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Working Paper

The development of external balances in the nordic countries

Bank of Finland Discussion Papers, No. 24/1989

Provided in Cooperation with:

Bank of Finland, Helsinki

Suggested Citation: Peura, Tapio; Kollster, Uwe (1989) : The development of external balances in the nordic countries, Bank of Finland Discussion Papers, No. 24/1989, ISBN 951-686-213-6, Bank of Finland, Helsinki,
<https://nbn-resolving.de/urn:nbn:fi:bof-201908051345>

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TIIVISTELMÄ

Vaihtotase on ollut talouspoliittisen hallinnon keskeinen kohde vuodesta 1980-luvulla. Tärkeinä on ollut kasvun, vakauteen ja työllisyyden ja ulkomaankaupan nousun tavoitteet. Tämä on edellyttänyt rajoittavaa talouspoliittista suuntausta. Suomessa muuta nopeasti talouskasvu on heikentynyt ulkomaankaupan kasvun ja nähtävissä oleva velkaantumisen kasvun vuoksi. Talouspoliittinen keskustelu on ollut keskeinen osana vaihtotaseen seurauksena. Tämä on aiheuttanut huomattavia muutoksia taloudessa. Muutos on liittänyt vaihtotaseen muuttamattomaksi sekä julkisen talouden että vaihtotaseen. Ulkomaankaupan, palvelusektorin heikentymisen ja valtion sektorin tappion seurauksena vaihtotaseen on syntynyt taloudellisesti "rakenteellinen" taantuma. Vaihtotaseen taantuman seurauksena on syntynyt ylijäämä, jolla tavaraiden taantuma on korvattu palvelusektorin kasvulla.

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2.8.1989 24/89

THE DEVELOPMENT OF EXTERNAL BALANCES IN THE NORDIC COUNTRIES**

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**This Discussion Paper was originally published in May, 1989 by the Kiel Institute of World Economics as Kiel Advanced Studies Working Paper No. 163.

Journal of International Money and Finance
1989
1234 567-890-123-4
5678-901-234

TIIVISTELMÄ

Vaihtotase on ollut talouspolitiikan huolenaiheena kaikissa Pohjoismaissa 1980-luvulla. Tanskalla on ollut pysyvä, verrattain suuri alijäämä ja ulkomaanvelka on noussut korkeaksi. Tämä on edellyttänyt rajoittavaa talouspolitiikkaa jo vuosia. Suomessa muita maita nopeampi talouskasvu on heikentänyt ulkoista tasapainoa vähitellen ja nähtävissä oleva velkaantumiskehitys on noussut talouspolitiikan keskeiseksi huoleksi. Norjan vaihtotase kääntyi suurista ylijäämistä selvästi alijäämäiseksi 1980-luvun puolivälissä öljyn hinnan laskun seurauksena. Tämä on aiheuttanut sopeutumisongelmia koko taloudessa. Ruotsi on kireällä talouspolitiikalla onnistunut tasapainottamaan sekä julkisen talouden että vaihtotaseen. Ulkomaisen velkaantumisen, palvelutaseen heikkenemisen ja tulonsiirtojen kasvun seurauksena vaihtotaseeseen on syntynyt kaikissa Pohjoismaissa "rakenteellinen" alijäämäosa, mikä vastaa noin kolmea prosenttia bruttokansantuotteesta. Vaihtotaseen tasapainon parantaminen edellyttäisi tuntuva ylijäämää tavaroiden kaupassa, mikä puolestaan edellyttäisi taloudellisen aktiviteetin heikentymistä suhteessa muihin maihin.

ABSTRACT

External balance has been a concern for economic policy in all the Nordic countries in the 1980s. Denmark has had a permanent, relatively deep deficit in the current account and Denmark's net foreign debt has risen to a fairly high level. This has necessitated a restrictive economic policy for years. In Finland, faster economic growth than in other countries has gradually weakened external balance, and a foreseeable increase in foreign indebtedness has become the main concern of economic policy. In Norway, the current account turned from high surpluses into wide deficits in mid-1980s as a result of the fall in the price of oil. This caused severe adjustment problems in the whole economy. Sweden has succeeded in balancing the public sector finances and the current account by tight economic policies. As a result of increased foreign indebtedness, a weakening in the balance of services and an increase in transfers abroad, a "structural" deficit component has emerged in the current account of every Nordic country, corresponding to about 3 per cent of GDP. Accordingly, the improvement of the external balance would require a sizeable surplus in merchandise trade, which in turn would call for a weakening of economic activity in relation to other countries.

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External balance has been a concern for economic policy in all the Nordic countries in the 1980s. Denmark has had a particularly large adjustment problem. The current account has turned into a deficit and the external debt has risen to a fairly high level. This paper discusses the causes of the external imbalance and the adjustment process. It also discusses the role of the exchange rate and the impact of the oil price shock. The paper concludes that the external imbalance is a result of a combination of factors, including the oil price shock, the tight policies undertaken by the industrial countries, and the growing external imbalances in the three major countries. The paper also discusses the role of the exchange rate and the impact of the oil price shock.

1.1. The role of the exchange rate
 1.2. The role of the oil price shock
 1.3. The role of the industrial countries
 1.4. The role of the three major countries
 1.5. The role of the external debt
 1.6. The role of the adjustment process
 1.7. The role of the exchange rate and the oil price shock
 1.8. The role of the industrial countries and the three major countries
 1.9. The role of the external debt and the adjustment process
 1.10. The role of the exchange rate, the oil price shock, the industrial countries, and the three major countries

CONCLUDING REMARKS

LITERATURE

APPENDICES

1. INTRODUCTION

In the 1980s, the external imbalance of the major three economies and the attached exchange rate volatility, and the debt problem of the LDC countries have constituted the main concerns in the world economy. These problems have been a permanent topic in economic policy discussions. Several attempts to mitigate the problems have been made, and some progress has been reached, but the final solutions are still to be found. There is a risk that the problems again become critical and upset the world economy.

In these circumstances, less attention has been devoted to what has happened in the smaller industrial countries. These countries have had to adjust to an external environment largely determined by the big industrial countries and the weakening situation of the LDCs. Accordingly, the 1980s can be characterized as a decade of external shocks for the smaller countries: The decade started with the second oil price shock, which, together with the tight policies undertaken by the industrial countries, led to a severe recession in the world economy. The debt crisis of the LDCs broke out in 1982. The recovery in the United States initiated growing external imbalances in the three major countries, which was associated with exchange rate misalignments. Even if a turn in the exchange rates took place in early 1985, imbalances on current accounts widened further. A lack of confidence in the economic policies followed finally led to the crash in the stock market in late 1987. Also, the price of oil fell sharply in 1986, and has fluctuated widely since then. All these shocks have had sizeable effects on the smaller industrial countries.

In this paper we will consider, how the four Nordic countries - Denmark, Finland, Norway and Sweden - have performed in these circumstances. Especially, we concentrate on analyzing the development of the external balances in these countries. The Nordic countries have many similarities in their economic conditions and foreign trade patterns. As small open economies they are exposed to external shocks both in terms of goods and financial markets. The share of foreign trade (goods and services) in GDP is in Norway about 40 per cent, and

in Denmark and Sweden about one-third. In Finland, the share has declined to a quarter in recent years, as a result of the fall of the price of oil.

The Nordic countries have also important dissimilarities in their economic circumstances. Denmark - as a member of the European Monetary System - is perhaps more restricted than the others with respect to economic policy. In Finland, trade with the Soviet Union has had a considerable impact on the economy. Norway - as an oil producer - has been heavily dependent on changes in the price of oil. And Sweden has perhaps differed most in terms of economic policies adopted after the oil shocks.

During the past ten years, all the Nordic countries have had more or less worries about their external balances. We shall here compare the external deficits and analyze the reasons for them. Especially, the roles of relative economic activity, competitiveness and saving-investment behaviour of the major sectors are considered. The analysis is primarily empirical. In our previous papers (Kollster 1989, Peura 1989) we analyzed the current account imbalance and related factors at theoretical level.

The structure of the paper is as follows. In Chapter 2, we specify the major shocks facing the world economy in the 1980s. Macroeconomic performance and economic policy setting of the Nordic countries in the 1980s is reviewed in Chapter 3. The external performance of the Nordic countries is analyzed in Chapter 4. At first, we compare the structure and trends of the current accounts. Next we analyze the factors which have contributed to current account developments in these countries. Finally, the external indebtedness of the Nordic countries is compared. Concluding remarks are presented in Chapter 5.

2. EXTERNAL SHOCKS IN THE 1980S

The 1980s can be characterized as a decade of various shocks and external imbalances in the world economy. From a small country point of view these shocks can be regarded as external, and they can be classified as follows:

2.1 Price shocks

The decade started with the rise of the price of oil by some 150 per cent in 1979-80. The effects on each Nordic country were different. As an oil exporter, Norway enjoyed a terms-of-trade improvement of 25 per cent (from 1979 to 1981), while the other Nordic countries suffered terms of trade losses (see Chart 1 of the Appendix). In Denmark, the terms of trade weakened by about 10 per cent in two years, but in Sweden only marginally. Finland suffered a terms of trade loss of 5 per cent, which was soon compensated for by an increase in the volume of exports, as Finland paid her increased oil bill by export deliveries to the Soviet Union.

