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Paper

WILL INTERNATIONALIZATION LEAD
TO A CONVERGENCE
OF NATIONAL ECONOMIC POLICIES?

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Introduction

Internationalization - especially the ongoing European integration - is supposed to result in convergence of macroeconomic variables. There are two different views on how such a convergence will take place. One side argues that convergence will result out of breaking down borders between national economies. Economic outcomes would then be the result of legal arrangements such as free factor mobility. There would, therefore, be no need to set targets for the maximum deviation of broad economic aggregates like inflation rates within the Community, since the market would produce an adjustment of data. The other side seems to be more sceptical about such an outcome and tries to fix ranges of acceptable deviations of economic variables within the Community. They attempt to fix economic facts by law and by legal commitments. The last Maastricht meeting can be seen as such an attempt. The need for convergence of economic variables as a precondition or at least as a target for the single market is stressed. Convergence would therefore be a precondition or a target but not an automatic result of integration. Voices in favor of fixing targets have certainly to do with the fear of big countries (like Germany) having to play an umbrella-role in the EC similar to the one the former Soviet Union had to play for the smaller Eastern European countries. In fact, it can be shown, that small countries can take free rider positions (e.g. increasing their public debts at national financial markets) which cannot be sanctioned easily by big countries.

In this paper we address the question differently: we want to find out empirically whether convergence of economic variables is a general trend of economies exposed to increased internationalization. Only then can we discuss whether convergence of economic policies is a precondition, a result or a desirable or avoidable option for the functioning of the economy.

I. Some Theoretical Thoughts on the Convergence of Macroeconomic Variables and the Choice of Indicators

We measure internationalization by the degree of factor mobility, i.e. financial capital mobility, real capital mobility and labour mobility. The options for politics are changed when factor mobilities vary. In the ideal economists' world of perfect factor mobility, national policies would become unfeasible but at the same time superfluous: If financial and real capital went to its best use at infinite speed and if also labour were perfectly mobile - if e.g. a worker could be employed both in Portugal and in the U.S. - and if there were no barriers or restrictions to free trade, national economies would work perfectly from an allocative viewpoint. No national policy whatsoever can or should intervene in this "best of the worlds". We would have a clear tendency towards convergence of macroeconomic variables. It should be stressed, nevertheless, that even under these perfect, harmonious conditions differences

among national or regional policies could persist. Social
security systems and tax systems could e.g. differ if workers
have different "tastes". As Tiebout (1961) pointed out, we would
have "islands" of different public policy arrangements according
to people's preferences.

Yet, factors are never perfectly mobile. In general, financial
capital is more mobile than real capital which in turn exceeds
the mobility of labour. This means that financial disturbances
are more quickly transferred into other countries than real
phenomena. There was a rapid increase in financial capital
mobility at the end of the 1970s and - at least theoretically -
there is no intrinsic barrier for it to become infinitely high,
if one imagines a fully computerized financial system. Also real
capital mobility has increased. Nevertheless, there are limits
of further increase due to persistent political risk differences
among countries and due to intrinsic barriers inherent in the
very nature of real capital. These are its dependence on
geographical nearness to raw material and consumer markets, high
sunk costs and costs of transportation. Labour mobility (except
for some specific high and for very low skilled jobs) is even
more limited. In general, countryspecific skills, language
barriers and cultural attachments prevent high labour mobility.
And this again sets a further limit to real capital mobility
because it often depends on specific skills of workers (see
Unger 1990). Though there has definitely been an increase in
factor mobility, there are, nevertheless, constraints to its
further development. There is a limit to convergence of economic
facts and data. This means that in spite of the fact that policy
needs and options have changed and will change in the future,
national economic policy is far from becoming obsolete. In a
world of nonconvergence the choice of economic policy variables
is still a political option.

**Arguments for The Convergence of Economic Variables and Economic
Policies under Increasing Internationalization:**

The constraints of national economic variables and policies
under increasing internationalization are the following (we
argue for countries with a fixed exchange rate regime and later
for countries with the same currency):

Interest rates are determined abroad (in the case of perfect
capital mobility even not the slightest interest difference
would be possible due to arbitrage except for differences in the
exchange rate expectations and perceptions whether countries are
creditworthy).

If international competitiveness on goods markets is to be
maintained, the terms of trade have to stay (at least) constant.
This means that a small country's price level (especially the
prices for tradable goods) or rate of inflation is largely
determined from abroad. (In the case of perfect real capital and
labour mobility prices would have to be exactly the same between
countries).

The overall balance of payments has to be in equilibrium in order to avoid foreign exchange reserve losses and exchange rate deteriorations, which would in turn affect the domestic price level and the terms of trade.

These three constraints affect small and large countries differently. Large countries can influence the interest rate and the price level, while small countries are price takers and have to adjust their economy respectively (see e.g. Priewe 1990, who shows the possibilities for autonomous German economic politics even in the very sensitive field of interest rate determination; for a more sceptical view see Scharpf 1987,p.302ff).) Since we don't want to address the question of the power game of who determines what in Europe, we concentrate on small open economies against the rest of the world.

These constraints have an immediate influence on the possibilities of small countries' national economic policies:

1.) If interest rates are determined abroad monetary policy cannot be practiced any longer. Any increase in the money supply which the central bank aimed at lowering interest rates in order to induce additional investment would result in an immediate outflow of capital until the money supply and the interest rates are the same as before.

2.) Budget deficit spending also becomes more difficult if the financing of the deficit increases the interest rate, if it has inflationary effects or if it deteriorates the balance of payments (In Buiter's (1985) terminology: if "old fashioned Keynesian" or "old fashioned neoclassical crowding out" takes place). This would mean that differences in budget deficits between countries should diminish.

3.) If the domestic interest rate is determined abroad, functional distributionary policy also becomes ineffective. This is due to the fact that the interest rate on financial capital is linked to the rate of profit on real capital.

Traditional economic policies like monetary policy, fiscal policy and distributionary policy should according to these arguments converge between countries.

Arguments against Convergence

1.) As mentioned in the very beginning, factors are not perfectly mobile. Economic reality always means frictions, imperfections, uncertainty, lack of information, lags of reaction etc. In this imperfect world traditional instruments still can perform and diverge.

2.) Furthermore, small countries can take free rider positions as long as the "big" countries do not drastically react. In open macroeconomics the example most often cited for this is the "beggar my neighbor policy": if a small country devalues only once it can improve its international competition at the cost of

the other countries. A less quoted example of small countries' free rider possibilities is especially relevant for the planned EC monetary union. If, for example, countries with the same currency persue commonly a restrictive monetary policy, they also have to pursue a restrictive fiscal policy in order to maintain low inflation rates. A small country can now profit from the fact that inflation is low and that there cannot be any exchange rate effects by simply following an expansionary fiscal policy. This country would have no unemployment to the disadvantage of the big countries while profiting from their low rate of inflation.

Since an indebted country in a commom currency area cannot be "punished" through the balance of payment and the exchange rate deterioration seems to be the most important difference between the present European Monetary System and the planned common currency. The threat of free riding by small countries seems to lay behind the increased efforts in Europe to "converge by law" before the currency area is created. Nevertheless, as will be shown in the empirical part on the US, convergence is not a necessary condition for the functioning of a currency area.

3.) Even in a frictionless world there are differences in preferences, culture and historical development. To give an example: the high "property taxes" in anglophone countries would appear revolutionary to Germans and Austrians, while their high income taxes would shock Americans. Differences in tax systems and social security systems will still remain significant since historically developed country-specific differences will prevail.

II. Some Empirical Evidence on Convergence - The American States

Whether differences among regions or nations persist, diminish or increase is an empirical matter. The United States are a good subject for analyzing this question, since they have more than hundred years of experience with a common currency - the dollar. If a common currency area needs or leads to convergence of macroeconomic data this should be reflected in US-data.

The fifty American States differ substantially by historical and cultural experiences. They reach from Louisiana's french-spanish colonial background, the great gold rush in California of 1849, the war against the federal government of the 11 southern states between 1861-65, to Wisconsin's scandinavian influence or Alaska's rugged climate (see Dye 1966). In this respect the States can be compared to European nations.
(For differences between Europe and the US see later).

Empirical studies on the convergence across States have recently been done by Barro and Sala-I-Martin (1991). They examine the growth and dispersion of personal income and Gross State Product in the States since 1880 and conclude that there is convergence but a very slow one. For US per capita personal income from 1880 to 1988 the speed of convergence, ß, is around 2 percent a year,

i.e. differences between rich and poor States get smaller by two
percent a year. They conclude that there is no evidence that
poor regions are getting systematically behind in the growth
process. The study only concentrates on income data and has a
very long term perspective. But for our question - whether
macroeconomic policy variables adjust - a shorter time period
and additional variables are needed. (The definite advantage of
the Barro-Sala-I-Martin-study is, that the convergence indicator
is consistently derived out of a growth model, while the
indicators we are going to introduce are plausibilities or ad-
hoc assumptions of convergence).

This diminishing of differences among the states (in history,
economics, growth rates, ethnic and racial composition) has also
been stressed by political scientists and has been labeled the
"nationalization" of States. But many important differences
between the states are n o t diminishing (see Dye 1991 for
political differences).

In fiscal aspects the 50 States can only partly be compared to
the planned Euopean single market or currency union, since the
Federal government deals with about 50% of the agendas, while a
comparable European Central State (the EC-Commission) would be
much weaker. Nevertheless it is worth to analyze the States in
order to see potential possibilities for Europe.

The 50 States do have some similarities:
All States and communities provide significant facilities in
education (most costly),law enforcement, crime prevention,
welfare, health and hospitals, highways, housing, urban renewal
water supply and transportation (Dye 1969).
All state constitutions have articles on taxation and finance:
1.) they place severe restrictions upon the taxing power of
state and local governments
2.) they earmark certain state revenues for specific programs
(gasoline tax for highway purpose...). Approximately half of all
state revenues are earmarked!
3.) they set limitations on debt (except in 5 states)
Some constitutions prevent the state from contracting any debt,
others set dollar limits (Dye 1969 p.22).

Nevertheless, there are also considerable differences among
states with respect to social and welfare issues:
State expenditures include expenditures for unemployment
compensation and state and local retirement systems. In the
public assistance field (payments to the aged, blind, disabled,
dependent children) the federal government pays only half of the
costs. States and local governments take responsibility for the
other half. The Social Security Act induces states to enact
unemployment compensation programs through the imposition of a
payroll tax on all employers. States have considerable freedom
to shape their own unemployment programs. (amount of benefits,
eligibility, length of time that benefits can be drawn etc.). A
further feature of the Social Security Act was public assistance
provisions for the aged, the blind, the disabled and dependent
children. Within broad outlines of the federal policy, states

retain considerable discretion in their welfare programs. Each state may choose to grant assistance beyond the amounts supported by the national government, or it may choose to have no welfare program at all. Furthermore states have their own standards to determine "need". General assistance programs (for persons who do not fall in one of the four categories blind, aged, disabled and dependent children) are entirely state financed and administered. These arrangements differ substantially from state to state. Public health and sanitation policies are among the oldest tasks of local government. State and local authorities provide hospitals and their quality and quantity varies widely (see Dye 1966 p.420-425). Average monthly welfare payments per family range between 560 Dollars in Alaska to 110 dollars in Alabama (Dye (1991) p.472).

The most striking differences in the tax system among states are:

1.) Differences in retail sales tax rates. They vary from 0%-9%.
2.) Differences in excises, especially on alcoholic beverages, cigarettes and motor fuel. Cross border shopping is essential in the US.
3.) Differences in corporate and personal income taxes (see Pelkmans/Vanheukelen 1988).

Table 1 gives an overview of States without sales and incomes taxes in 1989:

Table 1: States Without Sales and Incomes Taxes in 1989

States Without General Sales or Gross Receipts Taxes	States Without Individual Income Taxes	States Without Corporate Income Taxes
Alaska	Alaska	Nevada
Delaware	Connecticut[a]	Texas
Montana	Florida	Washington
New Hampshire	Nevada	Wyoming
Oregon	New Hampshire[a]	
	South Dakota	
	Tennessee[a]	
	Texas	
	Washington	
	Wyoming	

[a] These states tax income from interest, dividends, or capital gains, but not wage income.

in: Dye (1991) p.482

The tax burden differs consequently. In 1986, State and Local Taxes as a percentage of personal income vary between 14% in New Hampshire, 42% in Wyoming and 71% in Alaska (see Figure 1 on next page).

Altogether we can conclude, that though there is a slow tendency of convergence among the American States, significant

differences in economic policy still persist after hundred years. Countries, regions and governance units within one currency area can differ not only by geographic, historical, demographic and political factors but also by constitutional, legal and economic factors (taxes, public expenditure, income, income distribution, resources).

