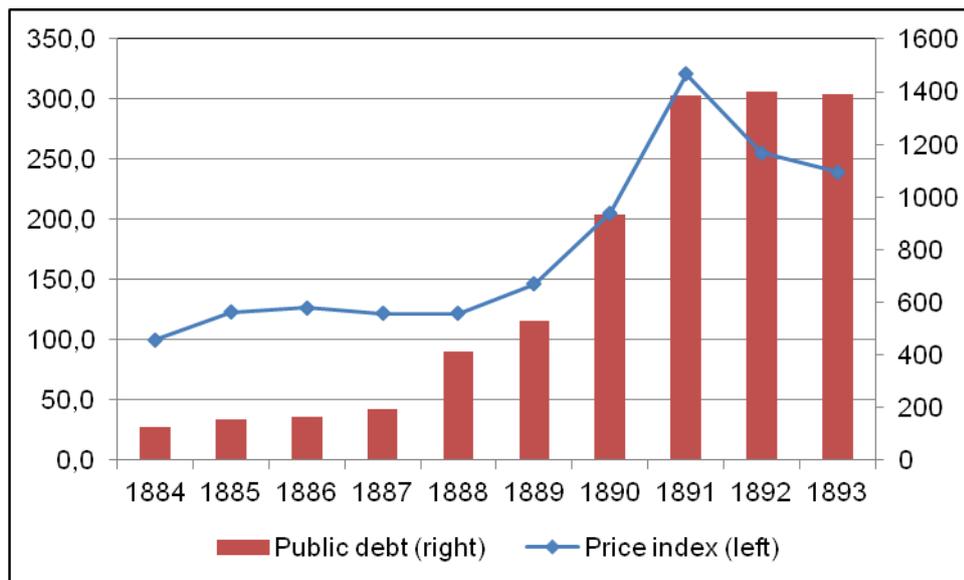
In the spring of 1889 the government failed to get a conversion loan accepted. The government wanted to pay for public bonds denominated in gold with depreciated paper money, which in practice meant a partial default (della Paolera/Gallo, p. 373). Instead, the government sold off gold and took new loans in Europe in order to hold back the depreciation of the currency and maintain the liquidity in the financial markets. It used its reserves in order to postpone adjustment measures.

From a fiscal point of view, the years 1887-90 were among the worst in the history of Argentina. During Celman's reign the public debt ratio of GDP increased dramatically and the country's finances grew increasingly weaker. 708 million gold pesos were borrowed from abroad in 1885-1890, 35 % of which were public sector loans. These almost 250 million gold pesos meant that the public debt grew more than three times during this period. In 1890 this debt build-up had increased the yearly debt service to 60 million gold pesos (from 28 million in 1884), which was equivalent to 60 % of the export revenues (Ford 1962, p. 140f).

Inflation rose quickly at the end of the 1880s as a result of the large budget deficits and the lax monetary policy. In the years 1889-1891 the yearly increase in price index was 21 %, 40

¹ According to Miles (2002) it was rather a matter of an investment boom. He points to Ford's (1962) statistics of total imports, which show that the share of capital goods rose from 1884 to 1889, while the share of consumption goods fell. With the (temporarily) high export prices in the years 1887-89, Argentina was seen as a reliable borrower (Miles 2002, p. 9).

Diagram 3: Price index and nominal public debt (mill pesos) (, 1884-1893



(Taylor 1997, p. 37 for price index and Flandreau & Zumer 2004 for public debt)

% and 56 % respectively. Inflation and currency depreciation had undermined real wages and unrest among workers spread in 1889.

The increasing inflation in Argentina resulted in drastically rising costs of servicing the foreign debt. When the capital flow turned around at the beginning of the 1890s, these costs became a heavy economic burden for the nation. The ratio of debt service increased from 23 % of exports in 1885 to 60 % in 1890. The public share of the 60 million gold pesos that were paid in debt service in 1890 was 28 millions, or 47 % (Ford 1962, p. 139ff).

The budget deficit of the national government in 1890-91 exceeded 68 % of its revenues. The provincial government also ran deficits. Local authorities financed their expenses by taking loans abroad. The miserable state of Argentina's public finances came into focus in 1889 and then president Celman tried to cut expenses and increase revenues, but tax hikes met with strong resistance from the opposition and unions. In April 1890 the new Minister of Finance José Uriburu proposed higher customs duties by 15 %, but after riots and resistance from wealthy interest groups Celman chose to sack Uriburu. The government postponed measures to deal with the deficit and political unrest increased the uncertainty concerning the government's ability to handle the situation (Eichengreen 2003, s. 188, 196).

The foreign loans fell precipitously in 1890, but the payments only diminished slowly, which led the gold premium to rise dramatically from 151 % in 1890 to on average 287 % in 1891. With stagnating economic growth, the big banks ended up in financial difficulties. At the

same time the world market prices of agricultural products fell in 1890, which meant that it was practically impossible to compensate the decline in foreign capital by raising export revenues.

In March 1890, the government reserves were exhausted and the Banco Nacional was virtually bankrupt. Pressure grew on Barings. As a result of the economic stagnation, there were no payments from BWSA and other investments, and the Argentine government had serious problems servicing the national debt (Körnert 2003, p. 190). The government tried to raise funds by selling the public railways, which contributed to protests in the capital. Buenos Aires saw violent clashes between forces from the militant party Union Civica and government forces and a failed coup in July. This political unrest made it all the harder for Argentina to raise money in the international capital market and it led to president Celman's resignation in August 1890. The new Pellegrini government announced a plan to reduce the loans of the provinces and counties and to guarantee their debt. It tried to restore the creditors' confidence by raising taxes and customs duties on imported consumption goods. In October, Barings's problems became acute. The bank was forced to borrow large sums in order to meet its obligations. Early in November, the leading London bank was on the brink of ruin, which threatened the City's position as the world financial centre. The so called Rothschild committee was formed to rescue Barings and to reconstruct Argentina's debt. Banco Nacional was forced to pay the short term debts and accept that Barings was leased from the last part of the BWSA loan (Eichengreen 2003, p. 207f).

Barings was rescued to live on another century and the City of London thus escaped the crisis. To Argentina the consequences were worse. In January 1891 an agreement with the Bank of England was reached, which included a moratorium on large parts of the Argentine debt (Rock 1986, p. 60f). Payments on the public debt were cancelled. The terms of the agreement included reforms to bring down the inflation rate. This meant a stop to bailing out the banks. Consequently, a banking crisis broke out in January 1891. Late in the spring the entire banking sector was infected. Only one bank in Argentina, the Bank of London and the River Plate, managed to stay open (Eichengreen 2003, p. 208f). The consequences to Argentina's real economy were devastating. The drastic adjustment of the current account balance was accomplished by reducing imports, which resulted in a contraction in the economy.

In a historic perspective the development at the end of the 1880s and during the crisis at the beginning of the 1890s is unprecedented. In the boom of 1887-89 GDP grew on average by

more than 13 % per year and in total by 44 % over three years. The fall of 1890-91 amounted to 15 % and was the deepest recorded (Taylor 1997, p. 37). The investment ratio went from 11-16 % of GDP at the end of the 1880s to 6-7 % of GDP during most of the 1890s (Taylor 2003, p. 177).

3.2. Argentina during the great depression 1929-32

In the 1920s Argentina was the leading economy in Latin America. Growth was high, harvests were exceptionally good, and a final round of railroads was built. Argentina was a free trading-nation, dominant in grain and meat exports, and with the demand from the industrialized countries in Europe driving its economy. During the four years 1926-1929 annual real GDP growth averaged 5,7 %, industrial production 5,2 % and exports 4,8 %. National external debt was in 1929 41,8 % of exports (Eichengreen/Portes 1985, p. 10).

In the 1920s the investment levels were fairly high in Argentina and finance came to some extent from foreign capital. In the years 1920-24 there was an average current account deficit of 6 % of GDP. The net capital flow from abroad was markedly lower during the second half of the decade with a deficit around 2 %, although it rose in 1929 and hit 9,5 % in 1930. The inflows in the late 1920s were considerably lower than during the period 1885-89. The international capital flow in the 1920s was procyclical and thereby had a destabilizing effect on the debtor economies. Gross capital outflow from the US rose strongly all through the 1920s from around 650 million USD in 1920 to 1 570 million USD in 1928. The investment bank Morgan dominated the foreign lending to Argentina (Eichengreen 2003, p. 34). It was mainly the Argentine government that via the bond market borrowed from international banks (Taylor 1997, p. 7).

During the boom period from 1900 to 1914 had Argentina had built up considerable gold reserves, and these were well economized until the mid-1920s. This gave the currency a strong backing. The monetary policy 1914-27 was aimed at rejoining the gold standard. In August 1927 Argentina reached this goal, now at a different parity (Bordo/Kydland 1995, p. 437). The monetary policy was run by a currency board, which exchanged domestic currency for gold at the given rate. With a fixed exchange rate and a free flow of capital, it was not possible to control the nominal money supply. The money supply will in such a system, where the authorities play by the rules, vary with the gold assets. Even during the period 1914-1927 when convertibility had been given up, Argentina for the most part continued to

comply with the gold standard rules. The background was that the experiences of expansive monetary policy during the 1880s and earlier and the inflation and economic chaos that those crises had caused was a vivid memory among the decision makers of Argentina. The fear of inflation made their faith in the gold standard strong (della Paolera and Taylor 1998, p. 12f).

Argentina's financial development was stagnant during the interwar years. The equity market was undeveloped, so long-term credit was scarce. The real money supply (M3) per capita was stationary from 1920 on, as was the money supply (M1) as ratio of GDP. The banks had become more important to channel savings, but the expansion was inadequate, especially if excluding the official Banco de la Nación (BNA), that was set up to supervise the financial sector. Between 1910 and 1930 the domestic private banks' share of the total lending dropped from almost 50 % to less than 35 %, and the BNA:s share increased from 28 % to 45 % (the remaining 20 % to foreign banks). In the crisis of 1914 and 1922-23 the domestic banks lost most of their capital, and by 1930 they had not come back to the prewar level. Although savings accounts expanded, the national savings did not grow fast enough to stimulate economic growth (della Paolera and Taylor 1997, p. 1ff). The savings quota rose only slowly after 1914 and was on average on 8 % of GDP. The investment ratio dropped to around 10 % of GDP compared with 15-16 % before 1914. At the end of the 1920s the savings and investments ratios were however higher than before, but in the beginning of the 1930s both fell sharply.

The BNA:s strong dominance also made the system vulnerable to political manipulations and crony finance. The BNA supported and saved the banking sector time after time without having made any such promises in advance. Yet, it had no official status as central bank and lender of last resort. Those who benefited from this were the owners of the other banks, who got backing for the risks they had taken and the bad loans that otherwise threatened to ruin them. Some of the bad loans had been granted to themselves or their companies in banks that asked the BNA for help (della Paolera and Taylor 1997, p. 10). The BNA even lent the banks funds to a lower interest than what its customers got on their deposits. Gradually a big problem of moral hazard evolved, which meant considerable risks to the whole system (della Paolera/Taylor 2002, p. 370).

The financial system thus failed in its two microeconomic tasks: it could not mobilize more capital and it could not allocate the capital so that efficiency improved. Further, being without a lender of last resort made it weak in case an external shock would lead to a bank

run. Under the gold standard rules the currency board was obliged to keep the share of gold assets in relation to the money supply unchanged, which gave it little room for providing liquidity to the banks in a crisis (della Paolera and Taylor 1997, p. 9ff).

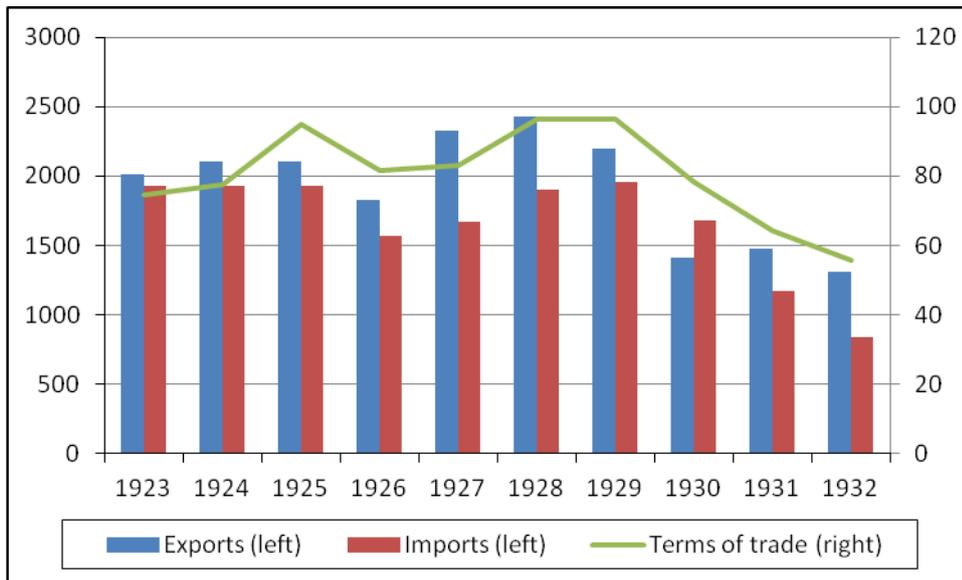
The fiscal policy during the interwar years was orthodox and practically remained so into the 1930s. The aim was budget balance. A large share of the revenues came from customs taxes, which varied cyclically with trade. Therefore in recessions deficits were run up, but normally they were small. In 1928 the budget deficit was 1,7 % of GDP.

Politically, a power balance had emerged in the 1920s between the two big parties – the Radicals, which represented the middle class and industrial interest groups, lead the government, while the conservatives, representing the big landowners, the church and the military, controlled the senate. The country was nevertheless ruled mostly with respect to the export economy, which kept its leading position through the decade (Rojas, p. 189f). The popular Hipólito Yrigoyen, a Radical, had served a first period as president in 1916-1922 and returned in 1928. The conservative party had seen its share of the votes fall and the Radicals had the control of the senate within reach. Conservative and fascist militaries conspired against his government.

In 1928-29 developing countries were hit by double shocks. First, the American capital export ebbed in 1928, because the boom on Wall Street lured investors and because the Fed raised the discount rate in 1928 in order to hold back the hausse in stocks. From 1929, there were capital inflows to USA instead of outflows. Then, the primary goods export diminished quickly due to the strong decline in the US business cycle, which started in the summer of 1929. In 1929, USA accounted for more than half of the world industrial production and its industrial output fell 25 % between October 1929 and October 1930 (Eichengreen/Portes 1985, p. 14f). These two shocks strongly affected the demand in the debtor countries. They also contributed to the third shock, the global, steep decline in prices. This deflation put further pressure on debtors and affected business confidence negatively. Argentina, like other primary exporters, was hit by a terms of trade shock (down 34 % between 1928 and 1931) starting early in 1929. The general price level dropped in 1929.