When the price of oil fell from the level of 28 dollars per barrel temporarily below 10 d/b in 1986, and remained at about 15-18 d/b thereafter, the effects on the Nordic countries were opposite. Norway suffered a terms-of-trade loss of 30 per cent (from 1985 to 1987), while Denmark's terms of trade improved by 9 per cent, Finland's by 14 per cent and Sweden's by 8 per cent. Favourable export demand contributed to Finland's terms-of-trade improvement. All in all, in 1988 terms of trade were in Finland 14% and in Sweden 10% better, in Denmark about the same, and in Norway over 10 per cent weaker than in 1979. In view of the high share of foreign trade in the Nordic countries, effects on the external balances and the whole economies have been sizeable.

2.2 Demand shocks

To check inflationary pressures resulting from the oil price rise of 1979-80, industrial countries pursued non-accommodating policies. Tight economic policy together with the direct effects of the oil price rise contributed to the weakening of economic activity worldwide. The 1982-83 recession proved to be the deepest after the world war. Real GNP declined in the United States by 2.5 per cent and in the seven major countries combined by 0.6 per cent in 1982. Indebted developing countries got into difficulties, which led to the outbreak of the debt crisis. Export markets of the Nordic countries stagnated for three years (1980-82), which was reflected in the weakening of the external balances of these countries.

Since 1984, import demand in industrial countries has increased continuously and the Nordic countries have benefitted from a relatively strong growth of export markets. However, the stock market crash, in October 1987, added uncertainty to the world economy. The steep fall in share prices undoubtedly reduced consumers' wealth, and finance to the corporate sector. Effects on economic activity, however, proved to be weaker than generally expected, and fair growth in the world economy has continued so far.

2.3 Exchange rate shocks

The 1980s has been a decade of wide external imbalances and volatile exchange rates in the major industrial countries. The Nordic countries have followed a relatively fixed exchange rate policy - Finland, Norway and Sweden in terms of their trade-weighted currency baskets (see Chart 2 of the Appendix) and Denmark vis-à-vis the EMS. Big changes in the exchange rates of the major currencies have, however, had marked effects on the competitive positions of the Nordic countries in different markets. The rise of the US dollar improved the competitive position of the Nordic countries in US markets, while weakened that in Central European markets. After the turn of the dollar in early 1985, competitiveness has weakened vis-à-vis US producers, but has slightly

improved vis-à-vis Central European producers. The effects on competitiveness from exchange rate changes have occasionally been greater than the effects coming from relative cost developments.

All these external factors have had effects on the external balances of the Nordic countries. Of course, current account developments in the Nordic countries have also been influenced by domestic factors, such as the strength of activity, cost and price developments, and economic policy targets on the whole. It is, however, difficult to properly evaluate how much external shocks and how much domestic policies have contributed to the external performance of the Nordic countries. The role of these factors is analyzed in the next chapters.

3. MACROECONOMIC PERFORMANCE AND PROBLEMS OF THE NORDIC COUNTRIES IN THE 1980s

3.1 General features

Traditionally, the Nordic countries have pursued growth-oriented economic policies with high emphasis on employment. This has often taken place at the cost of price stability and external balance. The rise of domestic costs and prices has generally been faster than in the OECD area on average. Resulting cost differences and external imbalances have often been corrected by devaluing the exchange rate.

In the 1980s, the Nordic countries have experienced many changes in their economic policy setting, and many of them have struggled with severe adjustment problems. Economic policies in general have turned to a more restrictive direction in order to avoid/correct external imbalances, to adjust to international disinflation and to the changes in the price of oil, and to cut government deficits. The Nordic countries have also had to adjust to developments in the international financial markets.

With the aim of improving competitiveness and the external balance, all the Nordic countries devalued their currencies in 1982. Since then they have followed, with minor exceptions, a relatively fixed exchange rate policy. Financial markets in the Nordic countries have been undergoing a radical change. Domestic markets have been deregulated and foreign capital flows largely liberalized. In Denmark, deregulation took place in the first half of the 1980s, while the other countries followed little later. The internationalization of financial markets and the liberalization of foreign exchange controls combined with a system of fixed exchange rates have reduced the autonomy of domestic monetary policy. The central banks have sought to limit the growth of monetary expansion through open-market operations and cash reserve requirements. Interest rates, which have roughly followed international developments, have, however, been higher than those abroad, reflecting inflationary expectations and positive risk premiums attached to the exchange rates of the Nordic currencies. Monetary policy has mainly been geared towards the exchange rate target.

In these circumstances, taking care of the external balance has mainly fallen on fiscal policy. In Denmark and Sweden, there has also been a need to reduce the size and the deficit of the public sector. Also in Norway has a tighter stance been adopted to fight inflationary pressures and to curtail the expansion of the public sector. Incomes policy has often played an important role in the Nordic countries in the efforts to control inflation.

In the 1980s, economic growth has in Finland and Norway been faster and in Denmark slower than in the European OECD countries; the Swedish growth rate has equalled the European average. Open unemployment has remained clearly below the OECD average in Norway, Sweden and Finland and close to that level in Denmark. In the Nordic countries, the disinflationary process was not as impressive as in the OECD area as a whole; the rate of inflation has generally been faster than the OECD average.

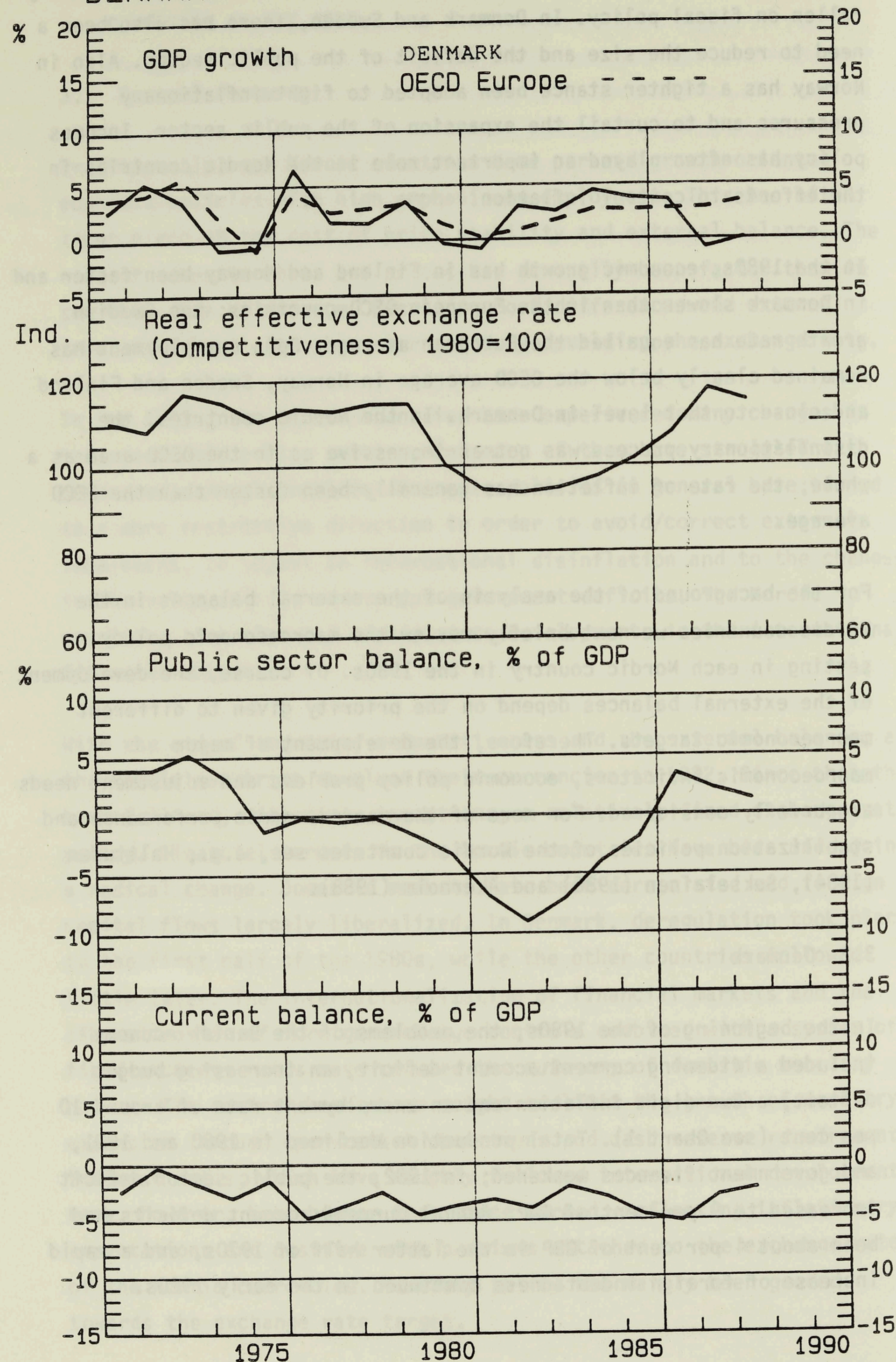
For the background of the analysis of the external balances in the Nordic countries we next briefly review the macroeconomic policy setting in each Nordic country in the 1980s. Of course, the development of the external balances depend on the priority given to different macroeconomic targets. Therefore, the development of major macroeconomic indicators, economic policy problems and adjustment needs are briefly considered. For more of the macroeconomic performance and stabilization policies of the Nordic countries see, e.g., Halttunen (1984), Sukselainen (1986) and Åkerholm (1988).

