

Analyse the significance of open capital markets for the ERM crisis in the UK (1992), making reference to the literature on the pros and cons of capital account liberalisation.

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1 Introduction

The Exchange Rate Mechanism (ERM) within the European Monetary System (EMS) can be seen as the precursor to monetary union. The whole process of European integration has been fascinating for analysts and the ERM crisis of 1992-3 is just one episode of interest. Yet, the disintegration of the exchange rate regime has generated a wide range of academic literature: second generation currency crisis models on speculative capital flows were further developed; the effectiveness and desirability of capital controls have been questioned; and there has been much discussion on the drive towards full and permanent monetary union. Central to the discussion was the 'open-economy trilemma', a theory which discounts the ability of governments to pursue three desirable policy goals: keeping a fixed exchange rate to its trading partners, maintaining free capital flows and using monetary policy to control domestic output. It is possible to achieve two of these goals but the third is determined as a result. The ERM was a commitment by countries to maintain fixed exchange rates¹ and the European agreement at Maastricht advocated free capital flows in Europe; hence, the participants were expected to give up monetary policy autonomy. This was certainly the case in principle, with periodic promises by central bankers from most countries reiterating their commitment to the ERM. During the time of crisis, however, those countries facing severe contraction of domestic output in maintaining the exchange rate proved unable or unwilling to do so. We shall investigate this further, specifically in the case of the UK.

The UK has always played a guarded role in European integration. This is evident today with its conspicuous absence from the European Monetary Union (EMU), as it was in the 1990s with its late entry and early departure from the ERM. The UK is unique within Europe in its non-convergent business cycle, by being a world financial centre (and biggest exchange rate market), by having a different housing market structure, by negotiating particular exemptions from Maastricht Treaty conditions, and a whole manner of other ways. Thus an insight into the causes and effects of the UK ERM experience is very important for the question of UK's future role in Europe – particularly whether it should be part of the (EMU).

In this essay, we shall recount the UK ERM crisis of September 1992 with an analytical focus on the 'open-economy trilemma' and particular reference to open capital markets.

¹ Actually the exchange rates were permitted small fluctuations but in the absence of significant revaluations, they can be considered fixed.

First, we shall introduce the theory that forms the framework for the following historical discussion. The next section of the essay discusses the removal of capital controls in the UK and its effects. The third section is concerned with the entry into the ERM and the time until exit, highlighting the tensions that built up in the system. The final section before the conclusion will examine the exit of the Sterling from the system and the subsequent exchange rate and monetary policy of the UK government.

2 Theories of exchange rate crises

There are two basic models for the possible explanation of currency crisis. The 'first generation' models relate speculative attacks to the inconsistencies between economic fundamentals and exchange rate commitment. The 'second generation' models, following Obstfeld (1986) and Eichengreen B. and Wyplosz C., view currency crisis as shifts between different monetary policy equilibria in response to self-fulfilling speculative attacks.

First generation models can be associated with imbalances that build up when a country does not respect the trilemma relationships and attempts to control all three elements. The three components of the trilemma are equally important however the issue of open capital markets is perhaps the component that is least understood and requires most discussion². Exchange rate stability is seen as desirable in promoting trade, and domestic monetary policy is a key tool used to smooth the business cycle. The desirability of free international capital movement is less obvious; given a choice, governments would be quite willing to limit capital flows (and forgo efficiency gains as a result) in order to reap the benefits of the other two goals.³ The question remains then as to why this is not the case, why all industrial countries and many developing countries reduced or abandoned controls on capital flows since the late 1970s to the early 1990s.⁴

Original analysis of the trilemma dates back to 1961 Mundell-Flemming extension of the Keynesian model in a IS/LM framework which includes exports and imports. Under the assumption of static expectations and a fixed price level, the economy will be in equilibrium when it achieves internal and external balance - where the goods market, money market and trade balance are in equilibrium. The capital account will compensate

² B. Eichengreen (2003) – chapter 3 first page

³ B. Cohen in J. Frieden and D. Lakes eds (2000) - page 251

⁴ J. Goodman and L. Pauly in J. Frieden and D. Lakes eds (2000) - page 280

these factors. With international capital mobility, a world interest rate will prevail even domestically⁵ and domestic monetary policy operates mainly via the exchange rate. If one country has high money growth compared to the rest of the world, the currency will depreciate (due to the interest parity condition) making local goods cheap in comparison to foreign goods which leads to an expansion domestically (generally).⁶ Where the country tries to maintain a peg with another currency, the same effect cannot take place, and monetary expansion simply leads to a fall in the level of national reserves in order to offset downward pressure on the exchange rate. Note that this reasoning is based on the assumption of sticky prices and its effect on output as per the Phillips Curve. The analysis changes if we are to introduce price expectations; the effectiveness of monetary policy is undermined further in this case. In either case, a currency crisis may occur if a country attempts to pursue all three desirable objectives, creating imbalances that build up until they are corrected suddenly by way of a drastic currency movement.