Argentina chose in December 1929 to limit the gold convertibility. The dramatic decline in exports revenues had made it practically impossible to reduce imports enough to avoid large deficits in the balance of payments. Reserves had diminished, which reduced the money supply. The deepening deflation also strengthened the influence of the groups who wanted to

Diagram 4: Exports and imports (million pesos, current prices) and terms of trade, 1923-1932

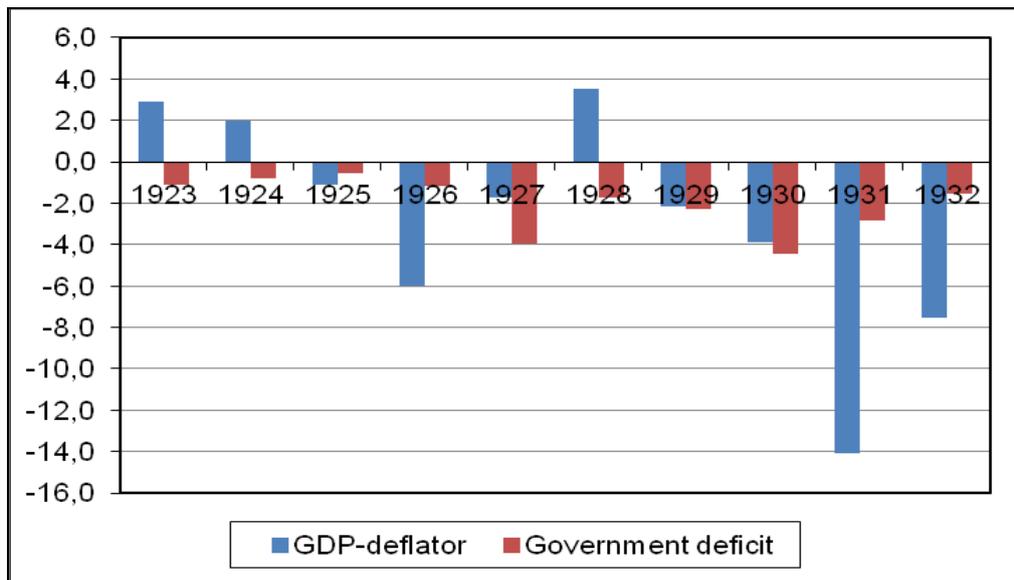


(Taylor 1997, p. 38 for exports and imports; Francis 2013 p. 295f, 301 for terms of trade)

ease the rules of the gold standard. So, the currency board was shut to protect the gold reserve. During the following year the peso fell by 25 % and by 1934 it had lost 60 % of its value (Aldaheff 1986, p. 103). Another reason for the decision to get off the gold standard was the bad state of the financial sector. The balance sheets of the banks, even the BNA, had deteriorated, the share of bad loans grew and the reserve quotas fell. With the reentrance into the gold standard in 1927, it would not be possible to continue the rescue actions as before. The confidence in the ability of the banks to adjust to this change was however very low. More and more people chose to withdraw their funds from the banks and the demand for gold increased. This growing pressure came to an end when the decision was taken to jump off the gold standard (della Paolera/Taylor 2002, p. 381).

In the first half of 1930 the international capital flow returned to the extent that the American lending reached its highest level since the First World War. The Argentine government secured a new loan amounting to 50 million US\$ in April 1930, but only for six months. The banks were put under pressure from the lack of credit and now voices were heard demanding the government act to counteract the decline in foreign capital. But, the government was not prepared to alter its monetary policy further. The effects of deflation on business were gradually felt more and more. President Yrigoyen was given the blame for the depression. In September 1930 the Yrigoyen government was overthrown in a military coup. A military government headed by general Uriburu took over. The new government threw out all Radical

Diagram 5: Inflation rate (annual change, %) and government deficit in Argentina 1923-1932 (% of GDP)



(Bordo 2002)

politicians and officials from leading posts and barred them from running in the election in 1931. After the election a conservative government was formed by general Justo.

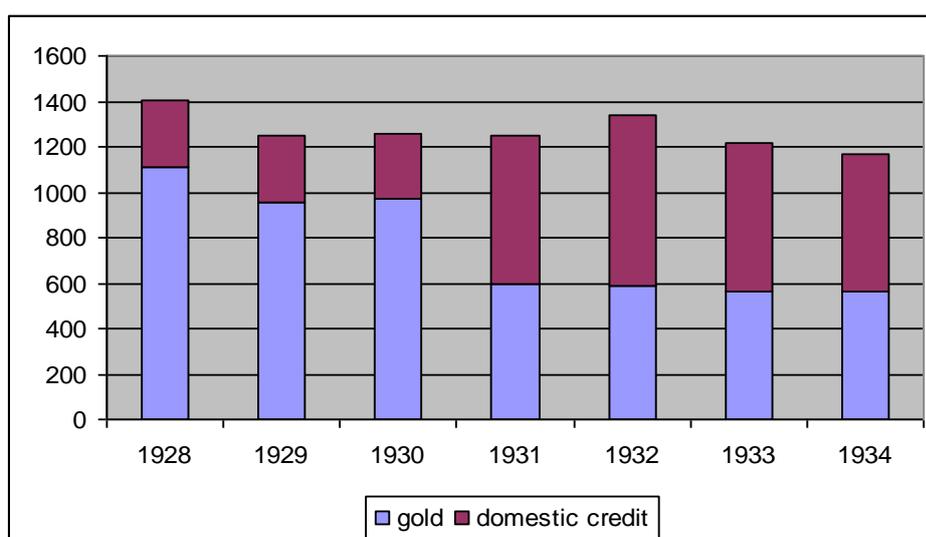
The budget deficit rose with the onset of the depression which made revenues from import duties fall dramatically. In 1930 the deficit was 4,4 % of GDP. In September 1930 general Uriburu reaffirmed that a balanced budget was a basic goal. Between 1930 and 1932 expenses were cut by 22 % (Aldaheff 1986, p. 96ff). Income and wealth taxes were raised. The purpose was also to attract foreign capital through low inflation and limited deficits and the government was convinced that the crisis was only temporary.

By 1930 the budget deficit, the deflation and the depreciation had increased the burden of the public debt. The debt service went up from 18 % of the budget in 1930 to 29 % in 1932 (della Paolera and Taylor 1998, p. 13). During 1914-1930 the most part of the increase in the public debt had come from domestic sources, and from 1929 debt service to domestic creditors cost more than to external ones (Aldaheff 1986, p. 102f). The external part of the public debt had increased from 6 % to 11 % of exports in 1930 and continued up to around 14-15 % the following years, mainly an effect of the fall in exports. The larger part of the foreign debt was private, mainly British direct investments, and the total foreign debt service reached 33 % of exports in 1931-32.

The international lending to Latin America was almost wiped out after the default of Bolivia in January 1931. Even though Argentina was also struck by the price falls and experienced political unrest, the country was somewhat of an exception from the turmoil in the rest of Latin America. The Argentine government carried out its foreign debt service punctually and in full. Only a few provinces and local authorities were forced to default on their debt. When the international capital markets collapsed in the beginning of the 1930s the government resorted to domestic loans. The supply of credit to the government was all along great because of its irreproachable debt service (Aldaheff 1986, p. 100ff). That Argentina, unlike most other Latin American countries, managed to continue its foreign debt service meant however that the economic policy was more deflationary than it needed to be. The reason for this priority was Argentina's dependence on trade with Great Britain, its biggest creditor, and the fear of losing its favoured trade status (Maddison 1985, p. 25).

In April 1931, there was a shift in the monetary policy that strongly contributed to Argentina managing to avoid default and devastating deflation. Until then the gold reserves of Argentina were equivalent to around 80 % of the monetary base, which also had been a target for the monetary policy, even after convertibility was given up in 1929. Now, this target was given up and instead the authorities focused on the nominal money supply. The ratio of domestic credit to the monetary base was allowed to rise and the gold share dropped from 78 % in 1929 to 43 % in 1932. The currency board started to issue domestic currency in exchange for private and government securities. In that way the reduction in the money supply was stopped

Diagram 6: Money base in Argentina 1928-1934 (million pesos)



(della Paolera/Taylor 1998, p. 5)

with the purpose of avoiding deflation. The real increases in liquidity were fairly small, but an important change in expectations was accomplished. After this change the gold reserve was partly used for paying foreign debts, which also made it possible to continue a tight fiscal policy and stay creditworthy in the international markets (della Paolera and Taylor 1998, p. 1, 6, 17ff).

In September 1931, Great Britain gave up the gold standard, which affected Argentina severely. The peso depreciated sharply against the dollar. When the depreciation accelerated, the money supply was allowed to expand independently of the variations of the gold reserves. Moreover, the government imposed currency controls, encouraged import substitution (Prebisch 1986, p. 133ff) and later introduced import licenses.

Argentina escaped bank crashes in the beginning of the 1930s due to considerable amounts of credit for commercial banks from BNA. Rediscounts rose from 92 million pesos in 1928 to 156 million in 1929 and 285 million in 1931 (della Paolera and Taylor 2002, p 365). Through the depression the BNA continued to lend both to private banks and to the government. Through the rediscounts a lot of bad loans in the banks were transferred to the BNA. This is what saved the banks and avoided financial collapse. Some see these actions as an expression of the corrupt “gaucho banking” that we know from the 1880s. Powerful interests needed cover from the risks that they had taken (della Paolera/Taylor 2002, p. 382ff).

The world depression dealt a severe economic blow to Argentina through the fall in export volume, the big terms of trade-loss and the decline in capital inflows. The real GDP fell for three consecutive years by 14 % from top (1929) to bottom (1932). Real GDP per capita fell by 19 % from 1929 to 1932. The fall in real income was even greater, when the terms of trade-effect is taken into account (Maddison 1985, p. 18ff). It was Argentina’s longest contraction, but not the deepest (Sturzenegger and Moya 2003, p. 92). The economy recovered strongly after 1932, but in the longer term the depression meant a structural shift from an export-oriented, agricultural-based economy to an inward-looking industrial one.

3.3. The crisis of 1980-82

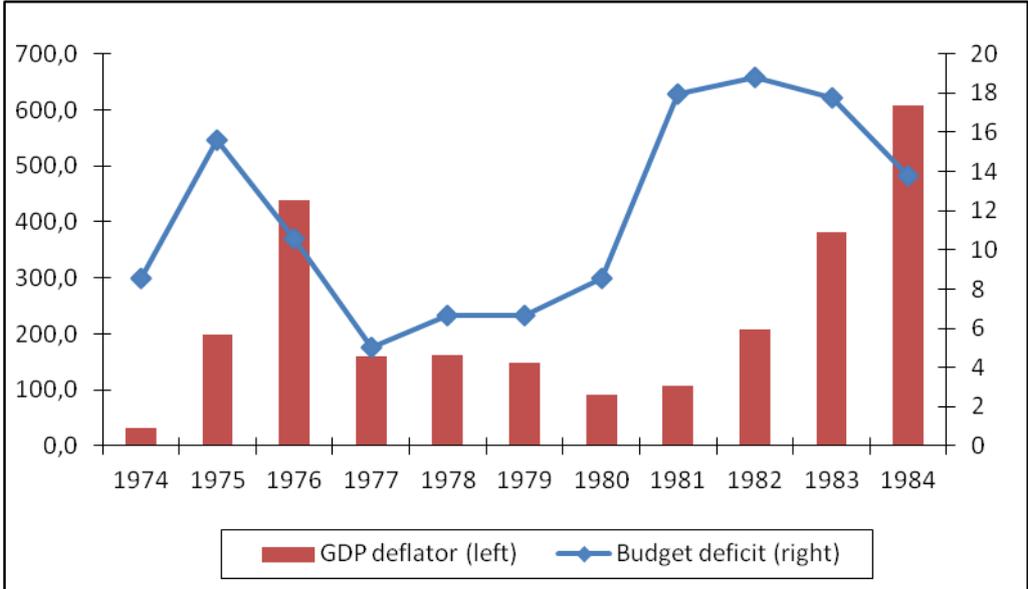
The 1970s and 1980s were characterized by political turmoil, which made the economic problems worse. After the death of Juan Péron in 1974, the Peronist movement was increasingly split and the political violence intensified. Militant leftist groups rebelled and clashed with the military and rightist death squads. Extensive strikes in 1975-76 paralysed

parts of the economy. The government of Isabel Péron lost control over the situation and was overthrown in a military coup in March 1976 led by General Jorge Videla. During the military dictatorship a brutal repression prevailed and tens of thousands of people disappeared or were murdered. Yet, the Videla government ruled rather steadily for several years. As a result of recurring recessions and the economic policy, the income differences increased and the real wages sank.

In 1976, Argentina altered its economic policy to become much more market oriented. The starting point was that the policy of import substitution and state interventions had restrained the economic development. Protection against external competition was dismantled, and exports supported, which initially was done through devaluations and in the longer run through combating inflation. The financial markets were also deregulated (Bulmer-Thomas 1994, p. 334ff). Large parts of the industry could not face the competition from abroad and many firms went bankrupt, when the state protections were removed. The effect of this economic shift in combination with oil crisis and recession was in practice an industrial collapse (Barbero/Rocchi 2003, p. 289). Between 1975 and 1987 the number of employed in Argentine industry diminished by close to 40 %, but the productivity increased strongly and the industrial exports rose quickly during the years 1975-79 (Rojas 2002, p. 91).

The inflation early in 1976 had risen to around 5 000 % and the industrial production had

Diagram 7: Inflation rate (GDP deflator, annual change in %) and public sector budget deficit (% of GDP) in Argentina 1974-1983



(World Development Indicators 2015; Dornbusch/de Pablo 1987, p. 24)

decreased substantially, so the highest priorities of the new government was to stabilize the economy through a tight fiscal policy. Soon the inflation had crept down under 200 % (Dornbusch 1987a, p. 6f). The military government cut down both wages and budget deficits, deregulated prices and slashed subsidies. The large sector of state companies was downsized. In four years, the monetary policy reduced the inflation rate from 438 % in 1976 to below 100 % in 1980.

The oil crisis in 1973 resulted in deteriorating terms of trade and rising budget deficits. Argentina and other Latin American countries expanded their way through the recession, partly because borrowed money was easy to come by and relatively cheap on account of the high inflation rate (Maddison 1985, p. 45). The liquidity of the world economy in the 1970s was unusually large, not least from the recycling of petrodollars. In developed countries inflation was high, growth was weak and real rates low, so capital flowed to countries with better returns. Most of the capital came in the form of syndicated American bank loans.

The new economic policy also included a reform of the financial sector that began in 1977 with privatizations of banks and deregulations. The reform resulted in a quick growth of the ratio of credits to GDP, which was also the purpose. The domestic financial liberalization made the banks more active and the granting of credits became less cautious (Sachs/Tornell/Velasco 1996, p. 25f). Minimum bank reserve requirements were drastically cut, the number of financial firms rose and between 1976 and 1980 the whole financial sector grew by 45 %. Seven bigger commercial banks that had been nationalized by the Peronist government 1973-76 were returned to their old, private owners after 1976 (Munck 1985, p. 59). The international banks also set up branches. The quick growth of the sector however also attracted new entrepreneurs who were more risk prone than more experienced actors. Further, strong bonds were established between banks and groups of companies, which gave rise to an oligopolistic market and to a very high indebtedness in many private firms. The central bank's supervision was inadequate, which partly was a reaction to the strict regulation that prevailed until 1976 (Diaz-Alejandro 1985, p. 13f). The credit expansion consisted also mostly of short-term lending, which made the private capital more volatile.

