



CENTRAL BANK OF CYPRUS
EUROSYSTEM

WORKING PAPER SERIES

**Monetary Policy Strategy And The Euro:
Lessons from Cyprus**

George Syrichas

October 2008

Working Paper 2008-6

Central Bank of Cyprus Working Papers present work in progress by central bank staff and outside contributors. They are intended to stimulate discussion and critical comment. The opinions expressed in the papers do not necessarily reflect the views of the Central Bank of Cyprus or the Eurosystem.

Address

80 Kennedy Avenue
CY-1076 Nicosia, Cyprus

Postal Address

P. O. Box 25529
CY-1395 Nicosia, Cyprus

E-mail

publications@centralbank.gov.cy

Website

<http://www.centralbank.gov.cy>

Fax

+357 22 378153

Papers in the Working Paper Series may be downloaded from:

http://www.centralbank.gov.cy/nqcontent.cfm?a_id=5755

Monetary Policy Strategy And The Euro: Lessons from Cyprus

George Syrichas*

October 2008

Abstract

This paper examines how the fixed exchange rate policy followed in Cyprus for more than 40 years helped to deliver price stability amid high growth rates and low unemployment, and contributed to the successful adoption of the euro. The paper identifies some critical elements for the success of this strategy. Firstly, this policy was pursued by the Central Bank with no devaluations even in the most adverse conditions. This hard earned credibility of the Central Bank, along with the fact that the Bank's decisions were taken independently from political interference, reinforced people's belief in this strategy and thus anchored inflation expectations. Secondly, in order to ensure the sustainability of the regime, the authorities followed prudent economic policies for most of the time. The developments in credit and the current account served as warning indicators signalling possible threats to the sustainability of the fixed rate regime. Thirdly, in cases of imbalances the Central Bank resorted to the temporary use of non-traditional tools such as credit ceilings. The paper shows how this strategy was used to confront the new challenges arising from the road to the European Union (EU). Although the fixed exchange rate strategy remained in essence unchanged, it became more focused on the European orientation of the economy by switching to new anchor currencies (the ecu and the euro) well before accession. At the same time, a well thought out programme of structural reforms was underway in preparation for accession to the EU. Once in the EU the fixed exchange rate policy continued but greater flexibility was allowed so as to meet the challenges of the new liberalised environment.

Keywords: Monetary policy, exchange rate policy, euro, inflation, Cyprus.

JEL Classification: E31, E4, E52, E61, F31.

* Central Bank of Cyprus. I am grateful to George Georgiou, Petros Michaelides and Zenon Kontolemis as well as to the participants of the Monetary Policy Committee meeting of the ECB in Limassol for useful comments and suggestions. The opinions expressed in this paper are those of the author and do not necessarily reflect the views of the Central Bank of Cyprus or the Eurosystem.

Correspondence: George Syrichas, Economic Research Department, Central Bank of Cyprus, 80 Kennedy Avenue, P.O.Box 25529, 1395 Nicosia, Cyprus. E-mail: GeorgeSyrichas@centralbank.gov.cy

1. Introduction

The design of appropriate monetary and exchange rate policies largely depends upon a country's specific economic characteristics and the challenges ensuing from the international environment. In Cyprus, pegged exchange rates were long considered as an anti-inflationary tool. In fact, following the establishment of the Central Bank of Cyprus (CBC) in 1963, i.e. three years after the island's independence, a pegged exchange rate regime was in place up until accession to the euro area. It was believed that the establishment of an unambiguous objective anchor for economic policy would induce greater discipline, instil confidence in the currency and help to establish credibility for measures to bring down inflation. A number of other characteristics of the Cypriot economy, such as its size and openness, wage indexation and, in the past, the rigidity of interest rates and the existence of capital controls all made a strong case for a fixed exchange rate arrangement, placing the burden of containing inflation on the exchange rate.

In the early 1990s, Cyprus's aspiration to become a member of the EU rekindled the debate about the appropriate exchange rate policy. The question that was brought to the fore related to the optimal exchange rate strategy for the eventual adoption of the euro, as the design of such a strategy needed to take into account the specific requirements that the euro adoption process entailed. In particular, the road towards the euro required the complete abolition of capital controls by the time of EU accession, along with some other EU induced structural reforms and the fulfilment of the Maastricht criteria, which entailed, *inter alia*, participation in the Exchange Rate Mechanism II (ERM II) for at least two years.

The purpose of this paper is twofold. First, to examine the historical evolution of the exchange rate strategy in Cyprus for delivering price stability. Particular attention is given to the conditions that were required under a fixed exchange rate regime as to be credible and sustainable. Second, how, having delivered low inflation and high economic growth in Cyprus, this strategy was used to lead the economy into the euro area. We discuss the choices and the challenges that the Cypriot monetary authorities were confronted with in the run-up to EU accession and the adoption of the single currency, against the background of a pegged exchange rate regime and a monetary policy strategy which was oriented towards maintaining price stability through the exchange rate. To this end, we begin by reviewing the considerations that guided exchange rate policy in Cyprus as well as assessing the efficacy of this policy in keeping inflation down and helping the growth prospects of the economy.

We then discuss the various challenges that under some circumstances tested the specific policy settings, with the aim of eventually arriving at the policy mix which was of paramount importance for the successful monetary integration of Cyprus into the euro area. The paper concludes that, as the case of Cyprus exemplifies, the pursuit of a credible pegged exchange rate strategy aimed at maintaining price stability through exchange rate stability, may well lead to the smooth and successful monetary integration of a country and thus can be considered a potential strategy for euro aspirants. This is especially plausible if such a strategy is reinforced and augmented by the prudent monitoring of money (credit) aggregates and the judicious screening of external balances. In the case of Cyprus the deployment of non-traditional policy tools, such as quantitative credit restraints, on a temporary basis and according to prevailing conditions might have helped stabilize monetary growth given the capital controls which had been in place for most of the period under consideration. This strategy could be particularly useful for a country trying to bring its inflation down and achieve a high degree of convergence in nominal and real terms with the EU during the pre-accession phase. The aspirant country will then be in a better position to address the fresh challenges that might arise from accession and potential entry into ERM II, as the case of Cyprus and other new member countries have shown.