The second generation of models move the focus to the capital account rather than the current account. Currency crises can be caused even without fundamental imbalances depending on the actions of speculators in an open economy with free capital movements. Suppose a country pegs its currency to another currency. Without an attack, monetary policies remain unchanged and the pegged exchange rate is maintained. If and only if attack occurs, monetary policy will shift in a less restrictive direction, causing the exchange rate to depreciate. When the market is sophisticated enough to realize an evitable shift in monetary policies, they attack the currency. In the ERM crisis, the tightened German monetary policy after unification is the shock that triggered the currency attacks. In addition, Beeby M, etc. (2001)⁷ release the Rational Expectation Hypothesis and find that the possible attacks could be driven by cumulated small shocks.

Whilst these models do have some explanatory power in the ERM case, both do not predict that a currency crisis will be regional. Both the first generation and second generation models emphasise macroeconomic and financial fundamentals as determinants of currency crises, but macroeconomic phenomena do not tend to be regional. It is hard to explain why the relevant macro fundamentals are intra-regionally

⁵ This can be seen using simple arbitrage arguments. Where one country has a lower interest rate than another, an investor can borrow in that country and invest where interest rates are higher (ignoring default risk) though currency risk must be accounted for.

⁶ Frieden page 258

⁷ Expectation Formation and the 1990s ERM Crisis, Beeby M, Hall S, Henry S and A Marcet, p11

correlated. Eichengreen, Rose and Wyplosz⁸ investigated contagion in currency crises using data for 20 industrial countries and proposed the effect of contagion operating through trade is stronger than macroeconomic similarities. Rose⁹ proposed and presented empirical evidence that the trade is the primary channel through which currency crises spread. Currency crises are regional because trade is regional. Contagion tends to spread between countries with tight trade linkage. In addition, Willen H. Buiter etc. (1996 & 1998) examine the systemic issue and take structural policy spillovers among member countries as one of the key roles in the ERM crisis.¹⁰

3 The UK's open economy transformation

It is clear from our theoretical discussion that further discussion is required regarding the openness of the UK economy in terms of capital flows. We have seen already that the desirability of free international capital flows is ambiguous; we have also seen that if capital flows were controlled, the trilemma problem would disappear and speculative attacks would be greatly subdued perhaps to the point of ineffectiveness. Thus, it is important for us to investigate the role of capital controls in the UK and then capital account liberalisation.

In 1972 the UK adopted a floating exchange rate following the end of the Bretton Woods System. Beginning in 1973 the UK had become a member of the EEC and agreed to a number of transitional provisions to adjust domestic policies and regulations, including relaxing and the eventual abolition of capital controls. However, after a period of extensions and a tightening of exchange controls after the 1976 sterling crisis¹¹, the UK abolished all capital controls in 1979. In 1979 the performance of the UK economy was still mediocre and policies, both monetary and fiscal, had brought about inflationary pressures that led to attacks on the exchange rate and scared off both domestic and foreign investors. The election of a conservative government in 1979 on a platform which included a high priority to deregulation and unhampered free functioning markets, paved the way for capital liberalisation on the grounds that it would be a sign of economic

⁸ CEPR Discussion Paper No. 1453, 1996, Contagious Currency Crises

⁹ CEPR Discussion Paper No. 1947, 1998, Contagion and Trade

¹⁰ CEPR Discussion Paper No.1466, Interpreting the ERM Crisis: Country-specific and Systemic Issues, Willem H Buiter, Giancarlo M. Corsetti and Paolo A. Pesenti
Princeton Studies in International Finance No.84, 1998

¹¹ In December 1976 the IMF bailed the sterling pound due to a speculation on its floating exchange rate. This caused the UK to borrow £2.3 billion from the IMF.

potential and strength. The turning point however, was oil. With new found oil in the North Sea an appreciation would be expected due to a current account improvement. Finally, the removal of capital controls would also signal to the rest of the world that the UK, especially London, would remain one of the main financial centres of the world. While it is difficult to separate the effects of liberalisation, the oil factor, and government policies on the pound sterling, liberalisation did have some affect on the exchange rate. The most important effects have been on the size of portfolio investment flows and on a greater degree of financial integration through the removal of differentials between European and domestic rates interest rates.

