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to Cohesion:
Ireland, Greece,
Portugal and Spain
and Lessons for the
Next Accession**

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Summary

This study presents a concise analysis of the macroeconomic developments in four cohesion countries (CCs): Greece, Ireland, Portugal and Spain, from 1960 to 2000. Special attention is being paid to the economic performance of these countries after their accession to the European Union (EU).[1] The aim is to find out whether the new EU Accession Countries (ACs) from Central and Eastern Europe can learn from the experience of the CCs concerning future benefits and disadvantages resulting from accession.

The study is divided into five major parts.

The first part is devoted to methodological questions.

In the second part the developments of major macroeconomic indicators for each CC for the period 1960 to 2000 are tracked and set in relation to each other. In doing this, we concentrate on the influence of exogenous demand factors (or injections) and so-called leakages that together determine the level of economic activity. Exogenous demand injections are private investment, government expenditures (for consumption and investment) and exports, whereas leakages contain private savings, net taxes (taxes net of subsidies and transfers) as well as imports.

The third part deals in detail with the role that FDI and EU transfers played in the four CCs with respect to their influence on private investment, net exports and hence on economic growth as well as on the CCs' trade performance and external position.

The fourth part focuses on the patterns of income catching-up of the four CCs in relation to the EU average; attention is drawn to the differences in growth records depending on whether GDP is measured in national currency terms or at purchasing power standards (PPS).

The fifth part contains brief general remarks on the growth strategy of the ACs.

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[1] Throughout this study we use the term EU also for the earlier period when the union was called European Community (EC).

Kazimierz Laski and Roman Römisch

From accession to cohesion: Ireland, Greece, Portugal and Spain and lessons for the next accession*

I.   Introduction and methodological remarks

1.   This paper deals with four countries, Ireland, Greece, Portugal and Spain, all of which became members of the EU in the period 1973-1986; we shall term them cohesion countries (CCs). The goal of this paper is to establish whether we can learn something from their experience in terms of future advantages and disadvantages for the present accession countries (ACs) from Central and Eastern Europe: the Czech Republic, Hungary, Poland, Slovenia and Slovakia.

A vast amount of literature exists on the topic of EU eastern enlargement.[2] In the centre of these investigations are the supply side effects of enlargement, mostly in a general equilibrium type of analysis. They neglect as a rule the demand side effects, although supply and demand are two legs of every economic process. We intend to present a more balanced approach with respect to capital inflows, especially foreign direct investment (FDI) issues, which seem to be especially important for ACs. Thus the first question we try to answer in this study deals with the influence of capital inflows, in particular FDI, on the size of GDP and the external position of CCs. The second question is only indirectly related to the first one and deals with the impact of EU accession on the growth of CCs and their convergence with the EU average. Before addressing those questions, the paper presents an overview of the development of the four CCs. Our aim is to find out whether the accession date of a given country has left traces on its development or whether its recent past has rather been shaped by other events. In all three sections we look for conclusions that can be drawn with respect to ACs. We start the paper by describing the methods used to analyse the empirical data.

I.1   Method

2.   Exogenous demand for finished goods produced in a given year comprises three elements: (gross) private investments (resulting from previous investment decisions) IP; government expenditures for goods and services G, appropriated in the budget and related to collective consumption CG and collective investment IG (G=CG+IG); and exports dependent mainly on demand from the rest of the world X. On the other hand, private

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demand for consumer goods CP should be treated as endogenous because the greater part of that demand depends on private household incomes earned during the year under consideration. The value of a country's final output is equal to the sum of wages and (gross) profits W+R, representing (gross) value-added, and the value of imports M.

$$CP + IP + G + X = W + R + M \qquad (1)$$

Both private households and firms pay taxes, including social security payments; they receive transfer payments and government subsidies. The resulting tax revenue, net of transfers and subsidies, shall be denoted TN. Private households also receive distributed profits from firms RD. [3] Hence, the sum of disposable income of private households YH and of private firms RN, where RN denotes non-distributed profits, is

$$YH + RN + TN = W + R \qquad (2)$$

From (1) and (2) we get

$$CP + IP + G + X = YH + RN + TN + M \qquad (3)$$

The difference between YH and CP constitutes savings of private households SH, and RN are *ex definitione* firms' savings; hence private savings are SP=SH+RN. Thus, by subtracting CP from both sides of (3) we get