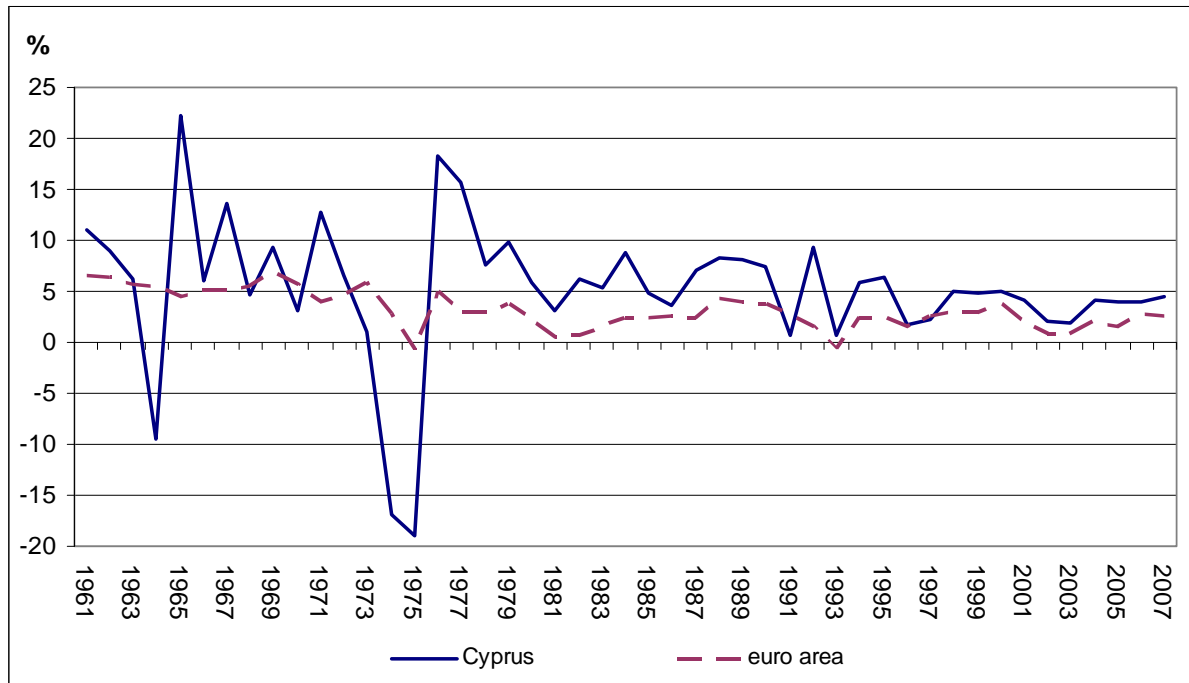
2. Salient features of the Cyprus economy and exchange rate policy: a story of pegs

Cyprus has a small, open and services oriented economy with the ratio of total trade (exports plus imports of goods and services) to GDP of around 1. The tertiary sector now accounts for approximately 80% of total gross value added, a trend which has become stronger over the last two decades. Real GDP growth has been historically robust, averaging 6% since the island's independence in 1960, and consistently above the average trend for the euro area as well as for the EU as a whole (see Figure 1). As a result, Cyprus has achieved a satisfactory degree of sustainable real convergence with the EU. In 2007 Cyprus's per capita GDP in PPS terms accounted for 91,9% of the EU average. Traditionally, private consumption, exports of services and, to lesser extent, investment have been the main growth drivers.

In line with this robust track record of real GDP growth, the unemployment rate has historically been lower and more stable than in the rest of the EU (see Figure 2). Indeed, this stability has been remarkable. The short-lived spike during the period 1974-1975, was due to the devastating effects of the military invasion of the island by Turkey in 1974. Even though one third of the population became internally displaced

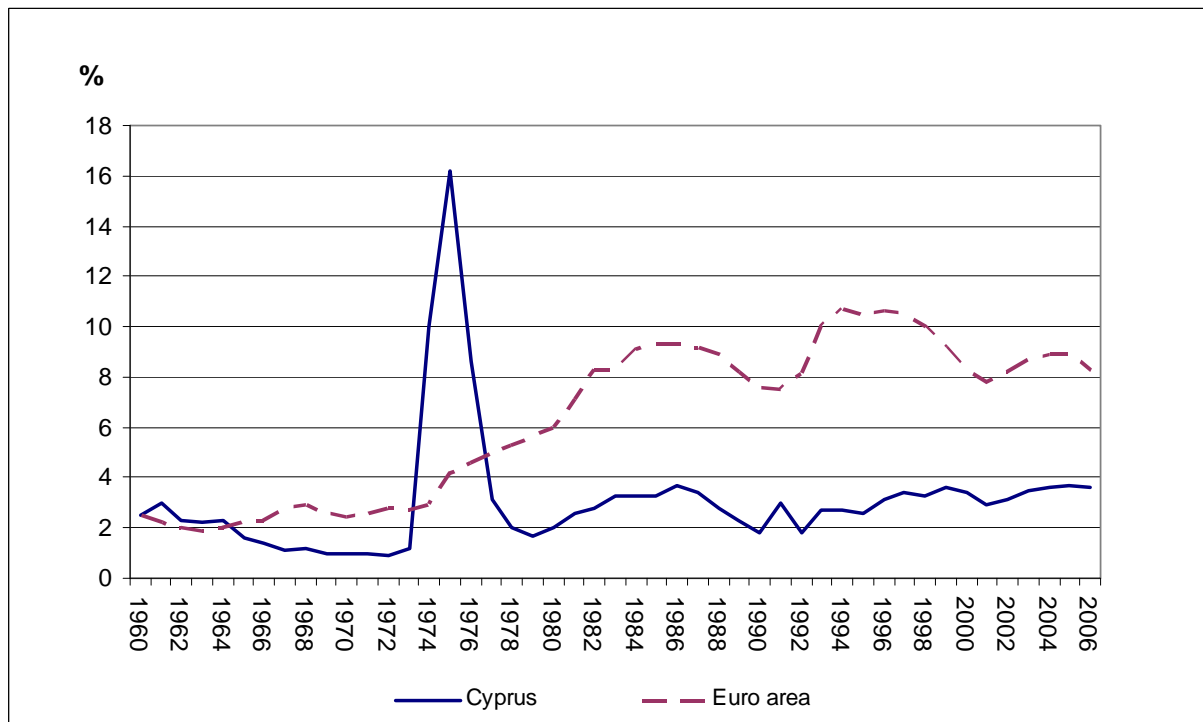
and one third of the island became occupied, the economy recovered very quickly and unemployment fell to its normal level.

Figure 1: Real GDP Growth Rate



Source: CBC.