Liberalisation by the UK set the standard for other countries in the EMS, notably Germany. Germany's desire for domestic price stability, with strict budgetary and monetary policies was already a benchmark for other European countries. With the UK's removal of capital controls Germany had an ally in creating the development of a common dynamic and competitive European market, also with regard to capital controls. By the actions of these two countries, in the long run other European countries would not be able to remain on the sidelines.

Some empirical evidence linking capital controls and growth has been examined. While Quinn (1997) finds that there in a positive correlation between capital account openness indicator and growth, Rodrik (1998) finds no association between capital account openness and growth. This sparks a controversial debate. What are the real benefits and costs of capital control removal?

The more traditional proponents of free capital mobility are as follows.¹²

- There are gains from intertemporal trade through free international markets for securities (Obstfeld and Rogoff 1996).
- Capital controls are a distortion and by their removal welfare can be enhanced. For example, capital controls shelter financial intermediaries from foreign competition and their removal would encourage greater competition and increase welfare.
- Controls are in fact relatively ineffective in preventing short-term movements, and thus the degree of insulation of monetary policy is limited.
- Capital controls may actually limit the acquisition of foreign assets, discourage inflows, and not necessarily protect the balance of payments.

¹² Arguments taken primarily from Eichengreen chapter 3 and Saxena and Wong

- Controls discourage FDI, which may be an important source of external finance and acquisition of new technologies.
- No evidence that controls have helped governments achieve policy objectives, such as avoiding real appreciation (Dooley 1995)
- Changes in global finance and the structure of global production made it possible and desirable for MNEs to evade government controls successfully. This makes it costlier and futile for governments to maintain controls, and thus governments opt for open capital markets (Goodman and Pauly).

There are many arguments for the maintenance of capital controls. Here are some of the more traditional arguments.¹³

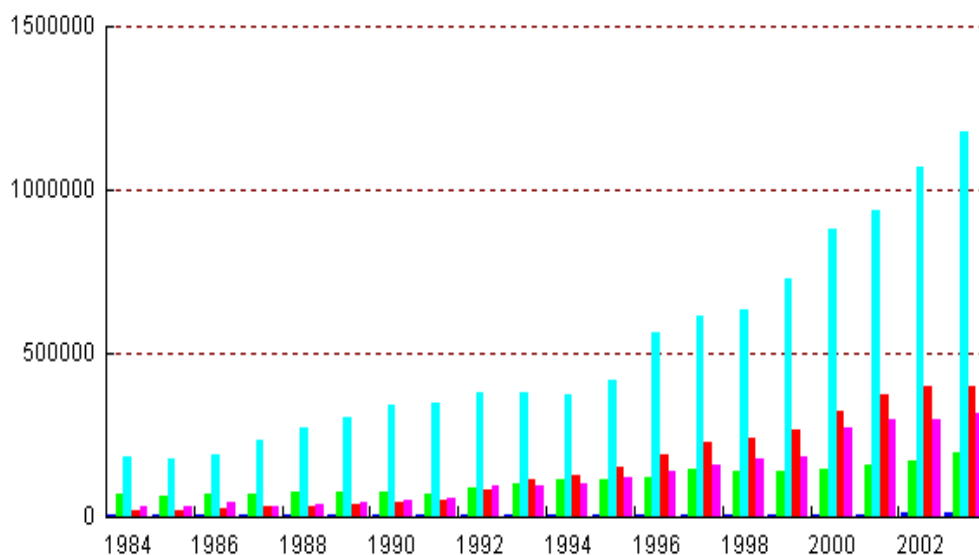
- Controls help limit volatile short term capital flows, which helps avoid balance of payment crises, exchange rate volatility, and provide greater independence of interest rate policy.
- Controls support the balance of payments by protecting foreign exchange reserves by preventing outflows of domestic savings and capital flight.
- Controls limit foreign ownership of domestic factors of production and prevent either unwarranted depletion of a country's natural resources or the emergence of a monopoly.
- Controls are needed to maintain the authorities' ability to tax financial activities, income and wealth. They limit the ability of residents to shift into foreign assets to avoid the inflation tax on domestic money balances.
- Controls help in stabilisation and structural reform by helping to maintain and operate a stable exchange rate.
- Capital controls may help governments short term relief from self-fulfilling speculative attacks.
- Controls can usefully channel domestic savings into domestic investment in countries where underdevelopment of markets and institutions would otherwise result in suboptimal supply of finance for investment (Eichengreen ch 3)
- Capital flows to developing countries increase the vulnerability of these economies to crises (Stiglitz 1998).