3.2 Denmark

In the beginning of the 1980s, the problems of the Danish economy included a widening current account deficit, an increasing budget deficit, a two-digit inflation and an unemployment rate of around 10 per cent (see Chart 1). Total production declined in 1980 and 1981, and government finances weakened; in 1982, the public sector deficit increased to 9 per cent of GDP. Annual current account deficits had been about 4 per cent of GDP in the latter half of 1970s, and a rapid increase of foreign indebtedness continued in the early 1980s.

CHART 1

DENMARK



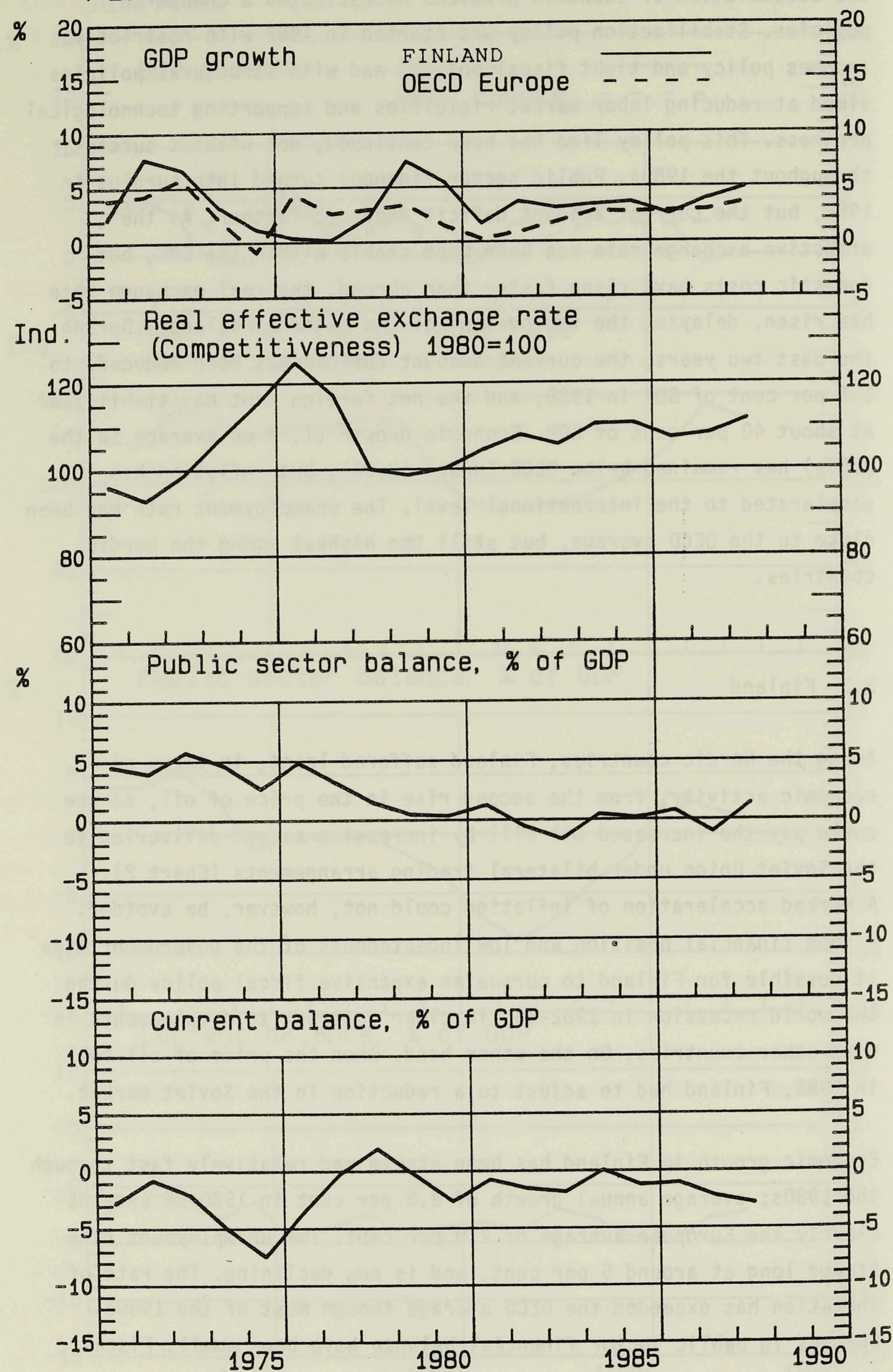
The accumulation of economic problems necessitated a change in policies. Stabilization policy was started in 1982 with restrictive incomes policy and tight fiscal policy, and with structural policies aimed at reducing labor market rigidities and supporting technological progress. This policy line has been continued, not without success, throughout the 1980s. Public sector finances turned into surplus in 1986, but the current account deficit deepened further. As the effective exchange rate has been kept stable within the EMS, but domestic costs have risen faster than abroad, the real exchange rate has risen, delaying the improvement of the external balance. During the past two years, the current account deficit has been reduced, to 1.7 per cent of GDP in 1988, and the net foreign debt has stabilized at about 40 per cent of GDP. Economic growth (1.7% on average in the 1980s) has remained below OECD Europe (2.0%), but inflation has decelerated to the international level. The unemployment rate has been close to the OECD average, but still the highest among the Nordic countries.

3.3 Finland

Among the Nordic countries, Finland suffered least, in terms of economic activity, from the second rise in the price of oil, as she could pay the increased oil bill by increasing export deliveries to the Soviet Union under bilateral trading arrangements (Chart 2). A marked acceleration of inflation could not, however, be avoided. A good financial position and low indebtedness of the government made it possible for Finland to pursue an expansive fiscal policy during the world recession in 1982-83, in clear contrast to developments in most other countries. On the other hand, when the price of oil fell in 1986, Finland had to adjust to a reduction in the Soviet market.

Economic growth in Finland has been stable and relatively fast through the 1980s; average annual growth of 3.5 per cent in 1980-88 exceeds clearly the European average of 2.0 per cent. The unemployment rate stayed long at around 5 per cent, and is now declining. The rate of inflation has exceeded the OECD average though most of the 1980s. Changes in public sector financial balance have been small. Fiscal