Figure 2: Unemployment



Source: CBC.

Though one might expect high economic growth in conjunction with low unemployment to lead to higher inflation, this did not materialize in Cyprus. As is shown in the next section, inflation remained relatively contained throughout the years, an outcome that could be attributed to the prudent monetary and exchange rate policies that had been followed by the CBC since its establishment in 1963.

Historically, exchange rate policy in Cyprus can be characterised as "pegging" with the Cyprus pound linked to an anchor currency. Having chosen fixed exchange rates as the appropriate regime, the remaining issue for the authorities was the choice of a proper anchor currency. Initially, the Cyprus pound was tied to sterling with a fixed parity. The "generalised floating" that came about with the demise of the Bretton Woods system called for a revision of this policy since continuation of pegging to sterling, or for that matter to any of the major currencies, would in effect have meant floating vis-à-vis all other currencies.

Following the demise of Bretton Woods the pound was linked to an import-weighted basket, and in 1984 to a trade-weighted basket. In 1992 Cyprus's aspiration to become a member of the EU led to a reconsideration of the choice of currency basket. More specifically, on 19 June 1992 the Cyprus pound was unilaterally pegged to the ecu, with the central rate of $CY\pounds 1 = \text{ECU } 1,7086$ and fluctuation margins of $\pm 2,25\%$, reflecting the policy of linking the economy more closely to the economies of the EU. Although the ecu basket did not fully reflect Cyprus's composition of trade, the choice of the ecu anchor represented a policy of tying the Cyprus pound to the currencies of a group of countries, most notably Germany and those countries with their currencies tied to the D-Mark, whose prime goal was price and macroeconomic stability. Such an exchange rate policy was intended to contribute further to the maintenance of price and macroeconomic stability in Cyprus as well as to the enhancement of international competitiveness.

The creation of the EMU and the introduction of the euro posed new challenges to Cyprus's exchange rate policy and, more generally, to the economy. Our currency anchor, the ecu, ceased to exist and was replaced by the euro on 1 January 1999. Despite the fact that the UK, our major trading partner, opted to stay out of the euro area, a decision was taken to link the Cyprus pound to the euro with a central rate and margins equal to those of the ecu. This was taken on the grounds of the anti-inflationary credentials of the new currency, engraved firmly in the ECB's legal

mandate, as well as in the light of our efforts to harmonise with the EU *acquis*¹. The same exchange rate policy was adopted after Cyprus joined the EU in 2004 and the following year when the Cyprus pound was linked to the euro and officially participated in ERM II. The policy, designed back in 1992, of unilaterally linking the Cyprus pound to the ecu culminated in the adoption of the euro as the island's legal tender in 2008.

One might argue that, in the first decades, exchange rate policy was geared primarily towards facilitating trade flows. With the linking of the Cyprus pound to sterling the authorities were aiming to minimize fluctuations in the prices of exports and imports. The same logic could also explain the switch to a basket of currencies after the collapse of the Bretton Woods system. However, against the setting of a small and open economy, it was recognised soon after the establishment of the CBC that targeting the exchange rate would be an appropriate means for achieving the CBC's primary objective of price stability. To the extent that our major trading partners remained committed to price stability, managing the exchange rate by pegging the Cyprus pound to a strong anchor---be it a single currency or a basket of currencies of our main trading partners---could deliver the desired price stability objective. A strong peg would also contribute towards anchoring inflation expectations, thereby alleviating any possible second round effects of temporary shocks and thus further facilitating the achievement of price stability. The objective of price stability received extra impetus with the switch to, at first, the ecu and then subsequently to the euro as the anchor currency. These two currencies were chosen for their anti-inflationary credentials, rather than their reflection of the composition of trade.

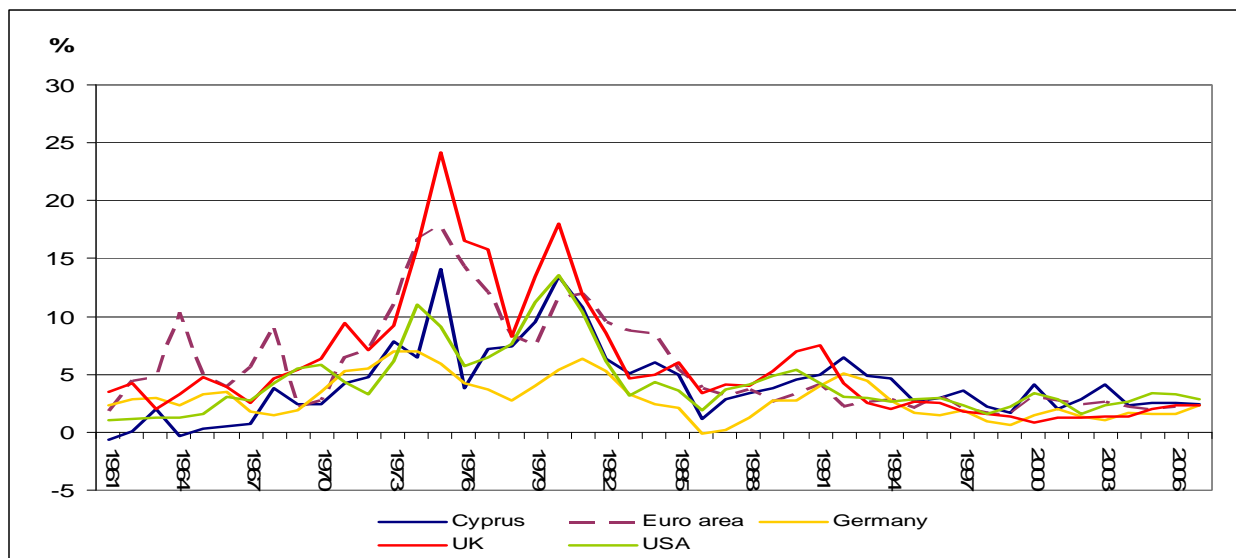
3. Keeping inflation at bay

As has already been suggested, the arrangement of pegged exchange rates has contributed to the containment of inflation in Cyprus. The monetary strategy of achieving price stability through exchange rate stability was applied resolutely in a credible and consistent fashion by the CBC. The long track record of price stability in Cyprus is the most obvious proof of the success of this strategy.

¹ See Kyriacou and Syrichas (1999) on the macroeconomic implications of the introduction of the euro for the Cypriot economy.

