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GREEK MONETARY ECONOMICS IN RETROSPECT: *THE ADVENTURES OF THE DRACHMA*

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ABSTRACT

This paper enumerates the adventures of the drachma step by step, dividing its story into seven parts. Specifically, its main purpose is to present some historical perspective on the behaviour of the monetary and fiscal policies pursued in Greece during the period from the early 1830s until the introduction of the euro. For Greece and for the drachma, the lessons from the past are very important. Since the formation of the modern Greek State, government officials have striven – sometimes making hard efforts – to keep abreast of international monetary developments. This was because they understood that the participation of a peripheral, poor and inflation-prone country with a weak currency and an underdeveloped money market, like Greece of the time, in a monetary club of powerful economies could dramatically improve her international credit standing and imply important benefits in terms of exchange rate and monetary stability, and long-term foreign borrowing.

Keywords: fiscal disturbances, metallic monetary standards, fiat money.
JEL Classification: F33; N23

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1. Introduction

Ever since the times of the Renaissance, i.e. from the emergence of what we understand today as a national civilian state, the army and the currency have been the cornerstones of every such state entity. In February 1992, by signing the Maastricht Treaty, twelve European countries agreed to waive their sovereign right of issuing privilege and their independence in conducting a national monetary policy, in favour of a common currency, the euro, which fulfils the three main functions of money (as a means of exchange, a unit of account, and a store of value). The euro was born on 1 January 1999, and since 1 January 2001 it is the legal tender in all euro area countries.

In June 2000, the EU Summit of Feira, Portugal, decided Greece's acceptance as a full member of the euro area as of 1 January 2001. This meant that by March 2002 the drachma would be history, as, of course, was the case for all the other national currencies of the euro area Member States. Thus, 28 February 2002 was the last day of the drachma's circulation as a national currency.

EMU has not been the only attempt at monetary cooperation in world economic history. Numerous efforts – with varying degrees of success – have been made by various countries to link their currencies with a precious metal or with the currency of the strongest economy in their respective region (see deCecco 1996, Bordo and Jonung 2000). Their willingness to participate in a monetary union has always been dictated by the need, firstly, to reduce the exchange risk of cross-border transactions among them, secondly, to reduce credit risk, and thirdly, to ensure credibility in pursuing an anti-inflationary policy.

The currency is perhaps one of the most important of social and economic institutions. Evidently, the interrelation between monetary and economic power and stability is reciprocal. A strong and stable economy facilitates the achievement and maintenance of monetary stability; conversely, monetary stability contributes to the smooth operation of markets and transactions, and promotes saving, investment, and economic growth.

This paper enumerates the adventures of the drachma step by step. Its main purpose is to provide some historical perspective about the behaviour of the monetary and fiscal policies pursued in Greece during the period from the early 1830s until the introduction of the euro. For Greece and for the drachma, the lessons from the past are very important. Since the formation of the modern Greek State, government officials have striven – sometimes making hard efforts – to keep abreast of international monetary developments. This was because they understood that the participation of a peripheral, poor and inflation-prone country with a weak currency and an underdeveloped money market, like Greece of the time, in a monetary club of powerful economies, such as the Latin Monetary Union (LMU) of the 19^{th} century, could dramatically improve her international credit standing and imply important benefits in terms of exchange rate and monetary stability, and long-term foreign borrowing.

The evolution of the Greek monetary system was affected both by international monetary developments and by domestic fiscal disturbances often caused by the frequent military conflicts that constitute a major characteristic in the history of modern Greece. In periods of smooth and efficient functioning of the economy, the monetary system did not face any problems. But whenever substantial economic disturbances occurred, mainly of a fiscal nature, the monetary system suffered adverse consequences, resulting in monetary destabilisation, which, in turn, caused economic instability.

The remainder of the paper divides the history of the drachma into seven parts. The first part (Sections 2-6) discusses Greek monetary and fiscal developments in the pre-WWI period. In the classical gold standard era Greek governments made repeatedly hard efforts, however unsuccessfully, to tie the drachma to the prevailing international monetary regime. The first time when Greece pursued consistently a specie standard rule was in 1910, four years only before the collapse of the classical gold standard. The second part of the story (Section 7) reports on the experience of the Greek economy as a full member of the LMU. The third part (Section 8) concerns the inter-war period. After a long wartime period marked by political and social upheavals, monetary expansions and uncontrolled inflation, from the mid-1920s, Greece again tried to follow international monetary developments. The country joined the inter-war gold-exchange standard and the drachma began pegging against sterling. The fourth part (Section 9) refers to the collapse of the monetary and real sectors of the Greek economy during the Occupation Period and presents the stabilisation efforts in the aftermath of the German occupation, while the fourth part (Section 10) concerns the golden era of the drachma. In 1953 the drachma was first devalued against the US dollar and then joined the Bretton Woods system of fixed rates. The sixth part (Section 11) presents the policy of sliding drachma in the post-Bretton Woods period. Finally, the last part (Section 12) deals with the path towards the EMU and the end of the story of the drachma.

2. The Phoenix and the Drachma, 1828-1865

In 1827, when the modern Greek State was created, money transactions were carried out mainly in Turkish coins, as well as in foreign currencies such as the Spanish Distilo. There was no Greek currency until 1828. At the same time, the international monetary system was based on the bimetallic system of France. The French monetary authorities were ready to exchange gold for silver, at a rate of 15.5 parts of silver to one part of gold, in large quantities, since they held huge reserves in both metals. Thus, they imposed this ratio internationally, simultaneously stabilising the relative prices of gold and silver, and the parities of all currencies that were either on a gold or on a silver standard.

However, Great Britain was *de jure* on a gold standard since 1821, when the Bank of England was forced by law to redeem its banknotes into gold coins in order to avoid encouraging inflationary pressures; and *de facto* on a gold standard since 1717, when Sir Isaac Newton, the director of the Royal Mint, set the price of silver at a significantly lower level than its international market price, causing the withdrawal of silver coins from circulation. By contrast, the United States was on a silver standard, given that the US Mint had overvalued silver (15:1) relative to its international ratio.

In Greece, a national monetary system, based on silver, was established for the first time in 1828. This silver standard prevailed until 1832. The legal tender was the silver Phoenix, introduced by Ioannis Capodistrias as the first currency of modern Greece and issued in the form of a silver coin with a composition of nine parts of pure silver and one part of copper. The Phoenix was put in circulation in denominations of 1 lepton, 5, 10 and 20 lepta. Five phoenixes amounted to an Aegis, i.e. a silver taler.

In 1831, the currency's convertibility into silver was suspended, and paper money was created to finance the budget deficits. Capodistrias tried, though to no avail, to finance with foreign borrowing the increased expenditures required for the relief of the Greek refugees coming from regions that were still under Turkish occupation. A decree of 4 January 1832 stated that money transactions would be carried out only in paper money, while the country, after the assassination of Capodistrias in September 1831, had plunged into political anarchy and civil conflicts.

Capodistrias's assassination signalled the transformation of the country's political as well as monetary systems. In May 1832, Otto's monarchy succeeded democracy. Nine months later, in February 1833, bimetallism was introduced as the new monetary standard, and Otto's Drachma was launched as the new legal tender. This was a silver currency. It weighed 4.029 grams of pure silver and was put into circulation in denominations of 0.5, 1 and 5 drachmas as well as of 1 lepton, 2, 5 and 10 lepta. The minting of gold coins was also authorized. The gold twenty-drachma (Ottonian) coin weighed 5.199 grams of pure gold. Per drachma, it weighed 0.25994 grams of pure gold, i.e. the golden drachma contained 15.5 times less grams of gold as of silver. Therefore, the legal ratio of the two metals was the international ratio of 15.5:1.

As mentioned in the decree of 8 February 1833 re: *Monetary System*, one of the main reasons for this monetary reform was the substitution of the underweight phoenix with the drachma, which was heavier. Although the phoenix was defined as equal to 1/6 of the Spanish distilo (i.e. 4.074 grams of pure silver), it only weighed 3.747 grams. Yet the same "mistake" was made in the minting of the drachma. Similarly to the phoenix, the drachma was also linked to the Spanish distilo. Although it was defined as equal to 1/6 of the distilo, it weighed only 4.029 grams of pure silver, being clearly heavier than the phoenix, but still lighter than the distilo.

The distilo was a silver coin, which was mainly used in trade transactions throughout the Spanish colonies of South America. Its main characteristic was that it could easily and cheaply be forged. Had the phoenix, or the drachma, not been underweight, the adulterated distilos would quickly substitute the Greek coins, crowding them out of circulation.

Otto's drachma was not based on Capodistrias's phoenix. These were two entirely different coins, in every respect (parity, weight, name and depictions). The only link between them was that the phoenix was the predecessor of the drachma. The sole feature of the phoenix that was adopted in Otto's drachma was the use of the decimal system, which facilitated considerably the various accounting calculations. As far as the depictions were concerned, the phoenix was of a highly symbolic and mystical nature, being the symbol of the Philiki Etaireia. The drachma drew its name from antiquity, while it borrowed its depictions from the currencies of contemporary European kingdoms.

In order to facilitate transactions, given the limited amount of drachmas in circulation, foreign currencies were allowed by law to circulate freely in the domestic money market. However, the majority of these were tarnished, with a face value much higher than their market value. As a result, Greek silver and gold coins quickly out-flowed since holders of foreign debased coins exchanged them for drachmas, which they then melted to obtain the precious metal. Thus, the drachma soon became an "ideal currency" that was used as "an accounting unit for foreign currencies and things of value" (Kehayias 1875).

3. Foreign Loans and the Foundation of the National Bank of Greece

The first decades of liberty were characterised by economic stagnation: an agricultural economy extremely low in efficiency, lack of private investment capital, no industrial development, scarce money and banking transactions, and the absence of a national issuing foundation. Income from shipping and the settlement of rich Greek expatriates and philhellenes in Greece were the only sources of capital inflows.

Access to foreign borrowing for drawing funds necessary both for the country's economic development and defence armament was impossible. The first and second Independence loans contracted in Great Britain were greeted as a successful instigation of economic alliances with Western Europe, hence, an international recognition of the Struggle for Independence and of the fledgling Greek State.[1] However, these loans were not used for the purpose for which they had been intended, i.e. the furtherance and expansion of the Struggle for Independence. The first loan (472,000 pounds sterling) financed the civil wars of the years 1824-25, whereas the second loan (1.1 million pounds sterling) was squandered almost in its entirety abroad, either in England and America for the purchase of canons and the building of battleships – which never arrived in Greece – or for the hiring of foreign generals and admirals, or was embezzled by foreign speculators on the London Stock Exchange.[2]

Greece's inability to repay the Independence loans destroyed the country's reputation as a borrower and deprived her of the European capital markets for a long period of time. The lack of money resources for the organization of the fledgling State's domestic administration, the restoration of public safety, and the development of agriculture and commerce, created an urgent need for a new foreign loan. Under the warranty of the Great Powers, a loan of 60 million drachmas was granted to the newly founded Greek State in 1832, for the economic recovery of the country and the introduction of bimetallism. However, this loan was also wasted in unproductive expenditures, such as the expenses of the Regency and the maintenance of a costly and unnecessary Bavarian army.[3]

[1] See Gervinus (1863).
[2] Gennadios (1878) and Andreades (1904) provide full details.
[3] For details, see Andreades (1904).