Measuring free capital mobility is, however, difficult. In a world of imperfect information, free capital mobility is likely to amplify existing distortions, create situations of moral hazard, encourage excessive risk taking, and generate major and costly crises (Bhagwati

¹³ Arguments taken primarily from Eichengreen and Saxena and Wong

1998 and Cooper 1998). Also for many countries capital mobility is not perfect and may never be due to transaction costs, asymmetric information, heterogeneity between domestic and foreign assets, and administrative requirements. There is also the issue of misallocation of resources. If a government cannot control funds then freely flowing capital inflows could aggravate the misallocation of resources.

London had been a world financial centre long before financial deregulation; however, the financial sector underwent significant changes in the new environment of the 1980s. Banks and firms funded themselves abroad and expended credit. The loan balance in UK commercial banks increased from £191 billion in 1986 to £376 billion in 1992, doubling within 6 years. And the value of total assets increased from £334 billion in 1986 to £647 billion in 1992, a 94% net increase.¹⁴



- BA14TE: 14. Cash and balance with Central bank
- BA15TE: 15. Interbank deposits
- BA16TE: 16. Loans
- BA17TE: 17. Securities
- BA18TE: 18. Other assets

Source: OECD Statistics

The Maastricht Treaty includes a requirement that countries bring their inflation rates down to the levels prevailing in Europe's low inflation countries in order to qualify for monetary union. The desire to manage low inflation rate induces many governments to

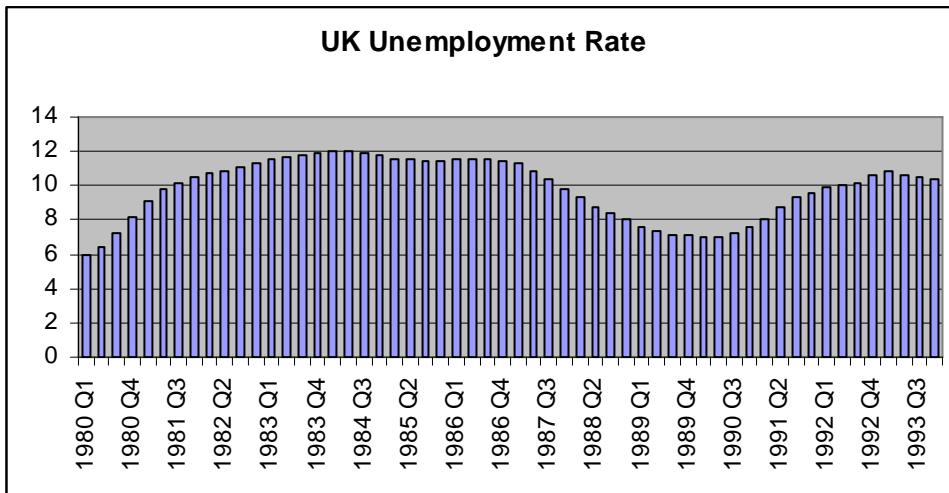
¹⁴ OECD statistics, <http://www.oecd.org>

raise interest rates, attracting capital inflows into the higher-yielding ERM currencies during 1987 -1991 after the fully open of capital account in 1986.