CHART 2
FINLAND

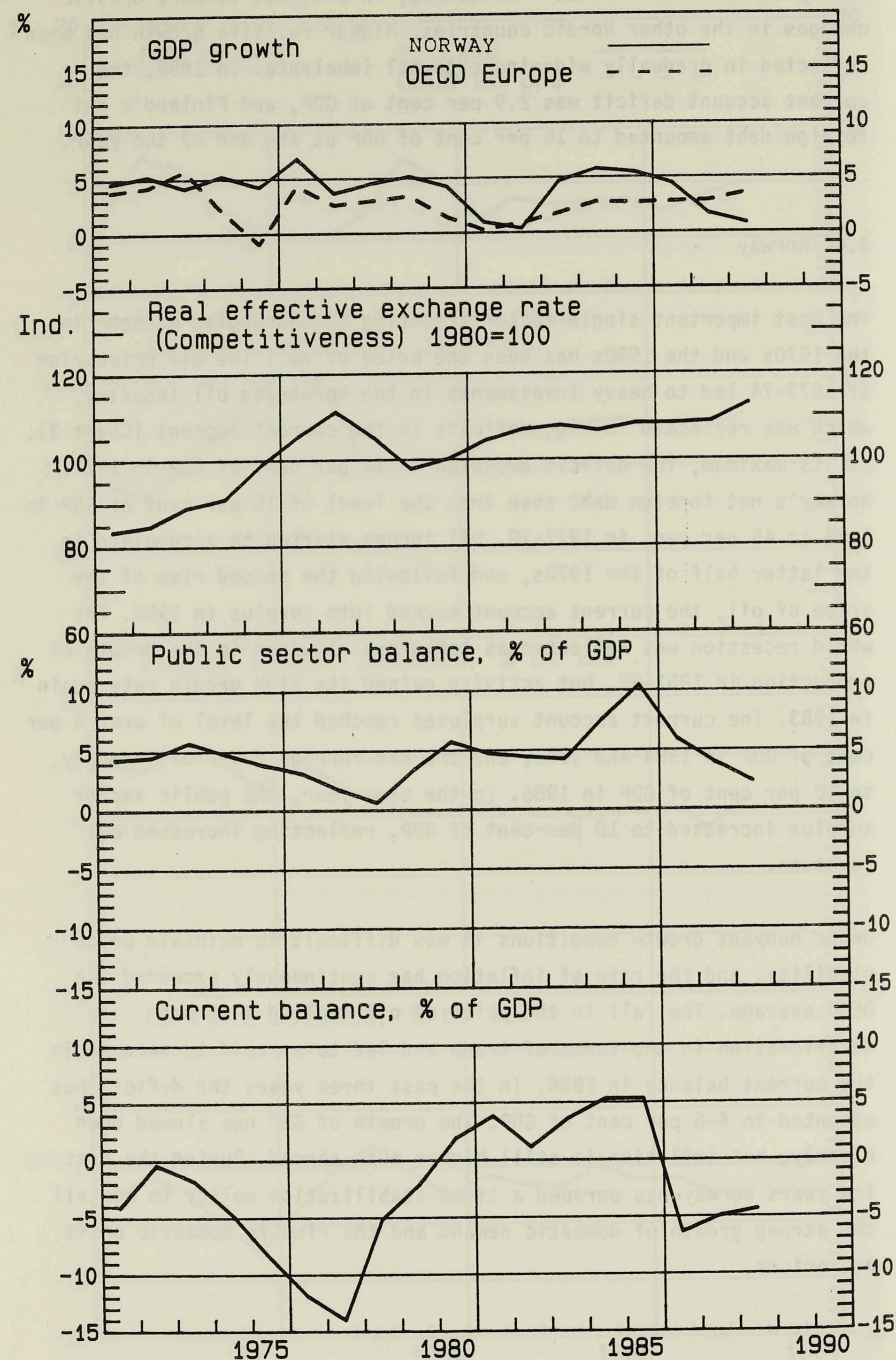


policy can be described as fine-tuning, in contrast to more drastic changes in the other Nordic countries. Higher relative growth has been reflected in gradually widening external imbalance. In 1988, the current account deficit was 2.9 per cent of GDP, and Finland's net foreign debt amounted to 16 per cent of GDP at the end of the year.

3.4 Norway

The most important single factor affecting the Norwegian economy in the 1970s and the 1980s has been the price of oil. The oil price rise of 1973-74 led to heavy investments in the Norwegian oil industry, which was reflected in high deficits in the current account (Chart 3). At its maximum, the deficit amounted to 14 per cent of GDP in 1977. Norway's net foreign debt rose from the level of 15 per cent of GDP in 1974 to 45 per cent in 1977-78. Oil income started to accumulate in the latter half of the 1970s, and following the second rise of the price of oil, the current account turned into surplus in 1980. The world recession was reflected as temporary slowdown in the growth of production in 1981-82, but activity gained its high growth rate again in 1983. The current account surpluses reached the level of over 5 per cent of GDP in 1984 and 1985, and the net foreign debt fell sharply, to 10 per cent of GDP in 1985. In the same year, the public sector surplus increased to 10 per cent of GDP, reflecting increased oil revenues.

Under buoyant growth conditions it was difficult to maintain price stability, and the rate of inflation has continuously exceeded the OECD average. The fall in the price of oil implied a strong deterioration in the terms of trade and led to a rapid turnaround in the current balance in 1986. In the past three years the deficit has amounted to 4-6 per cent of GDP. The growth of GDP has slowed down clearly, but inflation is still higher than abroad. During the past few years Norway has pursued a tight stabilization policy to curtail the strong growth of domestic demand and the rise in domestic costs and prices.

CHART 3
NORWAY

3.5 Sweden

Sweden tried to support domestic demand after both oil shocks, which, together with the oil price effects, led to a growing budget deficit, a deteriorating external balance and accelerating inflation (Chart 4). The problems were aggravated in the beginning of the 1980s, as public sector and current account deficits increased rapidly.

In the 1980s, the overall balance of the Swedish economy has improved notably. To redress increasing imbalances Sweden devalued the krona on two occasions, together by some 25 per cent in 1981-82. Devaluations helped to regain external equilibrium in 1984, and since then the current account has been more or less balanced. To reduce government indebtedness and the size of the public sector and to slow down inflation, fiscal policy was tightened drastically in 1986-87. As a consequence, a marked fiscal surplus has been recorded in the past two years. The rate of inflation continues to be higher than in the competitor countries, gradually weakening Sweden's price competitiveness. In the conditions of the pursued stabilization policies, economic growth has remained at 2.0 per cent on average in the 1980s, but open unemployment has been kept relatively low, below 2 per cent in 1987-88.

4. DEVELOPMENT OF EXTERNAL BALANCES IN THE NORDIC COUNTRIES

4.1 Structure and trends of the current balances

Current account developments have many similarities among the Nordic countries. This concerns as well the distribution of current accounts into main sub-items - merchandise trade, services, factor income and transfers - as the development of the balance in each sub-item (Table 1 and 2).

Trade balances. In Denmark, Finland and Sweden the trade account showed deficit for most of the 1970s and the early 1980s. This was also the main reason for the permanent current account deficit in these countries. In the 1980s, the trend has changed. Sweden has shown trade surpluses since 1983, Finland since 1984 and Denmark since 1987. The price of oil has swayed Norway's trade balance drastically: from deep deficits in the mid-1970s into high surpluses in the first part of 1980s, and back into deficit since 1985. Swings in Norway's current balance have been similar.

Services. The share of services in current account transactions has remained relatively stable in the 1980s in all the Nordic countries, with the exception of Finland, where the share has increased. The balance in the services account has weakened in all the Nordic countries. Still in 1980, all the Nordic countries had a marked surplus in their service account, corresponding to 2-3 per cent of GDP in Denmark, Finland and Norway and 0.7 per cent in Sweden. Now the surpluses have turned into slight deficits in Finland, Norway and Sweden, and also in Denmark has the surplus been shrinking. The deficit in the travel balance has widened especially in Finland and Norway, two of the most expensive countries in Europe. Trends in the service accounts signify a clear structural change in the Nordic countries.

Factor income. As the Nordic countries have mostly had deficits in their trade and current accounts, they have run into debt. With the rise in the net foreign debt, net interest payments abroad have

increased. Also their share in current account payments has increased rapidly in all the Nordic countries. Interest payments have become a permanent deficit component in the current account of every Nordic country. In Denmark, the deficit of factor income has already risen to 4 per cent of GDP, in other Nordic countries the corresponding share is around 2 per cent.

Transfers. All the Nordic countries post negative transfer balances. The main transfer item is development aid, which is relatively high in all the Nordic countries. The deficits in the transfers accounts have been widening during the 1980s, and they are of the order of 1 per cent of GDP in the Nordic countries at the moment.

Current balances. As illustrated above, the current accounts of the Nordic countries contain elements which are highly insensitive to economic policy measures. Therefore, the imbalances of factor income and transfers accounts can be regarded as structural. In Denmark, the deficit in these accounts corresponds to about 5 per cent of GDP, and in Finland, Norway and Sweden to about 3 per cent of GDP. Also the balance of services has been turning into deficit in the Nordic countries. Thus, the deficit accruing from other items of the current account than the trade account is currently about 3 per cent of GDP in all the Nordic countries. Accordingly, to balance the current account, a corresponding surplus in the trade account would be needed for some time.

4.2 Determinants of the current accounts

In this chapter we analyze more profoundly the development of the Nordic current accounts. We concentrate on their most important determinants, such as differences in economic activity, changes in the real exchange rate, and saving-investment gaps. Besides qualitative analysis we run some regressions in order to specify the causalities more accurately.

4.2.1 Differences in economic activity

Following the traditional approach to the balance of payments, the current account can be explained by relative incomes and prices, which have a direct effect on trade flows. Thus movements in the current account reflect differences in economic activity between the home country and foreign countries. In case of stronger domestic activity, demand pressures are translated into increased imports and lead to a deficit in the current account; the opposite holds in a relative domestic recession. Asynchronous business cycles may thus lead to a cyclically fluctuating current account. Sachs (1981), by contrast, criticizes the conventional wisdom about the cyclical fluctuation of the current account and argues that private reactions in saving to specific shocks determine the current account. Generally, demand-induced increases in output tend to increase savings and therefore partly offset the negative effects on the current account.

Charts 1 - 4 and Chart 3 in the Appendix demonstrate the relation between relative activity and the current account in the Nordic countries. The graphic analysis shows that the expected outcome mostly occurs. Relatively stronger domestic demand is connected with a worsening of the current account and vice versa. This result follows from the majority of observations in the second and fourth quadrants in all the countries in the chart 3 in the Appendix. The results are overwhelming in the case of Denmark and Finland.