Looking back over a period of more than 40 years, inflation in Cyprus has been contained, averaging between 2%-3% with the most notable exception being the experience of the 1970s (see Figure 3). Inflation was higher in the 1970s mainly because of the impact of the two oil shocks. But even during that decade, inflation in Cyprus was considerably lower than in the countries of its anchor currencies. As can be readily inferred from Figure 3, the only country with a superior performance in terms of price stability was Germany. Germany's performance was the result of the clear price stability mandate of the Deutsche Bundesbank and the monetary target strategy that was pursued after the collapse of the fixed exchange rate regime (Issing, 2005). As we have seen in the case of Cyprus, no monetary switching took place in the face of the collapse of Bretton Woods. However, this policy of fixed exchange rate targeting delivered price stability even in the face of severe adverse conditions vis-a-vis the invasion of 1974. As Orphanides (2008) points out *"in retrospect, the experience of Cyprus may serve as an instructive example of the long-term benefits of a monetary policy focused on price stability, even in the presence of dislocations that might have been seen as providing cover for looser, less responsible monetary policy in other contexts"* (pp. 372-373).

Figure 3: Consumer Price Index



Source: CBC.

A casual observation of the data and the structural characteristics of the economy reveals some of the factors that affect the Consumer Price Index (CPI) in Cyprus.

Table 1 shows some of the many possible determinants of inflation which may have played a substantial role historically².

Table 1: Determinants of inflation

PERCENTAGE CHANGE	1963	1963	1971	1981	1991	2001
	-2007	-1970	-1980	-1990	-2000	-2007
CONSUMER PRICES	4,37	1,47	7,88	4,90	3,83	2,67
INDEX OF RATES OF PAY (REAL TERMS) 1980=100	4,76	3,80	7,78	5,14	3,42	2,64
INDEX OF RATES OF PAY (MONEY TERMS) 1980=100	9,45	5,29	16,38	10,31	7,39	5,41
GROSS OUTPUT/NO OF PERSONS ENGAGED	9,65	6,87	10,88	10,73	11,53	6,81
M	11,90	10,69	13,64	11,45	9,42	15,00
M	13,18	10,58	16,16	14,39	12,42	11,26
GDP (CURRENT PRICES)	10,57	9,50	13,82	12,92	8,58	6,64
USD/CYP	-0,10	-1,81	1,85	-2,03	-2,82	5,74
CHANGE IN GLOBAL CONSUMER PRICES	11,57	5,40	12,11	16,74	12,63	3,66
UNEMPLOYMENT RATE	3,12	1,48	4,67	2,93	2,96	3,29
IMPORT UNIT VALUE WORLD	4,89	3,01	14,81	1,67	-0,78	5,02
INDIRECT TAX	13,12	9,53	16,13	13,93	11,48	14,51
PRODUCTIVITY	3,69	5,69	6,37	3,15	1,85	1,01

Source: CBC.

- (a) The ratio of exports and imports of goods and services to GDP in Cyprus is around 1. As a result, world price developments have a significant impact on domestic inflation. In particular the import unit value rose by 14,8% in the 1970s reflecting the oil price boom and was largely responsible for the hike in inflation observed in Cyprus during this period. Subsequently, the import unit value slowed down to 1,7% contributing to a significantly lower inflation during the 1980s.
- (b) The high degree of openness of the Cypriot economy implies that domestic price developments are not only influenced by oil prices but also by exchange rate movements. A significant portion of the declining inflation during the 1980s can be attributed to the substantial appreciation of the Cyprus pound. Specifically, the drop in inflation from 13,5% in 1980 to only 1,2% in 1986 can be partly attributed to the 9% appreciation of the nominal effective exchange rate of the Cyprus pound.
- (c) Wage expansion is also a factor in the inflation process in Cyprus. Wage growth, both in nominal and real terms, during the period 1963–2007 exceeded productivity gains which averaged 3,7% in the same period. The

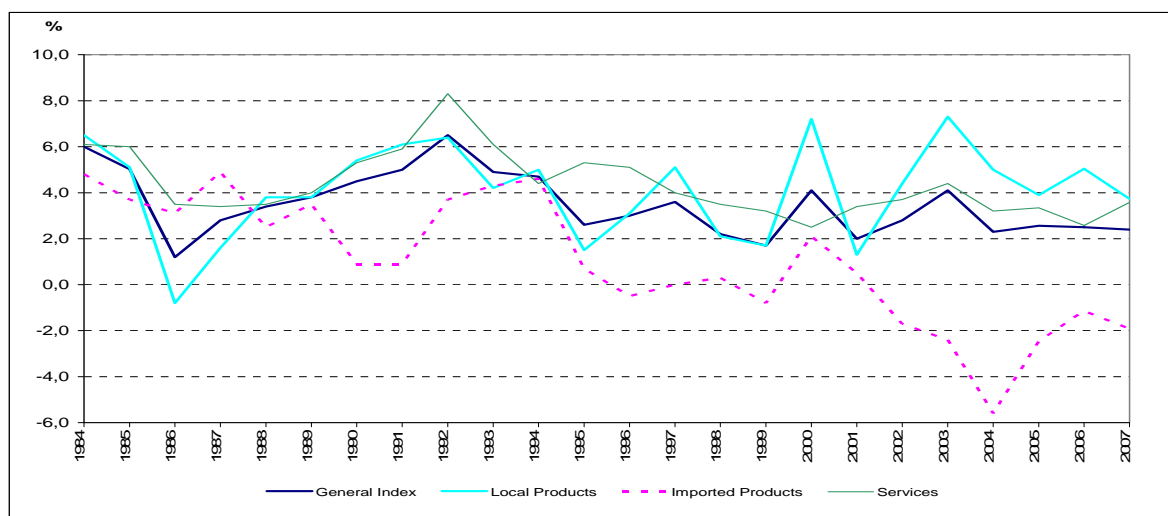
² For a formal analysis of the transmission channels in Cyprus see Karamanou et al (2001) and Spanos et al (1997).

upward trend in wages can be linked to two prominent features of the Cypriot economy since independence, low unemployment and wage indexation.

- (d) The growth rate of money has been broadly in line with the growth of nominal GDP suggesting that inflation in Cyprus cannot be attributed to excessive monetary growth. During the last decade, however, money creation as measured by broad money grew faster than the expansion of GDP, indicating that monetary conditions might have also contributed to the inflation process during this period.