Figure 3: State and local tax revenue 1986
        (as a percentage of personal income)

1. Alas.
2. Wyo.
3. N.M.
4. Monr.
5. Utah
6. N.Y.
7. N.D.
8. La.
9. W.Va.
10. Minn.
11. Miss.
12. Ore.
13. Del.
14. Wisc.
15. Vt.
16. S.D.
17. Mich.
18. Hawaii
19. Me.
20. R.I.
21. Ky.
22. Okla.
23. Ala.
24. Iowa
25. Ariz.
26. S.C.
27. Neb.
28. Wash.
29. Idaho
30. Nev.
31. Calif.
32. Colo.
33. Ga.
34. Ohio
35. Pa.
36. Ark.
37. Mass.
38. Tex.
39. Kan.
40. Tenn.
41. Md.
42. N.C.
43. Ind.
44. Ill.
45. N.J.
46. Conn.
47. Fla.
48. Va.
49. Mo.
50. N.H.

10   20   30   40   50   60   70

in: Dye (1991) p.485
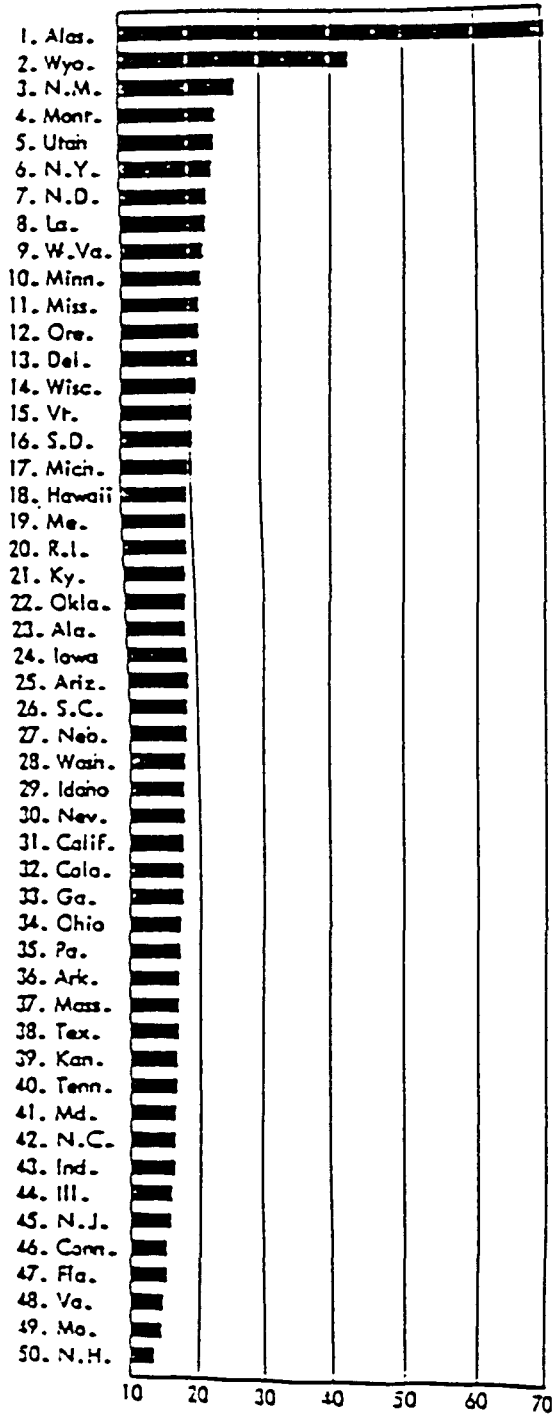
III. **Differences between the U.S. and the European Community**

In this study we are trying to identify some features of the US internal market, in order to find out whether there are some lessons to be drawn for the European integration process. Nevertheless, it is important to note that one should be careful with such comparison, because of the differences in historical, political, sociological, institutional and economic context as well as in the time period under consideration. It is crucial to take these factors into account when trying to single out some features which are to be used in a comparative study on the U.S. and Europe.

To begin with, the two areas are in different phases of integration. While the US internal market has been established for quite some time now, the EC Common market is still in creation. That difference has some essential impacts on the overall economic performance - used as an integration indicator in the present study - as well as for the dynamics of future development. As we learn from the literature on the economic impacts of European integration, the abolishment of barriers to an internal market has already quite considerable (macro- and micro-) economic effects. It is to be expected that these effects are - at least partly - due to the "newness" of the liberalisations as well as to the considerable positive psychological expectations. These effects are special to the European case. On the other hand the recent legal, political and administrative measures taken to implement the Common Market are only partly or not yet long enough in effect, to guide economic actions and performance. Shortly, the ongoing process of the creation of the European Common Market produces features specific to the creation process and therefore not relevant in the U.S. case.

There are also important non-economic factors which call for caution in comparison, such as differences in political tradition, institutional setting, legal framework, and factors associated with societal phenomena as well as demography and geography.

The political setting in the U.S. is more homogeneous than in Europe. Hence, given comparable legal frameworks there are to remain differences in factual integration, as long as some "Spielraum" (range respectively choice of manoeuvre) for national policies prevails. And in spite of the quite rapid legal harmonization process, such room for policy choice will not be eliminated entirely. Studies analyzing the impact of the composition of the government in power on macroeconomic performance suggest that in the U.S. there is no significant relationship: "relationships between the economic development and policy outcomes do not depend upon the influence of Democratic or Republican party success" (Dye 1966:246). For Europe however there are many research findings which suggest relationships. Rothschild (1986) showed in a study analyzing 12 European countries (Austria, Belgium, Germany, Denmark, Finland, France, Great Britain, Italy, The Netherlands, Norway, Sweden,

Switzerland) that there are some correlations between the composition of government and real growth, unemployment and inflation. He found that in periods of high growth and full employment there are no major influences. But from the seventies onwards, 'left' and 'left-coalition' governed countries performed consistently better in terms of higher growth and lower unemployment.

These different outcomes for the U.S. and Europe can be interpreted in terms of degree of integration. National economic policies seem to have been more different and more effective in European countries. Nevertheless, other differences could also explain the findings. European political systems have parties which differ considerably in their choice of macro-economic goals and of instruments for attaining them. Though there has been a tendency of the parties to move to the center of the political spectrum important differences remain. This leads to our conclusion that room for national economic policies will be used more extensively within the European economic area.

Another aspect which has to be taken into consideration in comparing the U.S. with the European internal market is the degree of factor mobility, especially the labour mobility. Labour mobility is considerably higher in the U.S. than in Europe, because of various cultural and societal aspects rooted in different historical experiences. Other factors are institutional and legal restrictions which either still exist or have been removed only recently. Even the abolishment of all legal and institutional barriers to labour movement would show significant effects only after some time of adjustment and reorientation. Even then the degree of labour movement is expected to be more limited in Europe because of persisting cultural differences such as the language problem.

IV. The legal foundations of the process of integration in Europe

A distinctive feature of the ongoing integration process in Europe is its multidimensionality. The economic integration process is tied to political, legal and social rapprochement. Any analysis has to take into account these different dimensions and their mutual influence. In this paper we will single out two dimensions: In talking about economic integration, it is of importance to consider the legal basis of the integration process, including its development over time. In the European Community the legal process performs a major role in guiding economic dynamics and vice-versa.

The general perspectives on the European integration process were laid down in the early documents on European post-war integration. The Schuman-Plan for example, a statement of political intent concerning European integration by the French Government, proposed a merger of the German and French coal- and steel-industry as the starting point of an ever closer

cooperation. It is interesting to go back to those first documents of the European post-war integration because they clearly draw the picture of the process which has been going on since then. The main steps in the first phase of the establishment of the European Community are well known, the Treaty of the European Community for Coal and Steel of 1951 and the Treaties of Rome, of the European Atomic Agency and of the European Economic Community of 1957. Without going too much in detail it is interesting to follow the legal steps since then. We will emphasize the "formal integration" in terms of the transfer of economic policy competences from national to supranational levels of authority.

Originally the EEC was mainly concerned with establishing a customs union. The main competence of the EEC concerned the shaping of common trade policy (Article 113 EEC-Treaty). At this stage, the member countries were not prepared to give up their competences in monetary policy, fiscal policy or other economic policies. The Treaty remained fairly general about further reaching common economic policies. The Treaty generally stated business-cycle policies as a matter of common interest (Art. 103 EEC-Treaty) and defined high level of employment, price stability and balance of payments equilibrium as common goals for national economic policies (Art. 104).

After having achieved the customs union in the sixties the EEC focused more on economic and monetary union. The Werner Report, a plan which promoted free movement of capital, fixed exchange rates and coordination of monetary policies, was adopted by the EC-Council in 1971. The Werner Report further proposed the harmonization of economic policies, mainly in the field of fiscal policy. Because of events in the world economy, the implementation of the proposed steps towards economic and monetary union was delayed. Nevertheless some progress was made by fixing the exchange rate margins, the "snake in the tunnel". In the seventies the integration process stagnated. One further significant step was the decision of the EC-Council to establish the European Monetary System (EMS) in 1978 with the European Currency Unit (ECU) as a central element. The main declared policy goal was to secure internal and external stability. Though in the first phase the EMS did not prevent divergence in economic policies, it constituted an important corner stone in setting favorable conditions for further European economic and monetary integration (Ungerer 1990:330ff; Abrams et al 1990:39f).

The Single European Act (SEA) of 1986 was a further legal instrument towards closer integration. Though many of the elements were already mentioned in the Treaty of Rome, the major contribution was the legal fixing of the goal date of 1992 for the completion of the internal market (Art. 8a EEC-Treaty). The establishment of the common market with free factor mobility (the four "freedoms") constitutes a central element in shaping and forwarding economic union. The extended possibility of qualified majority voting instead of unanimous voting for EC-Council decisions concerning measures to implement the internal

market (Art. 100a) constitutes a major step forward. Further provisions of the SEA are designed to secure the convergence of economic and currency policies (Art. 130a ff), promotion of research and technological development (Art. 130f ff) and others. The significance of the EEA in the integration process is great because it paved the way towards a reenforced integration momentum which followed the period of "Euroscleroses" of the beginning eighties, the dynamics are prevalant up to the present.

While the SEA was designed to promote the completion of the internal market, the Delors Report, adopted by the European Council in June 1989, intended to stimulate the process of the establishment of the Economic and Monetary Union. The Delors Report core proposals were the establishment of the EMU in three stages, with the creation of a single currency and the establishment of a European System of Central Banks. Monetary union should be secured through total and irreversible convertibility of currencies, completely free movement of capital, fully integrated financial markets and fixed exchange rates. The first stage, which should lead towards greater convergence of the economic performance through the strenghening of economic and monetary policy coordination within the existing institutional framework, started on July 1, 1990. The Delors Report contained a series of concrete measures to promote the integration of economic policies including binding rules for budgetary policies.

After more than two decades of discussion about the shape of the Economic and Monetary Union and various advances in this direction, the signing of the Treaty on European Union on February 7, 1992 constitutes a major achievement in favor of the European integration.

Besides the provisions on the Economic and Monetary Union, the Treaty on European Union contains amendments to the Treaties of Rome and Paris which mainly enlarge EC competences (environmental protection, consumer policies, energy etc). The harmonization of foreign and security policies with the option to develop a common defense policy are the main elements of the Political Union which is intended to come gradually into being. The Treaty of Maastricht points out the multidimensionality of the European integration process. Economic integration efforts are but one aspect of the development towards an European Union. Political integration constitutes a special element of the European integration process which is quite distinct from the ongoing world-wide internationalization.

The provisions of the Economic and Monetary Union are very ambitious in terms of forcing the process of convergence. In the first two stages the EC-countries are called upon to work towards convergence of inflation and interest rates, exchange rate stability, and sustainable fiscal deficits and debt. At the beginning of stage two (January 1, 1994) a European Monetary Institute (EMI) shall be established to intensify the surveillance of progress towards convergence of economic

performance. Given the severe criteria, set as "entrance fee" to the monetary union, the "Spielraum" (economic policy choices) of the EC-member states become more restricted. The strict criteria for inflation, exchange rates, government's deficits are quite restrictive policy margins for the national states. The Treaty on European Union states the following criteria as measurement of the achievement of a high degree of sustainable convergence (article 109j and the corresponding protocol on the convergence criteria) which shall guide the Community in the decision making on the passage to the third stage of economic and monetary union:

* a high degree of price stability, specified as a price performance where the average rate of inflation (measured by means of the consumer price index) of the member has not to exceed the rates of the three best performing states by more than 1.5 percentage points.
* the sustainability of the government financial position, avoidance of excessive government deficits which is specified as a maximum 3% ratio of the government deficit to gross domestic product at market prices and a maximum of 60% ratio of government debt to gross domestic product at market prices (Art. 104c(2) and Protocol on the Excessive Deficit Procedure).
* observance of the normal fluctuation margins provided for by the Exchange Rate Mechanism of the EMS for the last two years without devaluating against the currency of any other Member State
* an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of the three best performing members.

States that do not fulfill the necessary conditions for adopting a single currency may have a derogation by decision of the European Council. The member states with a derogation are not represented in the decision-making bodies of the European Central Bank.

The fact that the treaty also provides for sanctions on members that do not satsfy the convergence criteria, gives the EC significant authority in guiding respectively influencing national economic policies. Excessive deficits (by the above mentioned definition and overall assessment of the European Council) can be sanctioned with measures of varying severity. Starting with mere policy recommendations to the state in question, the treaty provides sanctions such as reconsideration of loans to the member by the European Investment Bank, the requirement of a non-interest-bearing deposit until the deficit has been corrected, and the imposition of fines of an appropriate size (Art. 104c).