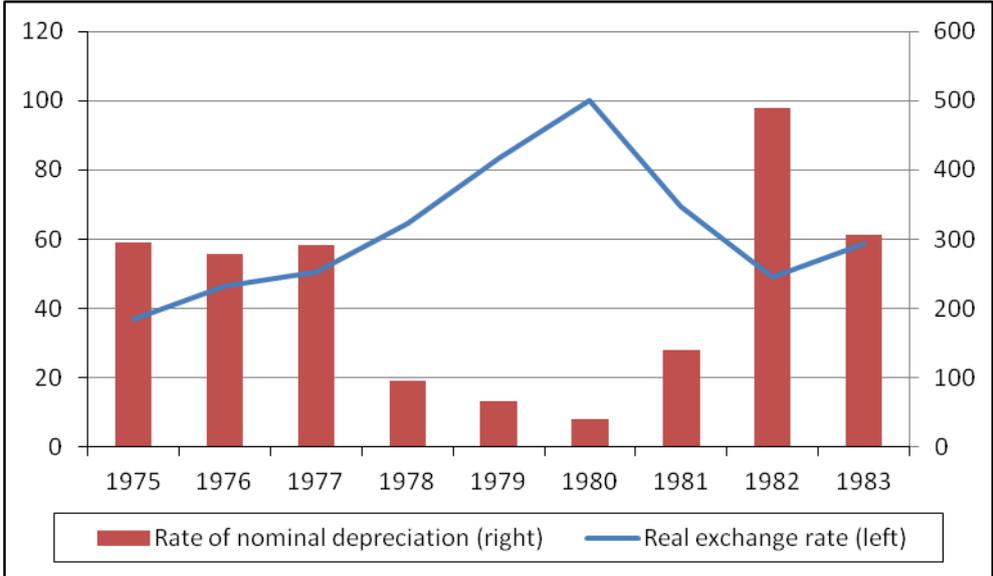
A large share of the new supply of credits was allocated into real estate and speculation. Further, the large inflow of funds from the western banks and governments went partly to politicians who cooperated with the military regime, and to officers who emptied big state companies (Shachar 1992, p. 143f). There was also a big increase in imports of durable

consumption goods and weapons, and in the public consumption (de Vylder 1991, p. 32). A large part of the foreign loans was thus used for consumption, corruption and for the government budget deficit.

The savings fell strongly after 1977. From 33,7 % of GDP in 1977 it sank to 18,5 % in 1983 and decreased further to 13,8 % in 1989. The investments followed the same path, but did not dwindle quite as much due to the negative current account balance from 1979 and on. To compensate for the reduction in savings and avoid a big investment fall, Argentina resorted to net borrowing from abroad. As in other developing countries with the same sharp decrease in the ratio of gross savings to GDP, Argentina also got problems with its debt service (Lanyi 1987, p. 35f).

The military government also started with a significant devaluation and chose a fixed exchange rate supported by a currency board. This rigid arrangement strengthened confidence in the currency, but carried risks in case of a crisis, as it barred the authorities from acting as lender of last resort and adding liquidity to the system (Eichengreen 1996, p. 181ff). Currency controls were removed. The economy was opened to the world and the capital flows soared, which made it hard to control the money supply. The inflation rate was, although lower, still too high. In December 1978 the government launched the Tablita plan with a crawling peg. The rate of depreciation was preannounced, which aimed at pressing down inflation. Initially, this policy enjoyed high credibility, as the central bank had large international reserves and

Diagram 8: Real exchange rate and nominal depreciation 1975-1983



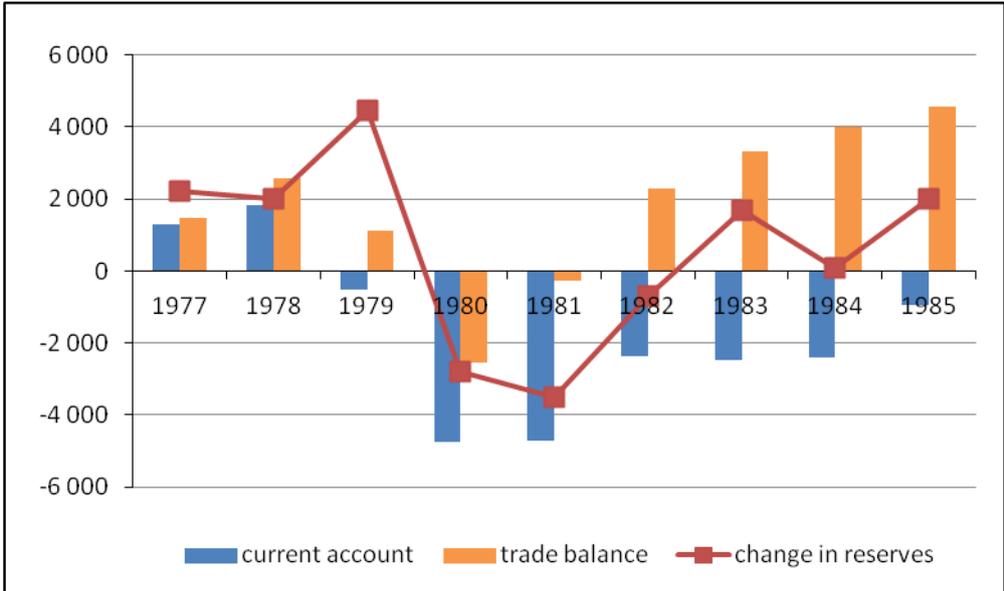
(Dornbusch 1987/de Pablo 1987, p. 22 for real exchange rate; Maddison 1985, p. 57 for rate of depreciation)

the economy had shown a surplus of the current account balance in recent years. However, the inflation rate remained high, which meant that the real exchange rate was becoming increasingly overvalued (Maddison 1985, p. 56). Early on, the high interest rates and the preannounced rate of depreciation led to an almost risk-free speculation in Argentine assets. The private sector started to take up large loans abroad to profit from the lower interest rates there and a massive capital inflow evolved (Dornbusch 1987, p. 11f).

Over time the confidence in the currency policy eroded. The reason was in part that the current account balance turned into a deficit due to the high inflation and a large demand for imports, and in part that the large international capital flows gave rise to a strong credit expansion. At the end of 1979 the real interest rates started to climb and the unfolding recession led to falling profits. The expansion of the financial sector had made many banks vulnerable because of potentially bad loans (Fanelli/Machinea 1994, p. 5f).

The capital inflow was mirrored in substantial increases in both the foreign exchange reserve and the private external debts and was sustained until the beginning of 1980. Then the public sector took over the capital import. Especially in 1979 the capital balance showed a big surplus. The foreign exchange reserve was heavily positive that year, resulting in a small deficit in the current account balance, which grew the following years.

Diagram 9: Argentina’s current account balance, trade balance and change in foreign exchange reserves 1977-1985 (million USD)



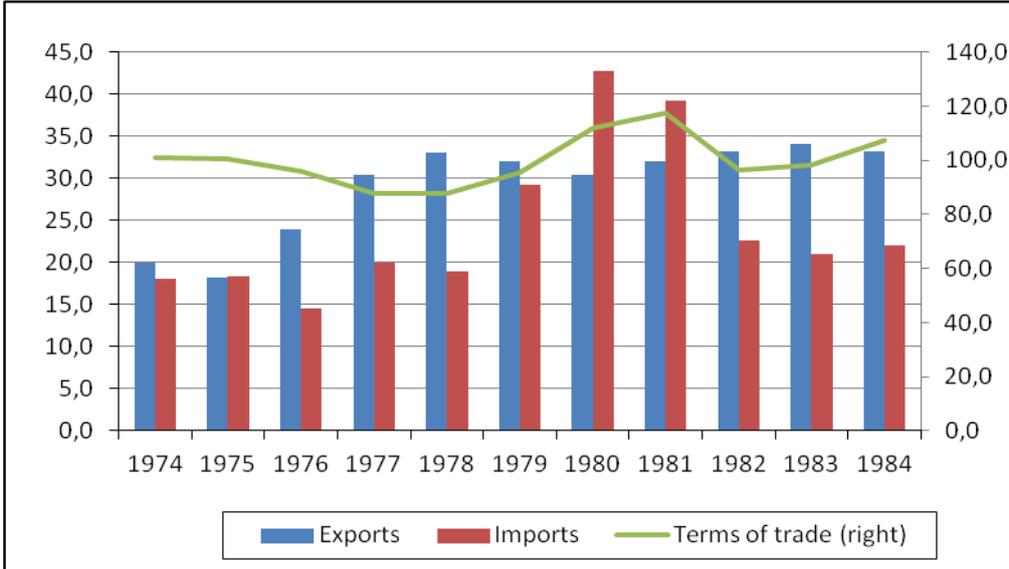
(Fanelli/Machinea 1994, p. 11)

From 1979 and on resistance from the unions grew. A general strike was carried out in April 1979 and occupations of factories and street demonstrations followed (Munck 1985, p. 66). In 1980 the international recession started to have effect and unemployment rose quickly, which made the military government more and more unpopular. This development increased the social and political tensions and with them the resistance to the government and its policies.

The international recession was founded in part in the second oil crisis and in part in the change of economic policy in USA. After the high inflation rates of the 1970s, combating inflation was given top priority when Paul Volcker took over the Fed in 1979 and Ronald Reagan as president in 1981. The Fed raised the rates heavily. The Treasury bill rate adjusted for CPI averaged 1,3 % in the 1960s and during the 1970s -1,1 %. In 1980-85 rates rose to on average 3,5 %, a historically very high level (Dornbusch 1987b, p. 74). The effect was that the dollar appreciated strongly in the early 1980s. Large tax cuts and expanded military expenses resulted in a growing American budget deficit and consequently a big credit demand. Foreign capital was drawn to USA (Eichengreen 1996, p. 146f).

For Argentina terms of trade turned up again in 1979-1981, but by then the world recession caused the market potential for Argentine exports to deteriorate, as for most developing countries. Export revenues declined 1979-80, but the import expenses rose dramatically. The trade balance was negative in 1980-1981, as was the current balance. Foreign private lending

Diagram 10: Exports and imports of goods and services (bill constant pesos) and terms of trade, 1974-1984



(World Development Indicators 2015 for exports and imports; Easterly 2001 (GDF/WDI) for terms of trade)

continued until 1982. At the same time, rising real rates and dollar increased the value of foreign debts. The great accumulated debts now became a problem.

Bonds and loans continued to go into the private sector until 1982 (table 1), but the private sector netto was negative already in 1980, which is explained by the capital flight, especially extensive in 1980-81. In 1982-83 there were big flows from IMF, compensating for the outflow of other capital.

In 1979-1980 the overvaluation of the peso had become so extreme that the financial markets anticipated a major depreciation. The lack of capital controls made it easier for the capital to flee the country. Private speculators bought dollars and placed them in bank accounts abroad. Some of these banks in for example USA had lent large sums to the Argentine government, money that in part thus came back in the form of capital flight. In 1979-1980 the central bank had to borrow enormous sums in foreign currency to defend the exchange rate. The public part of the foreign debt exploded, while the private part diminished (Dornbusch/de Pablo 1987, p. 6ff).

In March 1980 the problems in the financial sector became grave. Banco de Intercambio Regional went bust, which created a crisis of confidence and dragged several financial firms along. Other banks were taken over by the central bank (Munck 1985, p. 60). The deposits in the domestic banks sank drastically and since these banks could not reduce their lending as fast, serious imbalances arose in their balance sheets. The authorities answered to the capital flight by tougher reserve requirements, which if anything made the situation worse (Fanelli/Machinea 1994, p. 7f). In the end, more than 70 institutions representing 35 % of financial sector assets were liquidated or under state control (Reinhart/Rogoff 2009, p. 349).

In the early 1980s the government lost control over the public expenses. The budget deficit reached over 18 % of GDP in 1982. The causes were defence of the exchange rate and the debt crisis in combination with the rising costs of unemployment and lower tax revenues that

Table 1: Argentina's capital account excluding change in reserve assets 1977-1983 in million US\$

	1977	1978	1979	1980	1981	1982	1983
Capital balance, total	936	165	4 979	1 972	1 193	1643	4 145
~ to public sector	973	1 449	1 276	2 997	4 624	209	2 403
~ to private sector	216	-83	3 639	-743	-3 469	-4 017	-2 514
* bonds and loans	393	514	3 543	3 886	3 112	-521	-1 831
~ flows from IMF	-253	-1 201	65	-281	38	5 451	4 256

(Fanelli/Machinea 1994, p. 11ff)

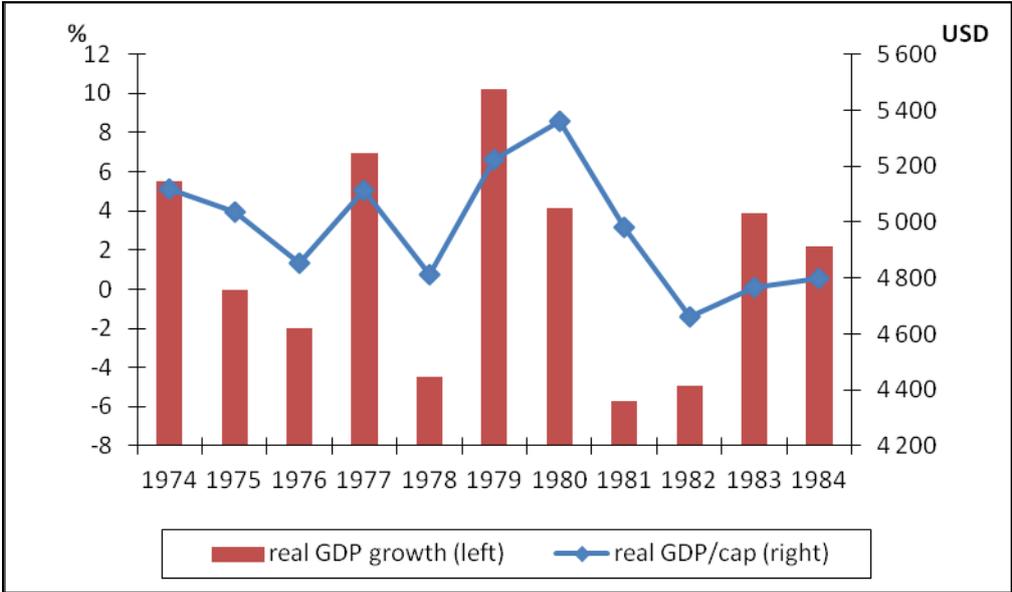
followed from the recession. The external debt swelled from US\$ 7,7 billion in 1975 to US\$ 35,7 billion in 1981. Total external debt as a share of exports rose from 172 % in 1978 to 472 % in 1983 and it had escalated to 46,1 billion US\$ in 1983. The enlarged burden of debt service added to the budget deficit. This resulted in an increased money supply and higher inflation rate. The financial markets reacted by escaping to non-monetary assets.