$$IP + G + X = SP + TN + M \qquad (4)$$

On the left side of (4) we have *injections* into the circular flow of incomes: the most important injection is IP because it reproduces and extends existing private capital and private production capacity; the other is government expenditure, which partly reproduces and extends collective capital, mainly infrastructure (IG), and partly satisfies collective needs by mostly providing public goods (CG); the last item is exports demanded by the rest of the world. Taken together, injections determine the level of economic activity, yet are not determined by it. On the right side of (4) we have *leakages* into private savings, taxes and imports, which are mostly determined by the level of GDP. Injections, together with coefficients which relate to the behaviour of private households and firms and describe the relation between taxes and imports to GDP, determine the level of economic activity. Indeed, by using q, tn and m to denote the average (and marginal) private savings, tax and

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[3] Distributed profits flow to private households with a certain time-lag which is necessary to determine profits as a residual term. This time-lag is disregarded here.

import ratios: q=SP/GDP, tn=TN/GDP and m=M/GDP, respectively, we get from (4)

$$(q+tn+m)GDP = IP + G + X$$

and

$$GDP = (IP + G + X)/(q + tn + m) \qquad (5)$$

Hence, on the demand side GDP is determined by injections and outflow coefficients. Of course, this determination is valid only until production capacity (including full employment) has reached its limit. In order to find out the role that injections or leakages play in growth, we take the logarithmic derivation after time of (5) to get

$$g(GDP) = g(IP + G + X) - g(q + tn + m) \qquad (6)$$

where g(GDP), g(IP+G+X) and g(q+tn+m) denote the growth rates of GDP, injections and outflows, respectively.

3.   (4) offers the most concise formula for analysing the past development of injections and leakages

$$SP = IP + G - TN + X - M = IP + D + TB \qquad (7)$$

where private savings SP are determined by (but do not determine) private investment IP, the budget deficit, denoted by D=G-TN, and the trade balance, denoted by TB=X-M. Taking into account the private propensity to save q=SP/GDP, we get from (7)

$$GDP = (IP + D + TB)/q \qquad (8)$$

where the term (IP+D+TB) denotes net injections. Taking the logarithmic derivatives after time from (8) we get

$$g(GDP) = g(IP + D + TB) - g(q) \qquad (9)$$

Thus the GDP growth rate is the difference between the growth rate of net injections (IP+D+TB) and the private savings ratio q. The most important element of (IP+D+TB) is private investment, hence the GDP growth rate depends mostly on the growth rate of IP and q.

4.   The equation so derived can also be applied to GNP. In that case, the term TB, the trade balance, is being replaced by the term CA, the current account.[4] In particular, we get from (7) the equation

$$SP(n) = IP + D + CA$$

where SP(n) denotes national style private savings while SP denotes domestic style private savings. Accordingly we get from (9)

$$g(GDP) = g(IP + D + CA) - g(Q)$$

where the term IP+CA+D denotes net injections (in GNP style) and the term Q denotes the relation of SP(n) to GNP, i.e. the national style (average and marginal) propensity to save out of GNP.

I.2 Data

5.   The data used throughout the study were taken from the AMECO Database (Annual Macro Economic Database) supplied by the Directorate General Economy and Finance of the European Union. Any tables and figures without particular source specification are based on these data. If supplementary data not available in AMECO were used, the respective sources are given in the text.

II.   The four CCs

II.1 Ireland

6.   Viewed in a European context Ireland was a relatively poor country, yet of the four CCs it displayed the highest GDP per capita in 1960. The share of employment in agriculture shifted from some 27% in 1970 to some 13% in 1997, while services gained in importance. Similarly, the contribution of agriculture to total gross value-added declined from approx. 15% in 1970 to approx. 4% in 1997; this was offset by an increase in the share of manufacturing (from 26% to 33%), as well as by growth in the share of services (from 45% to 54%).

After 1960, Ireland's economic development was not very impressive compared to other cohesion countries, but from 1994 onwards the Irish economy has been booming. This can be seen from Figure 1 relating to GDP and GNP growth.

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[4]   The latter contains, besides TB, the tem Net factor income from abroad (NFIfA) as well as international transfers.