With the beginning of stage three (at the latest on January 1, 1999), the integration process definitely enters a significantly higher level. With the adoption of a single currency and the establishment of a European System of Central Banks (ESCB), independent of government directives, taking over authority over monetary and exchange rate policy, some central economic policy

instruments are diverted from the national state's influence. In combination with the Community's competences in harmonization of indirect taxation and the restrictions of individual state's fiscal policies to strict discipline, the possibilities for national economic policies are severely limited - at least legally.

One could argue that the implementation of the legal provisions might not be so strict. But even then, the key point of the argument is that the development over time clearly shows a process of ever increasing "Vergemeinschaftung" (transfer of competences to the EC) in terms of legal provisions.

This glimpse on the legal frame of the EC-integration reveals important features of the process. Although periods of stagnation and divergence among member states occured, although discussions on the design of the framework went on for years, even for decades, nevertheless the legal outcomes provided for ever more integration. This leads to the suggestion that the integration shows a clear trend which is leading towards the creation of an "ever closer union". This is true for "normal" conditions, only extreme political or economic disturbances (like war, nationality disputes, deep depression etc.) could perhaps still disturb or even destroy the process. But besides that the dynamics are prevailing. This is in line with the functionalist respectively the neo-functionalist theory which suggests that integration is a gradual process which starts from some more or less "technical" area of cooperation and extends into other policy areas. Step by step more and more policies are deferred from national to supranational authorities. The founders of the EC seemed to have had this in mind as documented in the preamble of the founding treaties. This view of the integration process is not only true for the EC but also for its relation to the countries of the European Free Trade Area. The latter signed a free trade agreement with the EC in 1972. Since then, cooperation and integration have increased steadily. The Treaty on the establishment of the European Economic Space, which has recently been concluded between the EC and the EFTA-countries, constitutes the peak so far.

The crucial question in the light of this analysis of the integration process addresses the Spielraum for individual decisions of the participating countries. Of course there are different intersections where to decide about the shape of the future process and about the degree of commitment. But - once decided - how much room is left and is there any room left for return? The European integration process seems to deny the last point. Once certain policies are in the competence of the EC-institutions, national policies are subordinated. Trying to neglect European law is "illegal" and - unlike most rules of international law - European law is enforcable. These facts constitute an important feature of the integration dynamics. What remains is the question of how spacious the left-over Spielraum is. This has to be answered in a differentiated way according to the very policies in question. What we are trying

to single out in the present work is the question of how far macroeconomic policies are still subject to the shaping of national policies. We are coming back to this point later. At this moment the question of the Spielraum is to analyze in terms of general features, meaning in terms of the general dynamics of the integration process. Taking into account the analysis laid out above it could be suggested that, whatever the "Spielraum" presently is, the room for national macroeconomic policies is expected to diminish. This seems to be a trivial result but it has to be borne in mind when interpreting the performance of the past decades.

V. Macro-economic performance in the European context

In this section we will present some data on the macro-performance indicators in EC- and EFTA-countries. Furthermore we will try to explain differences by reference to some EC-/EFTA-countries' differences. The next section will consider convergence/divergence indicators in the OECD, the EC, the EFTA and between them.

Within the internationalization framework in Western Europe, there are two integration territories to be distinguished, the European Community and the European Free Trade Area (consisting of Austria, Finland, Iceland, Liechtenstein, Norway, Sweden and Switzerland). The EC and the EFTA differ in many respects. Main differences lie in the definition of the goal of integration. While the EC aims at the creation of a European Union, the EFTA is a more "pragmatic" organization, designed to foster trade and to prevent economic retardation in relation to the EC. The intensity and degree of realized integration differ hence considerably. Further distinctions to be taken into account are related to size (in terms of economic as well as geogaphic and demographic criteria) and to openness of the economy.

The EC member states and EFTA members differ considerably in terms of the macro performance indicators unemployment, inflation and growth rates over the past decades. During the period 1960 - 1972, the first post war integration phase, the EC-countries showed a significantly better performance in terms of growth, 4.9%, as against 3,5% for the EFTA (average real GDP). This seems to support the hypothesis that the larger and more intense integration area (EC, Customs Union) produces better growth rates than the smaller and more loosely tied EFTA. This is not any more true for the subsequent integration phase 1973 - 1987. During this period, the EFTA-countries showed significantly better results, especially in unemployment and growth rates. Breuss (1990) developed an indicator for measuring macro-economic performance (MAG4) containing the dimensions real GDP-growth, balance of payments as a percentage of GDP, rate of unemployment and inflation rate. The first two dimensions influence this indicator positively, the rates of unemployment and inflation negatively. Though many objections can be made to an indicator of this kind (overaggregation etc), it can be useful to give an overall picture. Table 2) shows the results

for the period 1961/1987. The EC clearly showed a better performance in the first period (1961/1972), while the EFTA takes the lead in the second period (1973/1987).

Table 2: Macro-economic performance of EFTA and EC (MAG 4*)

Legend:
— EG 6
-- EG 12
... EFTA 6
-- EFTA 9
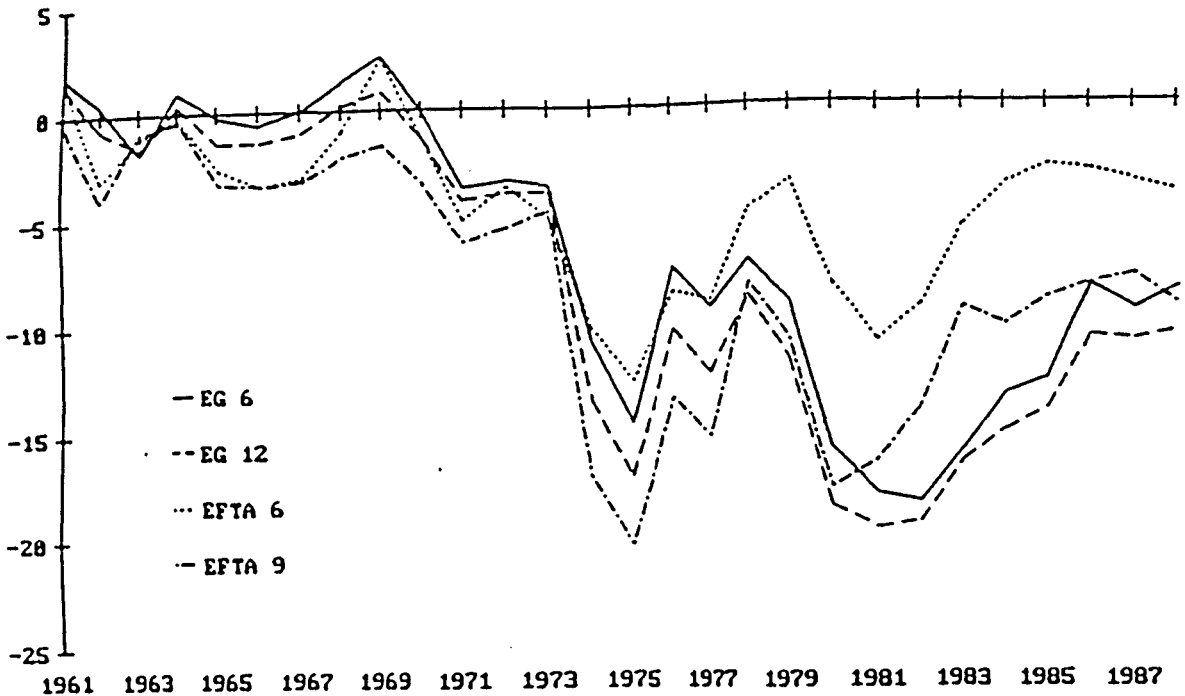
in: Breuss (1990) p.67

*) The macro-economic performance indicator MAG4 represents the aggregation of real GDP-growth rate, balance of payments as a percentage of GDP, unemployment rate and inflation rate.

For assessing the influence of integration, it is of interest to search for possible causes of performance differences and to examine whether there is a link to specific characteristics of the different integration territories EC and EFTA.

Possible explanations for differences in economic performance between EC and EFTA

In analyzing the economic performance in the seventies we have to take into account the exogenous shocks, especially the oil-price shocks. Thus the EFTA-countries seem to have been able to react more flexibly to these disturbances. While the EC has integrated common economic policies to some extend, the EFTA is a more technical integration area in terms of mutual trade promotion. Further economic integration does not take place. It is important to note that the individual EFTA-countries persued quite different policies to cope with the economic challenge. While the Scandinavian countries used active exchange rate policies, Austria pursued a hard-currency policy in combination

with expansionary fiscal-policy and some flexibility in real wages, which is sustained by the corporatist structures. This could explain handling of the initial effects of the oil crises but it does not constitute a basis for explaining further economic development (especially the persistence of unemployment).

Though the EFTA-countries should not be viewed as a homogenious group they have some common features. An important one is the determination of their dominating goals of economic policy. EFTA countries traditionally put high value on the policy goal of high employment (with Switzerland as an exception which has emphased primarily price stability). Though the countries have followed quite different strategies in pursuing the goal of full-employment, their policies have proved quite successful until the beginning of the nineties.

But different economic policies are only part of the explanation. Knöbl (1990), for instance, indicates in a comparative study of a sample of fairly comparable economies, Austria and Sweden as EFTA-countries, and Denmark and the Netherlands as EC-member countries, that neither fiscal nor monetary policy show consistent results, and that the results do not clearly comply with financial deregulation and exchange rate policy as well.

The result that macro-economic policies explain the differences in economic performance only partly, suggests that structural and institutional differences must be another element of explanation. Flexibility on the or market, measured as real wage flexibility seems to be significantly higher in the countries that show lower unemployment rates. Corporatism, an important feature of most EFTA-countries, provides for favorable framing conditions for economic policy. The typical structure of EFTA-countries, small open economies, accounts for some room in taking a free-rider position. EFTA-countries seem successful in taking advantage of their specific structures in implementing a flexible policy-mix. (Unger 1990) In considering the future possibilities of small European countries' performance outside the EC, many economists suggest that there is not much room left for continuing the successful road of the past. Whether this is true or not cannot be answered, even less if we take into account that the "story" of the missing options for national economic policies in the internationalization framework is much of a self-fulfilling prophecy.

In summarizing the findings at this point we can conclude that the differences respectively the divergence in economic performance between EC and EFTA countries is rooted in the characteristics of the EFTA-economies (SMOPECS) compared to the EC, in more flexibility in economic policies in the EFTA-countries, in differing policy goals, and in different internal political structures (corporatism) (see also Klatzer/Marterbauer 1991 p.4ff). Here we find out, that the "Spielraum" for economic policies is a crucial point in the determination of economic performance.

VI. Is there Convergence of Macroeconomic Variables in the OECD and in EUROPE?*)

*)The empirical material (calculations, tables and graphs) which we interpret and to which we refer in this part has been done by Mirjana Djurdjevic (1992), as a part of her diploma work at our department.

In order to find out whether there is a tendency towards convergence in the OECD and in Europe (EC and/or EFTA) we selected three variables for comparison:

The discount rate as an indicator for the options of monetary policy. If capital mobility is indefinitely high, discount rates should completely converge under fixed exchange rates and monetary policy would be ineffective.

The rate of inflation as an indicator for the mobility of goods (tradables) and for the options of monetary and or fiscal policy. If the rate of inflation converges, monetary policy becomes ineffective and fiscal policy's choice on the short run Phillips-curve between different levels of unemployment and inflation is reduced.

The unemployment rate as an indicator for the mobility of our and for the options of fiscal policy. If unemployment rates converge the options for fiscal policy are diminished.

Measures of Convergence

Empirical results undoubtedly depend on the method used. We distinguish two sets of measures of convergence. The one used by the EC measures convergence as a decline of absolute deviations from the mean of a variable. If, e.g. inflation rate differentials between countries decline, the EC would conclude that countries converge. We, on the other hand, argue that inflation rate differentials may decline only because the level of inflation declines (If inflation is 20% a 10% differential is more likely to occur than if inflation is only 2%). An adequate measure of convergence should be independent of the trend. We, therefore, take the percentage difference from the mean, the standard deviation and variation coefficient (standard deviation through mean) as a measure of convergence (If the average rate of inflation is 20% a 10% point differential shows the same 50%deviation than a 1% point differential if inflation is only 2%).

The following Figure 2 of the EMS optically reflects the EC-view of convergence of inflation rates while our measure would indicate that the percentage differences from the mean have increased (see Figure 4).

