Jens Thomsen: Denmark and the euro - a special relationship

Speech by cc, at the Central Bank of Iceland, Reykjavik, 10 March 2003.

The references can be found on the National Bank of Denmark's website.

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1. Introduction

Until recently the exchange rate arrangements of Denmark and Iceland were similar from a formal point of view. Both countries pursued a policy classified as fixed, but adjustable exchange rates. There were some differences as well. From a formal viewpoint the anchors were different. Iceland pegged a basket of currencies roughly reflecting the composition of the effective exchange rate, while Denmark in the whole period from the breakdown of the Bretton Woods-system in 1971/73 has participated in the various European exchange-rate arrangements. It was of greater significance, however, how the weights to each of the words "fixed" and "adjustable" developed in the two countries.

The main theme of this article is why and how Denmark increasingly gave importance to the word "fixed" and how the present institutions work. At the same time some considerations will be given to why Iceland has drawn the opposite conclusion and now pursues a flexible exchange-rate policy within the framework known as inflation-forecast targeting, cf. Svensson (1997) and several other contributors.

There is presently little disagreement among economists that the ultimate goal of monetary policy should be price stability. Indeed, in the statute of the recently established European Central Bank price stability is clearly stated as the primary objective of the bank, and it is made clear that support of the general economic policies in the Community is only a secondary objective. In the USA, price stability enters the objectives for monetary policy, which most other OECD-countries are using inflation targeting strategies.

2. Exchange-rate developments

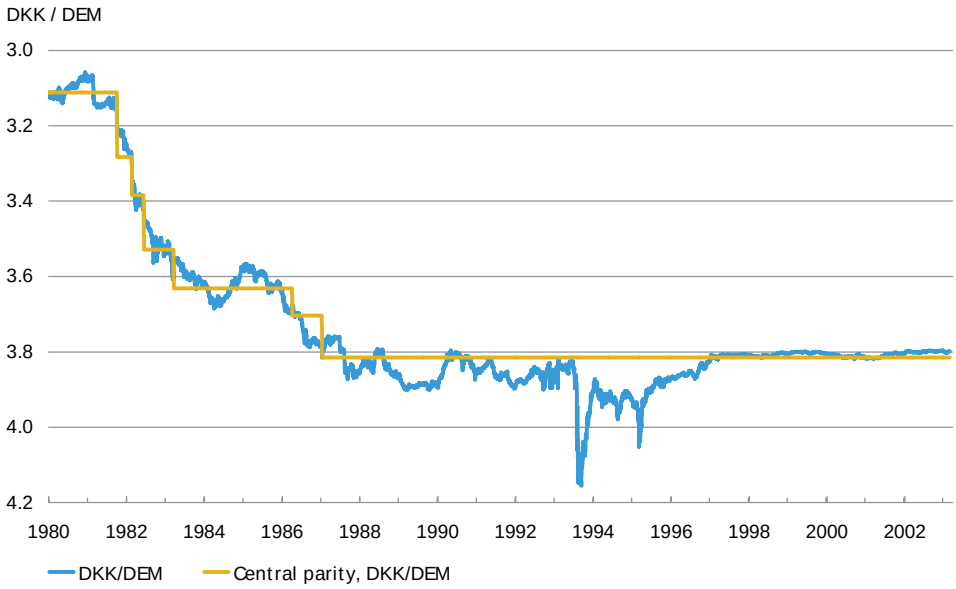
Before the creation of the European Monetary Union, most of the EU member states participated in the European Monetary System - a fixed-exchange-rate system based on a grid of bilateral central parities and intervention bands. Currently, three EU member states have not adopted the euro: while the UK and Sweden have inflation-targeting regimes and a floating exchange rate vis-à-vis the euro, Denmark follows a fixed-exchange-rate policy vis-à-vis the euro. The intermediate target for Danish monetary policy is thus the krone/euro exchange rate.

The new European fixed-exchange-rate system, ERM II, came into operation on 1 January 1999 replacing ERM I. Denmark became a member immediately, with a narrow fluctuation band of +/–2.25 per cent around a central parity of 746.038 kroner per 100 euro. In the Vienna communiqué of September 1998 the Danish narrow band is commented with "the high level of economic convergence achieved by Denmark in terms of the convergence criteria, including the very high degree of stability of the krone in the markets and the unchanged parity within ERM I since January 1987. This is the result of sustained stability-oriented economic policies". The standard fluctuation band in ERM II is +/–15 per cent.

Membership of ERM II was not a major change of the Danish monetary regime. As a matter of fact, Denmark has a very long tradition for a fixed-exchange-rate policy. The central parity vis-à-vis the euro corresponds exactly to the former central rate vis-à-vis the D-mark, which was unchanged from early 1987, cf. Chart 1. Furthermore, by 1982, exchange-rate realignments ceased to be a self-initiated Danish policy instrument. In 1998, ERM I had 12 members, the 11 countries that now form the euro-area and Denmark. Presently, with Denmark as the only member of ERM II, there is little risk of contagion from problems originating elsewhere. However, the hubs and spokes approach in ERM II compared to the bilateral parity-grid in ERM I, lowers the risk of contagion in case more countries participate.