4.2.2 The role of competitiveness

In economic theory, it is widely assumed that changes in the real exchange rate have an impact on international trade flows and thus on the current account. The exchange rate is therefore one instrument for removing external imbalances. So we analyze the link between the real effective exchange rate (as indicator of competitiveness) and the current account. The charts 1 - 4 shed some light on this relationship.

For Denmark, the expected link holds only for some years. Depreciation of the exchange rate does not seem to improve the current account. For

Finland, the exchange rate and the current account move as is expected in most of the years. The same is true for Sweden, taking obvious lags into account. Norway is the most peculiar case, because a relatively stable real effective exchange rate is connected with large fluctuations in the current account. The price of oil obviously explains most of the current account fluctuations.

These empirical observations reveal that changes in the real effective exchange rate can only partly explain movements in the current account. Lags, J-curve effects etc. may weaken the relationship and make it difficult to be observed. Furthermore, income effects may overcompensate the expected trade effects of an exchange rate change.

Changes in terms of trade - which may reflect both changes in competitiveness and in demand patterns - have also effects on the current account (Chart 1 in Appendix). In recent years, terms of trade gains have in all probability improved the current account in Denmark, Finland and Sweden, while the recent terms of trade trend has been unfavourable for the Norwegian current account.

4.2.3 Saving-investment patterns

By definition, the current account equals the sum of excess saving (gross saving minus gross investment) of the private and the government sectors (see e.g. Schroeder 1985). The saving-investment approach has many variants, such as the monetary and fiscal approach to the balance of payments (see e.g. Turner 1988). The saving-investment balances are themselves endogenous. Decomposition of the aggregate S-I balance into its various components (corporate, household, government) offers an opportunity to explain the current account. This approach has been used e.g. by Turner (1986 and 1988).

We calculated disaggregated saving-investment gaps for the four Nordic countries. For statistical reasons the corporate and household sectors were combined into a general private sector for Norway and Denmark. The following conclusions can be drawn:

For Denmark (Chart 1), we find that a widening external imbalance coincided with weakening financial position of the public sector until early 1980s, while private sector dissaving has been the main counterpart for the external deficit in the 1980s. However, private and government S-I balances are generally interrelated for a variety of reasons: for example, large budget deficits can lead to increased ex-ante private savings. Disregarding the wide theoretical discussion concerning this link, we can state, e.g., that the sharp fiscal tightening in 1986 was connected with an even sharper fall in private excess savings, so that the overall saving-investment gap widened.

Norway is a typical case of a government running positive excess savings. From 1978 to 1985, public sector surplus rose sharply, coinciding with an increasing current account surplus. The trends turned around in 1986. The private sector excess savings have fluctuated strongly because of cyclically varying investment. Thus private investment led to a deficit in the current account in the mid-1970s.

For Finland and Sweden, the private sector was decomposed into corporate and household sectors. Finland is characterized by a relatively stable development of its sectoral S-I balances and its aggregate balance. The public sector has mostly shown a surplus, the corporate sector both surpluses and deficits, while the total household sector has been in deficit.

Sweden's external balance weakened in the 1970s, reflecting weakening fiscal balance from positive into a negative position. This upshot in the fiscal deficit was only partly offset by additional private excess saving. Since 1982, external balance has improved with a radical change in the public sector financial position.

Naturally, the interpretation of these results has to be made cautiously. The S-I balances are themselves endogenous and interrelated. It is questionable to derive causal links from these patterns. The link between fiscal and external deficit is of special interest in the Nordic countries (see Lundgren 1986), but it is still

discussed controversially both from the empirical and theoretical point of view (see Kollster 1989).

Furthermore, not only the S-I gaps, but also the overall changes in saving and investment ratios provide some information about the reasons of external imbalances. Sachs (1981, p. 222) stresses, that especially in the OECD, "shifts in investment have typically dominated saving rate movements in explaining current account patterns". These investment effects may overcompensate government dissaving. So, a look at saving and investment ratios may show whether changes in the current account can be ascribed to changes in investment or saving.

For Denmark, the negative current account can mainly be explained by low savings, while the drop in the investment ratio down to a relatively low level of about 16 per cent could not improve the current account. Sweden has had a relatively constant investment ratio at about 20 per cent. The weakening of the current account was caused by a sharp decrease in saving between 1976 and 1983. Finland had posted investment ratios of around 25 per cent in the 1980s. Movement in the current account can be explained by both the rise of investment and the fall in saving ratios. Norway shows strong fluctuations in investment behaviour. In the 1970s, investment exerted a very strong impact on the current account, while in the 1980s declining saving ratios are responsible for the weakening of the current account.

4.2.4 Capital movements

An alternative way to explain changes in the current account is to start from the capital account. Autonomous shifts or changes in the portfolio preferences of investors change the capital account, while the current account is left to adjust accordingly. Here we only give a few examples of the capital movements and the current accounts of the Nordic countries.

It is sometimes argued that Norway in the mid- and late-1970s provides a typical example of a current account dominated by capital movements.

The oil shock led to an investment boom, which was financed to a great extent by foreign capital. The boom peaked in an investment/GDP ratio of 38 per cent and a current account deficit of 14 per cent of GDP in 1977. Recently, especially Denmark and Finland have experienced unprecedented spontaneous inflows of foreign capital (BIS 1988, p. 64). Denmark has attracted capital by offering high interest rates and stable exchange rate expectations, while Finland has relaxed restrictions on foreign borrowing. Increased capital inflows has been reflected in a worsening of the current account.

4.2.5 Econometric analysis

In the previous chapters, we described developments in the current account and contributing factors of the Nordic countries and drew some preliminary conclusions. Next, we try to specify the relationship econometrically. This may also give some insights into possible adjustment mechanisms.

The current account may be explained either by single equation models or by saving and investment equations estimated for each sector of the economy (see e.g. Turner 1986). We choose a single reduced form equation. It is specified as follows:

$$d(\text{CA/GNP}) = f(D_t - D^*_t, \text{dREER}_t, \text{dREER}_{t-1}, d(\text{INV/GNP})_t, d(\text{BD/GNP})_t)$$

Here d means a change, t refers to time and the variables are the following:

$d(\text{CA/GNP})$: Change in the CA/GNP ratio from the previous year.

This is the same variable as in Sachs (1981).

(According to our experiments the results were poor if CA/GNP was in a level form).

$D_t - D^*_t$: Difference between the annual growth rates of real domestic demand in the home country and in OECD Europe. For the coefficient, a negative sign is expected.

dREER_t : Change in the real effective exchange rate - an indicator of competitiveness - defined as the ratio of home-country

unit labour costs to competitor countries, in common currency (IMF data). We expect a negative sign for the coefficient.

dREER_{t-1} : Change in the real effective exchange rate from the previous year, with a lag of one year. The lagging should capture a reactional sluggishness of the current account on changes of the REER. We expect a negative sign.

$d(\text{INV/GNP})$: Change in the investment ratio from the previous year. A negative link is expected, i.e. increasing investment should worsen the current account.

$d(\text{BD/GNP})$: Change in the ratio of the general government fiscal balance relative to GNP. According to the conventional wisdom, a positive link is expected.

Before discussing the results, two comments on our specification of the current account equation are made: First, it might be appropriate to explain, alternatively, only the trade or the trade and services account, because interest payments may to some extent hide the development of the "true" current account. This may especially be the case for countries with relatively high external debt, like Denmark. But because interest payments are a relatively stable component over time, the change in the current account can be appropriately chosen. Second, more factors could be chosen to explain the changes in the current account, like the real interest rate differential between the home country and the relevant foreign countries, terms-of-trade changes or monetary stock variables (see e.g. Karunaratne 1988). This was, however, left to further studies.

We estimated five different variants of the equation. The estimation period extends from 1971 to 1987. The results are presented in Table 3.

In the first two variants, we chose as independent variables only relative activity and change in the real exchange rate, to assess the importance of these two variables in explaining current account

developments. As expected, relative activity exerts a significant impact on the current account, while the REER did not prove to be significant explainer for the current account. Differences between unlagged and lagged REERs were small.