Figure 2: Rates of Inflation for Individual Countries
(Consumer Price Indices)
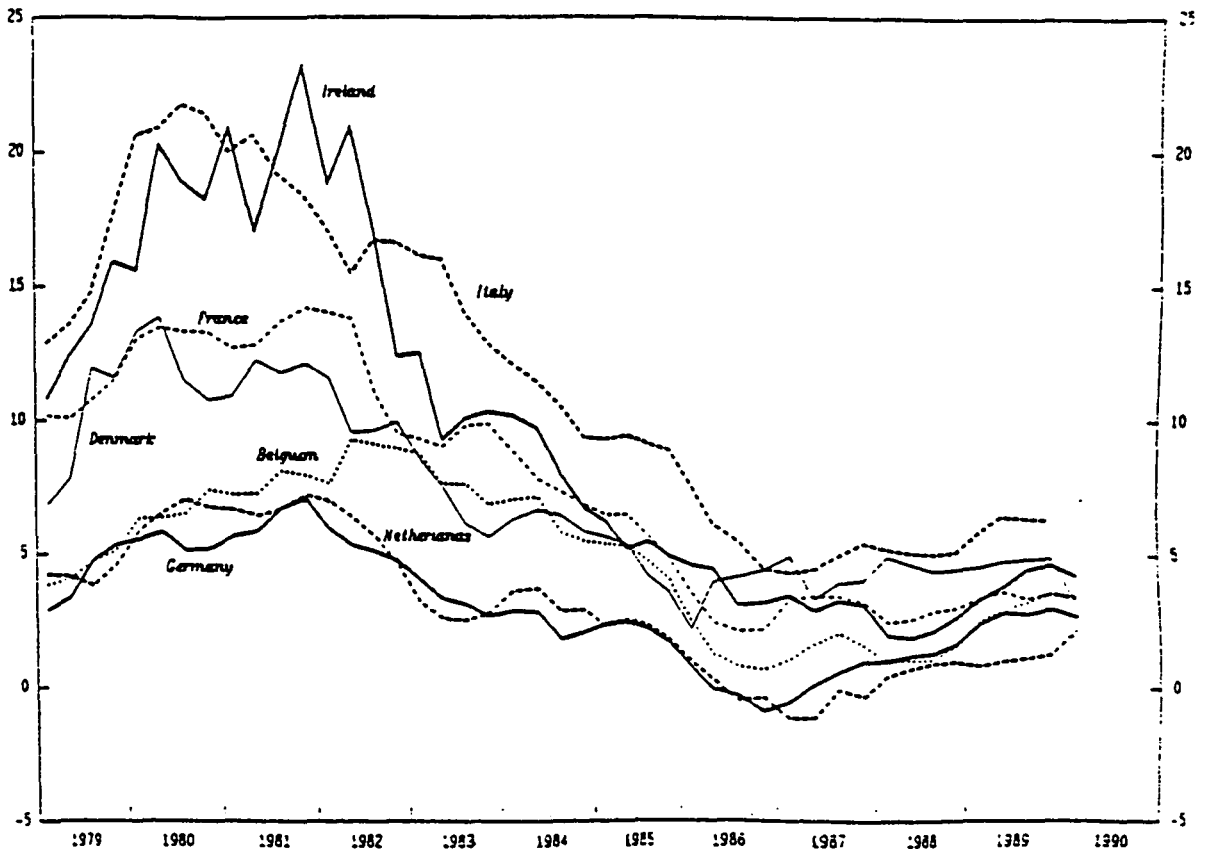
in: Ungerer (1990) p.343

VI.1.IS THERE ANY CONVERGENCE IN THE OECD?*)

*) OECD without New Zealand and Australia

Discount Rates surprisingly show no convergence between 1972
and 1990 (see Appendix I for data) . Neither the standard
deviation of the discount rates from the mean (EC-view) nor the
standard deviation of the percentage difference from the mean
(our view) show a systematic decline (see Appendix I Table 1a
and 1b) . Optically the plot of the percentage deviations of the
discount rates of various OECD countries from the OECD mean from
1972 to 1990 gives the same insight (the absolute deviation
treats plus and minus deviations the same) see Figure 3. It
plots all OECD countries percentage deviations from the OECD

mean for the years 1972-1990.

Figure 3: Discount Rates in the OECD 1972-1990
Percentage Deviations from the mean (absolute values) in the
OECD (without New Zealand and Australia)
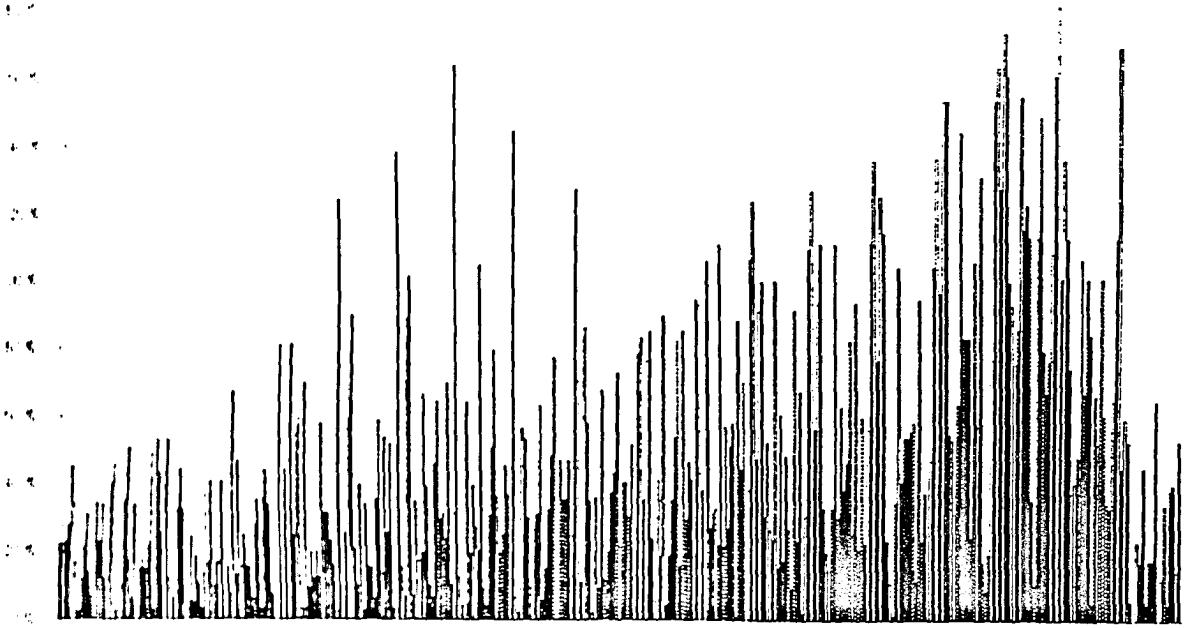
Inflation Rates also show no convergence (see Appendix I Table
2 and Appendix I Figure 1) and the following Figure 4.

Figure 4: Inflation Rates in the OECD 1972-1993
Percentage Deviations from the OECD-mean (absolute values)
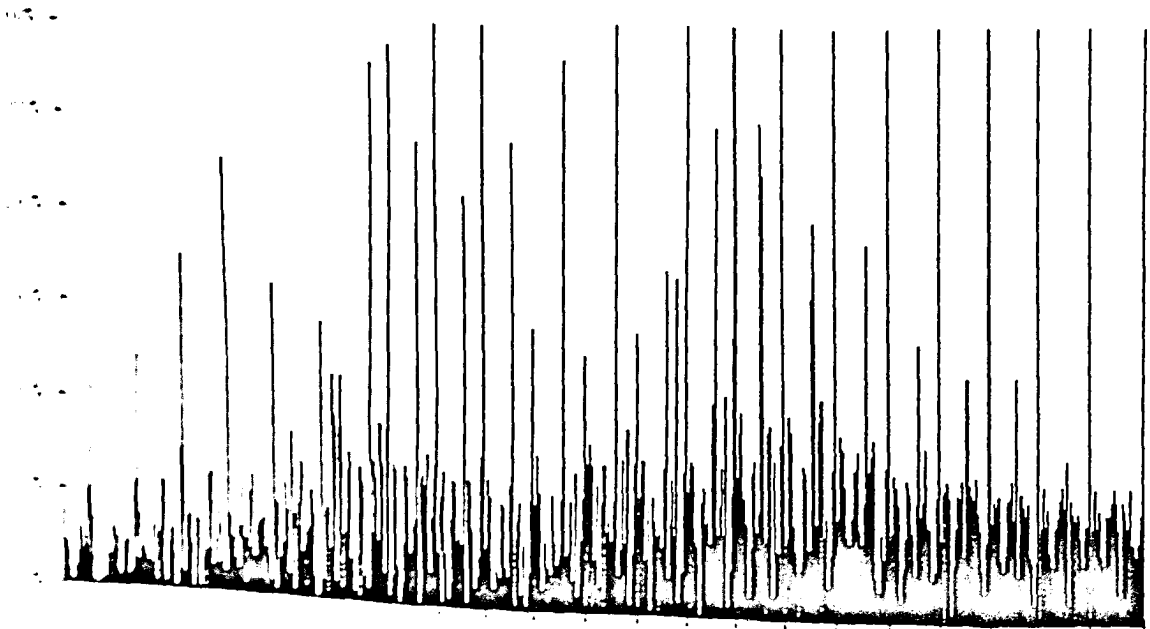
Unemployment rates also show no systematic convergence tendency (see Appendix I Table 3 and Appendix I Figure 3) and Figure 6.

Figure 5: Unemployment Rates in the OECD 1972-1993
Percentage Deviations of the OECD-mean (absolute values)
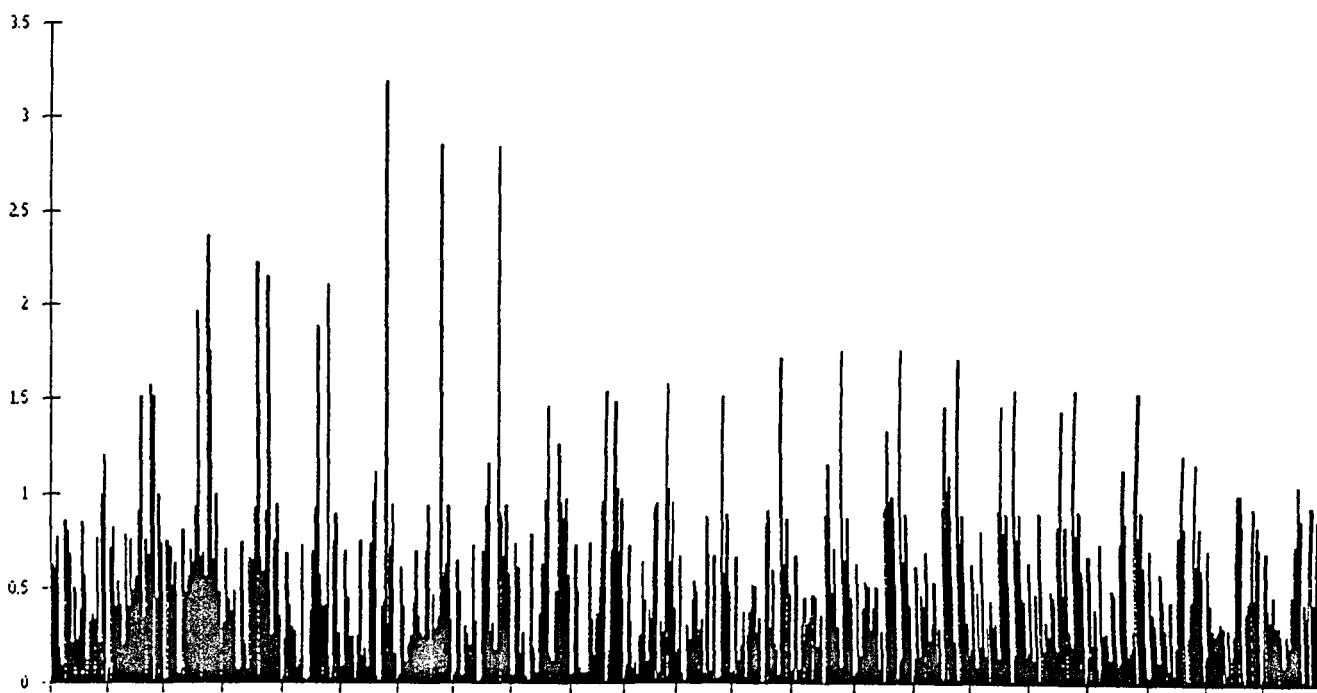
For the OECD-Europe plus US and Japan we can, therefore, conclude, that neither the EC-view of convergence nor our view of convergence is supported by the data. There seem to be too big differences among countries, too many shocks and barriers that prevent discount rates, inflation rates and unemployment rates from convergence. This has certainly also to do with the fact that the OECD-area is so big that factor mobility is limited by distance. In the following we, therefore, concentrate on the EC and on the EFTA countries in order to analyze convergence in a framework where we would a priori expect convergence to be more likely.

VI.2. IS THERE ANY CONVERGENCE IN THE EFTA AND EC-COUNTRIES?