Chart 1

The danish krone vis-à-vis the German mark and the euro



Note: From 1 January 1999 a conversion has been made to depict DEM instead of EUR.

The firm commitment to a fixed-exchange-rate policy originates from very poor performance of macroeconomic policy and, consequently, poor performance of the Danish economy in the 1970s. Against the background of high inflation, excessive budget deficits, permanent deficits on the current account of the balance of payments, frequent devaluations of the krone and high nominal interest rates, the Danish authorities in the early 1980s made a successful U-turn to a stability-oriented macroeconomic regime. The fixed-exchange-rate policy was, and still is, an important element in the macroeconomic framework in Denmark. See Christensen and Topp (1997) and Danmarks Nationalbank (1999) for a more detailed review of the change in Danish economic policy in the aforementioned period.

Participation in ERM is voluntary for EU member states. While participation in ERM I and ERM II have been beneficial to the Danish economy in its own right, these exchange-rate systems and the successful introduction of the euro should be viewed in a much broader context than from a purely monetary policy perspective. EU member states co-operate on a large range of political and economic issues and have set up a common legal and institutional framework, of which the ECB is only one example. This probably contributed to a smooth transition to a common monetary policy.

3. The Danish fixed-exchange-rate policy

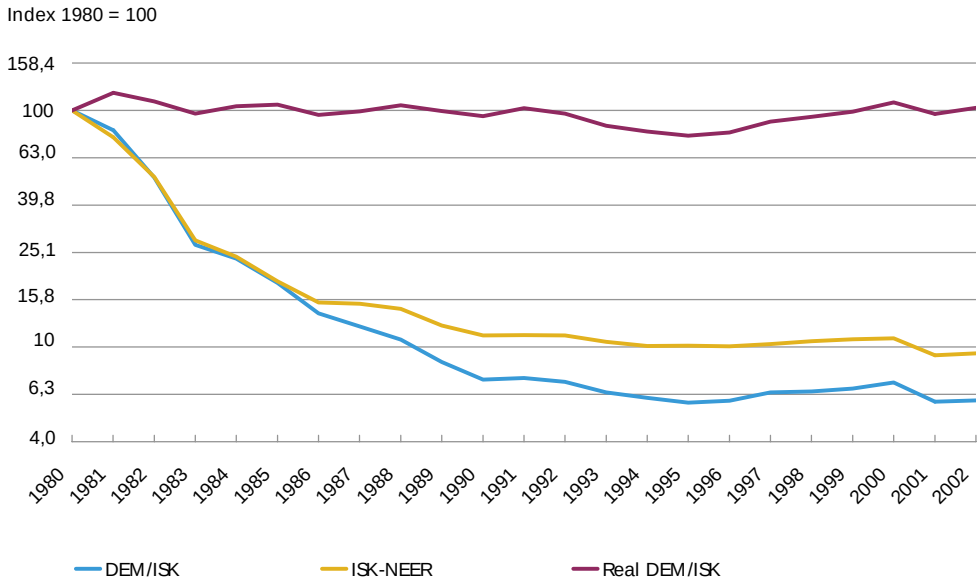
It is important to emphasise that the Danish exchange-rate policy is a fixed-exchange-rate policy, and not a fixed, but adjustable, exchange rate. Taken literally, this can only be true with euro area membership. However, in a Danish policy context it means that macroeconomic policies are conducted with a view to ensuring a fixed exchange rate. There is no contingency plan if things go wrong. In retrospect, it should be mentioned that this was a process gradually evolving in the mid 1980s and not fully completed until 1987 and not fully understood until the early 1990s, as was the case with the implications of the full liberalization of financial markets completed in 1988. The 1982 decision did not prevent small adjustments against the D-mark in 1983, 1986 and 1987. These adjustments took place in connection with adjustments demanded by other countries. France also stopped adjusting the parity after 1987.

The two key conditions for success are a strong commitment from the authorities to abstain from creating “home made” shocks (which according to the Danish experience are far more important than exogenous external shocks) and an unconditional willingness to subordinate monetary policy to the exchange-rate strategy.

The Icelandic experience has been quite different. According to Andersen and Gudmundsson (1998) Iceland has been subject to several external shocks, most related to fishing, either catches or prices. It is remarkable, however, that most shocks have been positive. From this perspective an appreciation of the Icelandic krone could have been an obvious way to distribute the increasing real income across the nation. However, this took place via inflation in wages, leading to rising real-wages as well, because of the high share of imported goods in private consumption. When profitabilty in fishing got squeezed demands for a depreciation of the currency were normally met after some time, cf. Chart 2. It is noteworthy, however, that this process has moderated in recent years even before the change in monetary-policy framework in 2001.