In February 1981 the coming economy minister, Lorenzo Sigaut, indicated that devaluation was imminent. This triggered a massive capital flight. During the first quarter of 1981 3,8 billion dollars flowed out of the country. In March, the international reserves had diminished so heavily that the currency policy broke down (Fanelli/Machinea 1994, p. 5f). The crisis also brought in a new government under president Viola with a new currency policy. The peso was devalued more than once and double exchange rates were introduced, but without currency controls capital flight continued (Maddison 1985, p. 56).

In December 1981 a third general, Leopoldo Galtieri, took over. The government budget deficit increased heavily due to bailout of banks, a mounting burden of foreign debt service and aggravating terms of trade. The inflation rate soared again. The country faced bankruptcy. It reached the bottom when the military regime decided to invade the Falkland Islands in April 1982 and go to war with Great Britain. This speeded up inflation and capital flight as well as the loss of confidence in the government. Following the defeat in the war in June, there was another currency crisis in July. After massive losses of foreign exchange reserves, the government resorted to a huge devaluation and currency controls (Berlinski 2002, p. 215). In July a last general, Reynaldo Bignone, temporarily took over and led a transition government until elections could be held in October 1983. This government tried to stimulate the economy with wage increases, debt relief for companies and at the same time sought to check the inflation with price controls. Currency controls were reintroduced and customs tariffs were raised. But, the inflation rate continued to rise. The situation deteriorated dramatically in August 1982, when Mexico defaulted on its debt. The international banks reacted uniformly and quickly pulled out of Latin America. Late in 1982, an IMF loan was arranged to refinance Argentina's foreign debt and the economic policy anew became more restrictive with a tight budget and higher interest rates (Maddison 1985, p. 46ff, 57).

The consequences of the debt crisis and the economic collapse were close to catastrophic for Argentina. The decline was protracted and deep. The real GDP growth fell over 10 % in 1981-82 and the real income per capita sank 13 %. Between 1945 and 1975 the per capita

Diagram 11: Real GDP growth (%) and real GDP per capita (constant US\$, 2005) in Argentina 1974-1983



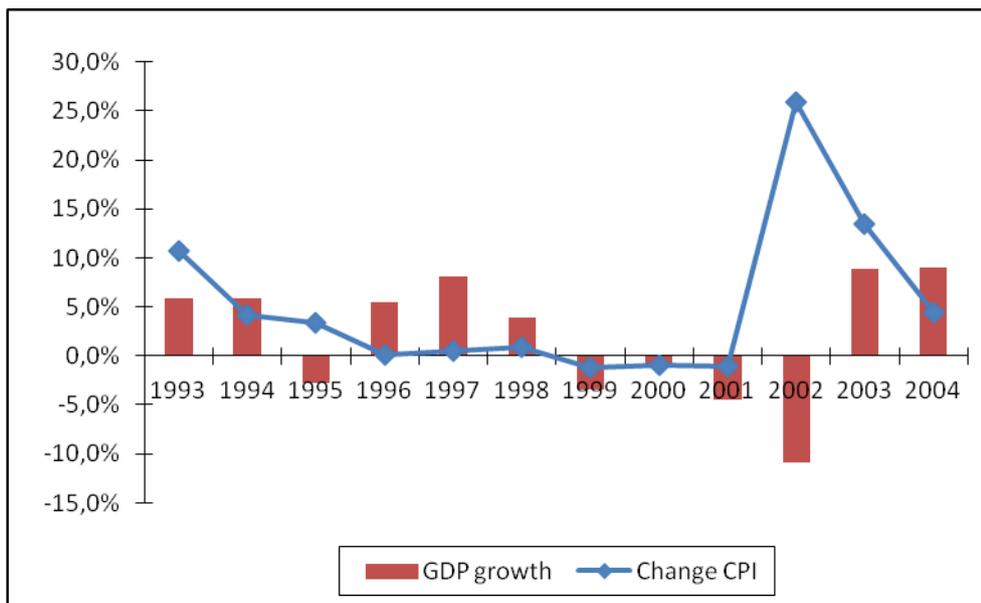
(World Development Indicators, 2015)

income had risen by on average 1,7 % per year, but from 1975 to 1985 it fell by the same figure (Dornbusch/de Pablo 1987, p. 3ff). The problems were not overcome, and at the end of the decade growth dropped even deeper and real incomes collapsed. The development was without competition the worst among the big Latin American economies.

3.4. The crisis 2001-02

The hyperinflation and the break-down of the economic policy in 1989 led to the early resignation of president Alfonsín, who was succeeded by the Peronist Carlos Ménem. Ménem carried out a series of reforms in line with a debt restructuring programme. This reform package was called Convertibility plan, designed by the economy minister, Domingo Cavallo, and legislated in April 1991. It was the centre of a total shakeup of the economic policy and finally brought about a stabilization of the economy. Its foundation was that the exchange rate of a new currency was fixed to the dollar through a currency board. This dollar link could only be altered through legislation. Sterilizations of the capital flows were banned. The capital balance was completely liberalized. The fiscal policy was tightened and the central bank was forbidden to finance budget deficits. Further, there were extensive privatizations, trade liberalizations and microeconomic deregulations. The reforms resulted in a drastically reduced rate of inflation to only 4,2 % in 1994 and high GDP-growth, 7,8 % per year in 1991-

Diagram 12: Annual GDP-growth and price change (CPI) in Argentina 1993-2004 (%)



(Ministry of Economy, 2006)

94 (Sachs/Tornell/Velasco 1996, p. 41f). The trade balance improved. The Convertibility plan was a success and quickly restored confidence in money.

The stabilization program included substantial downsizing of the public expenses and a strengthening of the revenues. Employment in state companies was slashed, a uniform value added tax implemented, tax administration sharpened, and prices of public services were raised. An extensive privatisation program initially produced results. The deficit of the consolidated public sector was by 1991 down to 1,8 % of GDP (Edwards 1996, p. 15f).

The convertibility plan also allowed a dollarisation of the economy. Economic actors could choose the dollar for big transactions and to invest their assets. The purpose was to restore credibility of the peso and escape from the former recurrent use of inflation tax, since dollarisation further raised the political and economic costs of devaluation (della Paolera/Taylor 2003, p. 5, 11).

The biggest trade partner was Brazil with 24 % of exports and imports (in 2000). USA:s share of Argentina's total export and import was less than 15 %. To tie the currency to an economy that did not contribute more to the foreign trade was hence a risky measure, especially to an economy with such limited foreign trade in relation to GDP. The trade with USA corresponded to less than 3 % of Argentina's GDP (Perry/Servén 2003, p. 31f).

The currency peg and the lower inflation paved the way for a quick development of the financial sector. Public banks were privatized and the sector was liberalized. Until 1994 a substantial growth in lending took place. Problems with higher credit risks and inadequate supervision of banks soon surfaced (Sachs/Tornell/Velasco 1996, p. 25ff).

In the contagion after Mexico's Tequila crisis in 1994-95, nervous investors brought home their capital on a large scale. Collapse threatened the financial system and a dozen banks failed. A full-scale banking crash could be avoided through lowering the reserve-deposit ratios and the introduction of a limited depositor guarantee. The IMF, the World Bank and the Inter-American Development Bank offered support and restored some of the investors' confidence (Sachs/Tornell/Velasco 1996, p. 43).

The crisis 1995 made the Argentine authorities realise that the financial system needed strengthening. Ambitious reforms led to the consolidation and internationalization of the banking sector. In 1999 about half of the banking sector was owned by foreigners. The foreign banks' share of the credit market rose from 18 % in 1994 to 48 % in 1999, which sharpened competition in the sector (Goldberg/Dages/Kinney 2000, p. 8f). Other reforms after the crisis in 1995 included tightened rules on supervision, audit and information, higher solvency and liquidity requirements, and an arrangement with international banks and the World Bank to manage a possible liquidity crisis (de la Torre/Yeyati/Schmukler 2002, p. 24f).

Late in the 1990s the banking sector was considered very stable. The share of bad loans had however risen from 6 % in 1998 to over 10 % 2000 (Perry/Servén 2003, p. 49).

After 1995 economic growth increased again. In 1990-98, GDP rose by almost 63 % and GDP per capita grew 47 % (WDI 2015). Ménem's second period was, however, dominated by corruption, scandals and abuse of power, especially concerning the privatisations of public companies. These were sold off, but the prices of water, electricity and transports escalated. Unemployment rose markedly in the 1990s to on average 17 % 1995-1997 as a consequence of the productivity increase in the industry and the downsizing of the public sector. The results of this were growth of the black economy, sharpened social conflicts, and rising inequality of income distribution. When Cavallo had to leave office in 1996 the economic reforms stalled. In 1997, the Peronists lost their majority in parliament.

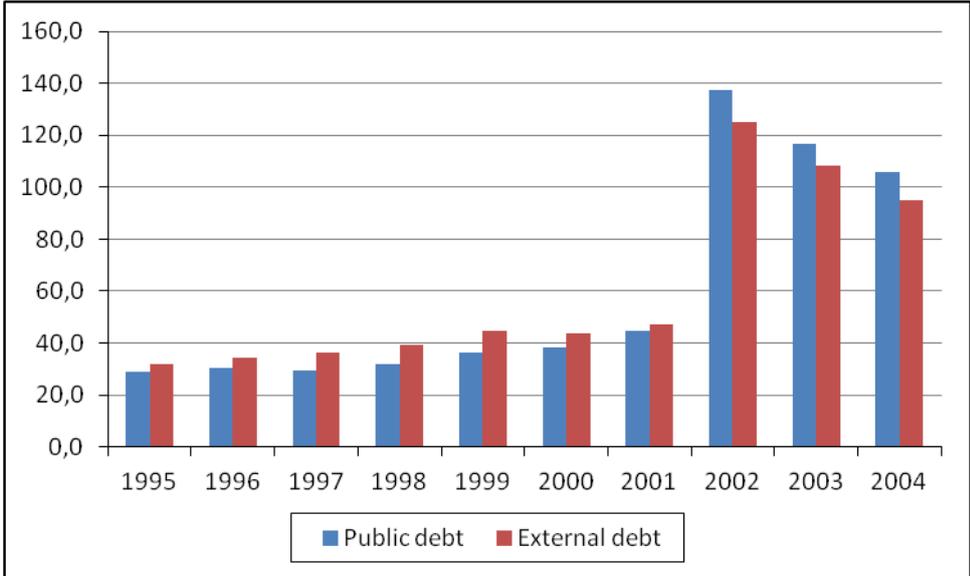
From 1991, the government accomplished a surplus in the primary budget balance (excluding interest costs), of on average 0,14 % of GDP in 1991-2000, but this was not enough to pay the

interests of on average 2,4 % of GDP (Moreno 2002, p. 3). The interests mostly consisted of payments on foreign debt. Given that some revenues came from privatizations and that the pension debt was not included, the financial situation was actually worse than it seemed (Perry/Servén 2003, p. 33). The public sector had a permanent deficit for most of the 1990s.

The tax collection was inefficient, and corruption and politically motivated jobs flourished, as decision makers on different levels used the public sector to win support from different groups. The central government had to share taxes with the provincial authorities that spent lavishly and decided most of their expenses themselves. Hence, Ménem could not control the finances even in the prosperous years (The Economist, 2002). Later, in recession, GDP decreased and unemployment costs rose. As a consequence of the deficits, the public debt grew, but until 1997 GDP grew fast enough to keep the debt to GDP ratio stable. The strategy had been to roll over the debts, but this didn't work when growth fell. In 1993, the public debt service amounted to around 10 % of the revenue, but in 2001 it had reached around half of revenues (della Paolera/Irogoin/Bózzoli 2003, p. 74f). Over the period 1993-2001 the general government gross debt as a share of GDP increased from 25 % to 45 % (WEO 2014).

Argentina's total foreign debt increased from 27,7 % of GDP in 1993 to 47,1 % in 2001. The private sector accounted for most of this increase, but the government borrowed enormous sums in the domestic market. On the whole, banks and pension funds borrowed abroad and

Diagram 13: General government gross debt and total external debt as ratio of GDP, 1995-2004



(WDI 2015 for external debt; WEO 2014 for public debt)

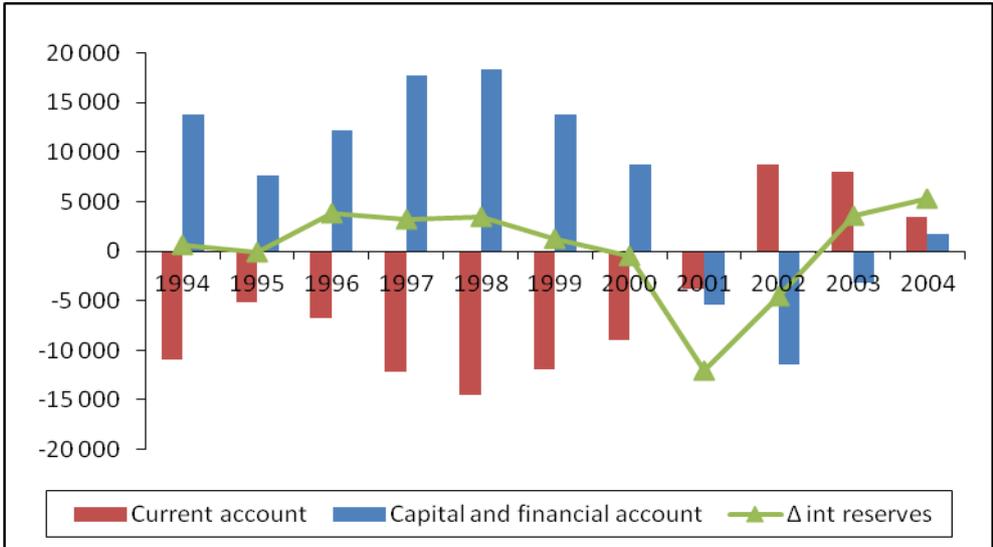
lent on to the government. After 1998, the driving force behind the escalation of the foreign debt was the government budget deficit (Perry/Servén 2003, p. 46f).

The capital inflows were substantial all through the 1990s, especially during the years after the Tequila crisis. After Russia’s default in 1998 the capital flows diminished substantially globally and to Latin America.

But, the decline to Argentina in 1999 was not drastic and no larger than for neighboring countries. It was not until 2001 that the capital flows to Argentina collapsed. The deficit in the current account balance was still around 3-4 % of GDP. However, when the capital inflows returned to the rest of Latin America in 2000, they continued to fall to Argentina, particularly in 2001. Perry/Servén draw the conclusion that most of the decline in the capital flows after 1999 was an effect of specific circumstances in Argentina rather than a result of the global capital flows (Perry/Servén 2003, p. 13ff).

In the financial sector some important problems grew. First, there were potentially bad loans with the banks in case the real exchange rate would be overvalued. A correction via deflation and unemployment would undermine the payment ability of debtors. Second, the persistent public budget deficits were to an increasing extent financed by the domestic banks and pension funds. The banks’ exposure to a possible government default increased drastically in 2001. Third, the financial system lacked a lender of last resort, which made it vulnerable to mass withdrawals (de la Torre/Yeyati/Schmukler 2002, p. 6ff).