The country's commitment to meet her obligations towards foreign creditors is worth noting. The stringent policy of expenditure cutbacks, adopted after the departure of the Bavarians in 1838, secured the necessary public revenues for the regular repayment of the outstanding foreign debt. Nevertheless, the country's economic stagnation quickly caused fiscal difficulties, which finally forced the Greek government to suspend loan repayment in 1843.

The country's inaccessibility to the capital markets of Western Europe and the urgent need to find money highlighted the need for a national banking institution. The latter would help in the financing of the State, and would also provide immediate financial support for the recovery of agricultural, commercial and industrial activities. The founding of the National Bank of Greece in 1841 was the result of the protracted negotiations between Otto's government and foreign capital creditors. The Bank's operation played a decisive role in steering market interest rates. The interest rate of mortgage loans dropped to 10%, from a minimum of 12% (which was the official rate), and a maximum of more than 30-40% (which was the market rate, particularly in the periphery).

The new Bank comprised two departments, the Issuing department and the Banking department. It had the exclusive privilege of issuing and circulating banknotes, which were fully and readily convertible into metallic coins. At the same time, it accepted private deposits in banknotes or metallic money and granted loans. It also had reserve responsibilities; it held metallic (gold or silver) reserves in its Treasury and interest-bearing deposits in foreign exchange in central banks abroad, which were directly convertible into metal.[4]

In other words, the National Bank operated as a universal bank, while at the same time enjoying all the privileges and assuming all the responsibilities of a central bank. Thus, it was similar to the Bank of England and other central banks of the 19th century, which combined the role of a commercial bank with those of a "bank of the state" and a "lender of last resort" (see Goodhart 1988).

The State contributed to the Bank's equity capital (until 1870) and controlled its operations *via* a Commissioner. In exchange for the State's participation and control, the Bank was granted the privilege to issue banknotes – a highly profitable operation.

During the entire period of Otto's reign, the National Bank's loans to the State were kept at a minimum. This was because Otto, in an effort to balance the budget, pursued a tight expenditure policy. Nonetheless, after the fall of the Bavarian dynasty, in the early 1860s, a

[4] For a detailed description of the Bank's operation, see Valaoritis (1902).

new process began whereby the State was over-indebted to the Bank (see Figure 1). In a time when the Greek State was unable to raise funds from international money markets, borrowing from the National Bank became the usual practice for covering public expenditures (see Alogoskoufis and Lazaretou 2002). The State required increasingly larger advances, while the National Bank charged interest rates that were more than double the lending rates prevailing in the international markets, i.e. 7-8% compared with 2.5-4.5%. Moreover, the Bank's loans to the State were not without a warranty. The Bank's branches were authorised to collect various public revenues, and to offset such proceeds against the servicing of the outstanding foreign debt. Therefore, with an interest income at a rate of 7-8% on government loans, the Bank was able to remunerate time deposits at rates of around 3-5%, i.e. much higher than the international interest rates. The profit margin was considerable. Until the end of the 1880s, the Bank enjoyed high yields from its short-term lending, around 7-8% for discounts and 6-9% for collateralised loans or credit lines. Yields from long-term lending (mortgage-backed loans or mortgage-backed credit lines) were also high, reaching 8-10%. The Bank offered its depositors yields of around 5.5-6% (for savings deposits) and 3-5% (for time deposits), i.e. much lower than the yields of its loans, but much higher than those prevailing in the world markets. In this manner, it was able to attract funds, domestic as well as from abroad, including those of the Greek Diaspora. This extremely profitable interest rate policy was underpinned the Bank's successful performance during the first period of its operation.

Six years after its establishment, the National Bank was given for the first time under the Law of 4 April 1848 the right to suspend metallic redemption. This was the only incident in the country's monetary history in which the decision for the suspension of convertibility was not directly related to the government financing decisions.[5] In fact, the social turmoil in France caused political instability in Western Europe, which, in turn, brought about a global crisis in commerce that quickly became a world-wide financial crisis. Greece's high trade deficits necessitated large outflows of foreign exchange reserves. In response, the National Bank suspended convertibility in order to keep its metallic reserves intact. This fiat money remained in effect for eight months only, and on 16 December the bimetallic system was reinstated.[6]

[5] For an analysis of the historical episodes of adherence to, and suspension of, specie convertibility by Greece during the 19th and 20th centuries, see Lazaretou (1993, 1996) and Alogoskoufis and Lazaretou (2002).

[6] The metallic monetary regimes required each country's central bank to maintain a constant ratio of precious metal reserves to banknote circulation (reserve-banknote ratio). This ratio determined the correlation between domestic money supply and metallic reserves.

During the crisis of 1848, despite its dual character – as a commercial and, simultaneously, an issuing institution – the National Bank proved unwilling to assume the role of a "lender of last resort". Instead, it was primarily interested in safeguarding its metallic reserves, declaring the temporary suspension of its banknote's convertibility by law. Furthermore, it reduced its lending and demanded the payment of all its claims, causing credit squeezes in the economy and worsening even further the position of Greek trade in a period of unprecedented world-wide trade crisis.

4. Greece and the Latin Monetary Union, 1865-1875

In 19th -century Europe, two countries were competing for political, economic and financial leadership: Great Britain and France. As noted above, Great Britain had been *de facto* on a gold standard since 1717. Meanwhile, France had adopted bimetallism and in 1875 fixed the parity between gold and silver at 1:15.5, which would remain unchanged until the outbreak of World War I. The Napoleonic conquest of Europe established the French franc as an international currency in the region, and increased the willingness of other countries to adopt the bimetallic system of France. Even after the Napoleonic dissolution of the Empire, the French economic and financial hegemony remained. For her neighbours, France was a bigger and stronger economy. She was the main importer of their products and provided them with long-term capital.[7]

The Latin Monetary Union (LMU) is thought by many to be the 19th predecessor of the recent venture of the European Monetary Union. It was designed for the same reasons that led to the adoption of the euro in the dawn of the new millennium, i.e. "the creation of a lake of monetary stability in the very perturbed ocean of the international monetary system" (deCecco 1996, p.56). The LMU was in essence a metallic monetary system in which the two precious metals, gold and silver, were used as a *numeraire*, i.e. as a unit for determining the value of all the other currencies. The benefit from the creation of the LMU was the moderation of fluctuations observed in the market prices of gold and silver, caused by the discovery of new supplies of precious metals.[8]

[7] There is abundant historical and empirical evidence on the hegemonic power displayed by Great Britain with the pound sterling during the gold standard and by France during the LMU. See, for example, Kindleberger (1993), Eichengreen (1985, 1990), Bordo and Kydland (1995) and Bordo and Rockoff (1996).
[8] For the history of monetary unions and especially for the LMU see Redish (1993), Flandreau (1993), deCecco (1996), Bordo and Jonung (2000) and Fergusson (2000).

In particular, the great discoveries of gold in Russia, California and Australia during the 1850s and 1860s, reduced the market price of gold compared to that of silver. This reduction triggered an inflow of gold and an outflow of silver. Silver coins started to become rare, given that their intrinsic value exceeded their nominal value and were, thus, melted in order to be sold as metal. The scarcity of silver coins caused great difficulties in money transactions.

In order to cope with this situation, France, Belgium, Italy and Switzerland agreed in 1865 to cooperate in order to preserve the bimetallic system. For that purpose, in Paris on 23 December 1865, these countries decided to jointly establish the LMU. The ratio of 15.5:1 was fixed as the official parity between the two metals, and the French franc was set as the common monetary unit.

The French franc was put into circulation in gold coins of 5, 10, 20, 50 and 100 francs, and in silver five-franc coins. These coins allowed payments to be made in unlimited quantities. The Bank of France held extensive reserves in metal (especially in silver), redeemed banknotes into gold or silver as it saw fit, and operated as a “lender of last resort” for the other central banks. In other words, it did not have a legal obligation to convert its banknotes into gold or silver upon request. Conversely, it was free to choose between gold and silver. Participating countries’ monetary authorities were obligated to mint gold and silver coins according to common standards of weight and fineness, at the constant rate of 15.5:1. Originally, only the Pay Office of each member state accepted the gold and silver coins of the other countries, but with a subsequent agreement (November 1885) these also became acceptable for private transactions.

The LMU was a club for monetary stability, which involved an extremely limited number of participating countries associated by close geographical, historical and commercial links. It was based on the circulation of metallic coins and imposed fixed parities. There was no common currency fulfilling the functions of money. Although the French franc was the international store of value and the five-franc silver coin was used as the monetary anchor of the union, the concurrent circulation of all the national currencies was allowed in domestic transactions. In addition, there was no a central monetary authority, nor any sort of agreement on the amount of banknotes to be issued by each member state. The control of the money supply remained with the national monetary authorities. The only agreement regarded the issuing privilege of small denominations (6 francs per inhabitant) and the only monetary constraint was the existing amount of reserves in metal. Although participation in the LMU demanded strict monetary discipline, this was not secured *via* an institutional framework that would impose firm criteria for fiscal management.

The need to reform the Greek monetary system became urgent in the mid-1860s when Spain abandoned the monetary system that was based on the distilo. At that time, international trade transactions were made in currency directly convertible into precious metals at a fixed rate, and, therefore, Greece had to adopt a monetary system that would be acceptable by other countries. The Greek governments expected that by joining the LMU the country could enjoy monetary stability. First, Greece would no longer face money scarcity since domestic transactions would also be carried out in French francs; second, tying the drachma to the French franc at a fixed rate would reduce exchange rate fluctuations; and, third, Greece would improve her solvency in the international capital market of Paris.

Under the *Law On Currency* (April 1867), Greece signed the LMU agreement, accepting the principle of bimetallism and the equivalence of the gold drachma with the gold French franc (parity 1:1). The minting of new drachmas was permitted immediately after the publication of the law. The new system was to become effective from 1 January 1869.

However, the suspension of bimetallic convertibility in the face of the revolution in Crete in 1868 and the issuance of paper money to finance wartime emergencies on the one hand, and the insufficient issuance of new drachmas on the other, forced the government to postpone the implementation of the LMU system. New war adventures with Turkey in the 1870s and 1880s forced the Greek monetary authorities to a more permanent suspension of the drachma’s convertibility. In the meantime, international monetary conditions changed with the collapse of bimetallism and the adoption of the gold standard by all LMU countries.