Chart 2

The Icelandic krona



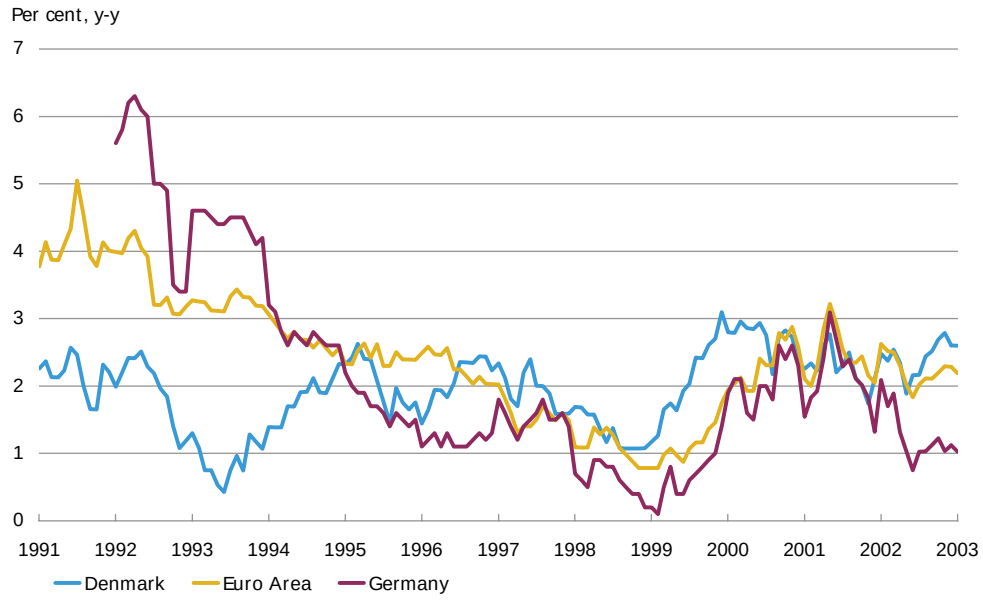
Note: Log scale

Price stability

A first test of the benefits of a monetary regime is to see if it delivers on the final goal. For a central bank the key issue is price stability, and the Danish monetary regime passes the test. Inflation measured as the percentage annual increase in the harmonised consumer price index (HICP) has been stable at around 2 per cent in Denmark since the early 1990s, cf. Chart 3. The persistence of low inflation has furthermore been conducive to low inflationary expectations. In the period since the announcement of the fixed-exchange-rate policy low and stable inflation has been achieved without loss of income relative to our major trading partners, Germany, Sweden and the UK, although it should be recalled that the transition to a low-inflation economy is not an isolated Danish phenomenon. Most OECD countries have achieved the same in the last decade, independently of their monetary-policy regimes. Consequently, Danish inflation performance cannot be taken as a proof of the superiority of a fixed-exchange-rate regime compared to other regimes.

Chart 3

Increase in harmonised index of consumer prices in Denmark, Germany and the euro area



Monetary policy and the business cycle

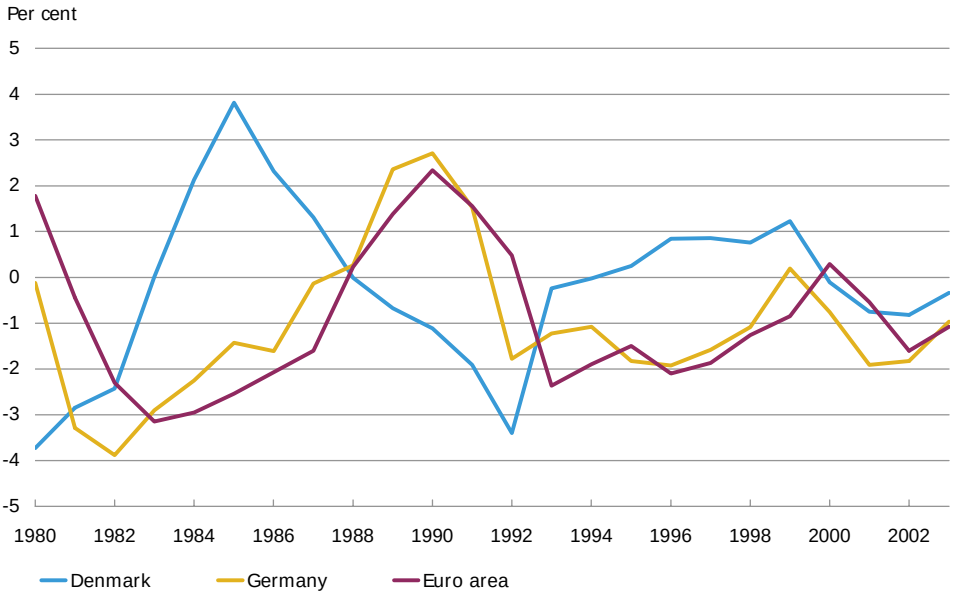
A fixed-exchange-rate policy implies that the stance of monetary policy is from time to time out of line with domestic short-term cyclical needs, and is potentially a destabilising factor. When key monetary-policy interest rates are closely linked to German interest rates, and since 1999 euro-area interest rates, there is no room for independent domestic stabilisation by means of monetary policy. This problem appears to be particularly severe in Denmark, where the business cycle - at least according to visual inspection - seems to be negatively correlated with the cyclical conditions in Germany and the euro area, cf. Chart 4. However, it is also possible to draw a completely opposite conclusion from the deviation in the cyclical patterns: cyclical divergence is immaterial to the success of a fixed-exchange-rate policy.