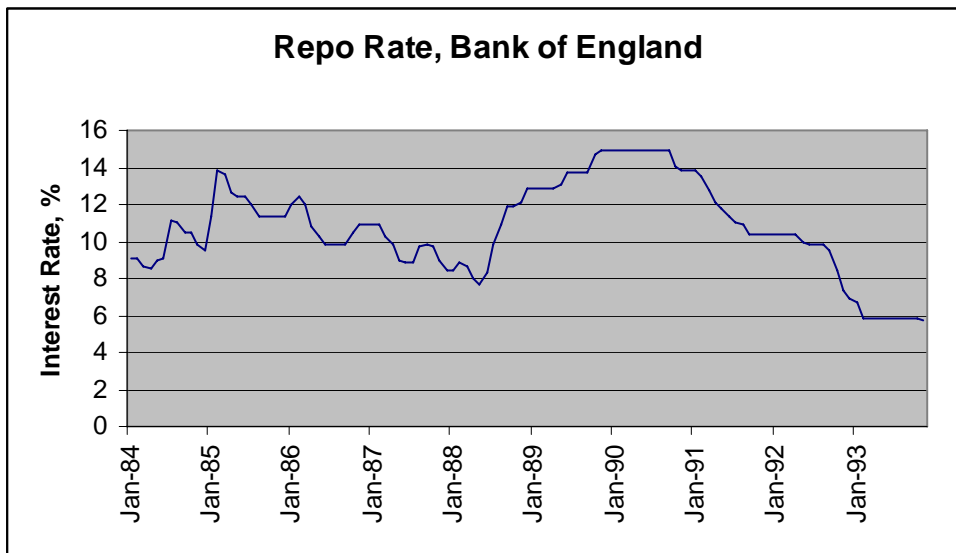
4 The Sterling Currency Crisis of 1992

4.1 ERM and the UK: a dangerous liaison

The UK entry into the ERM can be best described as a regime change. Since the early 1970s sterling was on a floating exchange rate until entry in 1991. Even before ERM entry, UK macroeconomic policy was one of the first to support a political shift toward austerity, disinflation, and price stability through fiscal and monetary policy. The Thatcher government realised that inflation was no longer a means with which to achieve domestic economic goals e.g. growth and employment. Controlling inflation had become important for the middle class and for segments of the working class (Sandholtz 1993). While the government made progress in fighting inflation in the first half of the 1980s, by 1986 inflation was creeping up again and by June 1989 there were signals that Thatcher would advocate joining the EMS. In 1988 Chancellor Nigel Lawson decided that the pound would “shadow” the Deutsche Mark (DM). There was a lack of institutional change and a failure of monetarists to press for an independent central bank that also contributed to the UK’s motivation to enter into the ERM. Like the other countries in the ERM the UK would import the Bundesbank’s credibility and reputation for inflation control, a credibility that the government lacked, so for the UK, joining the ERM was a last resort for controlling inflation. Other motivations for joining the ERM was that membership would encourage trade and business between member countries. We should note however that the timing for the ERM entry and the policy discipline involved was strange given that unemployment was over 10% and the UK property market was severely depressed.



Resource: Office of National Statistics, all age 16-59/64, %



Resource: Bank of England, Repo Rate, Monthly average

Apart from the UK situation, we must consider events in Germany following reunification in October 1990. This political event had huge economic consequences, for example, there was a net transfer from West to East Germany of DM139bn in 1991 and DM180bn the following year.¹⁵ Yet the German Chancellor had committed to fund this transfer without raising West German taxes so the funds had to come from public borrowing. This, together with the conversion of GDR marks to Deutsche Marks at rates which overvalued the GDR, generated significant inflationary pressures in Germany – something that the Bundesbank was not prepared to tolerate. Hence the German Lombard rate was increased steadily by the central bank from 4.5% in 1988 to a peak of 9.75% in 1992 at the time of the crisis.¹⁶ This increase in interest rate naturally encouraged appreciation of the Deutsche Mark against other currencies. This upward pressure was augmented by

¹⁵ W. Buiter, G. Corsetti and P. Pesenti (1998) - page 38

¹⁶ Ibid page 41

the increase in demand for German goods relative to non-German goods following reunification (by residents of the former Federal Democratic Republic).

We know from the theory of the trilemma that if Germany was prioritising domestic monetary policy, then it would lose control over its exchange rate. Fixed exchange rates may still be maintained if other members of the system totally subordinate their domestic policy to keep pace with German policy. So in the case of the UK, to stop imbalances building, the government needed to pursue policies that made sterling attractive. Yet this was not consistent with domestic concerns, particularly international competitiveness since exporters would normally prefer a weak currency. In this way, tensions between member countries of the ERM built up where various domestic interest groups started to be affected from adverse interest rate policies required by the ERM.

4.2 The build up to currency crisis

Having discussed the British motivation for joining the ERM and also briefly examined the situation in Germany following reunification, we are now in a position to describe the events leading up to the crisis and actual events and money flows during Black Wednesday, the day the Sterling left the ERM.