A characteristic feature of Ireland's development was an unusually large difference between GDP and GNP growth: a feature analysed in greater detail below.

GDP and GNP growth, Ireland, 1960-2000

(annual real change in per cent)
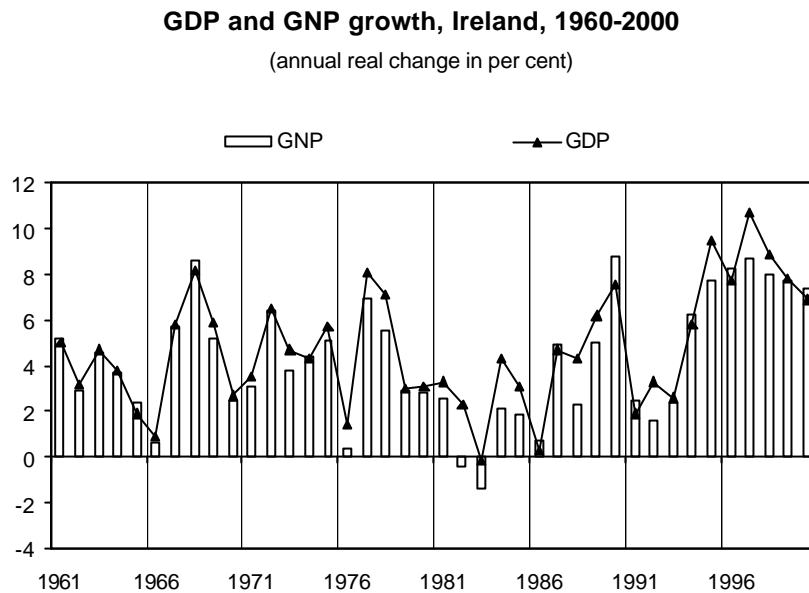
Unemployment rate and inflation, Ireland, 1961-2000

(in per cent p.a.)
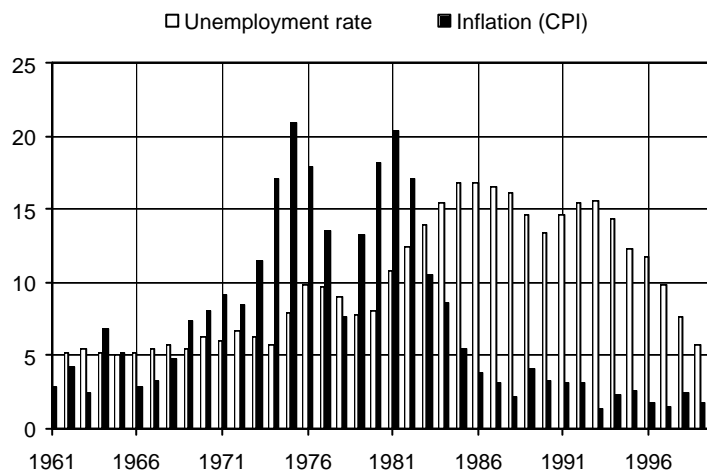
The unemployment level and inflation rate over the past 40 years are documented in Figure 2. For most of that period unemployment in Ireland was high. In 2000 it still stood at 5%. In the 1980s and the first half of the 1990s the rate of unemployment varied between 10% and 15%; in some years it even exceeded 15%. Inflation on the other hand reached

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its peak in the 1970s; in some years it even rose above 20%. Since 1981, however, disinflation has been more or less continuous. This conclusion is supported by Figure 3, which also shows a relatively close correlation between the growth of unit labour costs ULCs and GDP deflators: a feature common to other countries.