The monetary-policy transmission mechanism is of crucial importance in the choice between business-cycle and exchange-rate stabilisation. The direct effect from changes in short-term interest rates to domestic demand is comparatively small in Denmark. The terms for mortgage financing, which is the most important transmission channel to the household sector, are predominantly based on fixed 20-year or 30-year mortgage bond yields. Adjustable mortgage lending at 1-5 year interest rates has, however, gained in importance in recent years. In early 2003 approximately 30 per cent of mortgage-credit-lending has adjustable rates, in part reflecting a substitution from bank-lending to mortgage-credit-lending. In spite of this, it is unlikely to create major problems for handling future speculative attacks, because the spill-over to 12-months rates is rather limited. The greater concern with respect to adjustable rate mortgages is the financial health of households in case of a more global rise in interest rates, of Christensen and Kjeldsen (2002).

The basic textbook model includes only one policy instrument for short-term stabilisation - monetary policy. This is a standard formulation in the literature and also in line with practice in most industrialised countries. Discretionary fiscal policy came into disrespect after the abuse of the instrument in the 1960s and 1970s, which led to stagflation, large budget deficits and high public debt in many countries. Denmark has also suffered from this experience, but discretionary fiscal policy is still used to stabilise the economy.

Chart 4

Output gap in Denmark, Germany and the euro area



Note: 2002 and 2003 are projections.

Source: OECD, *Economic Outlook*.

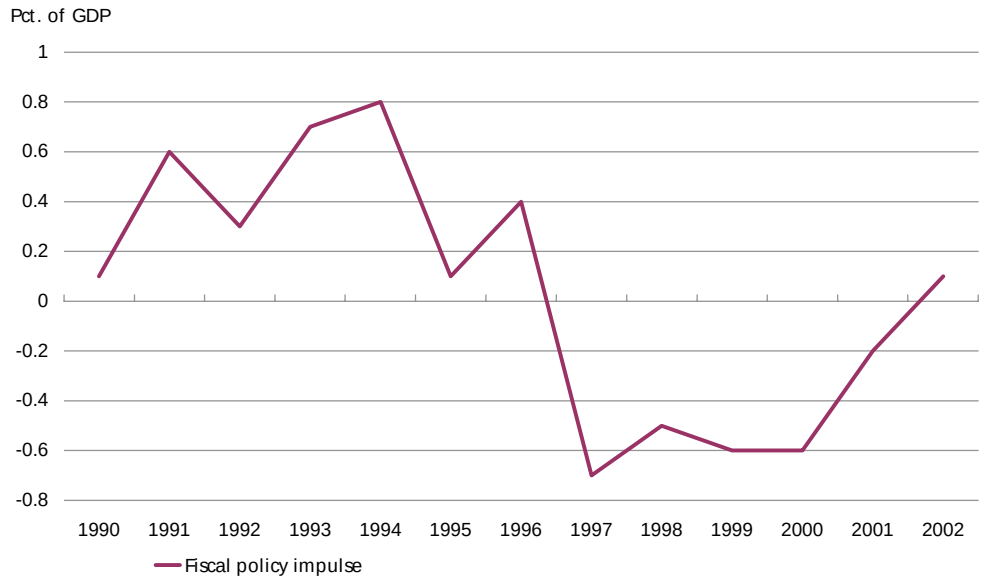
It is important to underline that the frequency of discretionary fiscal measures is low and far below the frequency of monetary-policy changes in countries with other monetary regimes. The government does not meet every two weeks to consider an adjustment to e.g. the VAT rate following the latest business-cycle information. During the past decade discretionary fiscal stabilisation measures outside the normal central-government budgetary calendar have been introduced on three occasions: temporary expansive measures in 1993, and contractive measures in 1997 and 1998, cf. Chart 5. However, considerations regarding the appropriate macroeconomic impulse from the government budget to output are made during the annual budget negotiations. In years when fiscal policy has not been used for stabilisation purposes the fiscal impulse, i.e. the contemporaneous contribution to GDP-growth from fiscal policy in a given year, has been close to zero. As is the case in most countries it is also politically easier to increase public expenditure and reduce taxes than the opposite in Denmark. However, it is our assessment that the reliance on a fixed exchange rate and occasional discretionary fiscal policy measures has dampened this inherent problem by a greater medium-term focus in fiscal policy.

Quite the contrary, the fixed-exchange-rate policy has been instrumental in the significant improvement in Danish economic policy that has taken place in the last 10-15 years. The Danish government, supported by a large majority in the Danish parliament, is committed to use fiscal policy if inflationary developments are out of line with the exchange-rate policy. The government has stated that fiscal policy will be adjusted if inflation deviates more than temporarily from the ECB's definition of price stability (0-2 pct. increase in the harmonised index of consumer prices - HICP).