The results of convergence/divergence in the EFTA-6 and EC-12 countries can be summarized in the following table. The country in the first column is the one that converges/diverges towards the country in the second column (e.g. EFTA-EFTA means convergence of the EFTA countries towards the EFTA mean, EFTA-EC means convergence of EFTA countries towards EC countries etc. "EFTA*" means without Iceland, which - due to its hyperinflation rates - could bias the results. The last three columns show the percentages by which the percentage deviations from the mean have increased or decreased annually. A positive sign means divergence (increase of differences) and a negative sign means

convergence. For example the first line on EFTA-EFTA-inflation
rates reads the following: between 1973 and 1993 the percentage
deviation of inflation rates of EFTA countries from the EFTA
mean have increased by 0.1% annualy on average. There has hence
been a very slight divergence of inflation rates. Between 1973
and 1984 there has been divergence of inflation rates of 4.8%
per year, while in the last period 1985 to 1993 percentage
deviations of inflation rates have converged with a speed of
6.1% per year.

Table 3: Summary of results concerning divergence - convergence
(the detailled results and calculations are in Appendix II which
will be distributed on request):

EFTA COUNTRIES

Rates of Inflation

	1972 - 1993	1972 - 1984	1985 -1993
Efta - Efta	0.1	4.8	-6.1
Efta• - Efta•	-0.8	-0.4	-1.3
Efta - EG	1.0	3.1	-1.9
Efta• - EG	-0.1	-0.3	0.2
Efta - OECD	0.6	4.9	-5.0
Efta• - OECD	1.3	1.1	1.5

Rates of Unemployment

	1972 - 1993	1972 - 1984	1985 -1993
Efta - Efta	-0.4	-1.4	0.9
Efta• - Efta•	-0.3	-1.4	1.2
Efta - EG	-0.2	1.4	-2.3
Efta• - EG	-0.7	0.2	-1.9
Efta - OECD	-0.7	0.1	-1.8
Efta• - OECD	-0.2	1.6	-2.6

Discount Rates

	1972 - 1990	1972 - 1984	1985 -1990
Efta - Efta	1.0	1.9	-0.7
Efta• - Efta•	0.1	1.7	-3.1
Efta - EG	2.3	1.5	4.6
Efta• - EG	0.1	1.3	-2.3
Efta - OECD	0.9	1.6	-0.3
Efta• - OECD	0.1	1.5	-2.9

EC

Rates of Inflation

	1972 - 1993	1972 - 1984	1985 - 1993
EG - EG	1.04	3.71	-2.5
EG - OECD	-0.2	3.1	-4.6

(Table 3 continued)
Rates of Unemployment

	1972 - 1993	1972 - 1984	1985 - 1993
EG - EG	-0.8	-1.5	0.1
EG - OECD	0.38	0.07	0.78

Discount Rates

	1972 - 1990	1972 - 1984	1985 - 1990
EG - EG	0.27	1.53	-2.3
EG - OECD	0.52	1.36	-1.0

In the last period since 1985 inflation rates converged between EFTA-countries (-6.1% per year, -1.3% without Iceland) and converged towards the EC-8 (-1.9%). If we leave out the reduction of Iceland's hyperinflation since 1990, results without Iceland show that even a slight divergence from the EC took place (0.2% per year). In the period before, from 1973 to 1984, inflation rates have diverged between EFTA countries (4,8%) and from the EC (3.1%). EFTA countries'inflation rates without Iceland seem to be quite independent from the EC. This is surprising, since the EC is the main trading partner of EFTA-countries. But altogether we can see a tendency of convergence of inflation rates between EFTA countries and no significant divergence of EFTA countries without Iceland from the EC.

Unemployment rates on the other hand diverged since 1985 between EFTA countries and converged between EFTA and EC (and also between EFTA and OECD). For the period before (1973-84) we had the opposite effect: unemployment rates converged between EFTA countries and diverged from the EC. This can be due to the fact that EFTA countries pursued quite different employment policies in the 1970s, in particular full employment policies, while the EC did not. Since 1985, EFTA countries seem to pursue splitted strategies: Austria, Norway and Finland follow the EC trend and have increasing unemployment rates while Iceland, Sweden and Switzerland still maintain very low unemployment rates (see Appendix I for unemployment data).

Discount rates converged within EFTA countries since 1985 and also converged clearly towards the EC and OECD if we disregard Iceland's high discount rate divergence. This supports the general view that high capital mobility reduces the margins within which monetary policy can vary. The years before (73-84), nevertheless, show a general divergence of discount rates.

For the EC-12, inflation rates converge towards the EFTA (without Iceland), the OECD and within EC countries. Unemployment rates converge in the period of 73-84 but not since then. Discount rates converge since 1985.

Altogether we can conclude that there is no systematic result whatsoever concerning the convergence of macroeconomic variables from 1973 till the present. Discount rates seem most likely to converge if we exclude some "exotic" high inflation countries like Iceland, Greece and Portugal. But, nevertheless, differences among countries are still high (the discount rate in France being 9.5%, in Germany 6.0% and in the UK 14%) Monetary policy seems to become limited by international trends of mobile capital. Inflation rates also have a tendency to converge, though there are islands of higher and lower inflation areas within Europe (the South and the North among others) that seem to persist. Unemployment rates seem to be the less predictable regarding convergence: Within EFTA countries one can see that unemployment rates can diverge and be manipulated with substantial differences. Within the EC there seems to be "stagnation" in convergence since 1985.

Our results indicate that if convergence takes place it is a very slow process not only in growth data as suggested by Sachs/Sala-I-Martin (1991) but also in other macroeconomic variables like inflation rates and unemployment rates. Especially the latter can be manipulated to a large extent. The fact, that short term Phillips-Curves for most countries show rather an erratic point-scatter than a functional form (see Figure 7) except for Japan and Austria (if we allow for shifts of the curve in our time period) indicates that even if inflation rates have to converge more and more due to internationalization, the level of unemployment rates still indicates that there is room for country-specific options.

Figure 6: Phillips-Curves from 1972-1990
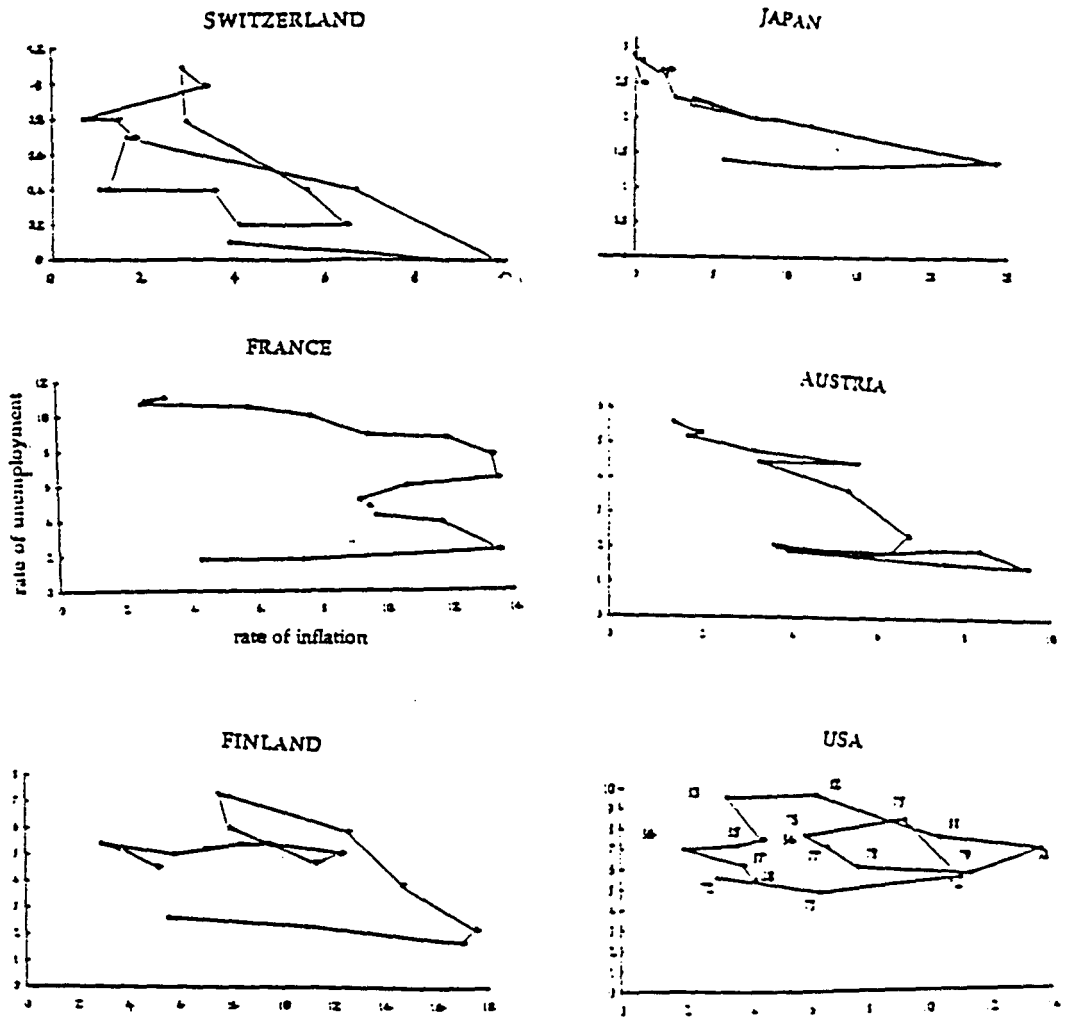
Figure 6: Phillips-Curves from 1972-1990 (continued)

SWEDEN

GREAT BRITAIN

NORWAY

DENMARK

THE NETHERLANDS

GERMANY

CANADA

BELGIUM
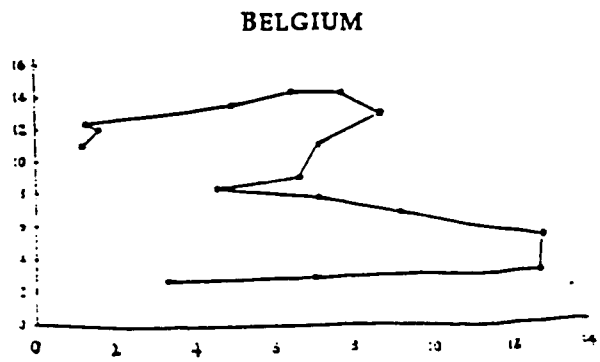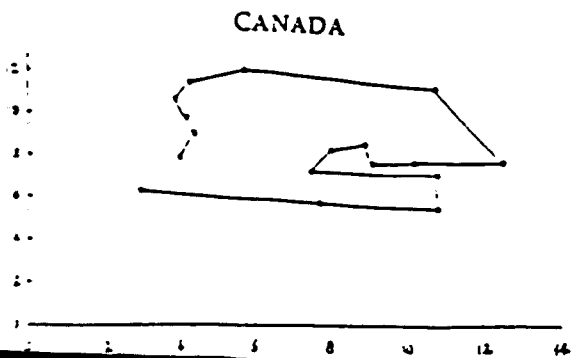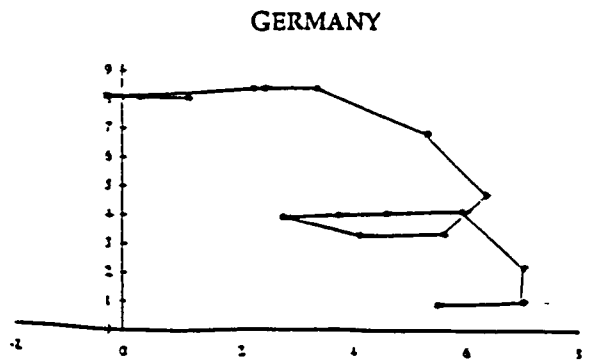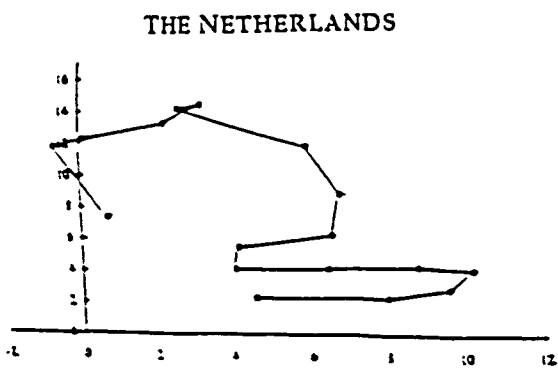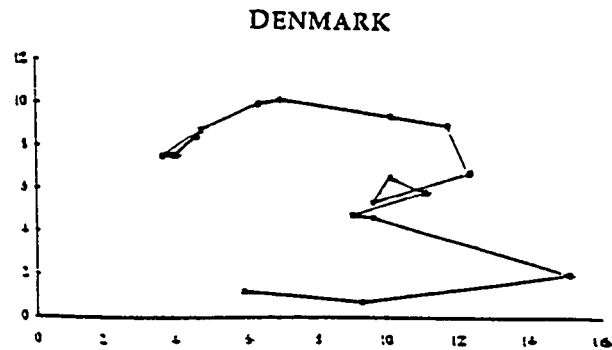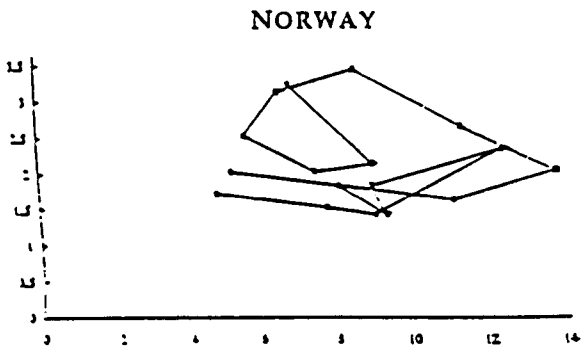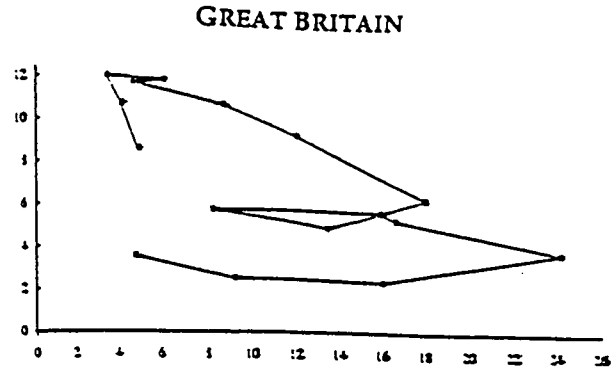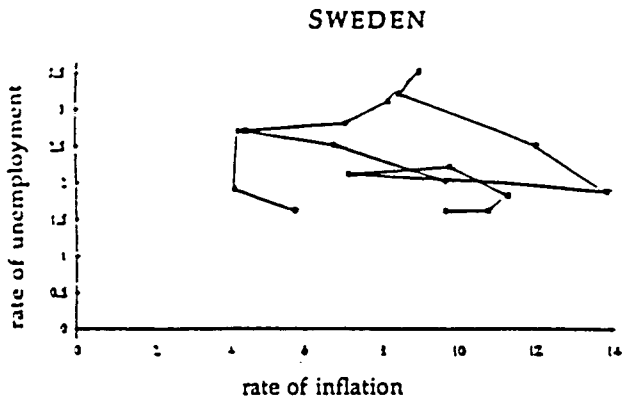
Fiscal Policy therefore will have a decisive role in creating country-specific differences of welfare levels and unemployment. This result fits with our experiences with the American States. It also agrees with recent research done by Eichengreen (1991) who suggests an intensification of fiscal policy in order to reduce regional unemployment in the European Currency Union. Also Persson and Tabellini (1990), who argue from a political aspect support our arguments. They argue that "neglecting the political repercussions can lead one to overestimate the effects of European integration on domestic policy formation..." According to their model, voters will vote for a tax policy that insulates them from strategic considerations of international high capital mobility. Furthermore they show that European integration is likely to result in reallocation of resources within each country and in changes in relative incomes across sectors. Political and economic repercussions of integration work in opposite directions and sometimes the political repercussions dominate.