“The dress rehearsal for the ERM crisis was staged in Scandinavia.”¹⁷ The Nordic countries were not part of the ERM but were nonetheless pegging their currencies to the ECU. A year before the sterling crisis, both the Finnish markkha and the Swedish krona had come under speculative attack and had been forced to abandon their pegged level despite some attempts to fend off speculators by raising overnight lending rates (Sweden raised its rate to 75% at one point) and by selling reserves (which Finland ran out off by 8 September 1991). This experience provided two lessons for speculators considering a currency attack:

- Reserves are ultimately finite. Even though a central bank may borrow significant reserves from other central banks, there is a cost associated with this and there is also a limit.
- A central bank may discourage speculation by raising rates – this makes it expensive for speculators to borrow domestic currency in order to short sell it.

¹⁷ W. Buiter, G. Corsetti and P. Pesenti (1998) - page 57

However, there are political limits to which central banks will be willing to raise rates as it has a depressive effect on the domestic economy.

The European integration movement faced a major political setback when the adoption of the Maastricht Treaty was rejected by Denmark in a national referendum on 2 June 1992. All the political manoeuvring and negotiation that led to the Treaty were being questioned by citizens of the member states. France too was set to have a referendum in September 1992, the result of which could no longer be predicted with certainty following the Danish "No". Speculators who had been betting on convergence of interest rate differentials and currencies had reason to question whether the promised monetary union would now be a certainty. Another reason to question the inevitability of monetary union was the debt and deficit ratio criteria which countries would have to meet to qualify for monetary union. Whilst none of the larger countries of Europe were in breach of these criteria, signs could be seen of a global depression in the early 1990s which would normally be met with expansionary monetary and fiscal policy – meeting the criteria would force policies of austerity on the member countries which takes enormous political will.

Sterling was left exposed in the currency markets after the 7% devaluation of the lira against the deutschmark, agreed on Saturday 14th September. Sterling was not only still perceived as one of the weaker currencies fixed to the deutschmark, but now as one of the few remaining currencies whose government had yet to take decisive action - not just words – to address this. A 0.25pp reduction in German interest rates did little to alleviate this pressure. There was, however, only very limited scope for the government to credibly defend the currency within the ERM. The domestic situation precluded interest rate rises: the housing market was falling and included £6bn negative equity, 90% of mortgages were at variable rates (unlike much of the rest of Europe), increasing the sensitivity of policy rate changes in the real economy. Furthermore, the method the UK used to implement its policy rate differed from those in Scandinavia. The UK had a simpler mechanism with a more direct link between banks' immediate financing rates and their consumer rates with a faster pass through. Unemployment and personal bankruptcies were rising alarmingly. UK banks' asset quality was also under strain, as the harsh conditions were exposing imprudent lending decisions during the rapid credit expansion of the 80s, and the risk that further tightening could seriously destabilise the UK banking sector was taken seriously. Dollar interest rates were at 30 year low and the exchange rate of \$2 was already seriously harming exporters to US. In Westminster

protests about the severity of the recession endured in the name of European integration were becoming ever more vocal, dividing the conservative party. It was also thought that an increase in rates, given the fragility of the economy, would be viewed as an act of desperation and may even invite speculative attack.

An upward revaluation of the deutschmark against all other ERM members may have been the best solution to the UK, but the costs to the other members would have been too great, both in terms of increased inflationary pressure and reputation. The ERM had become a rehearsal for monetary union and so realignments were no longer politically desirable, especially for the French facing a referendum on the Maastricht Treaty - a relative devaluation of the franc would have been a political disaster.

4.3 Black Wednesday

Sterling's fate was sealed when the credibility of sustaining a 2.95DEM central rate was dented by the president of the Bundesbank himself. In the evening of Tuesday 15th September 1992, the news agencies reported that, in an interview with the *Handelsblatt*, Schlesinger had suggested the recent Italian devaluation was insufficient to correct the imbalances built up within the ERM and that further devaluations may be required. It was already common knowledge that Schlesinger considered sterling overvalued, even at the point of entry; the implication now was that Schlesinger would be content with a devaluation occurring. The markets seemed to interpret it this way and shortly after the New York market opened, sterling fell below its DEM 2.7780 ERM floor. By failing to agree that night a firm defence strategy for the next day (Stephens 96), the government only confounded their situation. Instead, an increase in interest rates from 10% to 12% was only announced at 11:00am the next day, Black Wednesday. This announcement had no effect, however, on the spot rate which remained resolutely at DEM 2.7780. Then, at 2:15pm it was announced that the interest rate would rise further, from 12% to 15% effective the next day, but still the exchange rate remained at its ERM floor. However, the extent of the pressure sterling was under was significant, and reflected the openness of the capital markets at that time; the usual market participants, commercial banks and funds, were joined by an uncommonly large number of corporations. During Black Wednesday the Bank of England sold \$27.71bn taking the UK's net position to negative \$15.34bn. There was no longer any alternative, and so the Chancellor announced that the UK's membership of ERM had been suspended. The following day