Fiscal measures are taken with due regard for developments in government debt as well as in the current account. Indeed, except for 1998 Denmark has had a surplus on the current account of the balance of payments since 1990, while there has been a surplus on the government budget since 1997. Furthermore and equally important, the fixed-exchange-rate policy has brought structural reforms of the tax and benefit systems and the labour market to the policy forefront as the necessary tools to ensure low unemployment and growth in real income.

Chart 5

First year fiscal impulses in Denmark



Note: The fiscal impulse measures the impact on GDP of discretionary fiscal policy.

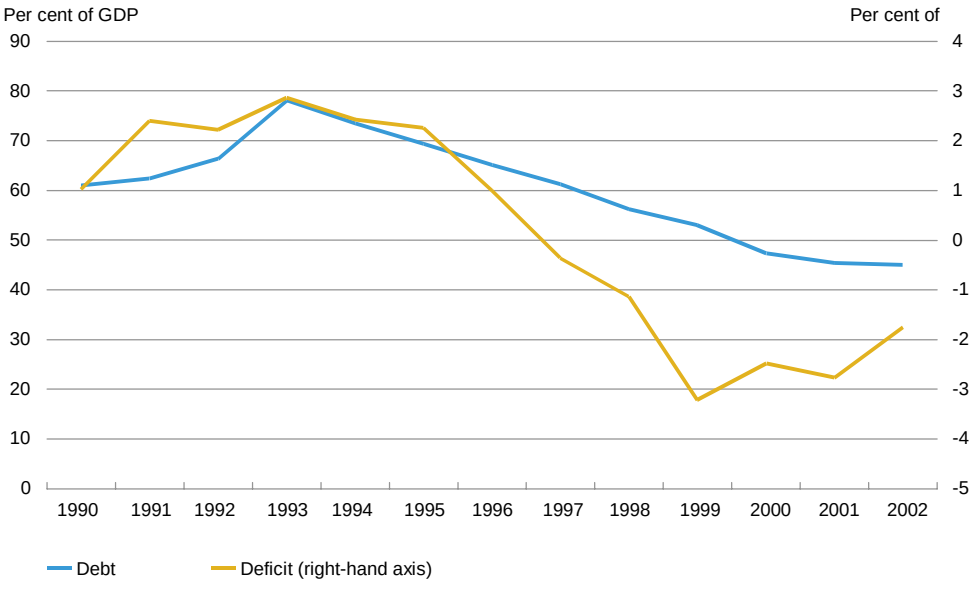
Source: Ministry of Finance.

The stability and growth pact in EU has been discussed on several occasions over the years. At the core is that countries should keep their budgets close to balance to have room for letting the automatic stabilisers work also during periods of weak activity. In this way deficits can be kept below the 3 per cent maximum set by the Treaty without problems unless the downturn is extraordinary severe. In such cases sanctions will not be used.

Denmark is also part of the stability and growth pact. The biggest difference between Euro members and UK, Sweden and Denmark with respect to the pact is that sanctions cannot be given to the Out-countries. The stability and growth pact has been seen as framework for medium term fiscal prudence in Denmark, cf. Chart 6.

Chart 6

Public debt and deficit



Asymmetric shocks, home-made shocks and exchange-rate policy in Denmark

A floating exchange rate is often considered useful in order to insulate an economy from certain shocks in a world with nominal wage rigidity and/or limited labour mobility. A fixed-exchange-rate policy can lead to excessive and protracted unemployment in such a world, and adjustment to asymmetric shocks is - at least in theory - an important argument against a fixed-exchange-rate policy. However, the importance of this argument requires answers to the following two questions: 1) What causes large positive and large negative output gaps? 2) Is a floating exchange rate an efficient shock absorber?

The Danish economy was in severe slump in 1981, reached a peak in 1986, went back into a period of slow growth, bottoming out in 1993, and has grown strongly since and exhausted the negative output gap, cf. Chart 4. The business cycle was also out of line with Germany as well as the entire euro area. The business cycle in itself and the deviation to the German business cycle cannot be explained by exogenous external factors. Firstly, the demand for Danish exports did not deviate from the trend to an extent that can explain the cyclical swings in the period under observation. Secondly, the terms of trade moved more or less in line with the terms of trade for other EU member states, ruling out external price shocks as an explanation. Hence, the roots of Danish output fluctuations are to be found among domestic factors. Accordingly, the analysis does not carry over to an economy subject to large external shocks.

The trough in 1981 had its origin in the very poor macroeconomic policies of the 1970s that can be summarised as traditional Keynesian demand stimulus to the oil-price shocks that led to long-term real interest rates in excess of 10 per cent. The sharp fall in nominal interest rates following the announcement of the fixed-exchange-rate policy in 1982, in combination with other austerity measures, was not accompanied by a corresponding immediate reduction in inflation expectations. This led to a decline in expected ex-ante after-tax real interest rates that triggered a boom in house prices and private consumption, leading to the peak in 1986. The until then highly preferential tax treatment of interest-rate expenditures was reduced as from 1987. A decline in actual inflation in combination with the tax changes led to a sharp increase in ex-post after-tax real interest rates that triggered the proceeding depression in the housing market and a strong increase in the private savings ratio. The Danish experience over the last twenty years is thus that “home made” domestic shocks stemming from economic policy are more important than exogenous external shocks.