Even if Europe succeeds in forcing convergence of important macroeconomic indicators by law, doubts still remain whether this will be a stable commitment, because:

- there is no economic necessity to adjust economic data as long as factor immobilities persist. And as we have learned from the US, this is the rule and not the exception.

- there is no economic necessity to adjust economic data as long as big countries play an umbrella function for smaller countries allowing them to assume free rider positions.

- there is no easy way of forcing souvereign countries in a currency union not to play a free rider role. There can be the threat of exclusion from the currency club. But the possibilities of sanctioning a souvereign country by court-law if the country has decided to play free rider seem very limited. Even within the EC where such sanctions are fixed by treaty (Treaty on European Union) it is not yet foreseeable how these sanctions can be effectuated.

- The currency union will, therefore, either leave margins for free riders' economic policy or will be an unstable agreement as Casella's (1991) results of a possible breakdown of the currency club suggest.

The convergence arguments cannot be supported by the data until now if we allow for stricter measures of convergence than the EC does. But even with the EC definition of convergence as percentage point deviations from the mean we have a systematic decline of standard deviations since 1985 only for EC-discount rates and EFTA-inflation rates. All other variables discussed above show no systematic and at best only a slightly declining trend.

There is, therefore, room enough to design national specific

economic policies, especially in the fiscal policy and in the social policy area. Convergence is neither a precondition nor a result for economies exposed to internationalization. Whether it desirable is a value judgement that we leave up to the reader. To avoid it is a feasible option.

Even with increased internationalization what Kurt Rothschild wrote still holds: Economic policy is first and foremost politics. There are no single solutions and no Sachzwaenge (technical determinism) but there is always a political choice (Rothschild 1990).

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Appendix I:

App.I/Table 1a: Discout Rates in OECD countries (without Australia and New Zealand)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
USA	4,5	7,5	7,75	6	5,25	6	9,5	12	13	12	8,5	8,5	8	7,5	5,5	6	6,5	7	6,5
Japan	4,25	9	9	6,5	6,5	4,25	3,5	6,25	7,25	5,5	5,5	5	5	5	3	2,5	2,5	4,25	6,5
Deutschland	4,5	7	6	3,5	3,5	3	3	6	7,5	7,5	5	4	4,5	4	3,5	2,5	2,5	4,25	5,6
Frankreich	7,5	11	13	8	10,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5	6	6
UK*	9	13	11,5	11,25	14,25	7	12,5	17	14	13,12	11,36	9,09	7,62	10,78	10,68	9,66	10,31	9,5	9,5
Italien	4	6,5	8	6	15	11,5	10,5	15	16,5	19	18	17	16,5	15	12	12	12,5	13,5	12,5
Kanada	4,75	7,25	8,75	9	8,5	7,5	10,75	14	17,26	14,66	10,05	9,96	10,16	9,49	8,49	8,66	11,17	12,47	11,78
Österreich	5,5	5,5	6,5	6	4	5,5	4,5	3,75	6,75	6,75	4,75	3,75	4,5	4	4	3	4	6,5	6,5
Belgien	5	7,75	8,75	6	9	9	6	10,5	12	15	11,5	10	11	9,75	8	7	7,75	10,25	10,5
Dänemark	7	9	10	7,5	10	9	8	11	11	11	10	7	7	7	7	7	7,75	10,25	10,5
Finnland	7,75	9,25	9,25	9,25	9,25	8,25	8,25	8,5	9,25	9,25	8,5	9,5	15,07	9	7	7	7	7	8,5
Griechenl.	6,5	9	8	10	10	11	14	19	20,5	20,5	20,5	20,5	20,5	20,5	20,5	20,5	19	19	19
Island	5,25	6,25	7,25	7,25	7,25	14	17	26	28	28	28	22	16,5	30	21	49,2	24,1	38,4	
Irland	8	12,75	12	10	14,75	6,75	11,85	16,4	12,75	16,5	14	12,25	14	10,25	13,25	9,25	8	12	11,25
Niederlande	4	8	7	4,5	6	4,5	6,5	9,5	8	9	5	5	5	5	4,5	3,75	4,5	7	7,25
Norwegen	4,5	4,5	5,5	5	6	6	7	9	9	9	9	8	10,2	10,7	14,8	13,8	12	11	10,5
Portugal	4	5	7,5	6,5	6,5	13	18	18	18	18	19	25	25	23,5	17	14,96	13,71	14,33	14,5
Spanien	5	6	7	7	7	8	8	8	8	8	8		12,5	10,5	11,84	13,5	12,4	14,52	14,71
Schweden	5	5	7	6	8	8	6,5	9	10	11	10	8,5	9,5	7,5	7,5	7,5	8,5	10,5	11,5
Schweiz	3,75	4,5	5,5	3	2	1,5	1	2	3	6	4,5	4	4	4	4	2,5	3,5	6	6
Türkei	9	8,75	9	9	9	9	10	10,75	26	31,5	31,5	48,5	52	61	56	131	372	187	

* Die Daten für Großbritannien führen ab dem Jahr 1981 die moeny market rate anstatt dem Diskontsatz

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Median	5,00	7,50	8,00	6,50	8,00	8,00	8,25	10,50	11,00	11,00	10,00	9,30	10,16	9,50	8,49	8,66	8,50	10,50	10,00
MW	5,65	7,74	8,30	7,01	8,20	7,73	8,85	11,48	12,73	13,37	12,01	12,35	12,76	13,03	11,86	16,23	26,69	19,93	10,03
SA	1,67	2,39	1,98	2,12	3,41	3,06	4,23	5,49	6,23	6,79	7,29	10,21	10,32	12,55	11,15	27,46	77,38	38,00	3,54
VK	0,29	0,31	0,24	0,30	0,42	0,40	0,48	0,48	0,49	0,51	0,61	0,83	0,81	0,96	0,94	1,69	2,90	1,91	0,35

App.I/Table 1b: Discout Rates - percentage deviation

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
USA	-20%	-2%	-6%	-14%	-43%	-24%	8%	4%	7%	-4%	-26%	-21%	-30%	-35%	-55%	-54%	-37%	-49%	-43%
Japan	-25%	16%	9%	-6%	-23%	-57%	-86%	-59%	-50%	-78%	-67%	-71%	-73%	-72%	-105%	-123%	-116%	-93%	-57%
Deutschland	-20%	-9%	-32%	-66%	-80%	-87%	-98%	-63%	-47%	-50%	-75%	-89%	-82%	-91%	-94%	-123%	-92%	-63%	-50%
Frankreich	31%	35%	45%	15%	25%	21%	8%	-19%	-24%	-27%	-15%	-10%	-13%	-11%	-2%	-10%	1%	-20%	-5%
UK	48%	51%	33%	48%	54%	-9%	35%	38%	15%	5%	5%	-14%	-35%	1%	10%	-8%	9%	18%	
Italien	-31%	-17%	-3%	-14%	59%	40%	18%	26%	31%	42%	48%	48%	42%	34%	22%	13%	28%	15%	22%
Kanada	-14%	-6%	6%	26%	4%	-2%	20%	19%	35%	16%	-9%	-5%	-6%	-12%	-13%	-19%	17%	7%	16%
Österreich	0%	-33%	-24%	-14%	-68%	-33%	-65%	-102%	-56%	-59%	-80%	-94%	-82%	-91%	-83%	-111%	-81%	-56%	-43%
Belgien	-9%	1%	6%	-14%	10%	16%	-38%	-9%	-1%	18%	4%	-4%	2%	-9%	-19%	-40%	-19%	-12%	5%
Dänemark	24%	16%	19%	8%	20%	16%	-9%	-5%	-9%	-12%	-10%	-40%	-43%	-41%	-32%	-40%	-29%	-49%	-17%
Finnland	34%	18%	11%	29%	12%	7%	-6%	-30%	-26%	-30%	-26%	-10%	33%	-17%	-32%	-40%	-16%	-31%	-17%
Griechenl.	17%	16%	-3%	37%	20%	36%	46%	49%	52%	49%	60%	65%	62%	63%	72%	65%	67%	49%	62%
Island	-4%	-21%	-13%	5%	-12%	59%	64%	77%	80%	77%	87%	71%	42%	95%	74%	130%	88%	107%	
Irland	37%	50%	37%	37%	58%	-13%	30%	35%	6%	28%	24%	16%	26%	-4%	31%	-13%	-16%	4%	11%
Niederlande	-31%	4%	-17%	-42%	-31%	-52%	-30%	-19%	-41%	-32%	-75%	-71%	-73%	-72%	-73%	-95%	-71%	-49%	-32%
Norwegen	-20%	-52%	-40%	-32%	-31%	-24%	-23%	-25%	-29%	-32%	-20%	-27%	-6%	0%	42%	27%	24%	-5%	5%
Portugal	-31%	-42%	-10%	-6%	-23%	52%	69%	44%	39%	36%	53%	82%	79%	75%	55%	35%	37%	21%	36%
Spanien	-9%	-25%	-17%	1%	-15%	4%	-9%	-36%	-41%	-44%	-32%		15%	-1%	20%	25%	27%	23%	38%
Schweden	-9%	-42%	-17%	-14%	-2%	4%	-30%	-25%	-19%	-12%	-10%	-21%	-13%	-35%	-25%	-33%	-10%	-10%	14%
Schweiz	-38%	-52%	-40%	-79%	-121%	-135%	-159%	-141%	-120%	-70%	-84%	-89%	-92%	-91%	-83%	-123%	-92%	-63%	-50%

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
DA(%)	-4%	-5%	-3%	-5%	-9%	-9%	-13%	-12%	-10%	-9%	-13%	-15%	-12%	-16%	-14%	-27%	-14%	-13%	-6%
SA	26%	31%	24%	33%	46%	47%	57%	53%	45%	42%	49%	54%	51%	54%	55%	67%	55%	46%	35%
VK	5%	4%	3%	5%	6%	6%	6%	5%	4%	3%	4%	5%	5%	5%	6%	6%	6%	4%	3%

MW ... mean
SA ... standard deviation
VK ... coefficient of variation
DA ... average deviation

App.I/Table 2: Rates of Inflation (consumer price indices)
OECD countries without Australia and New Zealand