5. Government Spending, Foreign Borrowing and Fiat Monetary Standards, 1876-1885

Beginning in the mid-1870s, political instability in Greece led to an increase of fiscal deficits. The segmentation of the Parliament into many small political parties and the short-lived governments caused a loss of revenues due to the laxity in tax collection and an increase in expenditure due to the numerous dismissals and transfers of civil servants that accompanied each change of government. None of the 19th century governments dared to undertake a budget reform, namely to improve the tax collection system and raise revenues from income taxes.[9] Public expenditures – overwhelming government consumption – were financed by domestic borrowing contracted on unfavourable terms to the government, resulting in an excessive burdening of the budget during the second half of the 1870s.

During the same period, the major European economies were already on gold, while the countries of the LMU, to which Greece had formally belonged since 1867, had shifted gradually from bimetallism into the gold standard.

In an effort to ensure banknote convertibility, the Greek government tried to avoid inflation as a tax instrument but rather incurred welfare losses in return for income tax revenues. However, the Russo-Turkish War of 1877-78 caused new wartime emergencies and aggravated the position of the budget even further. Considering the rise of its defence expenses as temporary and with the intention to maintain the specie convertibility rule during the war, the government tried – unsuccessfully – to finance them by domestic debt issuance. The loans, however, were only partly covered and, ultimately, the government relied on inflation finance to meet its borrowing requirements.

At a time when there was a loss of metallic and foreign exchange reserves in parallel with a need to finance the high fiscal deficits, the government's effort to pursue a specie convertibility rule was not credible. A reversion back to an irredeemable paper currency standard was, therefore, inevitable. A similar instance had occurred in 1831 with the fiscal difficulties faced by Capodistrias, and again in 1868 because of the Cretan revolution. Consequently, we can observe that fiscal disturbances lead to the abandonment of anti-inflationary monetary regimes. This is a recurring phenomenon in the history of modern Greece, as well as in the history of the world.[10]

The successful settlement of 1878 concerning the foreign loans of the years 1824-25, rebuilt the country's credit-worthiness and, as a result, Greek government bonds were once again accepted on the London Stock Exchange.[11] Large gold inflows occurred and public

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[9] In pre-WWI Greece, taxes were imposed on income from agriculture, buildings, property and commercial profits. Incomes from employment were not taxed. However, taxation was not imposed on personal income. Citizens were taxed according to some *ad hoc* criteria set by the government, and not according to the ability to bear taxes. A systematic attempt to reform the tax system was made in 1919 when, for the first time, personal income taxation was introduced. Furthermore, the lack of tax harmonisation between Greek regions and the low tax rates caused high collection costs and a loss in revenues. The tax collection inefficiency forced reliance primarily on indirect taxation. For a description of the Greek tax system, see Angelopoulos (1933) and Andreades (1916).

[10] For the incompatibility between the government's decision to finance its budget deficits *via* inflation and the viability of a fixed-rate regime, see Barro (1987), Grilli (1989), Bordo and White (1991) and Giovannini (1993). Concerning the Greek experience, see Lazaretou (1995a) and Alogoskoufis and Lazaretou (2002).

[11] Until the final compromise with foreign creditors that came in 1878-79, the international capital markets of London and Paris were largely closed to Greece. This was because the country had destroyed her reputation due to her inability to repay the foreign loans of 1824-25 and the debt default in 1843 on the loan of 1832. To cover

confidence in the domestic currency was gradually promoted (see Figure 2). However, the foreign loans were mainly used for financing the budget deficits and the repayment of the accumulated domestic debt, not to restructure the economy. In 1880, the country borrowed 120 million gold French francs. In 1883, the government borrowed another 10 million francs, while a year later it borrowed 170 million. The increase in metallic reserves, the devaluation of the drachma in November 1882 so that the drachma/French franc parity came to 1:1 as laid down in the LMU agreement, and the reduction in the fiscal deficit were the necessary prerequisites for the successful participation of the drachma in the LMU in January 1885.

The timing of the transition from a fiat money standard to the gold standard was determined by two factors. First, since the early 1880s, all the developed world of the time had adopted the classical gold standard. And second, after the settlement of her foreign debt in 1879, the country could once again draw funds from abroad on favourable terms, but only to the degree that foreign creditors deemed that the Greek government actually pursued an anti-inflationary policy aimed at linking the drachma with the international gold standard. Such a policy was considered as a pre-condition of lending since it would signal that the government in the future would continue to pursue an economic policy compatible with the maintenance of the drachma/French franc exchange rate fixed at its par value (1:1), so as to prevent either a unilateral suspension of debt payments, or a deficit financing *via* inflation in a devalued currency.

However, the new system only lasted nine months, as the government failed to control the fiscal deficits and thus to support the credibility of the system. The high interest payments as well as the economic crisis, which had started out as a commercial crisis near the end of 1884, caused large gold outflows. In addition, the long-lived fiat standard that the country experienced prior to 1885 caused a lack of confidence in the domestic currency, which resulted in a massive de-hoarding of banknotes immediately after the restoration of specie standards.

6. Towards Monetary and Fiscal Discipline: Deflation, 1886-1909

the pressing finance requirements, the governments drew funds from the National Bank. The latter institution lent the government short-term capital setting very high risk premium so that the lending rate was almost two percentage points higher than the international rate.

Starting from 1886, the government relied on large-scale foreign borrowing to finance the budget deficits. During this period the Greek governments were able to raise foreign loans on favourable terms for the implementation of infrastructure projects. After the avoidance of the economic crisis of 1884-85 and the contract of a large foreign loan in 1887 (91 million gold French francs), the country's credit-worthiness in international money markets was enhanced. From 1889 and onwards, foreign creditors willingly provided the Greek governments with long-term loans with small or no pledges and at a low interest rate. This was because they considered the suspension of the drachma's convertibility in 1885 as a temporary and extraordinary incident, and expected that the government would soon take anti-inflationary policy measures as it had done in the past.

Nevertheless, the high level of primary expenditures and, more importantly, of expenditures for the repayment of the outstanding domestic debt, and their financing through foreign borrowing, created high interest payments, which perpetuated fiscal deficits. Figure 3 plots the time-series of banknote circulation and its two main components, namely, the government's floating debt and the note circulation outside the banking sector. Note that from 1886, the government's floating debt increased rapidly, implying the use of money creation as a financing instrument. Figure 4 plots the standard deviation of the monthly changes of total reserves and total banknotes in circulation. Note that during the periods of currency inconvertibility divergent increases in note circulation were accompanied by divergent reductions in reserves.

In 1890 the country's reputation as a debtor began to suffer. The impending bankruptcy of Portugal in Europe and of Argentina in Latin America, as well as the crisis of the US dollar, worried foreign creditors who, until then, were generously supplying loans to developing economies without any guarantee and at low interest rates. In December 1893, the government unilaterally suspended payments on servicing the external debt.

Foreign creditors demanded the presence of foreign experts for the monitoring of the economic policy pursued and, especially, of the tax collection and management systems. This demand was seen as a pre-condition for the government to pursue a monetary and fiscal policy, which would ensure both the regular repayment of the foreign debt, as well as its repayment in drachmas convertible to gold at par value. After her humiliating defeat in the Greco-Turkish war of 1897 and the resulting huge war indemnity she had to pay to Turkey, Greece was forced to accept the presence of the International Committee for Greek debt management. 1898 was the beginning of a period of intensive disinflation. Successive Finance

Ministers curtailed expenditures and increased indirect taxes in an effort to balance the budget. Public confidence in the currency was restored, since private agents knew that the government lacked monetary freedom. Large gold inflows occurred and the drachma came under strong revaluation pressure *vis-à-vis* the French franc. In 1909, the initial parity of 1:1 was achieved and in March 1910 the drachma joined the gold standard (see Figure 5).

The examination of the long lasting period of fiat money standards from 1877 until 1909 contains policy implications that are applicable to more recent periods of Greek monetary history.[12] First, a tight monetary policy, required for the participation of the drachma in the LMU or the gold standard, was not compatible with high and persistent fiscal deficits. Second, the establishment of the International Committee forced the Greek governments to make credible efforts to achieve fiscal consolidation and monetary discipline. The result of such a policy was a fall in inflation and the reversal of the inflationary effects of the previous period. Third, this externally enforced monetary and fiscal discipline averted triggering a vicious circle of inflation after an initial inflationary episode. Deflation helped eliminate inflationary expectations. Thus, although the country did not participate in the gold standard, Greek governments, for a decade from 1898 and onwards, adopted measures of monetary restraint and effective fiscal adjustment that led to the drachma's appreciation at the statutory par.

7. The Gold-Exchange-Based Regime of 1910, 1910-1919

The prudent policy regime imposed by the International Committee proved short-lived. The policy of setting narrow limits on fiat money issue was based on the assessment that there was a "currency plethora" which had to be restrained. The resulting inflexibility of banknote circulation soon caused an excessive demand for money; and this happened in a period when the Greek economy was developing at a quick pace, and hence the demand for money was high. At the same time, the rapid decline in inflation caused strong revaluation pressures on the drachma against the French franc (Figure 5), particularly during the months of primary goods exports, adversely affecting the international competitiveness of the Greek economy.

[12] For a detailed presentation of these implications, see Alogoskoufis and Lazaretou (2002, ch.4).

As a result, the danger of credit squeeze was visible. The rising lending rates of the 1900s were an indication of excess demand for money, rather than an excess money supply. In particular, the discount rate of the National Bank ranged between 5.5-7%, just one percentage point lower than its level recorded during the period of high inflation, while the interest rates of the other commercial banks were much higher (8-10%). The National Bank's interest rates on mortgage-backed loans were 7% in the region of Athens, whereas away from the capital they were much higher. Moreover, the International Committee's persistence in pursuing an excessively tight monetary policy that added to the drachma's sharp revaluation was not in the best interest of the national economy *per se*, but of the creditor countries alone.

For the Greek economy, the first decade of the 20th century was generally characterised as a period of rapid growth. With the resolution of the so-called "currant question" in 1905, export trade increased and the growth of domestic production accelerated. The Greek shipping industry marked considerable progress, expanding its activities to the transit trade of third countries. The country's international credit standing was rebuilt, resulting in a foreign capital inflow at a low interest rate (4%) and the trading of government bonds on the domestic money market. The excess money demand, in conjunction with the monetary stringency – due to the annual reduction in the monetary base – soon caused a liquidity restraint in the economy, which was reflected in the strong revaluation of the drachma.