The choice of exchange-rate regime is not a choice between a fixed nominal exchange rate and a floating exchange rate that evolves according to purchasing power parity. A floating exchange rate often moves relatively far away from any reasonable estimate of purchasing power parity and thus acts as a shock creator rather than a shock absorber, cf. Buiter (2000). The strength of the dollar in the mid-1980s and the weakness of the euro until recently are well-known examples. The importance of such unwarranted disturbances is most severe for small open economies such as Denmark. The exchange-rate movements depicted in Chart 7 and Chart 8 indicate that Sweden - a small open economy with a floating exchange rate and low inflation - receives far more noise from exchange-rate fluctuations than Denmark. The fixed-exchange-rate policy cannot ensure a stable nominal effective exchange rate or a stable real effective exchange rate. However, the weight to the euro in the effective Danish exchange rate is slightly below 60 per cent. Thereby, the fixed-exchange-rate policy yields a nominal hedge in a very important market for the Danish economy. This planning stability is beneficial to the business climate. A fixed-exchange-rate policy based on the nominal effective exchange rate would not offer such a hedge against any specific currency.

4. Monetary policy implementation and ERM II

The krone has remained close to the central parity against the euro since ERM II and the third stage of the European Monetary Union came into operation on 1 January 1999, cf. Chart 9.

In order to achieve exchange-rate stability, the interest rates of Danmarks Nationalbank are adjusted in step with those of the ECB, with due consideration of conditions in the foreign-exchange market, cf. Chart 10. A tendency for the krone to weaken will be met by a widening of the interest-rate differential, and vice versa. Interventions in the foreign-exchange market are used to dampen fluctuations in the krone rate.

Chart 7

Swedish krona and Danish krone vis-a-vis the euro

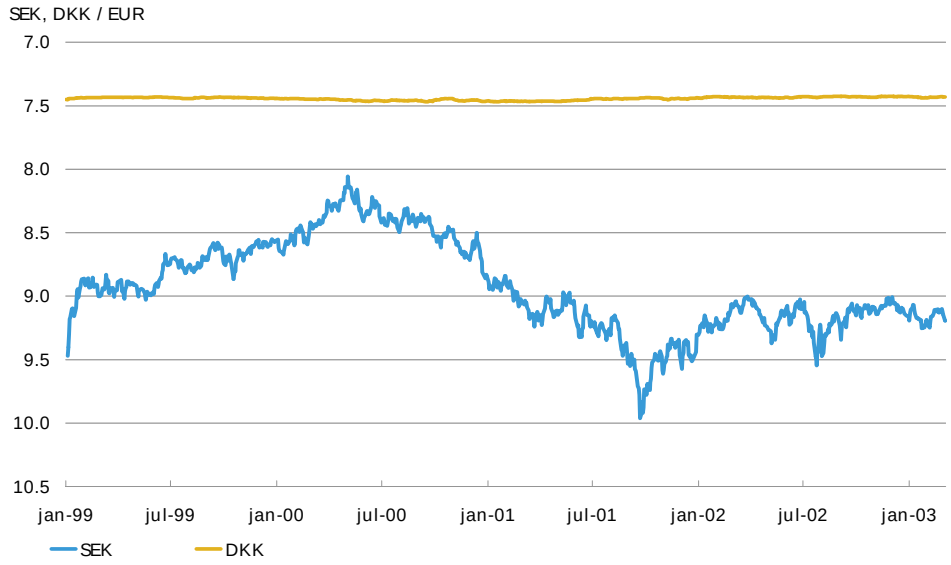
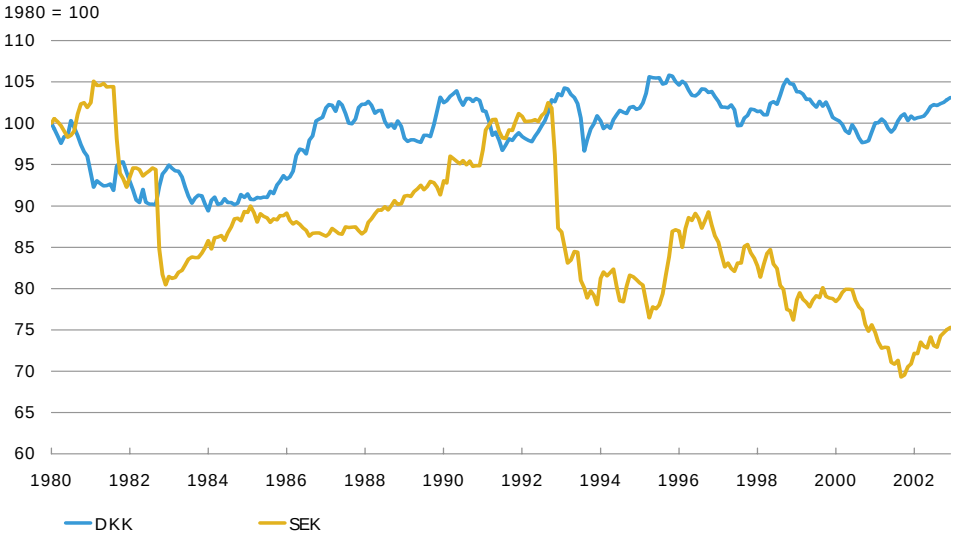


Chart 8

Real effective exchange rate in Sweden and Denmark



Note: The real effective krone rate is based on consumer prices. Most recent observation is June 2002.