The cursory analysis of the overall CPI over the years 1963-2007 provides some understanding of the inflation process in Cyprus. Valuable information is also revealed by looking at the components of the CPI. Most of the CPI's volatility during 1984-2007 is due to the variability exhibited by locally produced products. As can be seen from Figure 4, locally produced products are primarily responsible for the spikes observed in the CPI index. Within this category the most volatile component is that of agricultural products. The vagaries of the weather, with its significant short-term impact on the production and prices of agricultural products, is largely responsible for the volatility of the agricultural component of the CPI. More specifically, agricultural products with less than 8% of the weighted contribution accounted for almost 25% in the growth of the CPI for the years 2000 and 2004. Figure 4 also confirms the previous analysis that inflation in Cyprus has remained at low levels on the back of imported products whose prices follow a distinct negative trend. In other words, under the fixed exchange rate regime Cyprus was importing on average the inflation of its trading partners.

Figure 4: CPI changes by main categories (1984-2007)



Source: CBC.

4. Critical elements to the success

The performance of Cyprus in terms of inflation over a period of more than 40 years has been impressive, all the more so in the context of fast economic growth and full employment conditions. This achievement can primarily be attributed to a simple monetary policy rule: a clear and unambiguous pegging of the exchange rate. The strict adherence of the CBC to this simple rule was seen during the period of the Turkish invasion and its aftermath, as well as during the ERM crisis in 1992. During these two critical periods the pound remained firmly pegged even though there were significant competitiveness losses resulting from devalued currencies. These two events helped to strengthen the CBC's reputation for maintaining macroeconomic stability.

It was also recognised that apart from losing one's credibility, a policy of devaluation would have eventually exacerbated inflation. Full employment conditions, the existence of the cost of living adjustment (COLA), and low price elasticities for the demand for exports and imports of goods (with the sum estimated to be less than unity), meant that a currency devaluation in Cyprus would have brought a worsening of the trade account with the higher demand for exports completely offset by the resulting higher increase in expenditure on imports. In addition, the dependence of the economy on imports meant that any short-term benefits accruing from a devaluation would have been offset by the higher cost of imports and the subsequent rise in prices due to the prevalence of COLA in wage contracts.

The CBC's commitment to price stability through exchange rate targeting, was a simple and transparent rule that could be evaluated at any point in time just by looking at the external value of the Cyprus pound. The testing of this rule during difficult times reinforced people's belief in this strategy and anchored inflation expectations. The success of this policy also rested on the fact that the decisions of the CBC were taken independently from any political interference. Although CBC independence was only officially granted in 2002, the government's representative on the CBC's Board of Directors very rarely, if ever, objected to the Board's monetary policy decisions.

The resolve, credibility and independence of the CBC were necessary but not sufficient conditions for ensuring the success of the exchange rate targeting strategy. The authorities recognized the well-established "impossible trinity" theorem in international economics i.e. it is not possible for a country to follow an autonomous

monetary policy under a fixed exchange rate regime in an environment of unrestricted capital mobility. Violation of the trinity would lead to the eventual collapse of the fixed exchange rate regime. Therefore the authorities needed to ensure that monetary conditions were consistent with economic fundamentals.

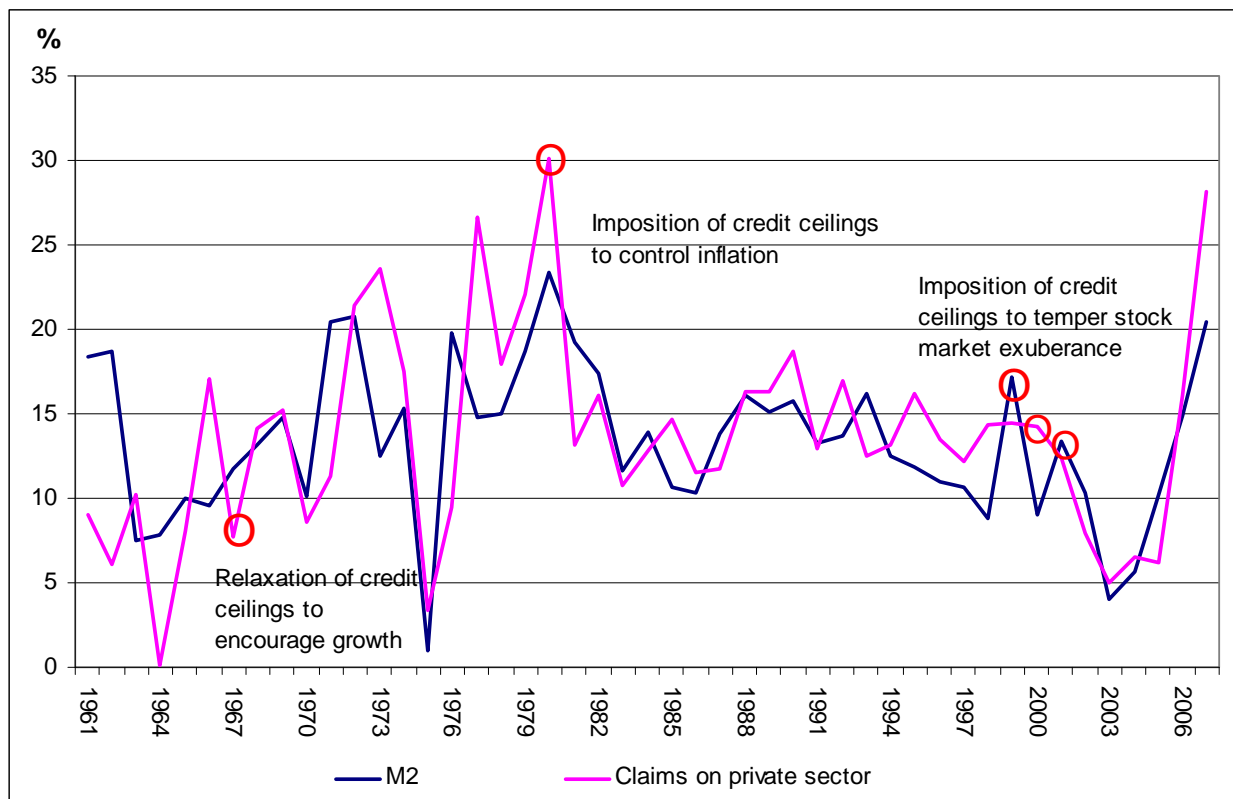
In the light of the above, Orphanides (2008) identifies additional elements that had contributed to the success of this policy. The first element was the close monitoring of monetary aggregates and credit, particularly credit to the private sector, with a view towards reigning in excessive rates of expansion that might threaten stability. The second element was the close monitoring of the current account deficit, both as an indicator of inflationary pressures and as a warning signal helping to avoid external imbalances. The theoretical underpinnings of this strategy can be found in the balance of payments crises literature (see among others Krugman, 1979 and Flood and Garber, 1984). Utilizing a simple monetary model Flood and Garber have shown that in a small country with purchasing power parity and free capital mobility, excessive credit growth will lead to a gradual draining of foreign reserves. Agents anticipating the eventual exhaustion of reserves and the collapse of the fixed exchange rate regime will launch an attack on the regime. Therefore one might infer from Flood and Garber the importance of closely monitoring the expansion of credit and the state of the current account (i.e. the level of foreign reserves) for the sustainability of a parity. Exactly what the Cypriot authorities had been doing.