Diagram 14: Current account balance, capital balance and changes in international reserves 1994-2004, million USD



(Source: Ministry of Economy, 2006)

By 1999, the economy and the government seemed to be caught in a trap. The capital inflow diminished substantially and the cost of further loans rose heavily. The prices of Argentina's export goods stopped rising, the dollar appreciated against other currencies and Argentina's biggest trading partner, Brazil, devalued its currency by around 30 % in January 1999. GDP dropped in 1999 and deflation strengthened. The recession made it harder to cut expenses and raise taxes and thereby aggravated the debt situation. Exports had grown in the 1990s, but not as fast as the foreign debt. The monetary regime ruled out devaluation and hence the costs had to be lowered in other ways. A series of privatizations had created private monopolies that continued to raise prices. Interest rates increased, but the wages fell, as unemployment grew, and this led to social unrest. All this increased doubts about convertibility.

During most of the 1990s the real effective (trade weighted) exchange rate (REER) of Argentina appreciated strongly. A large part of this appreciation came about before 1994, and then the REER depreciated until 1996, whereupon it appreciated again to 2001. The appreciation before 1995 was probably not a problem, since productivity growth was so strong. After 1996 however, the balance of payments deteriorated and according to one estimate the real exchange rate was overvalued by around 50 % in 2000 (de la Torre/Yeyati/Schmukler 2002, p. 8). There were three main factors behind the overvaluation: the growing foreign debt, the rising dollar and Brazil's devaluation. The appreciation of the dollar and Brazil's devaluation were disturbances that demanded a real depreciation in Argentina (Perry/Servén 2003, s. 21ff). The prices actually fell, but rather modestly – in total by around 3 % in 1999-2001, which was not enough to correct the overvaluation of the peso. The national government was involved in a struggle against the provincial governments and their banks, especially the province of Buenos Aires that was controlled by the Peronists. When the international capital dried up and the days of cheap credit were over, the provincial governments started to issue their own currencies (patacones) and wanted to use the liquidity of the provincial banks to cover their deficits. The worst financial deficits came from the province of Buenos Aires headed by Edouardo Duhalde, who had turned the Banco de la Provincia de Buenos Aires (BPBA) into a ticking bomb. In 2000 the bad loans ratio in BPBA escalated heavily, because the provincial government emptied the bank of funds (della Paolera/Taylor 2003, s. 17f).

In 1999 Ménem had handed over to his successor the Radical Fernando de la Rúa, who inherited the deteriorating fiscal situation in the middle of a recession. The new government

was an unstable coalition and its strategy was to focus on increasing growth. An initial attempt to boost confidence among investors through fiscal tightening had rather a negative effect on growth. In December 2000 the government obtained a credit line from the IMF and other institutions, but growth still didn't improve. In April, de la Rúa brought in Cavallo as economy minister. Cavallo imposed a tax on imports, subsidized exports, lowered the reserve requirements, and announced that the exchange rate peg would be altered to include both the dollar and the euro at equal weights. Cavallo also sacked the central bank director, Pou, who by the financial markets were seen as the guarantor of the prevailing rules, and decided to remove the limits to the central bank's possibilities of increasing liquidity in the financial system. More and more people feared that the government was about to abandon the fixed exchange rate. After April 2001, the growing uncertainty was mirrored in rising interest rates, a heavily escalating currency premium, and an increasing share of dollar deposits (de la Torre/Yeyati/Schmukler 2002, p. 9f). Between January and November 2001 the premium of the 10-year Argentine government bond rose from 20 % to around 35 % (Moreno 2002, p. 2). The governments' financial situation was worse than it seemed. The link to the dollar and the overvaluation of the peso concealed the dramatic deterioration. The debt was largely in dollars, but revenues were not. Further, the deflationary adjustment that was necessary to correct the real exchange rate without changing the nominal rate would inevitably have broken the debt service ability of the governments, households and firms. The alternative to the fixed currency policy was devaluation that would increase the debt burden enormously and probably lead to default and a large-scale financial crisis. A way to avoid such a debt crisis would be to rewrite all financial contracts in pesos before the devaluation, but this involved the danger of a bank run (Perry/Servén 2003, p. 4, 42).

In April 2001 the government succeeded in placing bonds worth 2 billion US\$ with the banks, and allowed the banks to include these bonds in the liquidity requirements. In the summer, the similar so called "megaswap" took place. The government thus avoided arrears by using the liquidity of the banks. In this way, the exposure of the banks to a government default increased and concerns about the convertibility grew. Some view these actions as forced transfers of reserves from the banks to the government, comparable to bank robbery (della Paolera/Taylor 2003, p. 14ff).

The parallel currencies of the provinces also undermined the confidence in the convertibility. In 2001, the Argentine government approved that the provinces paid the national government

with their provincial money at par with the peso. Thereby, the balance sheet of the national government and those of the provinces were in practice put together. The provinces were allowed to print unlimited amounts of money. The central bank could no longer control the money supply (della Paolera/Taylor 2003, p. 20f).

In the fall, the government negotiated with the IMF and USA on support for a new bond issue that would replace the old debts, and also with the provincial governments on an agreement on the distribution of tax revenues, which the IMF saw as a precondition for additional support. The elections in October resulted in a hung parliament, and the coalition stayed in power. In November 2001, the IMF announced that it would not back Argentina as long as the budget discipline was inadequate and an agreement on taxes was not in place (de la Torre/Yeyati/Schmukler 2002, p. 25). Consequently, the crisis of confidence was total among both the public and foreign creditors. Everyone started to flee the peso and credits were squeezed. Between July and November, 15 billion USD was withdrawn from the banks and several banks were close to collapsing. To save them, Cavallo on December 1st 2001 imposed a limit for bank withdrawals of 1 000 US\$ per month, the so called "corralito" (The Economist, 2002). Together with other disliked measures, as lower pensions and wages for public sector employees, this led to nationwide strikes and demonstrations. The president proclaimed a state of emergency, but without a political agreement with the opposition, the protests continued and changed into stone throwing and bloody riots before Christmas. Some people were killed and hundreds were injured. This turmoil on the streets of the capital should probably be seen in the light of the political power struggle between the national government and the Peronist Duhalde fraction in the province of Buenos Aires.

The breakdown came after over three years of growing poverty, sky-high unemployment and economic recession. On December 19-20th the entire government left office. Another three presidents followed during the remaining days of 2001. One of them, Rodriguez Saa, decided to default on the foreign debt and to introduce a new currency, the argentino. On January 1st the Peronist Duhalde took charge. He ended the convertibility, closed the currency board, and set the peso floating. To save the banks, that were forced to close for almost a week in January, this was preceded by an almost complete freeze of bank deposits and by a stock pesification, which meant that all domestic financial contracts and bank holdings were converted into pesos at a rate of 1,4 peso per dollar. This was necessary to avoid the ruin of large numbers of debtors with debts in dollars, but with incomes in pesos, which would have

made the banks go bust (de la Torre/Yeyati/Schmukler 2002, p. 11). This made the blow to the banks softer than otherwise and was perhaps a way to return the favor of using banks' liquidity earlier in 2001 (della Paolera/Taylor 2003, p. 20f). Duhalde scrapped however the plan for the new currency. The effect of these measures was that almost a million Argentines with savings accounts or bank certificates saw their dollar assets dwindle by 60-70 %. In June the exchange rate against the dollar had sunk nearly 75 %, and all households and firms that had foreign debts in dollars had over night been put in an impossible position by the multifolding of their debt in peso. When Argentina defaulted the debt amounted to 155 billion USD, which was the biggest "bankruptcy" in history (The Economist, 2002).

The effects of the crisis were devastating. Early in 2002 the per capita income in dollars had been halved, unemployment had risen to 25 % and poverty ratio in the cities had escalated to 44 % (The Economist, 2002). GDP fell by 15 % in 2001-02. The inflation increased to over 40 % at the end of 2002. In October that year the peso was worth 27 cents. In 2003 growth returned and inflation fell markedly.

4. Comparisons

Table 2 below is a comparative summary of the four crises that I have outlined above.

Table 2: A comparative summary of four crises

	1890-91	1929-32	1980-82	2001-02
External shocks	Interest rate hike 1889 in UK. Falling TOT.	Interest rate hike 1928 in USA. Stock crash 1929. TOT-shock. Deflation and depression.	Oil crisis 1979, world recession. Falling TOT. Higher interest rates and stronger dollar.	Devaluation in Brazil 1999. Stronger dollar. Mild recession.
Capital flows and savings	Large inflows. For infrastructure and consumption. Sinking savings before the crisis. Sudden stop 1890.	Modest inflows. Rising savings before the crisis. No sudden stop.	Large inflows. For real estates, consumption. Sinking savings before the crisis. Large capital flight. Sudden stop 1982.	Large inflows. For public consumption. Savings in a constantly low level. Sudden stop 2001.
Financial sector	Deregulation 1887. Credit expansion. Rising competition – higher credit risks. Speculation. Gaucho banking. Banking crash in 1891.	Stagnating development – lack of capital. Gaucho banking. Moral hazard. Banks in trouble 1931, but saved by BNA.	Deregulation 1977. Credit expansion. Rising competition – higher credit risks. Speculation. Banking crash in 1980-81.	Deregulation 1991. Credit expansion. Gaucho banking. Exposure to government insolvency. Bank run in 2001, holiday 2002.
Monetary regime	Gold standard 1883-85. After that very expansive monetary policy. Strong depreciation.	Gold standard from 1927 to Dec 1929. Real monetary shift in April 1931 - countered deflation.	Pre-announced rate of depreciation. Overvalued currency from 1978.	Ultra-firm fixed rate regime from 1991. Dollarisation. Overvalued currency from 1998 to January 2002.
Fiscal policy	Large deficits. High inflation. Escalating public and foreign debt. External default in Jan 1891.	Tight fiscal policy. Modest indebtedness. No external default.	Large deficits. High inflation. Escalating public and foreign debt. External default in Aug 1982.	Large deficits. Escalating public and foreign debt. External default in Dec 2001.
Political factors	Weak government. Political unrest. Rebellion Jul 1890.	Increasing political conflicts. Coup d'état Sep 1930.	Military coup, terror. Increased political tension. War Apr 1982.	Increasing political conflicts. Weak government. Riots and strikes Dec 2001.
Crisis management	No measures until the fall 1890 – too late.	Devaluation 1929. Shift to expansive monetary policy in April 1931.	Great uncertainty around economic policy. Inability to reduce budget deficit and inflation.	Tightening in mid-recession; rising uncertainty 2001 from political measures.
Main source of crisis	Domestic.	External.	Domestic and external.	Domestic.

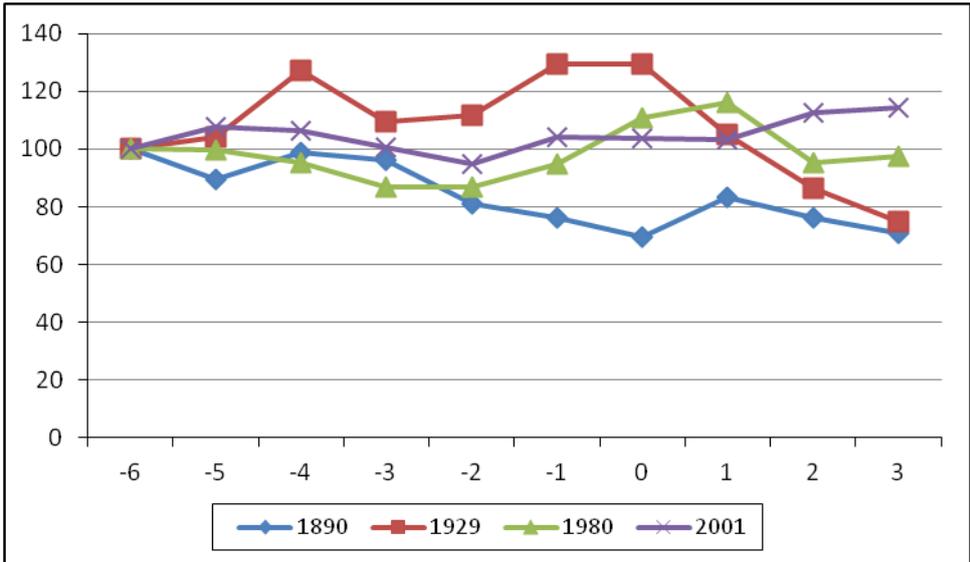
4.1. Comparison of causes of crises

Here, I will compare the four crises starting in the general explanations for crises outlined in section 2.2. I will present a number of diagrams, where I compare the development for different variables during the four crises. This is done within the same time frame, ranging from six years before the start of the crises to three years after the starting year so as to capture the duration of every crisis. The starting years are set according to Bordo (2002) for the three earlier crises, that is to 1890, 1929 and 1980, and to 2001 for the fourth crisis.

A crisis is caused by external factors, for example rising interest rates, aggravated terms of trade or a world recession.

External factors contributed to the crises in all four periods. Rising British interest rates from 1889 and falling terms of trade 1888-1890 affected Argentina’s economy negatively, but there was no global recession. The 1930s crisis on the other hand originated from a global depression. The export economy was hard hit by declining demand and deflation and terms of trade fell sharply after 1929. In 1979, the oil crisis, higher US interest rates and a stronger dollar were behind a global recession. Argentine terms of trade fell in 1982. Mexico’s default in 1982 affected foreign lending negatively. Russia’s default in 1998 caused a dip in the external capital flow and the 1999 devaluation in Brazil undercut Argentine competitiveness. A rising dollar and a mild global recession also affected Argentina negatively.

Diagram 15: Terms of trade during four periods in Argentina



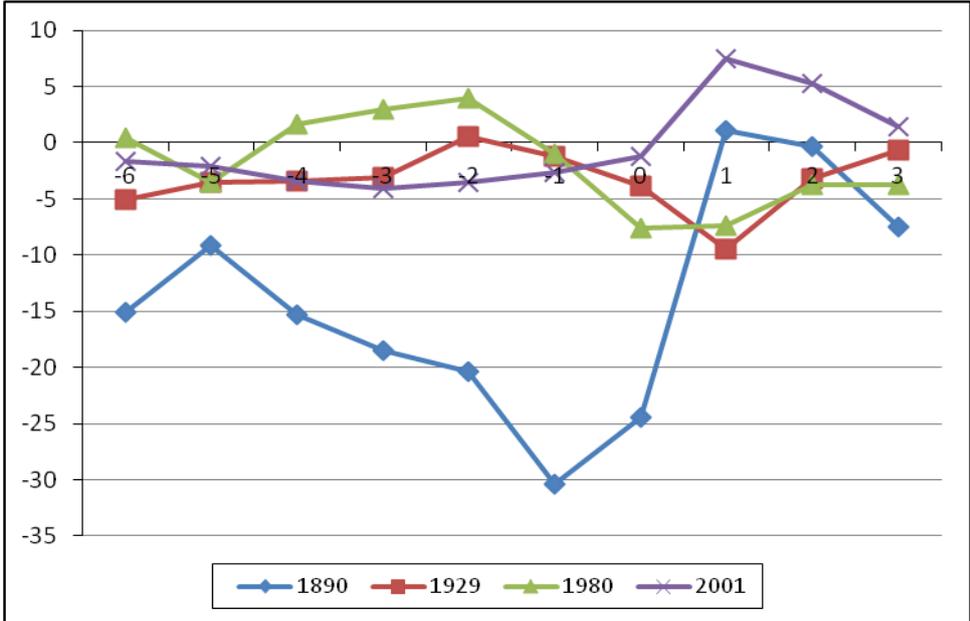
(Bordo 2002 for 1890 (1884=100); Francis 2013, p. 295f, 301 for 1929 (1923=100); Easterly 2001 for 1980 (1974=100); Ministry of Economy 2006 for 2001 (1995=100))

In 1929-32 the international factors were clearly the main source of the crisis. If the international development had not been so powerful around 1930, Argentina would hardly have been hit by a crisis of such depth. In a similar way around 1980, external shocks were spread from the world economy through rising real interest rates and declines in business activities. But, without the domestic disorder in the years around 1980 the crisis would not have been as deep. The effect on world GDP and trade was also far more serious in the 1930s compared to the 1970s-80s. Also in 2001, there were serious external shocks, but domestic policy choices and shortcoming decided the outcome. In the crisis of 1890, the world business cycle was of limited significance, so the domestic factors were deciding.