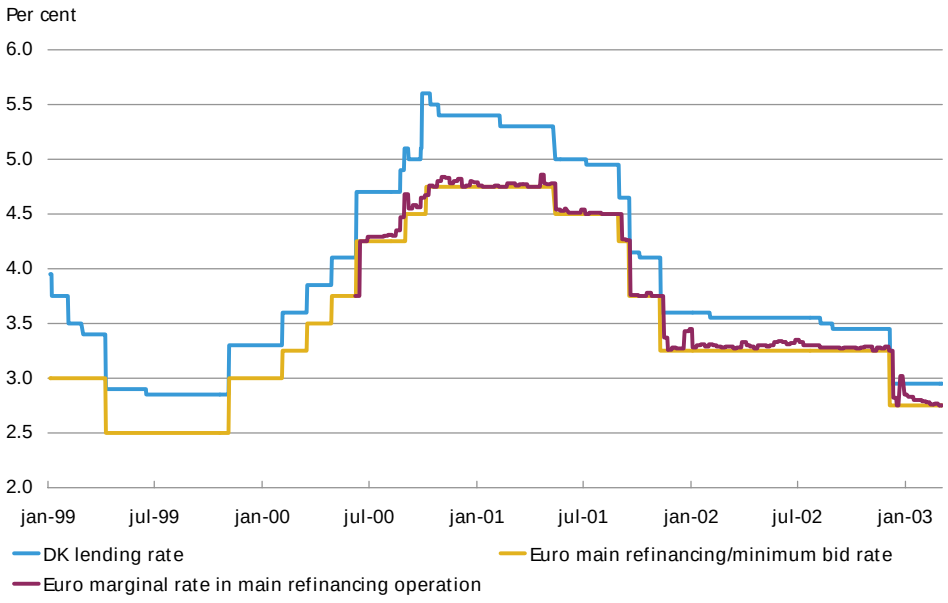
This implies that the decision-making body should be ready to take interest-rate decisions at more or less any time, and therefore the structure of the decision-making process is quite different from that of a central bank pursuing an inflation target. Moreover, the possibility of more or less real-time evaluation of the success of Danmarks Nationalbank's monetary policy, i.e. whether the exchange rate stays within the band, implies that there is no ambiguity with regard to fulfilment of the target. Accordingly the word transparency implies something different under a fixed-exchange-rate system and an inflation-targeting regime, cf. Storgaard (2002).

Chart 9

ERM II band and the Danish krone vis-à-vis the euro

Chart 10

Key monetary policy interest rates in Denmark and the euro area



It is evident from Chart 8 that the exchange rate against the euro is far more stable than allowed by the fluctuation band of +/–2.25 per cent against the euro. In the years preceding the breakdown of ERM I in 1992-93 many exchange rates, including the krone, fluctuated widely within the narrow band, while primarily the Dutch guilder, the Belgian franc and the Austrian schilling generally fluctuated little within the bands. Obligatory intervention at the margin was not a rare event, and realignments occurred frequently in some periods. Part of the explanation for these differences in exchange-rate dynamics under the two arrangements may be a higher risk of contagion effects from other countries under ERM I due to the parity grid in place. If, for example, macroeconomic developments in one member state seemed to justify a realignment of its central parity in the ERM I, this tended to affect financial market prices in other member states as well, reflecting expectations of further realignments.

In some cases this happened even though macroeconomic fundamentals did not seem to justify realignments in other countries, see for example Favero and Giavazzi for an analysis of contagion under ERM I. From a formal viewpoint there was no centre in ERM I, while ERM II consists of bilateral agreements between the ECB and each participating central bank. Problems in one country are there fore less likely to lead to problems for other countries. Of course, at the moment any contagion within ERM II can be ruled out as Denmark is currently the only member! From May 2004 onwards it can be envisaged that some of the applicant countries will start to participate in ERM II, but the risks of contagion are considered to be small due to the hubs and spokes arrangement.

The widening of the band to +/–15 per cent in 1993 was not considered meaningful as a basis for the fixed-exchange-rate policy of Denmark. Consequently, Danmarks Nationalbank embarked on a unilateral policy to stabilise the krone with the central parity as a point of reference - albeit from time to time a distant point of reference. This policy brought the krone to a stable position close to the central parity in early 1997. Since then, Danmarks Nationalbank's key interest rates have shadowed the interest rates of the Bundesbank, and as of January 1999 the interest rates of ECB. In addition, Danish interest rates have been changed unilaterally in periods with upward or downward pressure on the krone and in periods of unrest in foreign-exchange markets. The most notable incidents in recent years were in the autumn of 1998 in connection with the global financial turmoil and in the autumn of 2000 immediately after the referendum that rejected euro area membership.