There were some instances where economic behaviour (as reflected in monetary aggregates) was not consistent with economic fundamentals. The trinity was violated and consequently the sustainability of the regime was threatened. Capital controls prevailing in Cyprus for most of the period under consideration certainly helped the authorities to get around the impossible trinity and contributed to the sustainment of the fixed exchange rate regime. However, the importance of capital controls cannot be overemphasised. The literature (e.g. Wyplosz, 1986) and country experiences around the world have shown that capital restrictions might delay a speculative attack but cannot prevent the eventual collapse of a fixed rate regime if inconsistent policies are followed for a sufficiently long period of time. The longevity of the Cypriot regime should primarily be attributed to the fact that for most of the time the authorities followed prudent policies. In the periods when undesirable economic developments arose the authorities followed a flexible strategy which adapted to the prevailing economic environment. The success of the specific strategy in Cyprus relates to the deployment of non-traditional policy tools

such as quantitative credit restraints. According to Orphanides (2008) these tools "proved useful supplements to the more traditional tools---and indeed sometimes the crucial main tools---for controlling threats towards imbalances. Non-traditional tools were used with caution, however, in order to control and correct imbalances in the short-term, and not to obscure and prolong them. Care was needed, of course, because it was well understood that, when improperly used, controls and restraints can easily engender unsustainable imbalances thus increasing the risk of economic collapse at a later stage" (p. 374).

Figure 5 illustrates the timing of imposition and relaxation of credit ceilings during periods of hardship. The most significant ones occurred in: 1967, when credit ceilings were relaxed to encourage growth; 1980, when credit ceilings were imposed to contain inflationary pressures; and 1999, when credit ceilings were imposed to contain stock market exuberance.

Figure 5: M2 and claims on the private sector



Source: Orphanides (2008).

5. EU accession: financial liberalisation and exchange rate policy

Most accession countries are faced with the challenge of designing an appropriate exchange rate strategy that will eventually lead to the adoption of the euro. The EU position is that in the pre-accession phase no single strategy is prescribed and

accession countries are free to choose any regime they consider appropriate, ranging from currency board arrangements to free floating. Upon accession, exchange rate policy will have to be treated as a matter of common interest, refraining from competitive devaluations. Accession countries will still have the flexibility in the choice of exchange rate regime, but they are expected to join ERM II before adopting the euro. ERM II can accommodate several exchange rate arrangements, including euro based currency boards (stopping short of floating), crawling pegs and pegging to currencies other than the euro.

For Cyprus the exchange rate strategy for accession to ERM and adoption of the euro had been in place as early as 1992, 12 years before accession to the EU. Preparations were not confined to exchange rate policy only but were extended to other areas, most notably the monetary and banking sectors. This was to ensure that the transition to a new liberalised environment be based on a well thought out and encompassed programme. In the middle of the 1990s a new operational framework for conducting monetary policy through open market operations was launched. This prepared the ground for the introduction of two important structural reforms in Cyprus. First, and foremost, the abolition of the long-lived statutory interest rate ceiling, which was accompanied by a relaxation of all restrictions on medium and long-term foreign borrowing by Cypriots. The second reform was the new Banking Law introduced by the CBC with the aim of strengthening supervision and prudential rules. This reform was essential so as to enable the banking system to cope in an environment of destabilizing capital flows and asset booms.

Heading for EU membership and ERM II participation meant that financial liberalisation was unavoidable. Therefore, the authorities could no longer rely on restrictions to sustain the parity. Upon accession the fixed exchange rate strategy was confronted with some fresh challenges. The policy of keeping relatively fixed exchange rates in a liberalised environment was soon to be tested. Following the abolition in January 2001 of restrictions on medium-term and long-term borrowing with maturities of over two years by residents, capital inflows rose significantly as private individuals and firms increased their borrowing in foreign currency, mostly euro, taking advantage of the interest rate differential between euro-denominated and Cyprus pound-denominated loans. This exerted an upward pressure on the exchange rate, and it also exposed borrowers to increased exchange rate risks. These developments prompted the CBC to abolish the narrow bands of $\pm 2,25\%$ on 13 August 2001, so that only the $\pm 15\%$ margins remained, in line with ERM II. But

despite the abolition of the $\pm 2,25\%$ bands, the fluctuations remained within these narrow bands. Thus, investors showed confidence in our exchange rate policy in general and our currency in particular.

The policy decision of 13 August 2001 was taken concurrently with another important decision i.e. to reduce interest rates by 50 basis points, deemed necessary due to the anticipated negative impact of the global economic slowdown on the Cyprus economy. The decline in interest rates in Cyprus also reduced the interest rate differential between euro-denominated and pound-denominated loans, which further removed some of the incentive for residents to borrow in foreign currency. Interest rates were subsequently reduced further in September and November 2001, by 50 basis points each time.

In addition, significant capital flows were difficult to manage and could undermine the effectiveness of monetary policy. Substantial capital inflows were largely responsible for the excess liquidity that had been observed in Cyprus since the beginning of 2001. The CBC intervened regularly in the market to mop-up the excess liquidity so as to prevent monetary policy from becoming too lax. The operations conducted by the CBC at the time were facilitated by the fact that demand for credit remained subdued during 2002, compared with the previous year and, therefore, commercial banks were willing to surrender their excess liquidity to the CBC. The financial dimension of these operations should not be ignored as sterilised interventions were depleting the CBC's profits. The problem was further complicated by the fact that limited exchange rate flexibility caused the build-up of unhedged foreign liabilities by domestic firms. In the case of a successful attack on the peg, the ensuing devaluation that would result would pose a significant cost to the balance sheet of firms, the banking system and, ultimately, to the economy.