Considering the drachma's sharp revaluation as temporary, mainly attributed to the good export performance of the agricultural sector, the government proposed, with the support of the National Bank, the limited issuance of banknotes. Influenced by the monetary orthodoxy of the times (return to the international gold standard at the original parity), the government insisted on its anti-inflationary policy. However, the rising lending rates and the strong revaluation pressures on the drachma above its par value threatened the country with recession, deflation and a loss in her international competitiveness.

In order to avoid deflationary pressures while at the same time ensuring the maintenance of the fixed drachma/franc parity, the then Deputy Governor of the National Bank, Ioannis Valaoritis, proposed that the Bank should be given the right by law to exchange drachmas into French francs and/or gold at the official parity of 1:1 (see Valaoritis 1911). In particular, the National Bank could buy gold at par value and foreign exchange at the price of 1.005 drachmas per FF, and sell gold at the price of 1.001 drachmas per FF and foreign exchange at the price of 1.0055 drachmas/FF. The gold points (the points of gold inflow-outflow) that determined the fluctuation band of the exchange rate and were defined by the transportation cost of gold from country to country, were set at ±0.005.

Through this measure, the Bank was able to create gold reserves so as to curb any revaluation of the drachma above its statutory par, and to check deflationary pressures on the domestic economy. The Valaoritis proposal was accepted by the government and became the well-known Law 3642 of 19 March 1910, under which the drachma entered the classical gold standard, establishing within the country a form of a gold-exchange-based regime.[13]

With the entry of Greece into the Latin Monetary Union as a full member in 1910, the country's credit standing was improved considerably, resulting in the successful coverage of the huge defence expenditures in the face of the Balkan Wars of 1912-13 by foreign loans, without disturbing the fixed exchange rate of the drachma. Another indication of the recovery of the country's solvency was that the price of government bonds traded on the London Stock Exchange began to rise after 1910, climbing at the historic high of 60-70 pounds sterling.[14]

However, the drachma's "golden era" lasted four years only, from 1910 to 1914. With the outbreak of World War I in the summer of 1914, the smooth function of the classical gold standard was interrupted. France, Germany, Russia and Austro-Hungary suspended the convertibility of their currencies into gold and imposed controls on gold outflows. The pressure to finance wartime expenditures throughout Europe was so high that inflation was inevitable. The sharp monetary expansion soon caused a confidence problem and set in motion a run on the central bank's gold reserves. Consequently, all European countries – either *de facto* or *de jure* – closed the "gold window" and imposed controls on gold outflows.

The political and economic circumstances of that period confirmed the concern regarding the viability of the fixed rate regime in wartime. Although the French franc retained its strength *vis-à-vis* the pound sterling and the other European currencies during the first months of the war, after the opening of the London Stock Exchange and the trading of French bonds, and their sale in large quantities in early February 1915, the French franc started to devalue sharply against the pound sterling. The National Bank feared that it would experience large losses in its foreign exchange reserves. In fact, during the first semester of the war, the Bank's reserves shrank by 60 million French francs. In May 1915, the National Bank finally managed to transfer its foreign exchange reserves from interest-bearing deposits held in Banque de France to deposits in the Bank of England and the Fed. At the same time, the

[13] Pharmakidis (1921) offers a detailed presentation of the law. For a critical analysis of its function, see Alogoskoufis and Lazaretou (2002).

drachma was pegged, first, to the pound sterling and, then, to the US dollar, thus keeping fixed exchange rates in wartime.

However, the insistence of the Greek monetary authorities on keeping a fixed exchange rate regime during the war proved inappropriate, with disastrous consequences for the Greek economy, especially after the country's involvement in World War I. The prolonged wartime period (1917-1922) in Greece imposed large burdens on the wartime budgets. Governments were not able to raise revenues from taxation. Direct taxation was inefficient since the bulk of the population lived close to subsistence levels and indirect taxation already stood at high levels. Foreign loans took the form of money credits that the Allied Powers guaranteed. However, the loans were not released and thus the government raised revenues almost exclusively by borrowing from the National Bank, which, in turn, simply rolled the printing press.

The increased banknote circulation was not however backed by foreign exchange. As shown in Figure 7, until 1918 wartime monetary expansions and the high inflation rate did not put any pressure on the drachma's nominal exchange rate. This was mainly due to the imposition by all European countries controls on gold outflows. Thereafter, the drachma started to devalue heavily with an enormous reduction of the Bank's reserves and a massive paper money creation (see Figures 2 and 6). Wartime emergencies were covered by money creation since the Allied Powers refused to pledge the agreed financial support, while exchange rate stability was maintained by massive reserve outflows. In August 1919 the exchange reserves were depleted. Greek monetary authorities again reverted to flexible rates officially closing the "gold window" (which had been *de facto* closed in 1914 when gold convertibility had been suspended through the imposition controls on gold exports). The period from 1919 to 1923 was marked by unprecedented political and social upheavals, monetary expansion, uncontrolled inflation and wide fluctuations in the drachma exchange rates.

8. Inter-war Floating and the Inter-war Gold-Exchange Standard, 1920-1939

[14] For a historical and empirical evidence on the benefits in terms of exchange rate and price stability, as well as in long term foreign borrowing that the country gained under fixed rates, see Lazaretou (1995b, 1998, 1999).

The inter-war period was one of the most dramatic epochs in the history of modern Greece. Within the span of twenty years, the entire cycle of monetary instability and discipline that had characterised the second half of the 19th century was repeated. As in the pre-war period, inter-war Greece again experienced the abandonment of, and return to, metallic standards and of the effort to credibly adhere to the convertibility rule.

During World War I, all belligerent countries suffered strong and persistent inflationary pressures, which continued after the end of the war. In the light of the monetary instability and the high exchange rate volatility in the post-war period, efforts were made for the policy coordination between countries in order to return to the gold standard. By December 1926, all European countries had tied their currencies to the US dollar and to gold. In effect, the inter-war gold-exchange standard started to operate in April 1925 when Britain returned to the gold standard. The system collapsed in September 1931, when the pound sterling was devalued and Britain was forced out of the gold-bullion standard in view of the severe deflation pressures of the Great stock-market Crash of 1929.

Developments in the Greek economy were once more determined by wartime emergencies as well as by important territorial and demographic changes. After her victory in the Balkan Wars, the country entered a decade of new war adventures (World War I, Campaign in Asia Minor). The events that followed the war created serious economic and political turmoil, unprecedented in the history of a country which had already experienced wars and political instability in the past. Also, the 1920s were a period of uncontrolled inflation and wide fluctuations in the drachma exchange rates. As can be seen in Figure 7, during the inter-war float the increased volatility in the nominal exchange rate was mirrored in the real exchange rate volatility. The 1920s, however, were a period of rapid growth as regards the Greek industry. The heavy tariff protection and the sharp fall in real wages – due to the existence of an abundant labour force after the massive influx of refugees in 1922 and the high inflation rate – were the driving forces of this developing process.

Monetary instability was fostered by the political instability that followed the Asia Minor Disaster.[15] From the mid-1920s, when the war was over, Greece tried to follow international monetary developments. From 1927, the government implemented successfully a two-year stabilisation programme followed by fiscal consolidation, monetary stringency and a *de facto* devaluation of the drachma (Tsouderos 1928, Varvaressos 1928 and Zolotas 1929).

[15] In May 1919, the Greek Army disembarked at Asia Minor and the Greek State extended its north-east boundaries to include the Greek Minority in Turkey. However, the country suffered a great defeat and after the Smyrna disaster in September 1922 some 2 millions refugees were settled in Greece.

This stabilisation effort was backed by a loan that the country negotiated through the mediation of the League of Nations. Foreign creditors demanded the restoration of convertibility as a pre-condition for lending and as a signal of fiscal prudence and monetary discipline. They also demanded the foundation of an independent central bank (the Bank of Greece) that it would have the sole privilege of note issue and operate as an official body in the conduct of monetary policy, according to the central banking orthodoxy of the time (see League of Nations 1927a, 1927b).

Against the background of an international shift back to the gold standard – the symbol of monetary stability in the years before the war – there was a tendency to reorganise the operation of central banks. The existence of a national central bank, independent from state interventions and commercial considerations which would operate as a "bank of banks" and a "lender of last resort" for the banking system, was considered a pre-condition for monetary stability and international capital mobility.[16]

An outcome of this tendency was the foundation in Greece of a new independent central bank, by the detachment of the National Bank's issuing department and its turn into a pure commercial credit institution. The National Bank's commercial responsibilities, emanating from its acceptance of interest-bearing deposits, the tying-up of its capital in long-term investments, its exposure to business risks, and its close relations with the Ministry of Finance were all factors that decisively affected its flexibility and its independence in conducting monetary policy. There was, therefore, a need for the establishment of a separate issuing institution, relieved from the tasks and commitments of a common commercial bank, that would monitor budget deficit financing and enact policies consistent with exchange convertibility.[17]

Greece joined the inter-war gold standard on 14 May 1928, the day that the Bank of Greece commenced its operation and the drachma was, *de jure*, stabilised. It should be noted that, contrary to what had happened in 1910, this time the resumption was made at a new parity. The drachma was first devalued and then pegged against the pound sterling. The *de jure* stabilisation of the drachma close to its market rate (375, ±2.5 drachmas) helped avoid the deflationary and recessive disturbances observed during the first decade of the century. In addition, it was decided that the Bank of Greece would be obligated to convert its banknotes into gold-based foreign exchange (i.e. pounds sterling) at that rate.

[16] For the rationale of central banking and the history of some European central banks, see Goodhart (1988). For a presentation of the structure of the Greek Banking System in the pre-WWII period and the necessity of its reform, see Alogoskoufis and Lazaretou (2002, ch.7).

When the severe deflation waves of the 1929 crash reached Greece, the impact was primarily on the balance-of-payments and the drachma exchange rates. On 21 September 1931 the British pound was devalued and Britain was forced off the gold-bullion standard. The Greek government, however, did not follow Britain off gold. The historical experience formulated the policymakers' attitudes. Prior to 1928, Greece had the experience of inflation, monetary expansion, exchange rate crises and political turmoil. A return to those conditions, if stabilisation was abandoned and the drachma was devalued, might produce fears that inflationary pressures would build up. Thus, Greece switched from pegging against the British pound to pegging against the US dollar, which remained on gold. The drachma, however, soon came under heavy selling pressure. The central bank reacted by imposing exchange controls, marking the beginning of a *de facto* suspension of convertibility. Convertibility ended in April 1932, when the government devalued the drachma and abandoned the gold exchange standard. A month later the government declared a unilateral moratorium on the servicing of its outstanding foreign debt. After an experiment with the Gold Bloc (1933-36), Greece eventually returned to a managed float in September 1936, when the drachma joined the Sterling Area.