Strong capital inflows are often not sustainable and a sudden stop in the flow can trigger a financial crisis.

Eichengreen (2003) distinguishes four historic loan booms in the world economy since the middle of the 19th century: 1880-1913, the 1920s, 1973-82 and the 1990s. These loan booms are linked to upswings in global economic cycles (Eichengreen 2003, p. 14f). The four examined crises fall at the end of or some way into these periods of upswing in the international capital flows. In three of the four crises, the capital flows were so considerable that the resulting debts were not manageable. The inflows of the 1920s were not as extensive and the policy that was conducted then resulted in the country meeting its obligations. In diagram 16 the current account balance is used as a proxy for capital inflows.

Diagram 16: Current account balance in % of GDP during four periods in Argentina



(Taylor 1997 for 1890 and 1929; Dornbusch/de Pablo 1987 for 1980; WEO 2014 for 2001.)

When the UK business cycle turned in the late 1880s, the British interest rates were raised, that led to a sudden stop in the capital inflow to Argentina in 1890-91.

In spite of the fact that the American lending decreased sharply in 1928, the capital inflow to Argentina increased in 1929-30. Argentina had current account deficits until 1935.

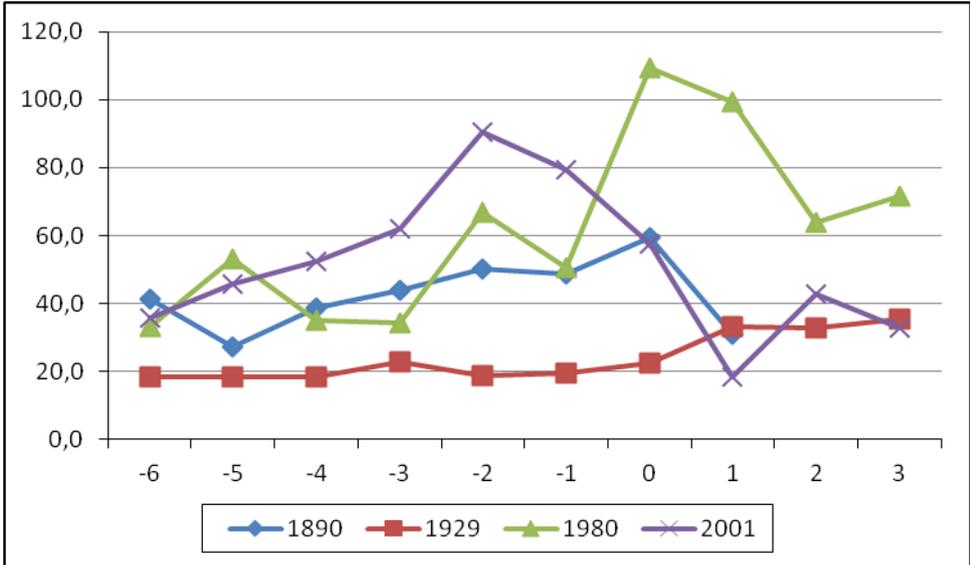
In the 1970s, big budget deficits, deregulation and the great liquidity in the world economy produced large capital inflows, which are not visible in the current account balance, since there was a build-up of reserves 1976-79. Capital flight was extensive from 1980. When private lending fell in 1982 and stopped after Mexico’s default, the IMF took over the funding.

There were large capital inflows during the entire 1990s, but especially in 1996-1998. From 1999 they declined as a result of the default in Russia and recession, but when the capital flows rose again to the rest of Latin America, they continued to fall to Argentina. In the second half of 2001 came a sudden stop in the capital flow.

In three out of four crises, except the 1930s, the capital flows were dominated by bonds or bank loans, which probably made the flows more volatile.

A comparison of the total foreign debt as a ratio of exports shows that the debt burden at the end of the 1920s was lighter than in the other crises. On average the ratio was 281 % in the years 1887-1890, 136 % in 1929-30, 276 % in 1976-83 and 439 % in 1996-99 (della Paolera/Irogoin/Bózzoli 2003, p. 61). The diagram above over external debt service in % of

Diagram 17: External debt service in % of exports for four periods in Argentina



(Ford 1962, p. 139 for 1890; Balboa 1972, p. 170 for 1929; WDI 2015 for 1980 and 2001.)

exports shows the same pattern. In the years of default (1891, 1982 and 2002) there is a big fall in debt service.

Falling savings during a period of strong capital inflows increases the risk for financial crisis.

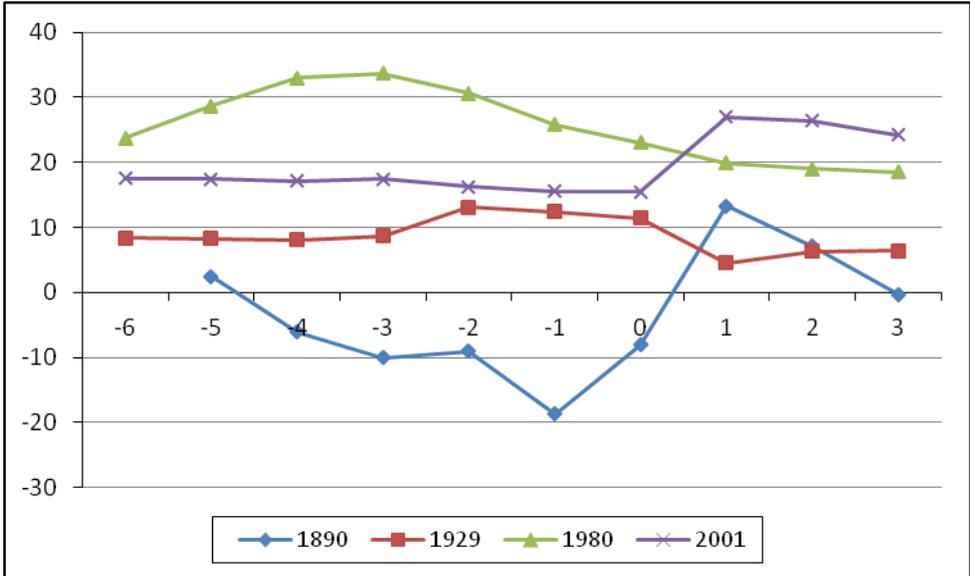
The development in Argentina in the 1880s and 1970s seems to exemplify how sinking savings in a situation with large capital inflows have added to inflation and contributed to a financial crisis. Also in the 1990s falling savings was evident during the first half of the 1990s, after the deregulation, and weakly in the latter half of the decade. In contrast, the savings ratio rose at the end of the 1920s.

The ratio of savings to GDP was acceleratingly negative in 1886-1890. The large foreign lending went via the banks and parts of it seem to have financed consumption and government expenses. The inflation rate soared. This period of crisis best illustrates Gould’s description of the impacts of a lack of savings.

The savings ratio diminished markedly from 1977. Imports of consumption goods rose and the capital inflow was to a large extent used for sustaining public sector consumption in the face of growing budget deficits. Hence, the inflation rate was never under control and exploded in the 1980s.

The savings ratio in the 1990s was on a lower level than earlier, and sank steadily from the beginning of the 1990s. After 1995 there was however only a tiny fall. The public sector

Diagram 18: Ratio of gross domestic savings to GDP during four periods in Argentina



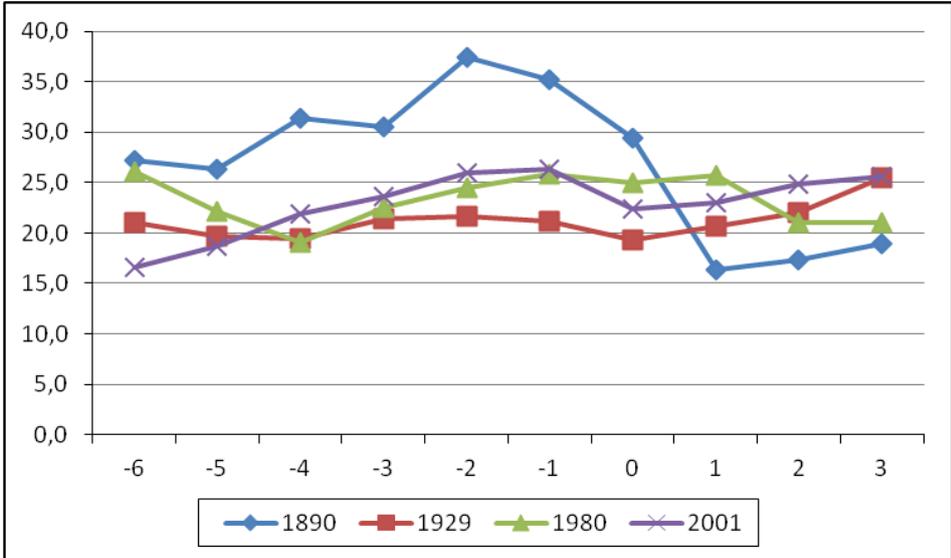
(Taylor 1997, p. 36ff for 1890, 1929 and 1980; WDI 2015 for 2001.)

deficits increased towards the end of the decade, but the inflation rate was still low until the currency policy was abandoned.

Domestic financial deregulation and privatization leads to a heavy credit expansion which causes a financial crisis.

A common feature in the three crises that saw serious problems related to the capital account is that extensive liberalization reforms were carried out before the crises. The development in the financial sector after 1887, 1977 and 1991 respectively show similarities in the form of deregulations, privatizations, a growing number of banks, competition from foreign banks, rising credit volumes in combination with increased risk taking, speculation and lack of supervision. The end was in these three periods actual or essential collapse of the banking sector. Here is a common cause for the crises in 1890-91 and 1980-82, but in the 1990s it is rather the crisis in 1995 that fits into this pattern. Towards the end of the 1990s some of the problems that the deregulation created had been sorted out. This supports the explanation of a connection between financial deregulation and financial crises. A common element of the three crises is a substantial expansion of credits and money supply. In contrast to these three periods the credit market in the 1920s only grew slowly. Further, the financial liberalization reforms were not managed in the proper way, since the authorities failed to supervise the banks sufficiently. Such situations of fast credit expansion tend to strengthen the problems of adverse selection and moral hazard. During all four periods the banks also counted on the government rescue them in case a crisis struck.

Diagram 19: Money supply in % of GDP during four periods in Argentina



(Bordo 2002 for 1890 and 1929 (M1); WDI 2015 for 1980 and 2001 (M2).)

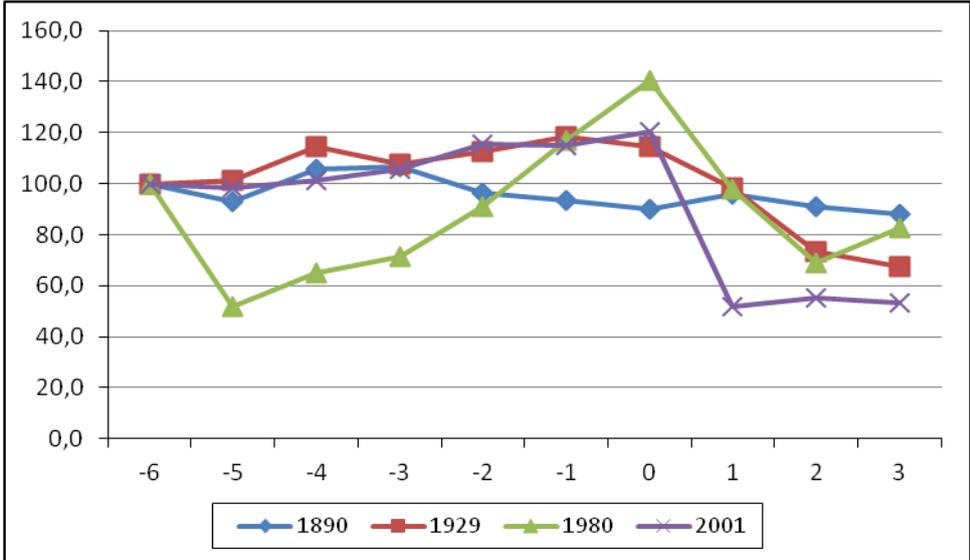
The diagram above showing the money supply indicates that extensive credit expansion took place in particular before 1890 and 2001, but also in the 1970s. It is also clear that there was no expansion of the ratio of money supply to GDP in the 1920s, which fits with the picture of a weak financial development.

A main theme going through the crises of Argentina is, according to della Paolera/Taylor (2003), “gaucho banking”, i.e. the interaction between a weak, undisciplined or corrupt banking sector and some other group of benefiteres from the public or the private sector, which precipitates a collapse.”Gaucho banking” means unsound, extravagant credit creation and credit policy, often leading to speculation and fraud, and it has been a cause of the financial crises that has repeatedly struck the country (della Paolera/Taylor 2003, p. 2). In particular, there are similarities between the Baring crisis and the crisis in 2001 regarding this. The years before the crisis of the 1930s, there were no credit expansion comparable to the other three periods. But, della Paolera/Taylor (2003) assert that the financial system in the late 1920s was not sound, since the system of ”gaucho banking” was widespread and even encouraged by the political power.

An appreciating real exchange rate (for example from high inflation or exaggerated capital inflows) leads to an overvalued currency, which causes a financial crisis.

In all four crises the real exchange rate appreciated and it was necessary with some sort of adjustment of the nominal exchange rate to correct the problems.

Diagram 20: Real exchange rates, indexed for four periods in Argentina



(Calculated from Flandreau/Zumer 2004 for 1890, UK£ (1884=100); calculated from Bordo 2002 (prices) and Diaz Alejandra 1983, p 13 (nom exchange rate) for 1929, US\$ (1923=100); Dornbusch/de Pablo 1987, p 22 for 1980 (1974=100); BIS 2015 for 2001 (real effective exch rate; Mar 1995=100))

The peso floated from 1885 and depreciated strongly 1889-1891 as a result of expansive monetary policy and lax fiscal policy resulting in high inflation. As the nominal exchange rate adapted continually, the currency didn't become overvalued.