It is crucial for the exchange-rate policy that Danmarks Nationalbank follows ECB rates without hesitation, irrespective of domestic considerations. Furthermore, the short-term interest rate differential has to be increased promptly if the krone has a pronounced tendency to weaken beyond the day-to-day fluctuations. Intervention in the foreign-exchange market cannot stand alone, but must be accompanied by appropriate increases in interest rates. In this respect the present Danish exchange rate arrangement is close to a currency board. It is also an integral element of the foreign-exchange defence that the interest-rate differential is increased quickly and substantially, but only reduced gradually as a delayed response to currency inflows. This policy ensures that speculation against the krone is costly and unprofitable.

The predominant role of long-term fixed-rate mortgages in Denmark and the limited spill-over from fluctuations in short-term rates to maturities of 12 month or more reduces the tensions associated with raising interest rates in order to defend the exchange rate. Furthermore, the monetary policy instruments used by Danmarks Nationalbank allow for a differentiation of monetary-policy signals that can ease the burden on "the man in the street" even further - at least in the short run. Commercial banks have unlimited access to borrowing at Danmarks Nationalbank in the weekly operations for as long as they have sufficient collateral. Danmarks Nationalbank's lending rate is thus the decisive signal for money-market interest rates.For short periods it may be raised more aggressively than the discount rate, which is the decisive rate for the general borrowing and deposit conditions at commercial banks. See Danmarks Nationalbank (1999, 2003) for a detailed account of the Danish monetary-policy instruments and various liquidity measures that can be implemented in the event of serious foreign-exchange unrest. Presently issues regarding speculative attacks seem to be of a theoretical nature with interest rate spreads against Germany at 15-20 basis points all along the yield curve. However, we continue to be prepared for even remote eventualities.

The fixed-exchange-rate policy and Danmarks Nationalbank's unconditional willingness to support the exchange rate are firmly embedded among participants in the foreign-exchange market as well as among Danish exporters and importers. The large commercial banks' speculative behaviour in the foreign-exchange market acts as a stabiliser. If the krone lies on the weak side of the parity, the commercial banks will position themselves in support of the krone, and they will furthermore advise their customers to purchase krone e.g. sell export proceeds in foreign currency. The reverse is the case if the krone is on the strong side of the central parity. All this takes place within a narrow range around the central parity.

From an economic point of view, the ERM II works smoothly and Denmarks has almost the samme exchange-rate stability as we would have had in case of membership of the European Monetary Union.

From a political point of view the situation is completely different. During the second stage of EMU, the Nationalbank participated fully in the preparatory work for the third stage. This came to an abrupt halt in the summer of 1998 when the ECB started. When the party to celebrate the new institution in Frankfurts Alte Oper on 30 June 1998 was over, the Nationalbank found itself marginalised. From one day to the next we went from a position in the core with our share of influence to a position without

influence and with difficulties in finding out what is on the active agenda. The Governing Council of the ECB has the understandable attitude that those who participate are those who decide, irrespectively of Danish participation in ERM II. This position is only fair and the Nationalbank of course accepts it. That being said, it is problematic because of the importance for the Nationalbank of the work of the ECB, not least because Denmarks position as an out-country is not given by a lack of fulfilment of the convergence criteria. The mandate of the General Council, where the Nationalbank participates, is quite limited. The Council only meets four times a year.

At the September 2000-referendum the majority of Danish voters rejected EMU-participation. In early 2003 polls suggest that the overwhelming majority of voters now favour participation, and even more voters feel sure that Denmark eventually will participate. It makes it more problematic to be without influence when full participation is a relevant alternative.

At the same time this implies a clear exit strategy, namely EMU-participation. Most other countries trying to conduct a fixed-exchange-rate policy, including Iceland, have not had the same lighthouse ahead, making it difficult to generalise the Danish experiences to countries with other institutional arrangements.

5. Conclusion

From an operational point of view the main importance of ERM II is to provide the central parity of the krone against the Euro.

Danmarks Nationalbank seeks to stabilise the krone within a much narrower range than the +/–2.25 per cent fluctuation band. The ERM II band serves as a safety net. It provides international support in a worst-case scenario. It is probably more important that by entering the ERM II agreement in 1998 the Danish government strengthened its commitment to pursue an economic policy in accordance with the requirements set by the fixed-exchange-rate policy.

A stability oriented macroeconomic framework conducive to growth and employment can undoubtedly be achieved in many different ways. In the case of Denmark the fixed-exchange-rate policy and ERM (I and II) membership have been instrumental to the establishment of such a framework. There are many country-specific circumstances that make life either easy or difficult under a fixed-exchange-rate regime. However, there are two fairly general lessons to be learnt. Firstly, monetary policy must be unconditionally subordinated to the exchange rate. Secondly, a fixed-exchange-rate policy is neither an approach by which lower interest rates can be achieved the easy way, nor a way to postpone structural domestic adjustments with the support of the anchor country. The primary responsibility for the establishment of a stability oriented macroeconomic framework remains with the individual country itself.