With the advent of the dictatorship of 4 August 1936 strict foreign exchange controls were imposed. Besides, the adoption of a system of bilateral clearing, in the context of protectionism that prevailed throughout the world during the 1930s, set off a rise in trade. Until the eve of World War II, the drachma remained fixed against sterling, recording only slight fluctuations. To a significant extent, this was the result of the exchange controls prevailing internationally.

At the same time, the increase in banknote circulation was moderate and inflation was kept at bay. The balancing of public finances during the years before the declaration of war contributed considerably to the price level stability. However, the outbreak of World War II and the Occupation that followed caused the greatest fiscal disturbance in the history of modern Greece.

9. World War II, the German Occupation, and Efforts for Monetary Reconstruction, 1940-1949

[17] For a detailed survey on the attempts to found the Bank of Greece, see Venezis (1955).

Greece was caught up in the war at a time when it had consolidated fiscal and monetary stability. Even during the war period, until the occupation of the country by enemy troops, there was an internal and external monetary equilibrium. The dawn of WWII was marked by extensive controls imposed world-wide on goods and money flows. The drachma was kept fixed against sterling. This was mainly accomplished through exchange controls. The outbreak of the Greek-Italian War of 1940-41 threw a burden on the budget. Wartime expenditures were covered thanks to financial support from Great Britain, in the form of credit held in a special blocked account from which the Greek government could draw on demand. Therefore, inflationary pressures were moderate.

However, the situation got out of hand during the German occupation (1941-44). The monetary and real sector of the economy collapsed and the drachma, even though remained the legal tender, lost all functions as money.

In particular, the country’s production capacity was sharply curtailed since the economy’s real capital, both in the primary and secondary sector as well as in the transports sub-sector, was almost entirely destroyed either in consequence of the warfare or because of the conquerors’ requisitions. Still, the damage caused by the war to the human capital of the economy was enormous. The destruction of the country’s production force caused a significant shrinkage of the national income. In 1941 the national income, at 1939 prices, reached only 1/3 of the respective figure of 1939.[18]

The economic policy pursued by the Occupation Forces was equally catastrophic. It was based on the principle of securing locally all material necessities for the maintenance of the occupation troops. In addition, they forced the country into an excessive contribution towards the financing of their battle operations that stretched throughout the Southeast Mediterranean basin. The government deficits and the foreign military expenditures were exclusively financed by paper money creation. The puppet governments and the Occupation Army forced the Bank of Greece to create more and more paper money by simply rolling the printing press.

National production was either directed at meeting the needs of the enemy troops in Greece, or was exported to the countries of the Axis. Exports towards the countries of the Axis included basic food stuffs of the Greek population, while imports consisted of goods required only to meet the needs of the occupation troops. As a result, an acute problem of provisions for the Greek population soon arose. By this way, the Greek market experienced a stifling shortage of products, which contributed to an explosion of inflationary expectations and the emergence of hyperinflation towards the end of the occupation period (see Figure 8)[19].

Hyperinflation triggered a run from the drachma and a switch to gold, establishing a *sui generis* “gold standard”. Since the public had no confidence in the future purchasing power of the paper drachma, it turned massively to the hoarding of gold British pound (“gold pull”), substituting all banknotes. Although the drachma continued to be the “legal tender”, no one wanted to hold it because of the rapid loss of its value.

Agents switched to gold (i.e. the gold British pound and the gold French franc) as a means of exchange and a store of value, not only during the occupation period but also during the early post-war period. The prolongation of the gold pull was due, firstly, to the slowdown of the post-war fiscal consolidation and economic recovery, and secondly, to the failure of the early efforts for monetary reform.

Twenty-three days after the return of the exiled government to the liberated Greece[20], the country’s economic system collapsed. The inflationary upsurge was well under way while the monetary and political uncertainty hindered economic recovery. Public revenues were very poor and the tax collection system was almost non-existent, while public expenditures remained at very high levels due to the increased unemployment benefits. These were funded entirely by monetary expansion, which caused a further aggravation of inflationary upsurges and the complete loss of public confidence in the currency.

Therefore, the need for monetary reform and economic stabilisation was imperative. The first scheme for monetary reform, devised mainly by X. Zolotas,[21] co-Governor of the Bank of Greece as of 1944, was put into effect in early November. It placed emphasis on the need to curtail government spending, increase tax rates, and issue government bonds. To restore public confidence in the domestic currency, it was decided to introduce the “new” drachma, equal to 50 billion “old” drachmas. However, this early effort for monetary reform ended in failure, for a number of reasons. Firstly, pre-war loans were not excluded from the exchange of old drachmas for new drachmas, thus producing a considerable redistribution of wealth and the annihilation of the internal public debt, as well as of a great part of the

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[18] For a detailed survey on the damage caused by the war to the real and monetary sectors of the Greek economy, see UNNRA (1946, 1947) and the Bank of Greece (1947).

[19] For the Greek hyperinflation episode, see Makinen (1986) and Alogoskoufis and Lazaretou (2002, ch.8).

[20] In April 1941 the King, the Prime Minister and the Governor of the Bank of Greece sheltered in London. First, the country’s gold reserves were well preserved abroad.

[21] See Zolotas (1944).

households' savings. This shortcoming magnified public distrust towards government debt securities and the currency, and resulted in an unwillingness to hold domestic currency. Soon, a new run towards gold occurred. Secondly, the government did not curtail expenditures, did not impose new taxes, and did not raise the tax rates. Thirdly, the government was totally unsuccessful in dealing with the problem of goods scarcity. Above and beyond, the political crisis (of December) hindered even further the stabilisation effort.

The crisis of the monetary and fiscal system, intensified after the abandonment of the first stabilisation programme, dictated the need for a new stabilisation effort. The new programme, devised by K. Varvaressos, Governor of the Bank of Greece, was put into effect in early June 1945. Its basic guidelines were the increase in foreign financial relief, the imposition of controls on imports, prices and wages, the prohibition of the use of gold for money transactions, and the depreciation of the drachma *vis-à-vis* the pound sterling and the dollar (see Varvaressos 1953). However, this effort also ended in failure.

The economy was threatened by a new monetary crisis, which turned into a deep social turmoil and an intense political upheaval. With the signing of the Greek-British Agreement for economic and technical assistance in January 1946, began a third stabilisation effort. The Greek government was required to carry out a radical restructuring of its public finances, the drachma was depreciated anew, while the Law of March 1946 re: *Establishment and Operation of a Monetary Committee* created a very powerful separate body, the Monetary Committee, which was based within the Bank of Greece and had as main aims the control over the issuance of new money and the safeguarding of the exchange rate stability.

The effects of the stabilisation programme were immediately felt. The government tried successfully to reduce budget deficits – especially when the Civil War was ended in 1949 – and check inflationary pressures. The stabilisation effort was considerably reinforced by the increase of foreign aid, especially under the Marshall Plan. However, the decrease in inflation was slow as the Bank of Greece tried to balance two conflicting objectives, namely, first, to stabilise domestic prices and, second, to supply credit to finance the recovery of economic activity. The latter objective resulted in the entrenchment of the monetary instability problem.

After the end of the civil war, the stance of monetary and credit policy was tightened and fiscal deficits began to diminish. This turn was effected gradually but steadily during the period 1950-52, and resulted in a spectacular fall in inflation and the successful entry of the drachma into the fixed exchange rate system of Bretton Woods.[22]

10. The Drachma in the Bretton Woods System, 1950-1972

The end of the civil war signalled a new period for the Greek economy, as it eliminated one of the most important obstacles for monetary stabilisation and the productive restructuring of the economy. The twenty years after 1953 (with the exception of the years of military dictatorship) represented one of the longest periods of economic growth and monetary stability experienced by modern Greece. This was the “golden era” of the drachma; it was pegged to the predominant international currency, the US dollar (which was pegged to gold), and managed to maintain a fixed exchange rate against it throughout two entire decades. The annual rate of inflation remained at very low levels, and this was one of the rare periods during which the domestic inflation rate did not exceed the inflation rate of the developed European economies or of the US, as seen in Figure 9.

In April 1953 the drachma was devalued by 50% against the US dollar and then joined the Bretton Woods system of fixed rates. The low rates of money growth and inflation, the increase in output (mainly in agriculture), the downward trend of international prices of raw materials, the relaxation of controls on trade flows and political stability and social peace were the main determinants of the favourable effects of the devaluation on the domestic economy. Until the late 1960s, Greece experienced high rates of economic growth and low and stable inflation. Investment, both private and public, and domestic output increased by extremely high rates.

Moreover, the monetary reform of May 1954, when the “new” drachma was introduced (as equal to 1,000 “old” drachmas), played a crucial role in the weakening of inflationary expectations. The decision to remove three zeros from all monetary values marked a new era of long run price stability and restored public confidence in the domestic currency.

Several factors contributed to the golden era of the drachma. First, the drachma’s participation in the gold-dollar standard of Bretton Woods and the adherence to its operating

[22] For the idiosyncrancies of the Greek economy and the economic policy pursued in the early 1950s, see Drakatos (2002).

rules enabled the country to establish credibility of the monetary policy, facilitating the downward adjustment of inflation expectations. Second, the reduction in government consumption spending, the rise of investment in infrastructure and the balancing of the fiscal budget added credibility to monetary policy, improved public infrastructure and allowed the channelling of private savings into investment projects with high returns. Third, the containment of labour cost increases in line with productivity growth helped keep domestic inflation at low levels, thus significantly improving business environment. Fourth, concerning the tax and credit regimes, the favourable tax treatment of investors encouraged considerably the undertaking of investment initiatives. At the same time, the credit allotment mechanism - operated through the Monetary Committee - despite its stifling control over the banking system, seemed to had been rather effective in allocating reserves to selected high yield sectors. Finally, another determinant was the favourable international conditions on account of the international trade growth, the downward trend in the relative prices of raw materials and the world monetary stability.

However, the Bretton Woods system collapsed in August 1971. The ensuing world-wide monetary instability, along with the expansionary economic policy during Greece's dictatorship (1967-74), led to an end of the golden era of the drachma.

11. The Policy of Sliding Drachma, 1973-1990

The expansionary monetary policy during the dictatorship, beginning in the late 1960s, the high trade deficits, the collapse of Bretton Woods and the first oil price shock in 1973/74 changed the conditions of monetary stability and sustained growth prevailed in the 1960s. Inflationary pressures returned and the economy was in recession. The fall of the military dictatorship in 1974 after the events in Cyprus signalled the deliverance of certain social groups that had remained oppressed for a quarter of a century. The establishment of a parliamentary democracy offered a gateway to the social demands for a liberal political system, for the redistribution of income and wealth in favour of the weaker groups of the population and the active role of the state as a producer and employer, as well as for the emulation of Western European living standards.