Table 3
Econometric results

Test Country	Const	D-D*	dREER	dREER ₋₁	dBD/GNP	dINV/GNP	\bar{R}^2	D-W	F	St. Error of Regression
1 Denmark	-0.20	-0.25 (-2.21)	-0.02 (-0.26)				0.19	2.36	2.89	1.46
Finland	0.30	-0.46 (-5.36)	-0.06 (-1.30)				0.66	2.40	17.33	1.22
Norway	0.70	-0.48 (-2.24)	-0.28 (-1.15)				0.33	1.62	5.15	3.56
Sweden	-0.30	-0.32 (-2.31)	-0.02 (-0.32)				0.18	2.73	2.92	1.58
2 Denmark	-0.22	-0.29 (-2.53)		-0.05 (-0.73)			0.22	2.32	3.22	1.44
Finland	0.25	-0.48 (-5.23)		0.01 (0.25)			0.62	2.30	2.29	1.28
Norway	0.78	-0.59 (-2.90)		-0.30 (-1.32)			0.34	1.36	5.08	3.62
Sweden	-1.11	-0.20 (-1.18)		-0.05 (-0.60)			0.37	2.64	3.31	1.47
3 Denmark	-0.20	-0.26 (-2.01)	-0.02 (-0.27)		0.02 (0.11)		0.13	2.37	1.80	1.52
Finland	0.32	-0.44 (-4.17)	-0.07 (-1.31)		0.12 (0.46)		0.64	2.34	11.01	1.25
Norway	0.64	-0.65 (-4.06)	-0.13 (-0.75)		1.20 (3.88)		0.65	1.74	11.67	2.55
Sweden	-0.32	-0.31 (-2.44)	-0.06 (-0.95)		0.33 (1.79)		0.29	2.84	3.31	1.48
4 Denmark	-0.08	-0.38 (-1.58)	0.10 (0.65)		-0.21 (-0.52)		0.22	1.99	2.03	1.42
Finland	0.17	-0.33 (-1.74)	-0.01 (-0.21)		0.45 (-0.98)		0.67	2.17	8.39	1.29
Norway	1.19	-0.41 (-0.76)	-0.23 (-0.62)		-0.57 (-1.37)		0.36	1.30	3.02	4.12
Sweden	-0.42	-0.05 (-0.34)	-0.05 (-0.84)		-1.67 (-2.48)		0.33	1.81	2.79	1.37
5 Denmark	-0.09	-0.37 (-1.38)	0.09 (0.56)		0.01 (0.03)	-0.22 (-0.43)	0.11	1.99	1.33	1.51
Finland	0.25	-0.32 (-1.58)	-0.03 (-0.39)		0.16 (0.39)	-0.40 (-0.78)	0.63	2.09	5.66	1.37
Norway	1.65	-1.74 (-3.84)	0.43 (1.59)		2.07 (4.09)	0.71 (1.79)	0.78	2.45	10.88	2.40
Sweden	-0.29	-0.09 (-0.69)	-0.10 (-1.95)		0.45 (2.26)	-1.29 (-2.26)	0.56	2.56	4.44	1.11

In the third variant, we added the impact of the fiscal balance on the current account. For all countries, a positive (expected) relationship is suggested, but significantly only for Norway. Relative activity remains significant for all the countries, while the coefficient of the REER shows only the expected sign. The explanatory power of this equation is highest for Finland and Norway.

The fourth and fifth variants incorporate changes in investment ratios. Even if the signs of the coefficients are right for most of the countries the explanatory power of the equation remains weak. The significance of relative activity decreases, as more explanatory variables are included in the equation.

On the basis of these estimation results, the following preliminary conclusions can be drawn - which support the earlier results of our graphic analysis: First, relative activity would seem to be the most important explainer for changes in the current account in all Nordic countries. Second, the real effective exchange rate did not prove to be a statistically significant explainer for the Nordic current accounts. Here our results are in conformity with the recent findings of Turner (1986) for the G7 countries. However, this interpretation has to be taken cautiously, because of the empirical problems in assessing the impact of competitiveness, as mentioned above. Third, the problem of interdependencies between the variables may blur their impact on the current account. Therefore, also the roles of investment and fiscal balance remain unclear. However, our results point to the need for general macro policies in reaching a "satisfactory" balance in the current account. Naturally, more econometric work is needed to get more reliable results.

4.3 Foreign debt positions

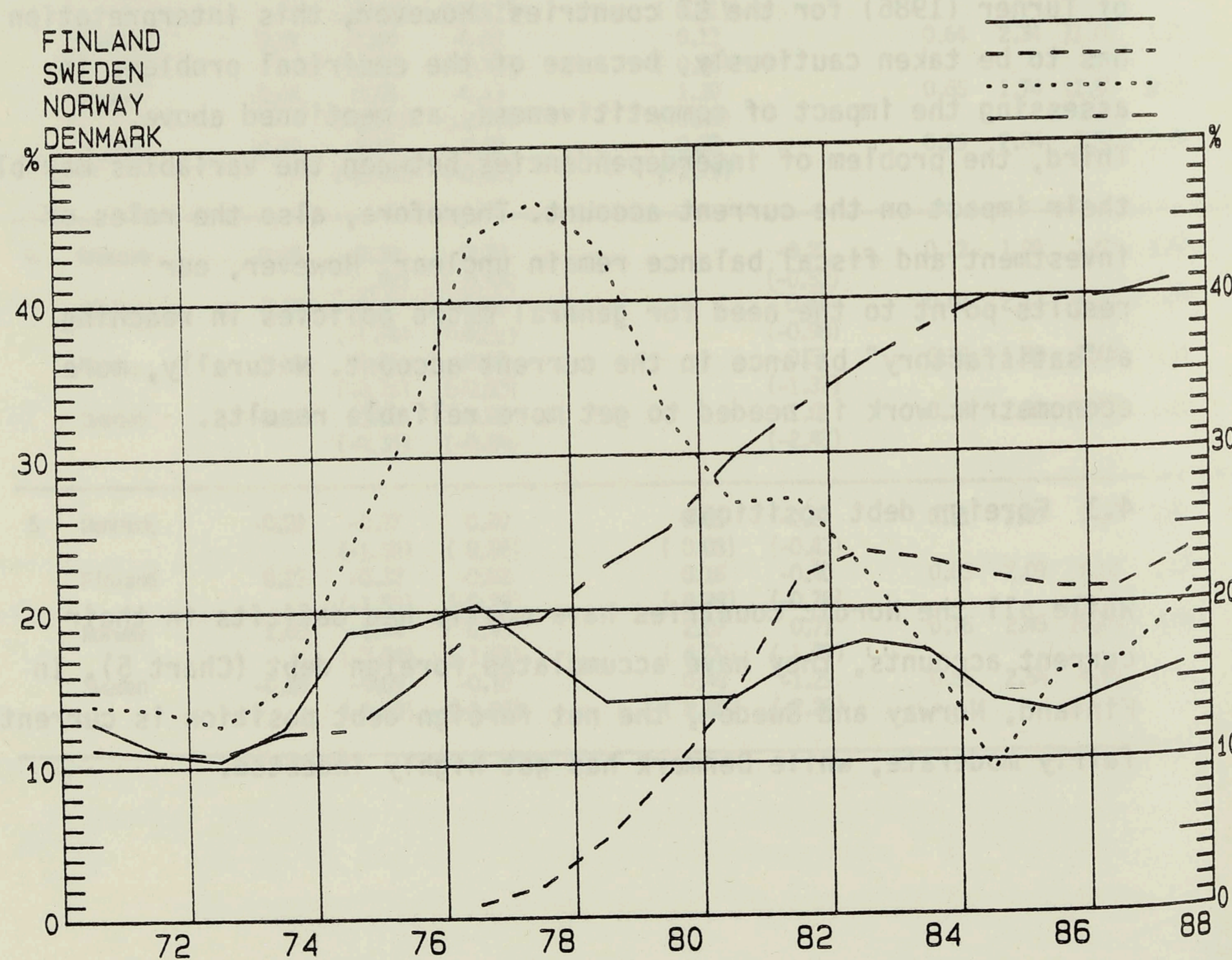
While all the Nordic countries have mostly had deficits in their current accounts, they have accumulated foreign debt (Chart 5). In Finland, Norway and Sweden, the net foreign debt position is currently fairly moderate, while Denmark has got highly indebted.

Denmark's permanent external deficits raised the net foreign debt from 10 per cent of GDP in 1973 to 40 per cent in 1985. Since then the relation has stabilized. Big changes in Norway's external debt reflect the huge current account deficits in the 1970s and the high surpluses in the 1980s, thereby reflecting the period of oil investment and the period of high oil revenues. Finland's external debt rose in the mid-1970s from 10 per cent to 20 per cent of GDP, and has declined somewhat since then. Finland's debt position has also remained relatively stable as compared with the other Nordic countries. Sweden became a net debtor in the mid-1970s, and debt increased rapidly until 1983, reaching 23 per cent of GDP, but has stabilized since then. In 1988, net foreign debt in relation to GDP increased slightly in all Nordic countries.

These figures are only comparable measures of the existing debt positions. They do indicate neither optimality nor sustainability of the foreign debt positions in the Nordic countries.

CHART 5

NET FOREIGN DEBT AS A PERCENTAGE OF GDP



5. CONCLUDING REMARKS

In the 1980s, the external balance has been a concern for economic policy in all the Nordic countries. Denmark has had a permanent, relatively high deficit in the current account through the 1980s. Denmark's net foreign debt has been on a level that has necessitated a restrictive macroeconomic policy for years. Finland's external balance has been gradually weakening in the 1980s. The annual deficits have been moderate, so far, and the net foreign debt manageable. Norway's current balance has swayed from high surpluses into wide deficits with the price of oil, causing adjustment problems throughout the economy. Following drastic adjustment measures, Sweden has got her current account back into equilibrium, but faster inflation than abroad is gradually undermining the newly-won stability.