In the 1920s there was some real appreciation until late 1929. The changes in currency policy in 1929 and above all in 1931 resulted in a large correction.

The crawling peg from December 1978 was set up to bring inflation down. The inflation rate was however higher than the preannounced depreciation rate, so the currency became vastly overvalued. The real exchange rate rose dramatically to 1980. This produced large capital inflows and rising imports. Early in 1981 a currency crisis burst and the crawling peg was given up.

The convertibility plan of 1991 locked the peso to the dollar in a rigid exchange rate regime. During the 1990s the real exchange rate appreciated, which became a problem in the late 1990s. The currency got increasingly overvalued and in 2000-2001 the confidence in the fixed exchange rate was undermined as the public debt swelled. The breakdown came in January 2002, when the government closed the currency board and the peso was set afloat.

The dollar convertibility and the currency board of the 1990s was a direct parallel to the gold standard in the 1920s, both a fixed exchange rate-regime, and with the policies founded in very unpleasant experiences of grave inflation problems. A difference between the 1920s and 1990s is that the policy makers in the latter period were prepared to go much further to defend the exchange rate than the decision makers of the 1920s. At the end of the 1970s a crawling peg was practised, but like in the late 1920s and 1990s the currency became overvalued. The late 1880s differed from the other three crises in that the exchange rate floated, but the nominal depreciation was a way of continually accommodating to real appreciation.

The two crises of 1890 and 1930 both occurred during the period from 1867 to 1930, when Argentina tried to stick to the gold standard, but recurrently was struck by monetary instability (1876-83, 1885-1899, 1914-27) (Bordo/Végh 1998, p. 12). With Argentina's great international dependence it was necessary to at least have the ambition to stick to this framework. One difference between the two crises is that the economic policy in the late 1880s made a return to the gold standard impossible for a long time, while the government in the 1920s tried to keep with the gold standard rules, even though the formal link to the gold was cut early on.

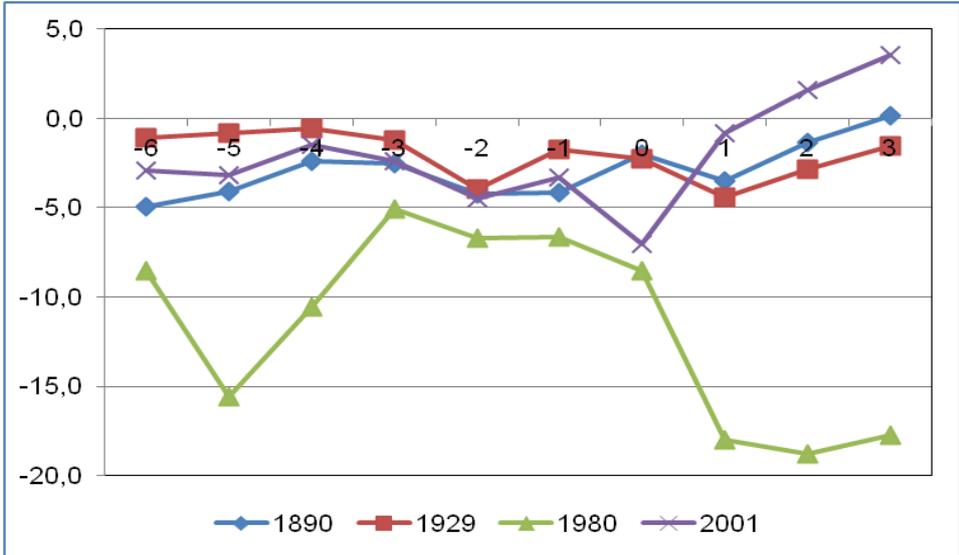
The exchange rate played a central role in three of the four crises. The exception was the 1880s, when the government had given up on the gold standard and pursued a far too expansive economic policy. In contrast to that some economists have concluded that the government in the 1990s was too rigid in its defence of the fixed exchange rate and that it was this that dragged down the economy in 2001-02. In the 1920s the government had a more pragmatic view to the currency policy, without disregarding the demands of the gold standard. Both in 1929 and 1931 it was prepared to change its policies. This can be seen as a more intelligent economic policy, but it can also be interpreted as following the will of the dominating exporting groups, the same interests that asserted their influence in the 1880s. Also in the 1980s the exchange rate policy was central, now as in the 1990s an anchor in the fight against inflation. The shortcomings of the 1980s were that the policy was not combined with tight fiscal policy and currency regulations.

Large budget deficits and growing public debts lead to higher inflation rate, which ends in a financial crisis.

The diagram below shows how the government budget deficits during the years before the crises were permanent in all four periods. The deficits in relation to GDP were largest in the 1970s, but one must remember that the public budgets in the 1800s were a lot smaller compared to later. The deficits in the 1920s were overall more limited.

The fiscal policy and the debt burden are most important as a crisis explanation concerning the 1890 crisis. Inflation rate rose quickly in 1889-1891 and public debt almost tripled its

Diagram 21: Government surplus as % of GDP for four periods



(Bordo 2002 för 1890 and 1929; Dornbusch/de Pablo 1987 for 1980; ECLAC Cepalstat 2014 for 1990s.)

share of GDP from 1885 to 1891 (90,6 %). The debt payments became an increasingly heavy burden, which led to default in January 1891. The extremely lax fiscal policy the years before the Baring crisis was a main cause of this crisis. Around 1980 a similar situation with large deficits, a growing public debt and quickly rising inflation (averaged almost 180 % 1978-1983) developed resulting from the weak fiscal policy. From 5-7 % of GDP at the end of the 1970s, deficits rose to around 18 % in 1981-83. Extensive capital flight added to the part of the public external debt which grew five times 1977-1983. Deficits were permanent all through the 1990s, and increased around 2000, primarily explained by the prolonged recession and rising interest rates. An important difference in comparison with 1890 and 1980 was that high inflation was not a problem around 2000. In contrast to these three crises stand the tight fiscal policy during the crisis of the 1930s, that gave rise to only modest deficits. The debt burden grew, but this is explained rather by aggravated terms of trade rather than large budget deficits (Gould 1972, p. 196).

Political shocks can set off a crisis or contribute to aggravating it.

A common feature of all four crises is that the years before each crisis were characterized by intensified political tensions, power struggles and by the weakening of the governments. In all cases the governments' ability to take strong measures to stabilize the economy waned. With the exception of the crisis in the 1930s, this decline in government power contributed to the loss of control over the public finances.

Another similarity is that serious political shocks occurred at the same time as the economic crises – an uprising in July 1890, a coup in September 1930, a war in the spring-summer of 1982 and violent strikes and riots in December of 2001. In the last two cases the political crisis coincided with the climax of the economic crises. These dramatic events gave rise to great uncertainty around the economic situation, not least among foreign investors. The coup in 1930 seems to have had a relatively minor economic importance, maybe as a consequence of the fact that the depression already had spread and was about to deepen all over the world. Obviously, we also have to realise that the economic crisis in each of the four cases contributed to causing political unrest. Economic and political conditions interacted.

Was growing poverty and income gaps a factor that could explain the political tensions in line with Sachs (1989b)? I have only found data on income distributions on the two more recent crises. The Gini coefficient for Argentina in 1974 was 0,367 and rose to 0,394 in 1980. Over the decade 1990-2000 it grew from 0,459 to 0,510. In 1974 the average wage in the first

quintile of households was 6,77 times the average wage in the fifth quintile. In 1980 the difference had grown to 8,04. In 1990 it was 11,74, in 1994 12,6 and in the year 2000 17,09 (Altimir et al 2002, p. 64, 70). In particular the end of the 1990s was a period of heavily expanding income differences, rising unemployment and falling real incomes, which probably contributed to the political and economic collapse in 2001-02. The rise in income differences at the end of the 1970s was more modest, but real incomes fell for several years and from 1979 there was resistance from unions. Also in the late 1880s, real wages fell, which led to labour unrest in 1889 and riots in 1890.

Mismanagement can turn the economic imbalances into a financial crisis.

The actions taken during the crisis of the 1930s anew differ from those of the other three periods in the relatively successful crisis management that the decision-makers then accomplished. The decision in 1929 to leave the gold standard and the change in monetary policy in April 1931 produced a turn-around, which broke the deflation spiral of the economy. One does not find any similar positive economic policy intervention during the other periods of crisis, which all three ended in crashes. The actions of the governments were instead characterized by passivity, unstableness or mistakes.

In the late 1880s, the Argentine government under Celman used its reserves and new loans until the fall of 1890 to avoid any painful decisions that could have dealt with the imbalances that had been built up. Around 1980, the government was unable to reduce budget deficits, to stop capital flight and to halt inflation. Its actions increased uncertainty concerning its economic policy, which was strengthened by the succession of military leaders, by political turmoil and by war. In 2000, the government's austerity policy aggravated the recession and the change in economic policy in April 2001 added uncertainty around the exchange rate. Further, the central bank lost control over the money supply by the decision to equate the provincial currencies with the peso. In November 2001, the IMF withdrew its support after disapproving the fiscal policy.

4.2. Discussion of causes

Some economists (for example Rock 1986, p. 60) have put most of the blame for the crisis in 1890-91 on the extensive capital flows from abroad. The sudden stop in the capital inflow was surely important, but this explanation seems somewhat narrow. The crucial factor was rather how the economy handled these capital flows. As Eichengreen has pointed out, the foreign

capital not only flowed into investments in productive capacity, but also raised consumption, was used for government expenses and fed speculation. The government failed to raise its savings to counteract the lack of savings in the private sector (Eichengreen 2003, p. 187f). The reversal in the international interest level in 1889 and the ensuing fall in capital inflows were certainly important and the recession also hit other developing economies, but growth in the centre of the world economy was good. The explanation of the crisis lies not in a global recession. Rather, the main causes were domestic. The expansive fiscal policy meant substantial government deficits, which resulted in high inflation and mounting debts. The government did not manage to control the increase in the money supply. Financial deregulation resulted in an exaggerated credit expansion. The financial system lacked supervision and central bank, the issue of banknotes was unorganized and many banks provided cheap loans to extravagant provincial governments. The failed attempt to join the gold standard in 1885 and the continuous depreciation of the peso undermined confidence in the economy. This economic policy was largely the result of the political dominance of the landowners and exporting firms. The value of the export was upheld throughout the crisis, while the adjustment struck imports, investments and production. Political unrest and weak management of the crisis created further uncertainty among foreign investors.

The crisis of the 1930s originated in the world economy. Exports was hit hard by the decreasing demand from the industrialized countries, worsening terms of trade and the deflation that spread from 1929. There don't seem to be much argument in the literature over this picture of an external shock that caused the economic downturn. In the financial sector not enough capital was mobilized and the allocation of it was inefficient. The domestic credit market developed only slowly and the position of the private banks weakened during this period. However, these deficiencies didn't cause the crisis, but rather meant that the international crisis affected Argentina deeper than without these shortcomings. della Paolera and Taylor (1998) argue that Argentina avoided a major disaster in the 1930s by breaking with the orthodox economic mentality, the adherence to the gold standard. The fiscal scope for action was small, partly because the big foreign debt that had to be serviced in order to keep favourable trade terms with Great Britain. But, a bold change in the monetary policy eliminated the deflationary expectations and started the recovery (della Paolera and Taylor 1998, p. 32).

Concerning causes of the crisis 1980-82 there has been a vast debate about whether the external or domestic factors were most important. Some economists argue that the strong capital inflow led to a strong real exchange rate appreciation, which destabilized the economy and hurt the international competitiveness (Edwards 1998, p. 19, 56; Fanelli/Machinea 1994, p. 49). Larússon et al emphasize the aggressive lending of the international banks together with the liberalization of the finance sector as causes for the credit expansion. Then, when the interest rates rose in USA and the dollar strengthened, the export revenues fell and the debt trap closed on Argentina (Larússon et al 1985, p. 61). In addition to this, de Vylder emphasizes rising oil prices, falling primary goods prices, and the world recession that led to stagnating trade and protectionism (de Vylder 1991, p. 29f). Other economists focus on domestic factors. They assert that the most serious mistake was the overvaluation of the currency in 1978-1982 (Maddison 1985, p. 55, Dornbusch/de Pablo 1987, p. 12, Berlinski 2003, p. 215). The economic policy resulted in a heavy real exchange rate appreciation. Other shortcomings were the political turbulence, the Falklands war and the large government deficits which made it impossible to take control over inflation. All this created uncertainty and triggered capital flight, which was made easier by the liberalized finance sector. The economic policy thus generated grave imbalances, without which the crisis would have been less severe. Sachs et al (1996) also point to the domestic financial deregulation and privatization as the source of the quick credit expansion and ultimately the financial crash (Sachs/Tornell/Velasco 1996, p. 26). External factors obviously played an important part in the Argentine crisis. It seems however, that without the internal factors – the flawed currency policy, the lax fiscal policy, the political turmoil and mismanagement, and the domestic financial liberalization – the crisis of the early 1980s would not have set the Argentine economy on such a devastating path as it did.

In the lengthy debate about the explanations for the crisis in 2001, some economists blame the rigid monetary regime. In this view, the convertibility to the dollar was the wrong policy choice and hindered accommodation to the external shocks in the late 1990s. Devaluation was ruled out, but had become necessary to lower the costs. Other economists mean that the monetary regime was undermined by the lax fiscal policy. Increasing deficits and a mounting public debt had made the economy more vulnerable when the recession hit in 1998 (Moreno 2002; della Paolera/Taylor 2003). A third view has pointed to the shift in the world economy after the crisis in Russia in 1998 and emphasizes that decreasing international capital flows led to lower investments and a deepened recession. In any case, there seems to be agreement

on the overvaluation of the peso. To Bleaney this was caused mainly by the sudden stop in the capital flow, which resulted in higher interest rates, a mounting debt burden and lower investments. This affected the sustainability of the convertibility negatively (Bleaney 2004, p. 710ff). Perry/Servén (2003) on the other hand point out that the serious decline in the capital flow didn't appear until after 1999 and by then the international capital had returned to other developing economies. Perry/Servén (2003) assert that Argentina was not hit harder than other economies in the region by the external shocks. Instead, there were specific Argentine factors at work. The years of high growth was a lost opportunity. Then, a strengthened fiscal policy, a more flexible labour market, unilateral liberalization of foreign trade and stricter supervision of the banks could have laid the foundation for keeping the fixed exchange rate and better handling external shocks. But, none of this was done (Perry/Servén 2003, p. 5). The latter analysis is convincing. The monetary regime became a problem because the authorities neglected the economic policy. It is, however, reasonable to ask if these tough measures were actually politically feasible, given the social tensions that rising unemployment and poverty had created. Moreover, the need for such a policy seemed weak before 1999 in the light of the good growth and the big capital inflow (de la Torre et al 2002, p. 1, Eichengreen 2008, p. 210).