The effort for a redistribution of income and wealth, the great expansion of state economic activity, and the entry of Greece into the EEC were the three principal guidelines of the economic policy pursued during the first decade after the restoration of democracy. The second oil price shock in 1979 and the excess budget deficits during the pre-election year 1980 caused inflation to climb to the vicinity of 20 percent. In the first half of the 1980s the newly elected government implemented an expansionary fiscal policy with the goal of an income redistribution. The excess budget deficits were financed by debt issue and money creation. Moreover, the income transfers from EEC were mainly directed towards the boosting of personal income and the private consumption of imported goods. The government failed to exert an effective control over the social pressure for a redistribution of income and the improvement of living standards by means of borrowing from future generations. The final outcome of this policy was to encourage private and government consumption, to reduce saving and investment, both public and private, and to reinforce inflation. In the early 1980s tightened fiscal and monetary policies were pursued in Europe and a disinflationary process commenced in most industrial countries. At the same time, Greece, however, faced high budget deficits, unsustainable public debt, negative growth rates, high unemployment and persistent inflation.[23]

As far as the drachma is concerned, its pegging to the dollar after the collapse of the Bretton Woods system, in conjunction with a loose economic policy pursued, resulted in its significant devaluation during the two-year period of 1972-73. This devaluation, combined with the rise in the prices of raw materials (first oil crisis) and the overheating of the economy, led to a rise of the inflation rate into the double digits. The drachma's uncoupling from the dollar in 1975 and its float against a basket of currencies amounted to a policy of rapid sliding in order to counterbalance the effect of wage increases on the country's international competitiveness.

The phase of sliding drachma was a damaging period for the Greek economy. The process of economic recovery was interrupted, while inflation remained at very high levels. As displayed in Figure 9, the inflation differential was high and positive throughout the 1980s and the first half of the 1990s. Also, as shown in Figure 10 the growth rate diverged considerably from the EU average during the same period. This period was perhaps the first time in the economic history of modern Greece in which the soaring inflation was not attributable to disorders caused by war. The fiscal disturbances originated from the government's efforts for an income and wealth redistribution through a wage policy and a

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[23] For an investigation of the principle causes of Greek inflation, its effect on the country's macroeconomic performance and the policies needed to achieve low inflation, see Garganas and Tavlas (2001). For the relation

broadening of the public sector, and from the resultant facilitating stance of the monetary and exchange rate accommodation.

At least since the mid-1980s, it had become evident that this policy was unsustainable.[24] A first crisis was observed in the balance of payments and led to the short-lived stabilisation programme of 1985-87. The drachma was devalued in January 1983 by 16% against the dollar and 15% against the ECU. In October 1985, in the context of the stabilisation programme, it was again devalued by 15%. The drachma was sliding rapidly until 1987, when the sliding was limited. With the stabilisation programme of 1985 the government switched to an anti-inflationary policy. The limited sliding of the drachma, the rigorous income policy and the tight monetary policy led to some inflation deceleration. The abandonment of stabilisation in 1987 and the relaxation of wage controls caused a new inflation crisis at the end of the decade. This crisis, combined with the political uncertainty of that two-year period, led to a rise in inflation and fiscal deficits, and to new problems in the balance of payments.[25]

It is worth noting the country's inability to keep pace with the European developments. Although Greece became a member of the EEC in 1981, the country pursued an economic policy that made her deviate from the other economies of the Community. Moreover, she did not seek her participation in the European Monetary System, which helped the economies of the Community to restrain inflationary pressures after the second oil crisis.

12. The Drachma on the Track to EMU, 1991-2003

In 1990, the macroeconomic situation was critical. The fiscal deficit was out of control, the pattern of public debt dynamics appeared to be unsustainable, the social security system was at the brink of collapse, the foreign exchange reserves had been considerably reduced, and the rate of inflation continued its accelerated upward trend.

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between fiscal policies pursued, inflation, investment and the balance of payments in post-WWII Greece, see Alogoskoufis (1993, 1995) and Alogoskoufis and Christodoulakis (1991).

[24] For the theoretical rationale of this policy, see Alogoskoufis (1992) and Alogoskoufis and Smith (1991). For its effectiveness in the case of Greece, see Brissimis and Leventakis (1989).

[25] For a detailed survey on Greek fiscal developments, see Christodoulakis (1994) and Manessiotis and Reischauer (2001). See also Alogoskoufis and Philippopoulos (1992), Kapopoulos (1995) and Siokis and Kapopoulos (2002) for an empirical analysis of the effects of the political budget cycles on the country's economic performance. For an empirical investigation of the relation between fiscal deficits and inflation see Demopoulos and Kapopoulos (2000) and Hondroyiannis and Papapetrou (1999). Finally, Gibson and Lazaretou (2001) offers an analysis of the cyclical behaviour of Greek inflation, while Hall and Zonzilos (2001) examine the determinants of wage and price inflation in Greece.

In the 1990s, successive Greek governments embarked on efforts to deal with the imbalances and distortions of the Greek economy.[26] Greece adopted a programme for the reduction of the fiscal deficit, abandoned the policy of sliding drachma, and took some steps towards the deregulation of the economy. Beginning in the mid-1990s economic policy was mainly anti-inflationary. The government had to check fiscal deficits and high inflation so as to meet the Maastricht criteria, a sufficient condition for the convergence in nominal terms of the country to the other countries members of the EMU.

The path towards the single currency required each member state to submit a convergence programme that would meet a number of precise fiscal and monetary criteria. The fulfilment of all five criteria set down by the Maastricht Treaty was a *sine qua non* for the integration of each country into the euro area, since this was the only way to secure the nominal convergence of the participating countries and to eliminate the danger of economic instability.

A first Convergence Programme of the Greek economy was approved in March 1993 and put forward a sharp fiscal adjustment and the timely entry of Greece into the EMU. The Programme was effectively abandoned in the second half of 1993 as the fiscal targets were overrun. A revised programme was approved in June 1994 by the new government that had gained power after the elections of October 1993. The revised programme allowed for a smoother and gradual fiscal and structural adjustment. On the basis of this revised programme, the entry of Greece into the EMU as of January 2001 was achieved.

The limited sliding policy of the drachma ("hard" drachma policy) did not fully accommodate the inflation differential between Greece and the EU average through exchange rate changes. Measured against the PPP, the drachma's effective exchange rate had appreciated during the first three years of the hard-drachma policy, implying that the devaluation of March 1998 was an adjustment of the exchange rate towards the long run price differentials. The devaluation followed a speculative attack due to global portfolio adjustments during the crisis in East-Asia. The government responded by devaluating the drachma and entering the currency in the ERM. Beginning in January 1999, the drachma participated in ERM-II.

Expectations of economic recovery – thanks to the fulfilment of the criteria of the Maastricht Treaty – combined with the anticipated fall of interest rates within the new

[26] Garganas and Tavlas (2001) showed empirically that a policy regime switch occurred in 1994.

environment of the euro area, alleviated the inflationary pressures and contributed to rising share prices, facilitating the financing of the private economy.

Having achieved the nominal convergence of the Greek economy with that of the European countries, Greece needs to take advantage of the opportunities provided by monetary union. Real convergence needs to progress by improving competitiveness in product markets, flexibility in labour markets, and reducing the fiscal deficit and the debt-to-GDP ratio.[27] Market deregulation, privatisations, more efficient utilisation of EU resources for a substantial upgrading of social and economic infrastructures, access to the information society and improvement of public administration productivity, should be regarded as priorities of economic policy, to be pursued in the era of EMU participation in order to achieve real convergence.

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[27] For the challenges for the future and the role of the Bank of Greece, see Bryant, Garganas and Tavlas (2001).

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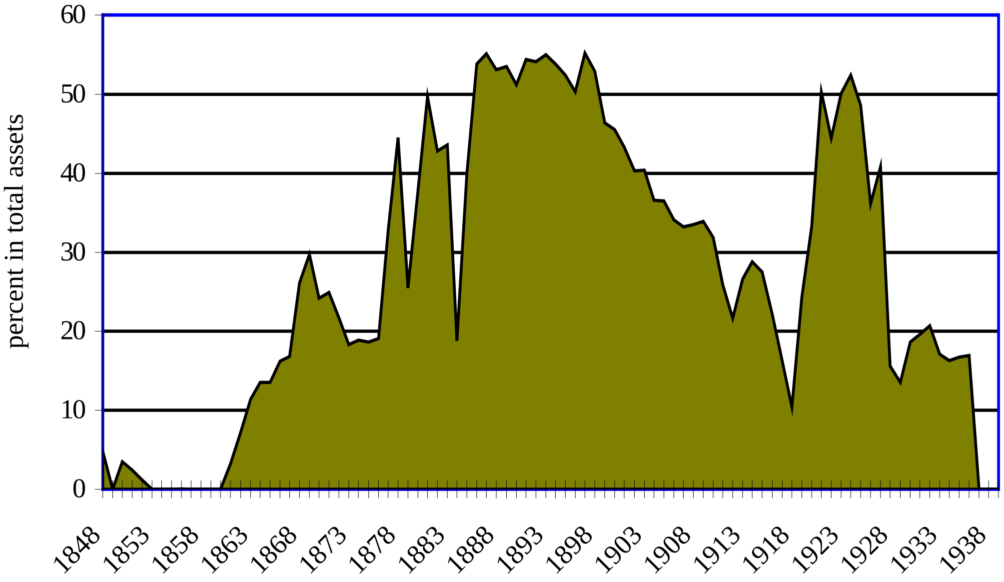
Annex Box
A Short Chronology of the Main Exchange Rate Events of the Drachma

Year	*Exchange Rate Events*	*Notes*
1828	The silver phoenix was the legal tender.	Silver monometallism.
1833	The drachma replaced the phoenix, silver-gold ratio: 15,5:1.	Bimetallism.
1867	Greece signed the LMU agreement but she did not adopt it until 1885.	Acceptance of the principal of bimetallism and the equivalence of the gold drachma and the gold French franc (parity 1:1).
1885	Greece entered the LMU for nine months only.	The classical gold standard. The resumption was made at the bimetallic drachma/French franc parity (1:1).
1910	After a long-lasting period of fiat money standards, Greece again became a full member of the LMU.	A form of a gold-exchange-based regime was established. The resumption was made at the original parity (1:1).
1928	The drachma was pegged to the British pound.	The drachma was first devalued and then joined the interwar gold-exchange standard.
1953	The drachma was pegged to the dollar.	The drachma was devalued by 50% against the US dollar and then joined the Bretton Woods system of