Due to accumulated external indebtedness and deficits in the transfers accounts, every Nordic country has a "structural" deficit component in her current account, corresponding to about 3 per cent of GDP. To balance the current account, a corresponding surplus in the trade account would be needed for some years. This would require relatively stronger activity abroad than in the Nordic countries.

Our preliminary analysis shows that relative activity has been the major determinant of the external balances in the Nordic countries. Competitiveness has also had some significance for the current account, even if the effect has not been as clear-cut. In Norway, also the public sector financial balance has had a significant effect on the current account. To draw more reliable conclusions, further econometric analysis is, however, required.

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DATA SOURCES

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APPENDICES

Chart 1

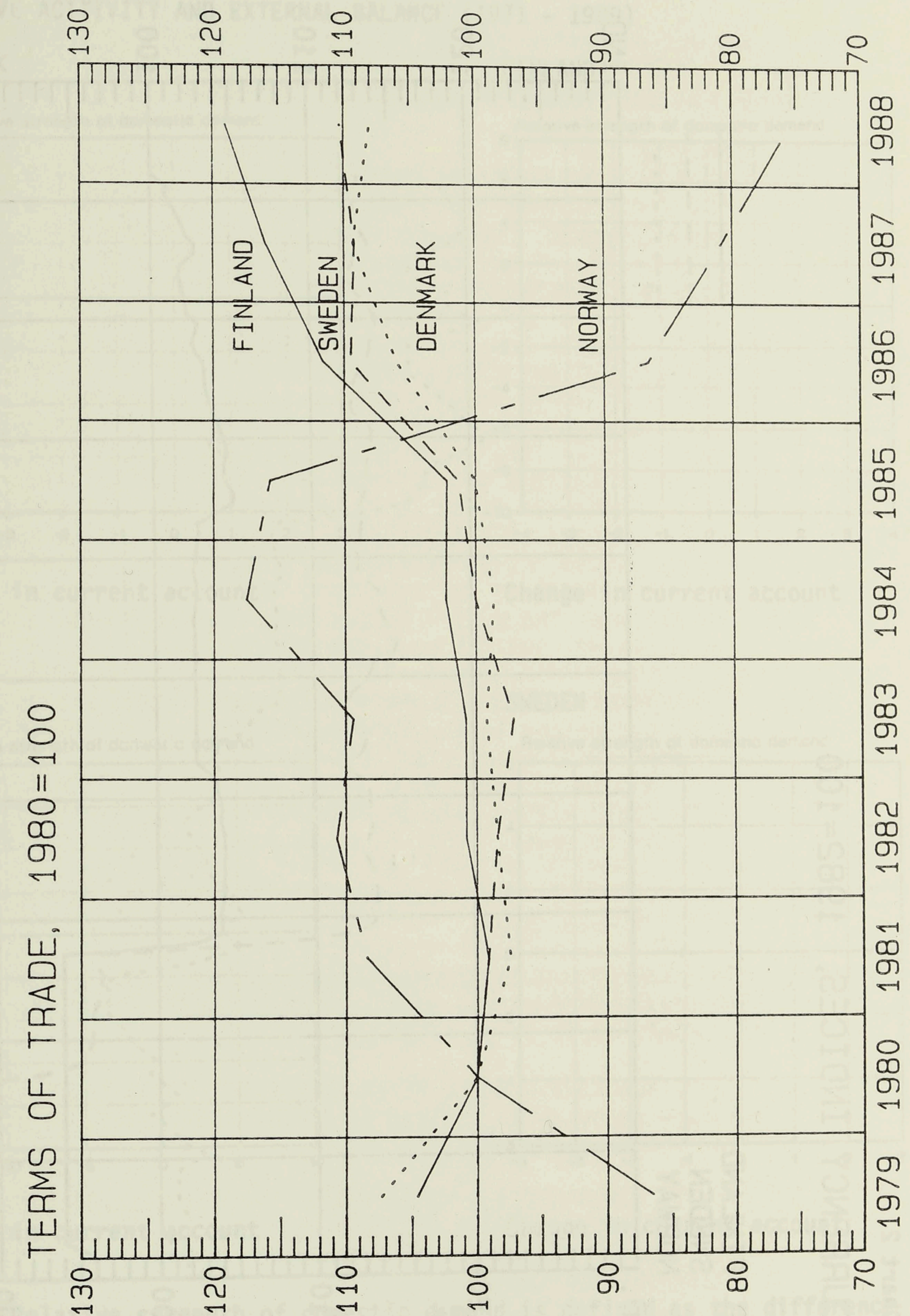


Chart 2
CURRENCY INDICES, 1982=100

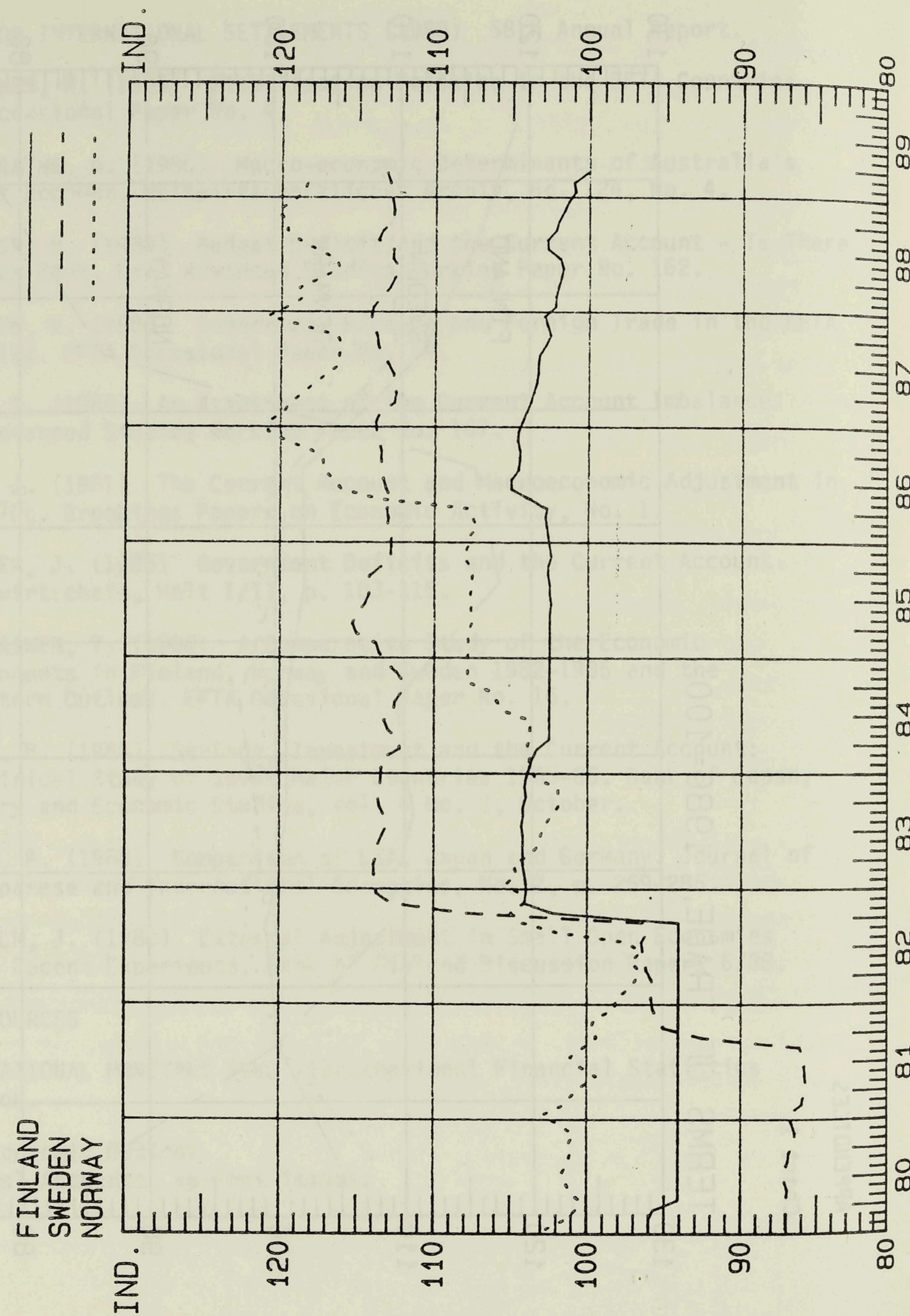
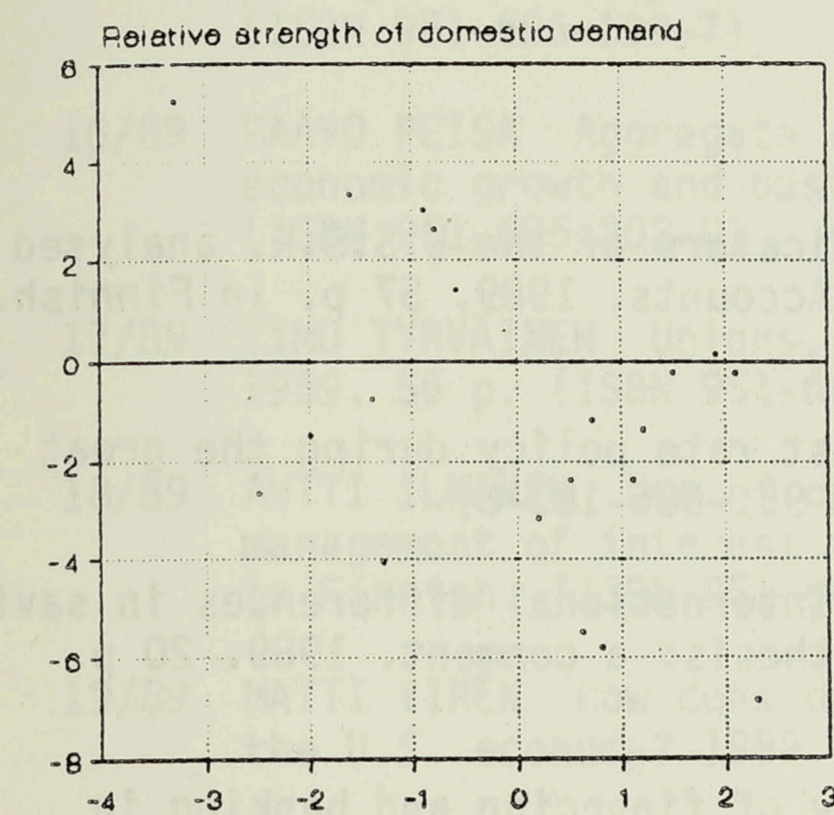