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
OECD Ins	4.3	9.1	14	14.3	12	12.9	10.7	12.8	17.6	13.4	11.5	9.4	9	7.9	5.3	5.1	7.1	8.3	8.5	9	5.5	5.5
OECD Eur	3.9	8.8	14.3	14.5	12.2	12.7	9.3	11	13.8	12.4	10.9	8.7	7.3	6.2	3.8	3.3	3.6	5.3	5.7	5.1	8.5	8.3
EG	3.6	8.1	13.9	11.8	9	9.5	8.5	10.8	14.2	10.9	8.1	5.7	5.9	5.1	3.2	3.9	4.8	5.8	6.3	6	4.8	4.5
USA	2.9	6.2	11	9.2	5.7	6.5	7.6	11.3	13.5	10.3	6.1	3.2	4.3	3.5	1.9	3.7	4.1	4.8	5.4	4.2	4	4
Japan	5.7	11.8	24.4	11.8	9.3	8	3.8	3.6	8	4.9	2.6	1.8	2.3	2	0.4	-0.2	0.5	2.3	3.1	3.3	2.5	2.5
Deutschlan	5.5	7	7	5.9	4.6	3.7	2.7	4.1	5.6	6.3	5.3	3.3	2.4	2.2	-0.3	0.3	1.1	2.8	2.7	3.5	4	4
Frankreich	4.3	7.4	13.5	11.7	9.7	9.5	9.2	10.7	13.5	13.3	11.9	9.5	7.7	5.8	2.6	3.3	2.7	3.6	3.4	3.1	3.3	3.3
UK	4.8	9.2	16	24.2	16.6	15.9	8.2	13.4	18	11.9	8.6	4.6	5	6	3.4	4.1	4.9	7.8	9.5	5.8	5	5
Italien	4.2	10.7	19.3	16.9	17	17	12.2	14.8	21.2	17.8	16.5	14.6	10.8	9.2	5.8	4.7	5.1	6.3	6.5	6.3	5.5	5.3
Kanada	2.9	7.7	10.8	10.8	7.5	8	8.9	9.1	10.2	12.5	10.8	5.8	4.3	3.9	4.2	4.4	4	5	4.8	5.6	4	3.5
Österreich	3.9	7.6	9.5	8.4	7.3	5.5	3.6	3.7	6.4	6.8	5.4	3.3	5.6	3.2	1.7	1.4	2	2.5	3.3	3.3	3.7	3.5
Belgien	3.3	7	12.7	12.8	9.2	7.1	4.5	4.5	6.6	7.1	8.7	7.7	6.4	4.9	1.3	1.6	1.2	3.1	3.4	3.2	3	3
Dänemark	5.9	9.3	15.2	9.6	9	11.1	10.1	9.6	12.3	11.7	10.1	6.9	6.3	4.7	3.7	4	4.6	4.8	2.6	2.4	2.5	2.5
Finnland	5.6	10.9	17	17.5	14.7	12.6	7.5	7.9	11.3	12.3	9.5	8.3	7	5.8	3	4	5.2	6.6	6.1	4.1	3.3	3
Griechenl.	2.3	15.5	27	13.2	13.2	12.2	12.5	19.2	24.8	24.5	20.9	20.2	18.5	19.3	23	16.4	13.5	13.7	20.4	18.9	14	11
Island	9.6	22.2	43	49	32.2	30.5	44.2	45.3	58.6	50.9	51	84.3	29.2	32.4	21.3	18.8	24.7	20.7	15.5	6.5	7	8.5
Irland	5.4	11.4	16.9	20.8	18	13.7	7.5	13.3	18.2	20.4	17.1	10.5	8.6	5.4	3.8	3.2	2.1	4.1	3.3	3	3	3
Luxembur	3	6.1	9.5	10.7	9.8	6.7	3.1	4.5	6.3	8.1	9.3	8.7	5.7	4.1	0.3	-0.1	1.4	3.4	3.5	3.5	3.5	3.3
Niederland	4.6	8	9.6	10.2	8.8	6.4	4.1	4.2	6.5	6.7	5.9	2.7	3.3	2.3	0.1	-0.7	0.7	1.1	2.5	3.9	3.8	4
Norwegen	4.7	7.6	8.9	12.3	8.8	9.2	7.9	5.1	11	13.7	11.2	8.4	6.4	5.5	7.3	8.8	6.7	4.6	4.1	3.4	3.5	2.5
Portugal	4.6	11.7	19.2	20.3	19.4	27.1	22.5	23.7	16.7	20	22.7	25.1	28.8	19.7	11.8	9.4	9.7	12.6	13.4	11.3	11	10.5
Spanien	6.1	11.4	15.7	16.8	17.6	24.5	19.9	15.6	15.6	14.5	14.4	12.2	11.3	8.8	8.8	5.2	4.8	6.8	6.7	5.9	5.5	5
Schweden	4.5	6.8	9.7	9.7	10.8	11.3	9.8	7.2	13.8	12	8.5	9	8.2	7.1	4.3	4.2	5.8	6.4	10.5	9.3	4	4.5
Schweiz	3.9	8.7	9.8	6.7	1.7	1.3	1.1	3.6	4.1	6.5	5.6	3	2.9	3.4	0.7	1.5	1.9	3.2	5.4	5.8	4	3.5
Türkei	5.5	15.4	15.8	19.2	17.4	27.1	45.3	58.7	110.2	36.6	30.8	31.4	48.4	45	34.6	38.8	79.4	63.3	65	70	70	70

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Median	4,60	8,95	14,35	12,05	9,75	10,30	8,05	9,35	12,90	12,15	9,80	8,35	6,65	5,45	3,55	3,90	4,35	4,80	5,10	4,15	4,00	3,75
MW	4,69	9,98	15,52	14,90	12,19	12,50	11,65	13,32	18,75	14,95	13,31	12,93	10,61	9,28	6,53	6,22	8,46	8,61	9,14	8,47	7,73	7,52
SA	1,51	3,74	7,81	8,83	6,43	7,92	11,63	13,51	22,79	10,60	10,50	17,22	11,00	10,53	8,65	8,58	16,34	12,71	13,03	13,90	13,85	13,83
VK	0,32	0,37	0,50	0,59	0,53	0,63	1,00	1,01	1,22	0,71	0,79	1,33	1,04	1,13	1,32	1,38	1,93	1,48	1,43	1,64	1,79	1,84

App.I/Figure 1: Mean, standard deviation and coefficient of variation of inflation rates in the OECD 1972 - 1993

MW ... mean
SA ... standard deviation
VK ... coefficient of variation
DA ... average deviation
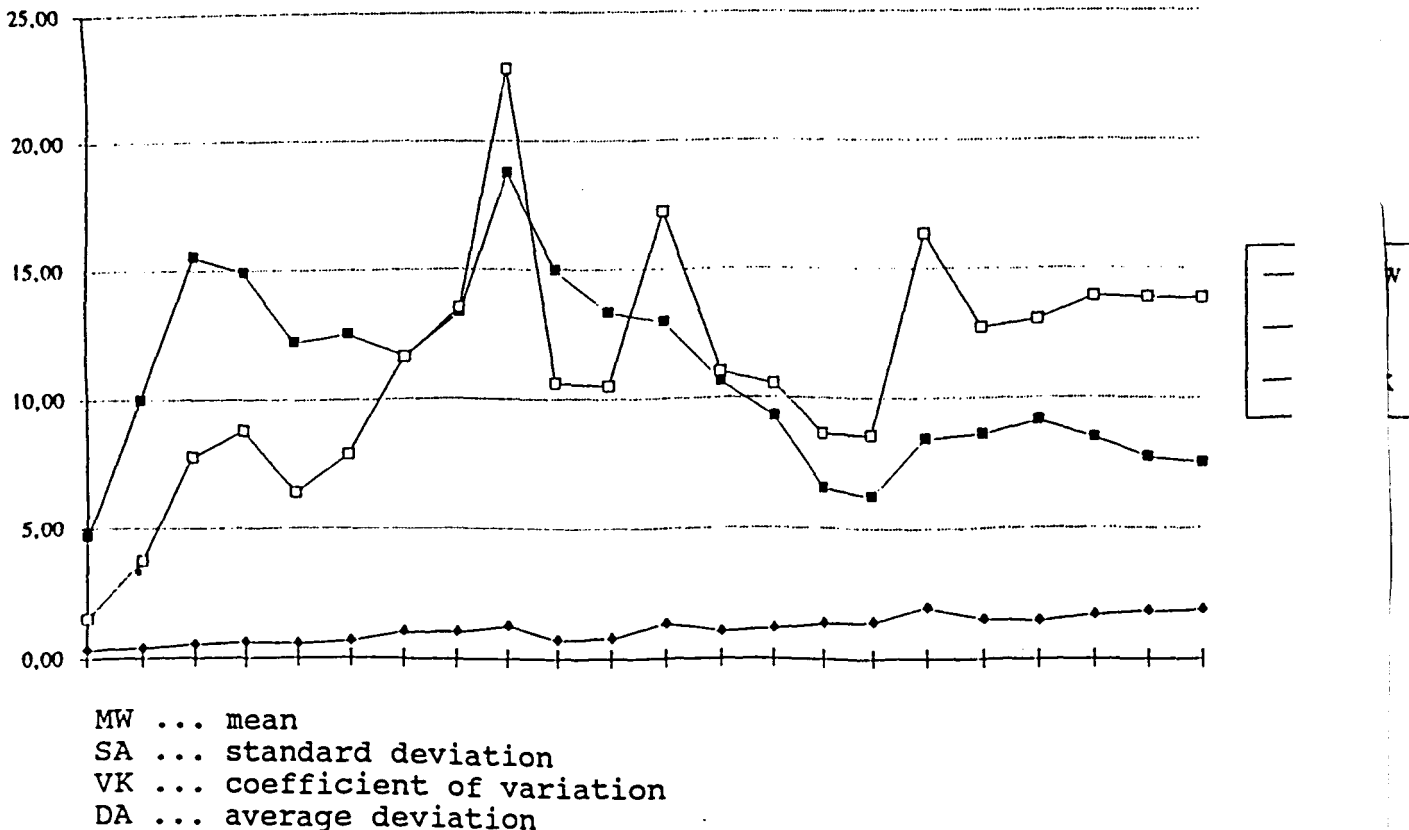
App.I/Table 3a: Rates of Unemployment in OECD countries (without Australia and New Zealand)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
OECD Insg.	3,9	3,3	3,5	5,2	5,3	5,3	5,2	5,1	5,8	6,6	8,1	8,5	8	7,8	7,7	7,3	6,7	6,2	6,1	7	7	6,8
OECD Eur.	3,2	2,9	2,9	4,2	4,8	5,2	5,5	5,6	6,1	7,8	9,1	9,9	10,3	10,4	10,3	10,1	9,5	8,6	8,1	8,5	9	8,8
EG	2,6	2,9	3	4,3	5	5,4	5,6	5,7	6,4	8,1	9,4	10,3	10,7	10,9	10,8	10,6	9,9	9	8,5	9	8,8	8,8
USA	5,6	4,9	5,6	8,5	7,7	7,1	6,1	5,8	7,1	7,6	9,7	9,6	7,5	7,2	7	6,2	5,5	5,3	5,5	6,8	6,5	6
Japan	1,4	1,3	1,4	1,9	2	2	2,3	2,2	2	2,2	2,4	2,7	2,7	2,6	2,8	2,8	2,5	2,3	2,1	2,1	2,3	2,3
Deutschland	0,8	0,8	1,6	3,6	3,7	3,6	3,5	3,2	2,9	4,2	5,9	7,7	7,1	7,2	6,4	6,2	6,2	5,6	5,1	4,5	4,5	4,5
Frankreich	2,8	2,7	2,8	4	4,4	4,9	5,2	5,9	6,3	7,4	8,1	8,3	9,7	10,2	10,4	10,5	10	9,4	9	9,4	10	10
UK	3,1	2,1	2,1	3,3	4,5	4,8	4,6	4,3	5,4	8,5	9,8	10,7	11,1	11,3	11,4	10,1	8,1	6,3	5,9	8	9,8	11
Italien	6,4	6,4	5,4	5,9	6,7	7,2	7,3	7,8	7,7	8,6	9,2	10,1	10,4	10,2	11,2	12,1	12,2	12,1	11,2	11,3	10	9,8
Kanada	6,2	5,5	5,3	6,9	7,1	8,1	8,3	7,4	7,5	7,6	11	11,8	11,2	10,5	9,5	8,8	7,8	7,5	8,1	10,3	10,3	9,8
Österreich	1,1	1	1,1	1,7	1,7	1,6	1,8	1,7	1,6	2,1	3,2	3,8	3,9	4,2	4,5	4,9	4,7	4,3	4,7	5,1	5,4	5,5
Belgien	2,7	2,7	3	5	6,4	7,4	7,9	8,2	8,8	10,8	12,6	12,1	12,1	11,3	11,2	11	9,7	8	7,3	7,7	8,3	8,3
Dänemark	1,7	1,1	2,5	6	6,1	7,7	7,4	6,1	7	9,2	9,8	10,5	10,2	9,3	8	8	8,8	9,5	9,6	10,3	10	9,5
Finnland	2,6	2,3	1,7	2,2	3,9	5,9	7,3	6	4,7	5,1	5,4	5,4	5,2	5	5,4	5,1	4,6	3,5	3,4	7,5	9	9
Griechenl.	2,1	2	2,1	2,3	1,9	1,7	1,8	1,9	2,8	4	5,8	7,8	8,1	7,8	7,4	7,4	7,7	7,5	7,2	8,6	9,8	11
Island	0,5	0,4	0,4	0,5	0,5	0,3	0,4	0,4	0,3	0,4	0,7	1	1,3	0,9	0,6	0,5	0,6	1,1	1,7	1,6		2
Irland	5,4	11,4	16,9	20,8	18	13,7	7,5	13,3	18,2	20,4	17,1	13,7	15,4	16,8	17,4	17,7	16,7	15,6	13,7	15,8	15,5	15,3
Luxemburg	3	6,1	9,5	10,7	9,8	6,7	3,1	4,5	6,3	8,1	9,3	8,7	5,7	4,1	0,3	-0,1	1,4	3,4	1	1,3	1,3	1
Niederlande	4,6	8	9,6	10,2	8,8	6,4	4,1	4,2	6,5	6,7	5,9	2,7	3,3	2,3	0,1	-0,7	0,7	1,1	7,5	7	7,5	7,3
Norwegen	4,7	7,6	8,9	12,3	8,8	9,2	7,9	5,1	11	13,7	11,2	8,4	6,4	5,5	7,3	8,8	6,7	4,6	5,2	5,3	4,8	4,3
Portugal	4,6	11,7	19,2	20,3	19,4	27,1	22,5	23,7	16,7	20	22,7	7,9	8,4	8,5	8,5	7	5,7	5	4,6	4	4,3	4,8
Spanien	6,1	11,4	15,7	4,8	5,7	7,5	9,2	11,7	14,4	16,3	17,8	20,6	21,9	21,5	20,6	19,5	17,3	16,3	16,3	15,5	15	14,5
Schweden	2,7	2,5	2	1,6	1,6	1,8	2,2	2,1	13,8	2,5	3,2	3,5	3,1	2,8	2,7	1,9	1,6	1,4	1,5	2,7	4,3	4,3
Schweiz	0	0	0	0,4	0,7	0,4	0,4	0,4	0,2	0,2	0,4	0,9	1,1	1	0,8	0,8	0,7	0,6	0,6	1,3	1,3	1
Türkei	7,6	7,9	8,4	8,7	7,9	7,5	7,8	9,7	11,6	11,6	12,3	12,1	11,8	11,3	10,5	9,5	9,8	10,2	10,4	11,5	13,3	13,5
Median	2,90	3,70	2,90	4,90	5,90	6,55	5,65	5,45	6,75	7,75	9,25	8,33	7,80	7,50	7,35	7,20	6,45	5,45	5,70	7,25	8,30	7,80
MW	3,44	4,54	5,69	6,44	6,24	6,48	5,85	6,16	7,40	8,05	8,80	8,18	8,06	7,80	7,45	7,18	6,77	6,39	6,44	7,16	7,77	7,49
SA	2,11	3,69	5,45	5,55	4,79	5,52	4,53	5,08	4,99	5,56	5,48	4,57	4,82	4,97	5,20	5,18	4,63	4,34	4,04	4,15	4,01	4,15
VK	0,61	0,81	0,96	0,86	0,77	0,85	0,78	0,82	0,67	0,69	0,62	0,56	0,60	0,64	0,70	0,72	0,68	0,68	0,63	0,58	0,52	0,55