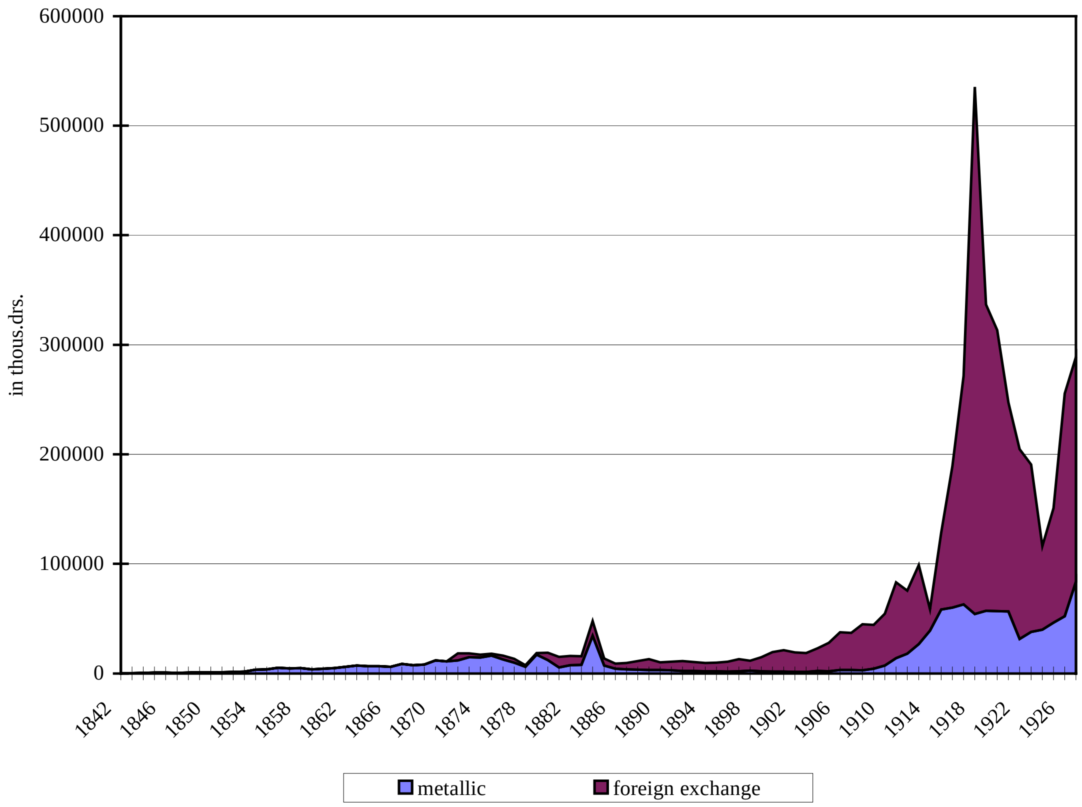
		fixed rates.
1975	Rapid sliding drachma policy.	Managed float. Uncoupling from the dollar and float against a basket of currencies.
1983 and 1985		Drachma's devaluation.
1995	Hard drachma policy.	The Bank of Greece announced a specific exchange rate target in order to bring down inflation.
1998 and 1999	ERM entry policy.	On 16 March 1998, the drachma joined the ERM of EMS at a central rate that implied a devaluation by 12.3% against the ECU. On 1 January 1999, the drachma began participate to ERM-II (353.109 drachma per ECU, ±15%.)
2001	Greece entered the euro area.	On 17 January 2000, the drachma's central rate against the ECU was revalued by 3.5% to 340.750. Effective January 2001, Greece adopted the euro.

Figure 1
Domestic Debt, 1848-1939



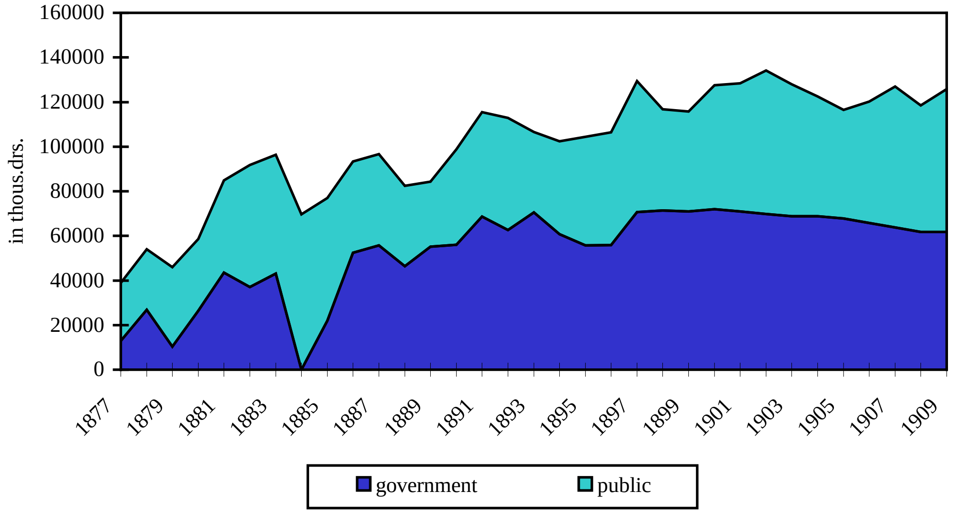
Note: National Bank's loans to the government (end-of-year data).
Source: Alogoskoufis and Lazaretou (2002).

Figure 2
Total Reserves, 1842-1927



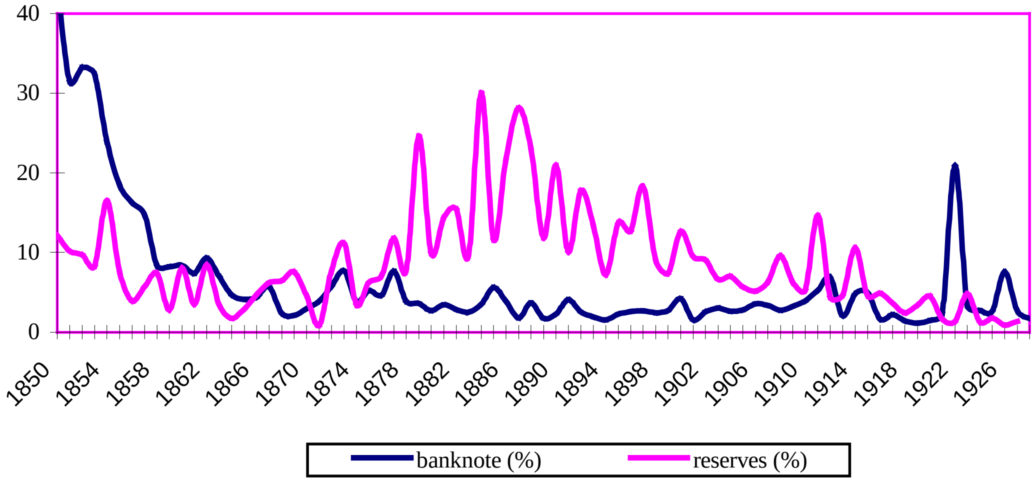
Note: End-of-year data. Money credits guaranteed by Entente are not included.
Source: *Annual Report of the Governor*, 1843-1928 (various issues), Historical Records of the National Bank of Greece.

Figure 3
Banknote Circulation, 1877-1909



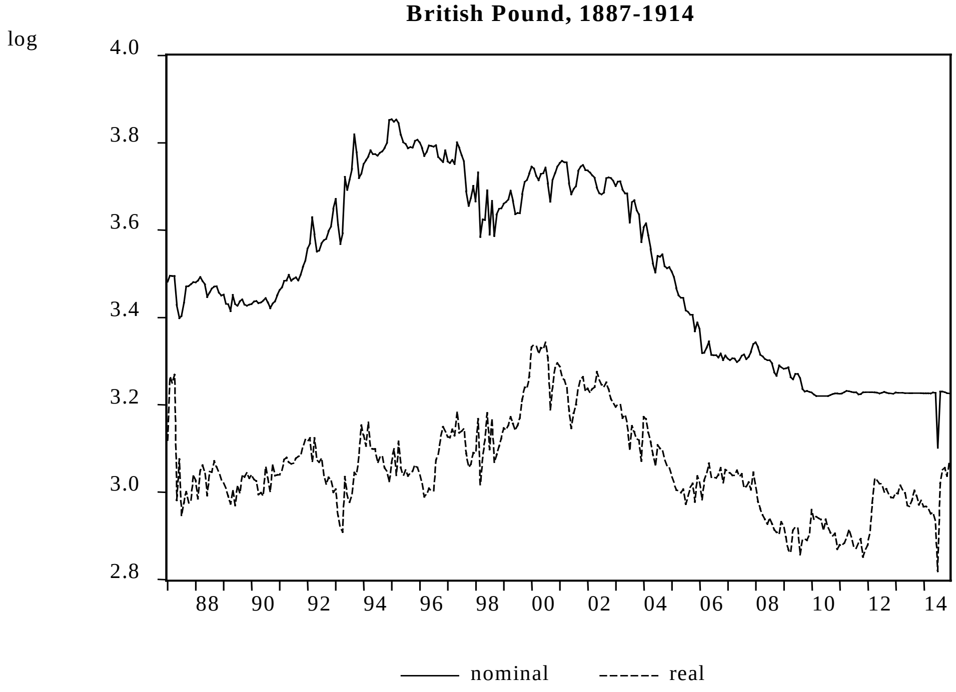
Note: The figure depicts the government's floating debt to the Bank ("government") and the "uncovered" banknote circulation ("public"). (End-of-year-data).
Source: *Annual Report of the Governor*, 1843-1928 (various issues), Historical Records of the National Bank of Greece.

Figure 4
Volatility of Banknote Circulation and Total Reserves
1850-1928



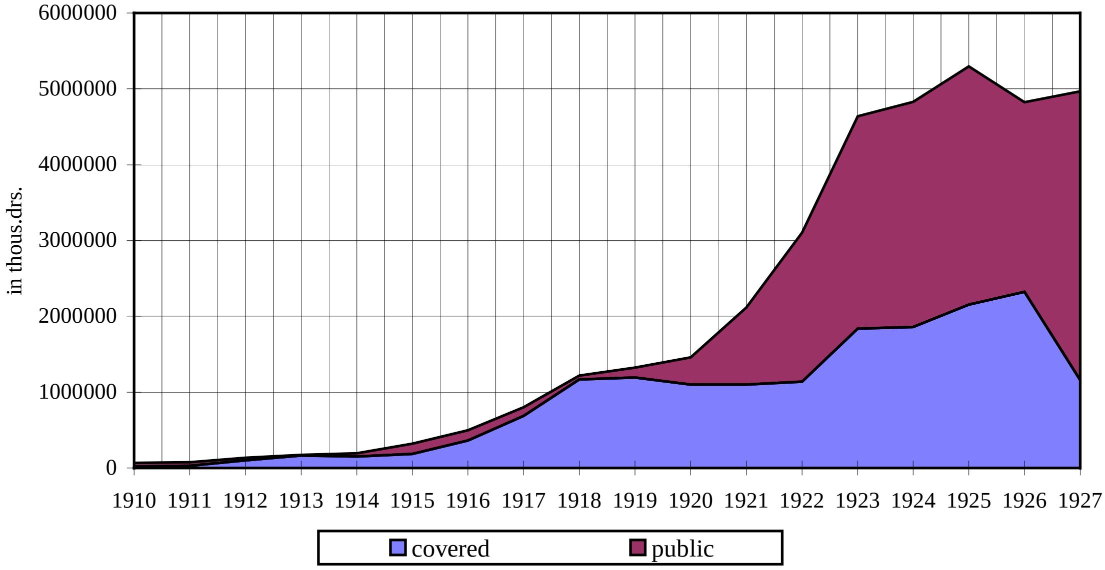
Note: Standard deviation of monthly percentage changes of banknote circulation and total reserves.