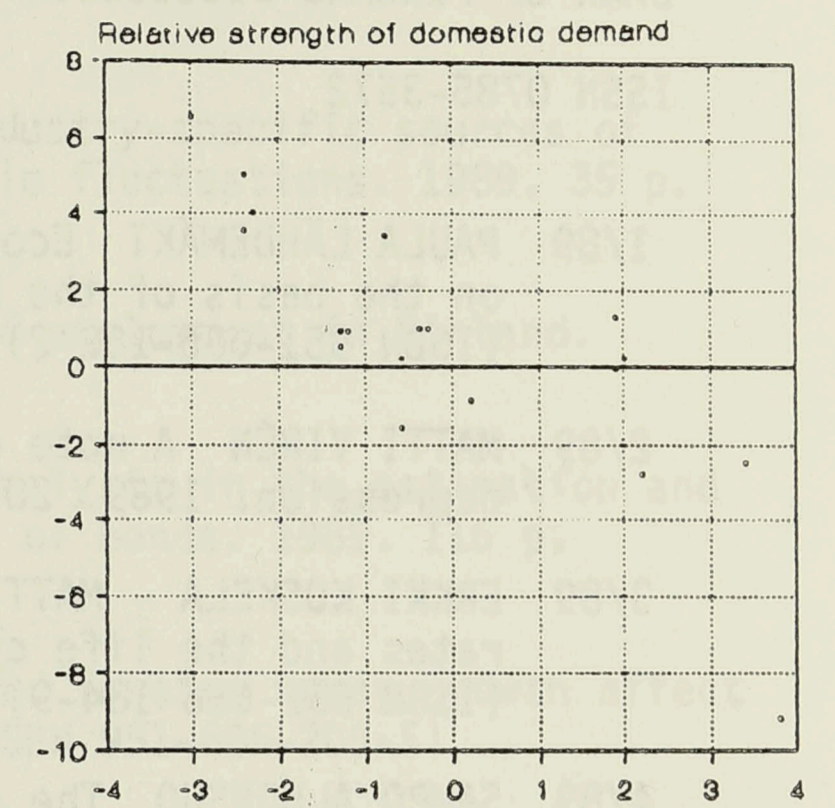
Chart 3

RELATIVE ACITIVITY AND EXTERNAL BALANCE (1971 - 1989)

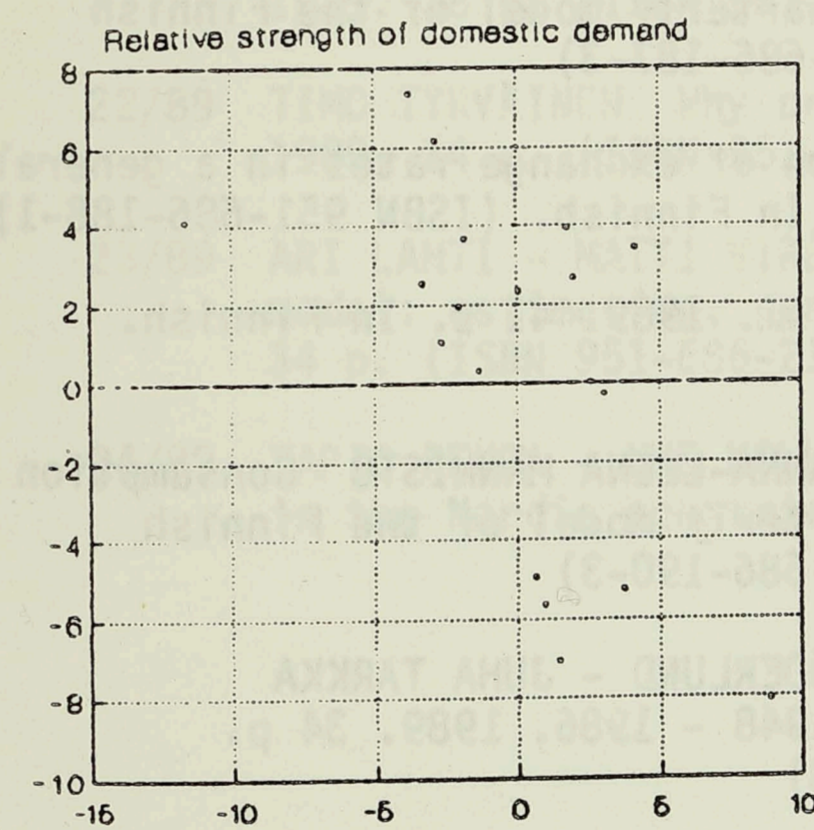
DENMARK



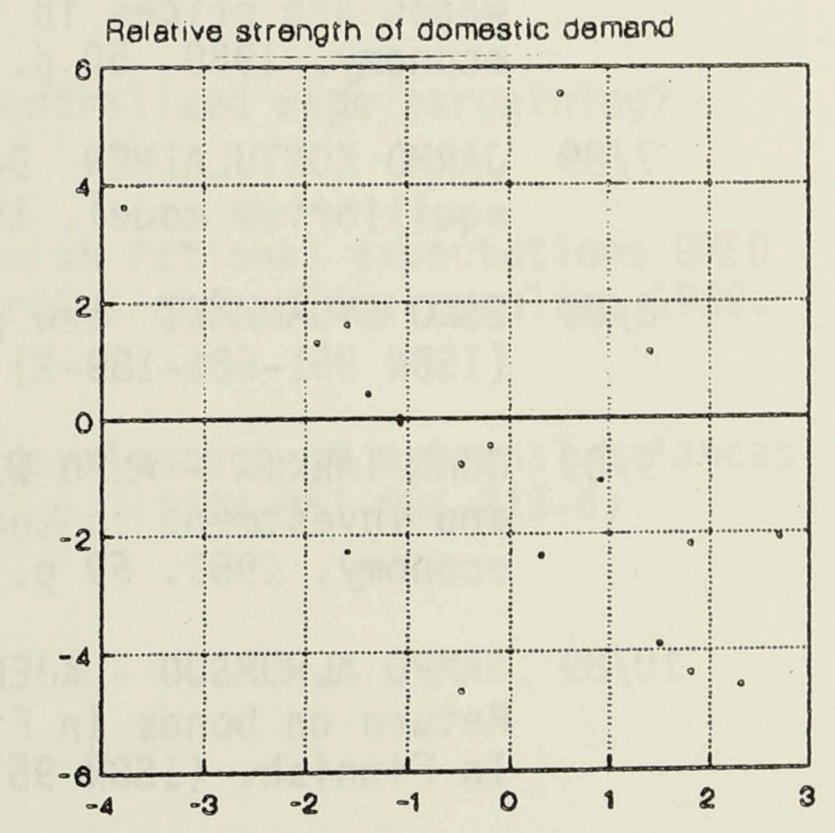
FINLAND



NORWAY



SWEDEN



Change in current account

Change in current account

Note: Relative strength of domestic demand is defined as the difference between the yearly percentage change of real domestic demand in the home country and in OECD Europe. Change in current account is measured as change in the current account - GDP ratio (in %) from the previous year.

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