sterling depreciated by approximately 5% against the Deutschmark and a week later had lost 10% of its value.

4.4 The aftermath

The immediate issue the government faced was the debate on whether to rejoin the ERM. Foremost among their concerns was the stark contrast between the UK and German domestic conditions and the different policies needed, in isolation, for sustainable growth and low inflation. The way that the ERM had subtly changed from a fixed-but-adjustable currency board to a precursor to monetary union was also questioned, especially given the UK's hesitancy to commit fully to EMU. Even if the ERM were to stay on a fixed-but-adjustable basis the procedure for coordinating occasional devaluations would have to be much more explicit; a major contributor to the attack sterling faced on Black Wednesday was the lack of international political motivation to acknowledge and address imbalances while there was still opportunity, as national self-interest dominated commitment to the system as a whole. Perhaps most interestingly, in (HMT, 1992) it is noted that the absence of capital controls provides a more permissive environment for such speculation and the possibility of retaining capital controls for use in such emergencies was raised.

Resolving the uncertainty surrounding the UK's future macro-economic development was the government's other key concern. It had a longstanding commitment to price-stability and non-inflationary growth which it had asserted would be best achieved through the ERM. Following suspension, there was no longer a clear policy. The depreciation would provide a boost to UK competitiveness, but there was a risk that this could soon be inflated away. The need for a robust policy to contain inflation while allowing the economy to move out of recession was paramount. This policy must be credible enough to manage price- and wage-setters' expectations of future inflation, including expectations of future depreciation.

The eventual policy solution adopted was an explicit 1% - 4% inflation target, following the successful inflation targeting experience of New Zealand, Canada and Australia. The success in meeting this would be independently scrutinised by the Bank of England to guard against the temptation of political manipulation of monetary policy. This was one step short of granting the central bank independence and was designed to have long lasting credibility. The decision making process of monetary policy setting was made

transparent and minutes of the regular monthly meetings of the Chancellor and the Governor of the Bank of England would later be published. This was a precursor to Bank of England independence granted by the Labour party in 1997.

5 Conclusion

The ERM crisis for the Sterling can be interpreted using a combination of first and second generation currency crisis models. We have shown how imbalances in the system built up due to an attempt to control both the exchange rate and domestic monetary policy whilst maintaining free capital flows. Yet, this alone cannot explain the timing of the attack nor the almost systematic way in which multiple currencies were attacked in the ERM in a short space of time. Contagion and self-fulfilling currency crises are better explained by the second generation of models as described above. Speculators had asked a political question: is the government of any member state (answerable to its own citizens only of course) prepared to defend its currency even if this action will cause much hardship and political backlash. If the answer is likely to be no, then speculators will rationally attack the currency. In the case of the UK, particularly given its particular mortgage dynamics, the answer was clearly no. That is not to say that the actions of the UK were predictable *a priori*, or else the UK would not have defended the currency and sustained huge reserve losses in the process.

The ERM was similar to the original post war Bretton Woods System (BWS), modified (supposedly improved) by making symmetric adjustment possible and by making the ECU the central currency rather than one of the existing national currencies. Yet, in the end, the idea of symmetric adjustment failed during the crisis and the Deutschmark became the de facto key currency. Thus the same problems of building imbalances caused the system's downfall just as in the BWS. However, the role of open capital markets and speculative money played a far greater role in the currency crisis of the ERM than during the demise of the BWS. We have shown that there is no consensus on whether open capital markets are generally beneficial or come at too high a cost. We have also put forward that it is likely that governments may not have a choice due to the inability to enforce capital controls. It remains to be seen whether the EMU experiment will be successful as the issues of pegging, credibility and open capital flows are transformed totally.

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