Figure 5
Nominal and Real Exchange Rates of the Drachma against the British Pound, 1887-1914



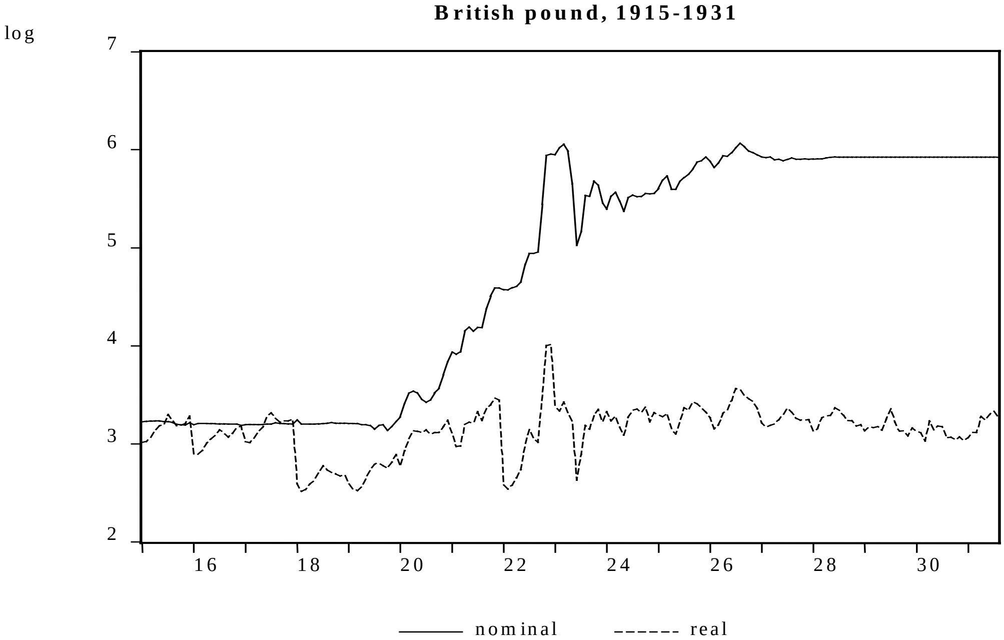
Note: monthly averages (spot rates). The real exchange rate is computed as the ratio of British wholesale prices (Sauerbeck index), converted to the domestic currency by the bilateral exchange rate, relative to Greek food prices. **Source:** Lazaretou (1995).

Figure 6
Banknote Circulation, 1910-1927



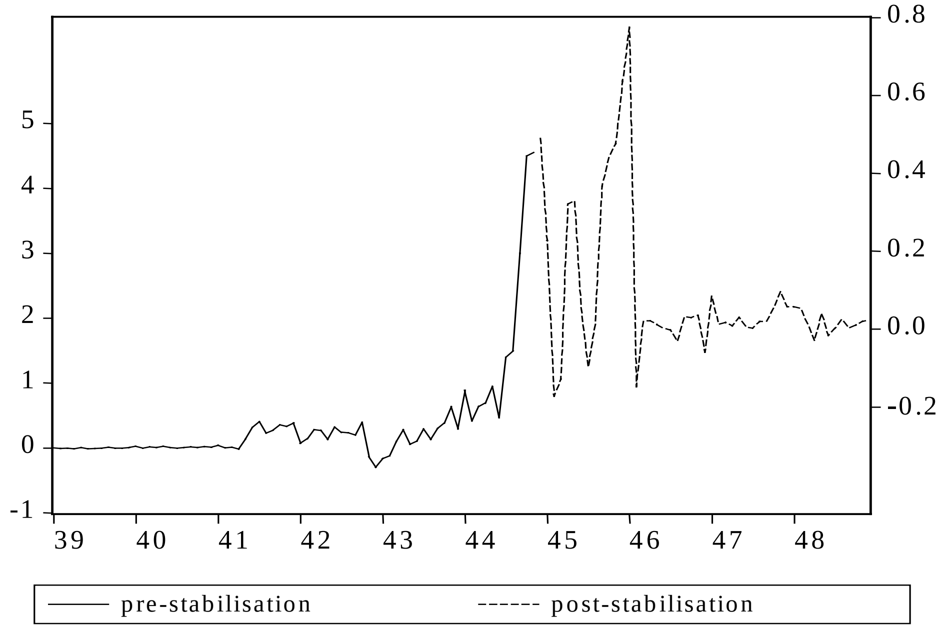
Note: The figure depicts the note circulation fully convertible into gold or foreign exchange ("covered") and the paper money held by the public. (End-of-year data).
Source: *Annual Report of the Governor*, 1843-1928 (various issues), Historical Records of the National Bank of Greece.

Figure 7
Nominal and Real Exchange Rates of the Drachma against the British pound, 1915-1931



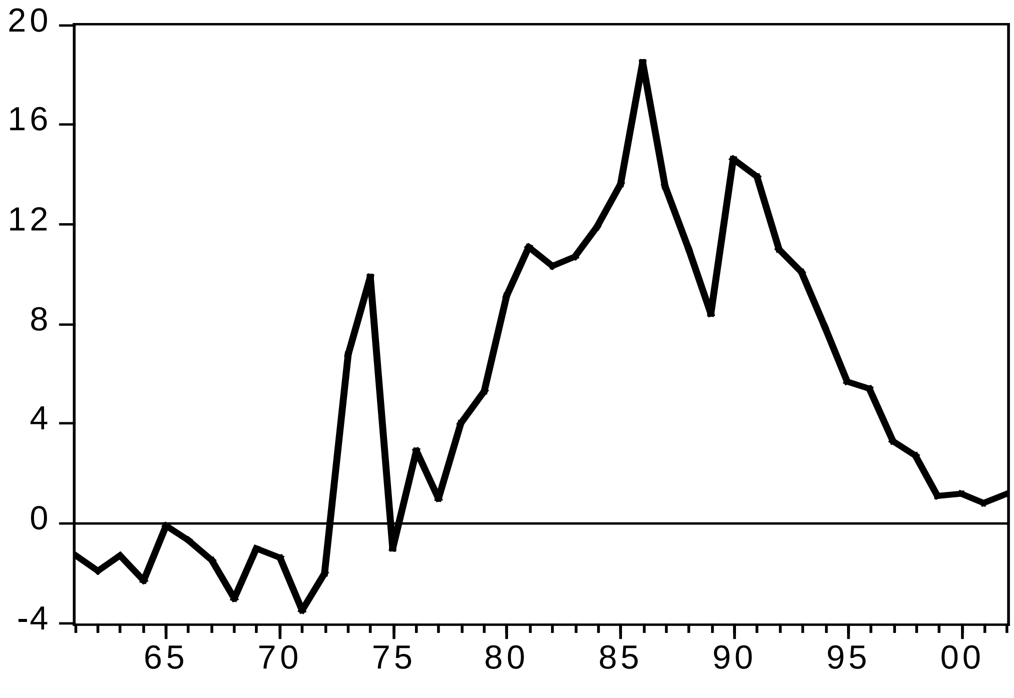
Note: monthly averages (spot rates). We used the same definition as in Figure 5. The only difference is that Greek wholesale prices are used instead of food prices. **Source**: Lazaretou (1995).

Figure 8
The Greek Inflation Rate, 1939-1948



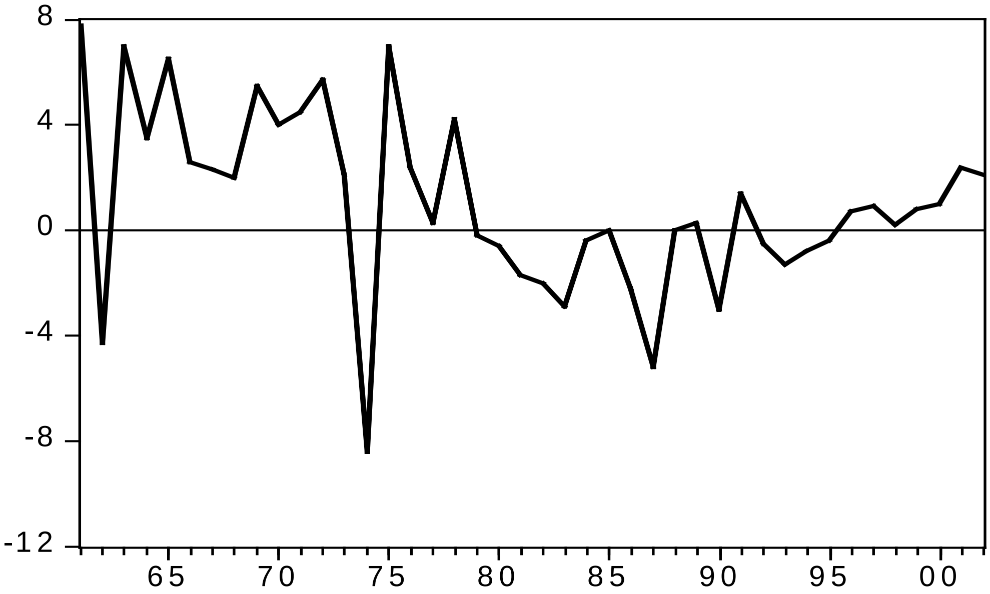
Note: monthly changes, first differences of the logarithm of the cost-of-living price index (1938-39=100). **Source**: Alogoskoufis and Lazaretou (2002).

Figure 9
Inflation Differential between Greece and the EU-15, 1961-2002



Note: Price deflator private final consumption expenditure, annual percentage changes.
Source: *European Economy*, no 73, 2001, Table 25.

Figure 10
Growth Rate Differential between Greece and the EU-15, 1961-2002



Note: Gross domestic product at 1995 market prices, annual percentage changes.
Source: *European Economy*, no 73, Table 10.