5. Conclusions

The purpose of this essay has been to try to find causes to the crises and to compare the crises in search of similarities, differences and possible patterns. One result is that external factors, although influential in every crisis, were dominant in only one of the four cases examined, the one in 1929-32. Falling world demand, deteriorating terms of trade and deflation dealt a severe blow to exports. By accommodating the monetary policy, Argentina managed to avoid default and a major bank crash. This outcome is the best of the four crises, although the contraction was most prolonged.

Weaknesses in the financial sector, an appreciating real exchange rate and political turbulence were characteristics in common of all four crises. First, in all four periods the banks colluded with private or public interests, which by weakening the financial sector contributed to the crises. Except the 1920s, there were badly managed deregulation reforms some years ahead of three crises, which resulted in higher risk, speculation and large credit expansions. In the end, the banking sector crashed in 1891, 1982 and 2002, but not in 1932. So, there is support for the explanation that deregulation of the financial sector can contribute to financial crisis.

Second, the real exchange rate appreciated before all four crises, although it was only in the two latter ones that overvaluation became a big problem. In 1890 the floating currency depreciated and in 1929 Argentina left the gold standard, but in 1980 the crawling peg was used to bring down inflation and in 2001 the dollar link was the centrepiece of reforms. In the two latter crises the exchange rate regime was thus more rigid and definitely has a role in explaining events. Third, all crises were preceded by increased political tensions, which led to a diminished confidence in the economic policy and to weaker governments. Save for 1929, this decline in government power contributed to the loss of control over public finances. Thus, there is support for the explanation that political shocks can aggravate a financial crisis.

In three out of four crises, again except 1929, there were sudden stops in the external capital flows. These had been so massive that debts mounted to unmanageable levels. The endings of exaggerated capital inflows became a problem, but as they occurred rather late in each crisis and were not only exogenous, they should be viewed as precipitating events, rather than primary causes. Falling savings ratios was also an explanatory factor in two crises – 1890 and 1980. The combination with large foreign borrowing via banks and government deficits led to high inflation. In the 1880s, 1970s and 1990s the public deficits were relatively large, stimulated the foreign inflow of funds and eventually led to default, which supports the

explanation that a weak fiscal policy can lead to a crisis. Only in the crisis 1929-32, there was clearly a successful management of the situation. In the other three, bad management may have aggravated the outcomes.

I did not expect to be able to single out the most important explanatory factor of every crisis, but to do that would surely be feasible. In a more narrow setting using econometric methods it could be possible to reach more certain and definitive results concerning the crucial factor of each crisis.

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Appendix

Notes on the data in the tables below

1. Concerning the real exchange rate, there is use of two differing definitions, depending on how the nominal exchange rate is expressed. I have used the definition given in Mankiw (1992, p. 192), where the real exchange rate equals the nominal exchange rate in foreign currency per peso times the ratio of domestic to foreign prices levels. To avoid causing the reader the same confusion this has caused me, this is mentioned here.
2. The real exchange rates for the two earlier periods, I have calculated using for 1884-1893 data from Flandreau/Zumer (2004) on the nominal peso exchange rate in French francs, the franc exchange rate in UK£ and price indexes of Argentina and UK, and for 1923-1932 price indexes from Bordo (2002) and the nominal exchange rate from Díaz Alejandro (1983).
3. The terms of trade-index for 1923-1932 has been calculated using indexes from Francis (2013) over import prices and export prices.
4. Concerning the indicator government surplus in % of GDP, I have not been able to find any definition for the data from Bordo (2002) for 1884-1893 and 1923-1932. It is likely that it refers to central government. The same goes for Dornbusch/de Pablo (1987) for 1974-1983.

Table 3: Economic indicators, 1884-1893

	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
1. GDP (constant., mill pesos)	355	376	376	422	463	543	520	462	503	528
2. Current account balance (curr., mill pesos)	-54	-42	-73	-95	-115	-242	-262	16	-3	-95
3. Current account (% of GDP)	-15,1	-9,1	-15,3	-18,5	-20,4	-30,4	-24,5	1,1	-0,3	-7,5
4. Savings (% of GDP)		2,5	-6,1	-10,0	-9,0	-18,7	-8,1	13,3	7,1	-0,3
5. Investments (% of GDP)		11,6	9,2	8,5	11,4	11,7	16,5	12,2	7,4	7,1
6. Money supply (M1), annual change (%)		25,7	21,5	5,2	34,5	33	11,7	-22,8	-7,3	7,3
7. Government surplus, % of GDP	-4,9	-4,1	-2,4	-2,5	-4,2	-4,2	-2,0	-3,5	-1,4	0,1
8. GDP per capita, constant 1989 dollars	675	693	671	728	775	879	816	703	742	755
9. Terms of trade-index (1886=100)	101,1	90,4	100	97,3	82,1	76,8	70,4	84,3	77,0	71,6
10. Inflation, % annual change of GDP-deflator		22,4	2,2	-3,4	-0,4	20,7	40,1	56,4	-20,1	-6,2
11. Public debt, nominal (mill pesos)	125	157	163	192	411	527	932	1 386	1 401	1 390
12. Public debt, % of GDP	33,8	32,6	33,2	36,2	70,8	64,3	84,7	90,6	105,3	106,1
13. Short-term rates, Bank of England (%)	2,93	2,99	3,02	3,33	3,30	3,58	4,52	3,28	2,51	3,05
14. Exports (mill gold pesos)	68	84	70	84	100	123	101	103	113	94
15. Imports (mill gold pesos)	94	92	95	117	128	165	142	67	91	96
16. Foreign borrowing (mill gold pesos)	40	39	68	154	248	154	45	8	n.a.	n.a.
17. External debt service in % of exports	41	27	39	44	50	49	59	31	n.a.	n.a.
18. Paper note circulation (mill paper pesos)	62	75	89	94	130	164	245	261	282	307
19. Gold premium (1884 = par)	100	137	139	135	148	191	251	387	332	324
20. Nominal exchange rate, pound per paper peso	0,19	0,14	0,14	0,15	0,13	0,11	0,08	0,05	0,06	0,06
21. Real exchange rate (1884=100)	100	93	106	107	96	93	90	96	91	88

Sources: 1-5: Taylor 1997, p. 36; 6-10: Bordo 2002; 11-13, 20-21 (calculated): Flandreau & Zumer 2004; 14-19: Ford 1962, p. 139

Table 4: Economic indicators, 1923-1932

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
1. GDP (constant, bill pesos)	25,92	27,94	27,82	29,16	31,23	33,17	34,70	33,26	30,96	29,93
2. GDP (curr., mill pesos)	7 724	8 951	9 035	8 536	8 958	9 611	9 749	8 956	8 063	7 883
3 Current account balance (curr., mill pesos)	-394	-312	-312	-268	51	-113	-379	-851	-260	-57
4. Current account (% of GDP)	-5,1	-3,5	-3,4	-3,1	0,6	-1,2	-3,9	-9,5	-3,2	-0,7
5. Savings (% of GDP)	8,4	8,3	8,1	8,7	13,1	12,4	11,4	4,5	6,3	6,4
6. Investments (% of GDP)	13,5	11,7	11,5	11,8	12,5	13,5	15,3	14,0	9,6	7,1
7. Money supply (M1), annual change (%)	20,7	3,4	-3,3	8,6	6,8	7,4	-6,4	-1,5	-14,9	3,5
8. Government surplus, % of GDP	-1,1	-0,8	-0,6	-1,2	-3,9	-1,7	-2,3	-4,4	-2,9	-1,6
9. GDP per capita, constant 1989 dollars	1 065	1 108	1 071	1 092	1 136	1 173	1 194	1 115	1 014	962
10. Terms of trade-index (1886=100)	75	78	95	82	83	97	96	78	64	56
11. Inflation, % annual change of GDP-deflator	2,9	2,0	-1,1	-6,0	-1,7	3,5	-2,2	-3,9	-14,1	-7,5
12. Public debt, % of GDP		24,1	21,2	21,5	21,8	16,1	15,4	19,3	21,8	29,5
13. Fed discount rate, Bank of NY (end of year, %)	4,5	3,0	3,5	4,0	3,5	5,0	4,5	2,4	3,5	2,5
14. Exports (curr., mill pesos)	2 011	2 100	2 100	1 824	2 324	2 428	2 196	1 414	1 475	1 305
15. Imports (curr., mill pesos)	1 929	1 932	1 932	1 569	1 668	1 902	1 959	1 680	1 174	836
16. Nominal exchange rate (US\$/peso)	0,34	0,34	0,40	0,41	0,42	0,42	0,42	0,37	0,29	0,26
17. Real exchange rate	100	101	115	108	113	118	114	98	73	67
18. External debt service in % of exports	18	18	18	23	19	19	22	33	33	35

Sources: 1: Mitchell 1993 p. 818; 2-6, 14-15: Taylor 1997 p. 36ff; 7-9, 11: Bordo 2002; 12: Abbas et al, IMF 2010; 13: NBER 2015; 10: Francis 2013 p. 295f, 301; 16-17: Bordo 2002 and Díaz Alejandro 1983 p. 13; 18: Balboa 1972, p. 170 (average for 1923-1925)

Table 5: Economic indicators, 1974-1983

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
1. GDP (constant, bill pesos)	344,6	344,5	337,5	360,9	344,7	379,9	395,7	373,2	354,7	368,4
2. Current account balance, curr., mill US\$	127	-1 284	665	1 290	1 833	-537	-4 767	-4 714	-2 357	-2 461
3. Current account (% of GDP)	0,4	-3,5	1,7	3,0	4,0	-1,0	-7,6	-7,4	-3,8	-3,8
4. Savings (% of GDP)	23,7	28,7	33,0	33,7	30,6	25,8	23,0	19,9	19,0	18,5
5. Investments (% of GDP)	23,6	31,2	32,0	32,1	28,4	26,2	25,3	22,7	21,8	20,9
6. Money supply (M2), annual change (%)	54,5	152,9	353,5	227,2	172,6	187,4	91,8	100,5	139,1	401,2
7. Government surplus, % of GDP	-8,5	-15,6	-10,6	-5,0	-6,7	-6,7	-8,6	-18,0	-18,9	-17,8
8. GDP per capita, constant 2005 dollars	5 119	5 034	4 855	5 114	4 811	5 225	5 361	4 979	4 661	4 768
9. Terms of trade-index (1995=100)	101,0	100,6	96,1	87,7	87,6	95,5	111,9	117,4	96,3	98,2
10. Inflation, % annual change of GDP-deflator	30,6	197,7	438,3	159,4	161,4	147,4	90,8	106,4	207,6	382,4
11. External debt service in % of exports	33	53	35	34	67	51	109	99	64	72
12. Public debt (% of GDP)	13,8	18,4	13,8	15,8	16,7	13,5	12,6	21,3	36,0	46,7
13. Exports (bill constant pesos)	20,0	18,1	23,9	30,4	33,1	32,0	30,4	32,0	33,2	34,1
14. Imports (bill constant pesos)	18,1	18,4	14,6	20,0	18,9	29,2	42,8	39,3	22,6	21,0
15. External debt, tot (bill current US\$)	7,8	7,9	9,5	11,7	13,5	21,2	27,3	35,8	43,8	46,1
16. Public external debt, tot (bill current US\$)	3,4	3,3	4,7	5,3	7,0	8,8	10,3	10,7	16,0	25,6
17. External debt, tot (% of GDP)	10,7	14,9	18,6	20,7	23,4	30,9	35,8	46,8	55,3	47,0
18. Real exchange rate (1980=100)	71,2	36,9	46,4	50,7	64,7	83,4	100,0	69,5	48,9	58,8
19. US real lending interest rates (%)	1,7	-1,3	1,3	0,6	1,9	4,1	5,7	8,7	8,3	6,6

Sources: 1, 6, 8, 10-11, 13-17, 19: World Development Indicators, World Bank 2015, 2-3, 7, 18: Dornbusch/de Pablo 1987, p. 22ff, 4-5: Taylor 1997, p. 36; 9: Easterly 2001; 12: Abbas et al, IMF 2010

Table 6: Main economic indicators, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1. GDP (constant., 1993 bill pesos)	243,2	256,6	277,4	288,1	278,4	276,2	264,0	235,2	256,0	279,1
2. Current account balance, curr., bill US\$	-5,1	-6,8	-12,1	-14,5	-11,9	-9,0	-3,8	8,8	8,1	2,7
3. Current account (% of GDP)	-1,7	-2,1	-3,5	-4,0	-3,5	-2,6	-1,2	7,5	5,3	1,5
4. Savings (% of GDP)	17,5	17,4	17,2	17,4	16,3	15,5	15,5	27,0	26,4	24,3
5. Investments (% of GDP)	18,5	19,6	20,8	20,9	18,3	17,6	14,2			
6. Money supply (M2), annual change (%)	-2,8	18,8	25,5	10,5	4,1	1,5	-19,4	19,7	29,6	21,4
7. Government surplus, % of GDP	-2,9	-3,2	-1,5	-2,4	-4,5	-3,3	-7,0	-0,8	1,6	3,5
8. GDP per capita, constant 2005 dollars	5 105	5 322	5 685	5 835	5 575	5 473	5 179	4 572	4 931	5 329
9. Terms of trade-index (1993=100)	101,8	109,8	108,4	102,5	96,4	106,1	105,3	105,0	114,6	116,3
10. Inflation, % annual change of GDP-deflator	3,2	-0,1	-0,5	-1,7	-1,8	-1,0	-1,1	30,6	10,5	10,6
11. Public debt, nominal (bill pesos)	88,7	99,0	103,7	114,1	123,4	129,8	144,2	514	523,8	568,1
12. Public debt, % of GDP	28,8	30,4	29,6	31,9	36,4	38,2	44,9	137,5	116,5	106,0
13. Exports (bill constant pesos)	70,1	75,4	84,6	93,6	92,4	94,9	97,5	100,5	106,6	115,2
14. Imports (bill constant pesos)	69,9	82,1	104,2	113,0	100,2	100,1	86,1	43,0	59,2	82,9
15. External debt, tot (bill current US\$)	98,8	111,4	126,8	140,1	150,0	147,0	149,7	145,6	161,1	165,7
16. External debt, tot (% of GDP)	32,1	34,4	36,4	39,5	44,6	43,7	47,1	125,3	108,1	95,0
17. External debt service in % of exports	35,6	45,7	52,2	62,0	90,6	79,3	57,7	18,4	42,7	32,7
18. Unemployment (% of total labor force)	18,8	17,2	14,9	12,8	14,1	15,0	18,3	17,9	16,1	12,6
19. Real effective exchange rate (March 2001 = 100)	85,0	83,4	86,1	89,6	98,3	97,6	102,3	43,9	46,9	45,1
20. Lending interest rates (%)	17,8	10,5	9,2	10,6	11,0	11,1	27,7	51,7	19,1	6,8

Sources: 3, 11-12: World Economic Indicators, IMF 2014; 1-2, 9: Ministry of Economy 2006; 4, 6, 8, 10, 13-18, 20: World Development Indicators, World Bank 2015; 7: ECLAC, Cepalstat 2014 (nonfinancial public sector); 5: Bleaney, 2004, p.702; 19: BIS 2015