The aforementioned experience highlights the difficulty facing the authorities when using the exchange rate as a nominal anchor. As for the sustainability issue there is much debate among economists with some subscribing to the "bipolar view" or the corner solutions view³. According to this view, only the two extreme forms of exchange rate regimes, i.e. credible hard pegs, such as currency boards on euro, or freely floats are viable. Intermediate regimes such as soft pegs are considered to be

³ See Fischer (2001).

crisis prone and increasingly less feasible in an environment of more integrated capital markets.

The conduct of monetary and exchange rate policy was further complicated in 2004 by adverse fiscal conditions in conjunction with political uncertainty surrounding the prospects for the solution of the Cyprus problem and unfounded rumours of an imminent devaluation of the Cyprus pound. The severe capital outflows and the concomitant currency depreciation pressures in the aftermath of these developments required the CBC to exercise increased vigilance and support by all means the exchange rate. At an extraordinary meeting on the eve of EU accession, the CBC's Monetary Policy Committee decided to increase its interest rates by 100 basis points and at the same time to send a strong signal supporting the Cyprus pound. Consequently markets calmed and capital flows returned to their normal seasonal pattern. In this connection, the success to communicate properly and the readiness of the Central Bank to maintain policy consistency towards achieving the primary objective at any cost was imperative. This enabled market expectations to stabilise.

Another challenge faced in the period under review relates to the real estate market. Specifically, the strong increase in house prices fuelled mainly by increased foreign and domestic demand, had already begun in the run-up to EU accession. The high pace of price increases and the exposure of the banking sector to the real estate market through the granting of mortgage loans, raised concerns about possible negative repercussions for household debt and servicing as well as for the banks' loan portfolios, especially in the case of tighter monetary conditions. With a view to safeguarding financial stability and protecting deposits, the CBC issued a circular to banks requiring them to assess more thoroughly the creditworthiness of loan applicants and to strictly adhere to the set mortgage loan ceiling after accounting for adequate security pledged by the borrower. At the same time, the CBC communicated extensively to the public at large the risks inherent in mortgage borrowing.

6. ERM II membership

Despite the new challenges the economy faced post-EU accession the prudent mix of interest rate policy and exchange rate flexibility seemed to work. As a result the Cyprus pound was in a strong position to participate in ERM II and answers had been provided to two of the three critical questions that need to be addressed by any accession country:

1. When to join ERM II?

2. At what central parity?
3. What is the optimal length of time for staying within the mechanism before adopting the euro?

In the case of Cyprus, which had been successfully shadowing ERM I and II for more than ten years, it followed that the answer to the first question was that the Cyprus pound would join ERM II immediately upon accession to the EU. The question of the central parity was answered back in 1992 when the Cyprus pound was linked to the ecu. This parity had been tested over the years and it was natural for the authorities to want a continuation of this successful policy. Of course the question of the appropriate central parity had to be jointly determined with the ECB as well as with the central bank governors and finance ministers of the EU member countries. Apart from the successful long track record of the Cypriot currency, the prevailing central parity of €1,7086 per Cyprus pound was found to be consistent with economic fundamentals⁴.

Turning now to the issue of the optimal length of the interim period before the adoption of the euro, the EU's view on this matter is that ERM II should not be seen as a mere "waiting room" for the adoption of the euro. Rather it is a meaningful policy framework within which to prepare the accession economies for monetary union and to achieve further real and nominal convergence. The EU fears the premature adoption of the euro and the surrender of monetary and exchange rate policies without the accession countries achieving the necessary resilience, an essential condition for being a successful member of the euro area.

Not only had Cyprus achieved price stability but in fact by the time of accession to the EU it had also achieved both significant nominal and real convergence⁵. In turn, this placed the economy in a strong position to enter ERM II and adopt the euro after participating in the mechanism for a minimum period only. Besides the adherence over the long term to a stable parity of the Cyprus pound against the anchor currency, an argument for the adoption of the euro sooner rather than later could

⁴ See for example Kyriacou and Papageorgiou (2007) and Pattichis et al (2003).

⁵ One of the concerns that should be taken into account when designing the appropriate exchange rate policy is that the catching - up process implies, through the Balassa - Samuelson (BS) effect, higher inflation. However, evidence of the size of the BS effect in accession countries suggests that it only accounts for a limited share of the inflation differential with the euro area, of the order of 1% - 3% per annum. For Cyprus, the BS effect could be even smaller given: (i) the per capita income level of Cyprus in PPP terms was about 80% in 2005 of the euro area average; and (ii) the high degree of openness of the economy, which means that the manufacturing sector is not a significant portion of the total economy.

also be made. The concern that a country by prematurely adopting the euro would forego the significant tool of exchange rate did not effectively apply in the case of Cyprus. As we have already explained, the exchange rate in Cyprus has never been used as a tool to restore competitiveness, even in times of turbulence such as in 1974 or in the case of the 1992 ERM crisis.

During the ERM II period the Cypriot economy continued to be confronted with some old and some new challenges. On account of the prevailing interest differential between Cyprus and the euro area, capital continued to flow into the island partly in the form of foreign currency borrowing, which was mostly used for the purchase of property and consumption. Fast credit growth coupled with the brisk pace of economic activity further exacerbated inflationary pressures. Inflation, particular in the second half of 2007, followed an upward trend on account of rising oil and food prices. The current account deficit at the end of 2007 had reached its highest level since 1978. The CBC reacted to these developments in terms of its communication to the public. Specifically, it provided frequent reminders to the public of the exchange rate risk associated with borrowing in foreign currency. On the prudential side, the CBC issued guidelines reducing the maximum loan to value ratio associated with lending in real estate, and delayed decreases of the minimum reserve ratio to euro area standards. The prevailing conditions at the time prevented the CBC from fully converging interest rates and the ratio of minimum reserve to the euro area levels ahead of time. Both were converged at the last minute before the adoption of the euro.

7. Adoption of the euro: challenges ahead

The irrevocable fixing of the exchange rate, i.e. the setting of the conversion rate of the Cyprus pound to the euro, essentially meant the relinquishment of the conduct of monetary policy by the CBC. Setting domestic interest rates to contain inflation at the national level would no longer be possible.