App.I/Table 3b: Rates of Unemployment - percentage deviation

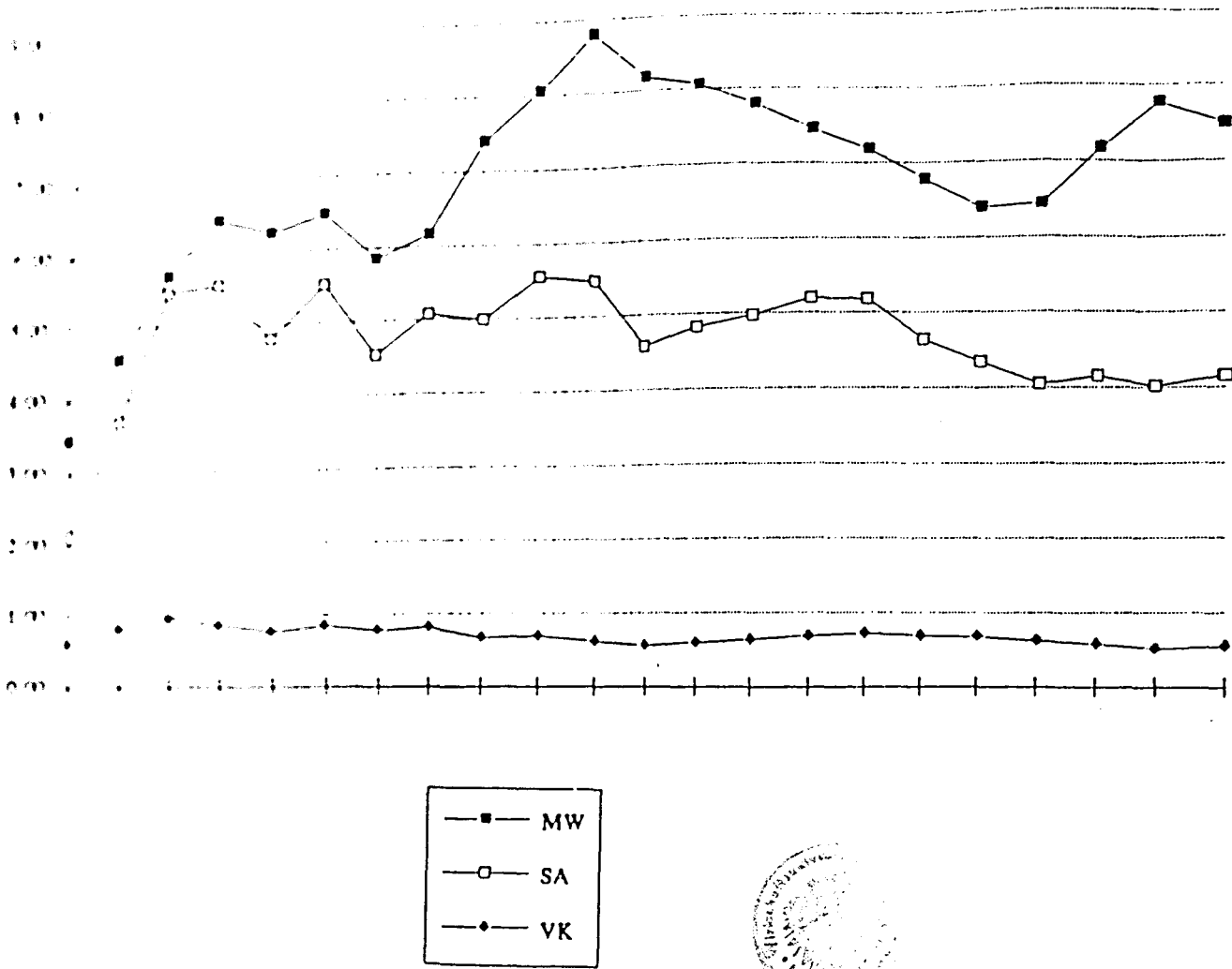|	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Italien	1,80	1,21	0,93	1,07	1,14	1,25	1,42	1,20	1,01	0,94	1,25	1,44	1,39	1,35	1,27	1,23	1,15	1,17	1,26	1,44	1,33	1,31
Kanada	0,32	0,22	0,19	0,26	0,27	0,25	0,31	0,28	0,22	0,26	0,36	0,46	0,48	0,54	0,60	0,68	0,69	0,67	0,73	0,71	0,69	0,73
Österreich	0,78	0,60	0,53	0,78	1,03	1,14	1,35	1,33	1,19	1,34	1,43	1,48	1,50	1,45	1,50	1,53	1,43	1,25	1,13	1,07	1,07	1,11
Belgien	0,49	0,24	-0,44	0,93	0,98	1,19	1,27	0,99	0,95	1,14	1,11	1,28	1,27	1,19	1,07	1,11	1,30	1,49	1,49	1,44	1,29	1,27
Dänemark	0,76	0,51	0,30	0,34	0,62	0,91	1,25	0,97	0,64	0,63	0,61	0,66	0,65	0,64	0,72	0,71	0,68	0,55	0,53	1,05	1,16	1,20
Finnland	0,61	0,44	0,37	0,36	0,30	0,26	0,31	0,31	0,38	0,50	0,66	0,95	1,01	1,00	0,99	1,03	1,14	1,17	1,12	1,20	1,26	1,47
Griechenl.	0,15	0,09	0,07	0,08	0,08	0,05	0,07	0,06	0,04	0,05	0,08	0,12	0,16	0,12	0,08	0,07	0,09	0,17	0,26	0,22	0,00	0,27
Island	1,57	2,51	2,97	3,23	2,88	2,11	1,28	2,16	2,46	2,53	1,94	1,67	1,91	2,16	2,33	2,46	2,47	2,44	2,13	2,21	1,99	2,04
Irland	0,87	1,34	1,67	1,66	1,57	1,03	0,53	0,73	0,85	1,01	1,06	1,06	0,71	0,53	0,04	-0,01	0,21	0,53	0,16	0,18	0,17	0,13
Luxemburg	1,34	1,76	1,69	1,58	1,41	0,99	0,70	0,68	0,88	0,83	0,67	0,33	0,41	0,30	0,01	-0,10	0,10	0,17	1,17	0,98	0,97	0,98
Niederlande	1,37	1,68	1,56	1,91	1,41	1,42	1,35	0,83	1,49	1,70	1,27	1,03	0,79	0,71	0,98	1,23	0,99	0,72	0,81	0,74	0,62	0,57
Norwegen	1,34	2,58	3,37	3,15	3,11	4,18	3,85	3,85	2,26	2,48	2,58	0,97	1,04	1,09	1,14	0,97	0,84	0,78	0,71	0,56	0,55	0,64
Portugal	1,77	2,51	2,76	0,75	0,91	1,16	1,57	1,90	1,95	2,02	2,02	2,52	2,72	2,76	2,76	2,72	2,55	2,55	2,53	2,16	1,93	1,94
Spanien	0,78	0,55	0,35	0,25	0,26	0,28	0,38	0,34	1,86	0,31	0,36	0,43	0,38	0,36	0,36	0,26	0,24	0,22	0,21	0,38	0,55	0,57
Schweden	0,00	0,00	0,00	0,06	0,11	0,06	0,07	0,06	0,03	0,02	0,05	0,11	0,14	0,13	0,11	0,11	0,10	0,09	0,09	0,18	0,17	0,13
Schweiz	2,21	1,74	1,48	1,35	1,27	1,16	1,33	1,57	1,57	1,44	1,40	1,48	1,46	1,45	1,41	1,32	1,45	1,60	1,62	1,61	1,71	1,80
Türkei	12,30	7,60	7,90	8,40	8,70	7,90	7,50	7,80	9,70	11,60	11,60	12,30	12,10	11,80	11,30	10,50	9,50	9,80	10,20	10,40	11,50	0,00
DA (%)	1,49	1,30	1,31	1,32	1,34	1,31	1,29	1,31	1,40	1,48	1,48	1,51	1,51	1,49	1,47	1,44	1,39	1,41	1,42	1,43	1,44	0,96
SA	2,49	1,64	1,77	1,81	1,82	1,71	1,60	1,68	1,98	2,37	2,35	2,48	2,44	2,39	2,31	2,15	1,94	2,00	2,06	2,09	2,32	0,61
VK	0,72	0,36	0,31	0,28	0,29	0,26	0,27	0,27	0,27	0,29	0,27	0,30	0,30	0,31	0,31	0,30	0,29	0,31	0,32	0,29	0,30	0,08
USA	0,41	0,29	0,25	0,30	0,32	0,31	0,39	0,36	0,27	0,27	0,27	0,33	0,34	0,33	0,38	0,39	0,37	0,36	0,33	0,29	0,30	0,31
Japan	0,23	0,18	0,28	0,56	0,59	0,56	0,60	0,52	0,39	0,52	0,67	0,94	0,88	0,92	0,86	0,86	0,92	0,88	0,79	0,63	0,58	0,60
Deutschland	0,81	0,60	0,49	0,62	0,71	0,76	0,89	0,96	0,85	0,92	0,92	1,01	1,20	1,31	1,40	1,46	1,48	1,47	1,40	1,31	1,29	1,34
Frankreich	0,90	0,46	0,37	0,51	0,72	0,74	0,79	0,70	0,73	1,06	1,11	1,31	1,38	1,45	1,53	1,41	1,20	0,99	0,92	1,12	1,26	1,47
UK	1,86	1,41	0,95	0,92	1,07	1,11	1,25	1,27	1,04	1,07	1,05	1,23	1,25	1,31	1,50	1,68	1,80	1,89	1,74	1,58	1,29	1,31

MW ... mean
SA ... standard deviation
VK ... coefficient of variation
DA ... average deviation

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