At the time when this loss in policy tools was taking place, inflationary pressures had already started mounting in the Cypriot economy. In particular, HICP-based inflation surged to 5,4% in August 2008, which was the result of both external and domestic factors as well as policy decisions precipitated by the accession of Cyprus to the euro area. On the domestic front, fast credit expansion was fuelling domestic demand, which added to higher inflation in the context of already strong economic activity (i.e. close to or above the potential rate). The reduction in the official interest rates of the CBC by 50 basis points in December 2007 and in the minimum reserve

ratio to the level applied in the Eurosystem on 1 January 2008, were two key factors behind the rapid credit and money expansion. The surge in oil and food prices was further exacerbating domestic inflationary pressures. Moreover, heightened inflation expectations, linked to higher inflation perceptions formed in the run-up to euro adoption, appear to have also played a role, albeit a limited one, in aggravating price pressures through wage and price setting behaviour. It should be noted that excessive credit growth was also reflected in the widening of the current account deficit.

Against this background and in the context of Cyprus's monetary integration it soon became evident that the CBC could do little to remedy the situation and that the burden of tackling these challenges would mainly fall on other policy areas. Indeed, as most of the credit growth was channelled to the real estate and construction sectors, the CBC took macro-prudential measures in the area of banking supervision and, among other things, reduced the loan to value ratio with the aim of curtailing excessive credit growth and moderating the exposure of the banking sector to risks associated with these sectors. These were in fact the only measures that the CBC could take and were thereafter relaxed in light of some deceleration in key credit aggregates.

With our accession to the euro area, fiscal policy and structural reforms should, in addition to their impact on stabilising economic activity, take into account their potential implications for price stability. It is well-established that in the context of a monetary union, adverse inflation differentials are detrimental to competitiveness and thus eventually harm economic growth and employment. It is therefore imperative to ensure that domestic inflation does not exceed the euro area average. Sound fiscal policies and the implementation of structural reforms aimed at fostering productivity and enhancing the labour market's flexibility and adaptability are essential tools for containing inflationary pressures and preserving competitiveness. With respect to fiscal policies, these should also be oriented towards tackling the problem of long-term sustainability of public finances, which is particularly acute in Cyprus owing to an ageing population and the viability problem of the Social Insurance Fund.

8. Conclusions and policy lessons

The previous analysis has shown that the adherence to a simple monetary rule such as an exchange rate target can confer credibility on a central bank and deliver price stability, something particularly important for a small open economy. Maintaining a clear and unambiguous policy stance even under strain can boost policy credibility

and facilitate future policies. This hard earned credibility requires that a central bank enjoys some degree of relative independence. Over a relative long period of time when there are phases of economic downturn or volatility the regime might be tested as political pressure for a devaluation increases. Succumbing to these pressures could seriously undermine the credibility of a central bank. Another important lesson drawn from the Cyprus case is that this strategy needs to be supplemented by additional measures. Capital controls can be effective, though not an option in the European Union. Monetary aggregates, and in particular credit, should be closely monitored and controlled, if necessary. The current account also warrants close monitoring. This indicator along with monetary indicators reveal inflationary pressures and the sustainability of the exchange rate regime.

Accession to the EU and preparing for euro adoption would render many of the supplementary measures either invalid or very difficult to apply. The eventual abolition of all restrictions requires that the authorities have well in advance a comprehensively thought out and prepared plan for the introduction of the necessary structural reforms and the abolition of any obstacles on the monetary and exchange rate fronts. Experience has shown that in Cyprus as well as in almost all of the new entrants to the EU, in the run-up to ERM II and the adoption of the single currency, capital flows may be influenced by higher domestic interest rates, compared with those in the euro area, while at the same time markets may speculate about entry levels. Countries may also be faced with asset booms and higher inflationary pressures. To mitigate these challenges it is important for any aspirant country to achieve a high degree of nominal and real convergence with the EU economy before joining the ERM. Once in ERM II differentials between domestic and euro area interest rates should be kept to a minimum providing less incentive for capital inflows. A country might also contemplate widening the margin of fluctuations in its exchange rate, thus increasing the exchange rate risk to potential speculators. This path was also followed by Cyprus. The wider bands though were used only as a deterrent to speculation. In practice the Cyprus pound continued to fluctuate within the narrow bands. Finally, joining the euro should not be perceived as the end of the road. Having gone through a difficult convergence process, governments tend to relax their efforts upon adoption of the euro. On the contrary, fiscal consolidation should be more ambitious, taking into account that monetary policy cannot address imbalances at a national level.

References:

- Fischer, S. (2001) "Exchange rate regimes: is the bipolar view correct?", *Journal of Economic Perspectives*, 15(2): 3-24.
- Flood, R. P. and P. M. Garber (1984) "Collapsing exchange rate rate regimes: some linear examples", *Journal of International Economics*, 17(1-2): 1-13.
- Issing, O. (2005) "Why did the Great Inflation not happen in Germany?", *Federal Reserve Bank of St. Louis Review*, 87(2): 329-336.
- Karamanou, P., L. Mahadeva, P. Robinson and G. Syrighas (2001) "The monetary transmission mechanism in Cyprus: the fixed exchange rate case", Central Bank of Cyprus, mimeo.
- Krugman, P. (1979) "A model of balance of payments crises", *Journal of Money Credit and Banking*, 11(3): 311-325.
- Kyriacou, G. and M. Papageorgiou (2007) "Equilibrium exchange rate of the Cyprus pound, using a qualitative approach, a PPP and a FEER model", Central Bank of Cyprus, mimeo.
- Kyriacou, G. and G. Syrighas (1999) "EMU and the introduction of the euro: macroeconomic implications for the Cypriot economy", *Quarterly Economic Review*, Central Bank of Cyprus, June.
- Orphanides, A. (2008) "Preparing for the euro - perspectives from the monetary policy strategy in Cyprus", in K. Liebscher, J. Christl, P. Mooslechner and D. Ritzberger-Grünwald (eds) *Currency and Competitiveness in Europe*, Cheltenham: Edward Elgar.
- Pattichis, C., M. Maratheftis and S. Stavros (2003) "Economic fundamentals and the behaviour of the real effective exchange rate of the Cyprus pound", HERMES Working Papers, 03-2, University of Cyprus.
- Spanos, A., E. Andreou and G. Syrighas (1997) *A Var Model for the Monetary Sector of the Cyprus Economy*, Nicosia: Central Bank of Cyprus.

Wyplosz, C. (1986) "Capital controls and balance of payments crises", *Journal of International Money and Finance*, 5(2): 167-179.