Figure 3

Unit labour costs and GDP deflator, Ireland, 1961-2000

(annual change in per cent)
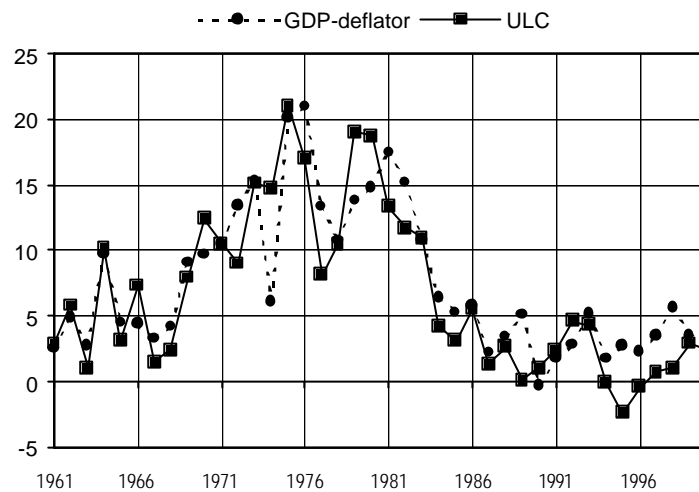
Figure 4

Gross capital formation (GCF) and private investment (IP), Ireland, 1970-2000

(in per cent of GDP)
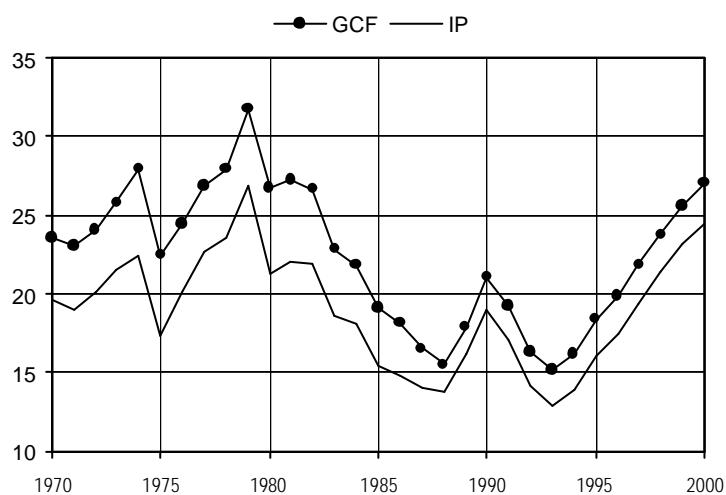
No doubt, the movements of gross capital formation GCF and private investment IP constitute the main driving force in any economy. Figure 4 demonstrates that seen from this angle, three periods can be selected for further analysis. In the first period 1960-1979 (disregarding a few years around 1975) investment as a share of GDP increased continuously; in the second period 1980-1994 (disregarding a few years around 1990) the opposite held true; in the final period, starting in 1995, the share of investment increased, yet it did not reach the peak of 1979.

Figure 5

General government deficit D, Ireland, 1970-2000

(in per cent of GDP)
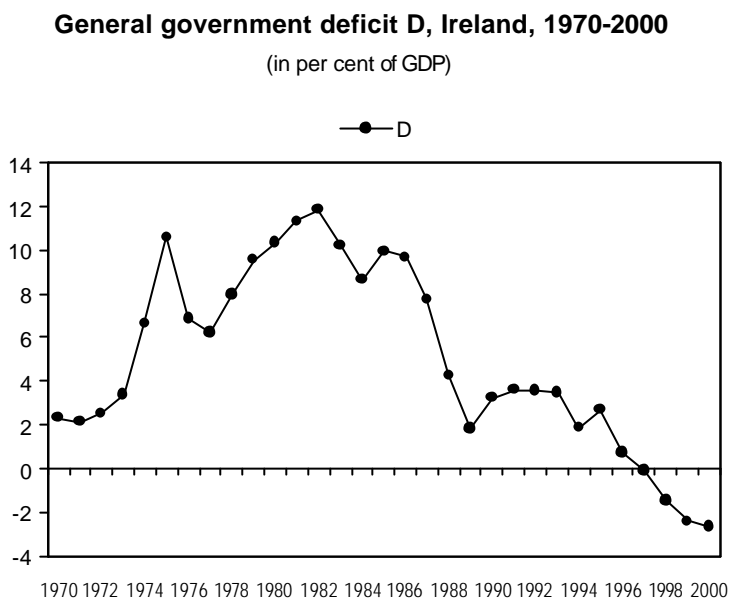
The development of the fiscal balance is illustrated in Figure 5. Between 1975 and 1985 the fiscal deficit accounted for more or less 10% of GDP: a comparatively high level. The largest deficit was reached in 1982: 11.8% of GDP. From the mid-1980s onwards, the deficit decreased continuously and eventually turned into a budget surplus after the mid-1990s. As far as the country's external position is concerned, Figure 6 supplies interesting information. In 1979 the trade balance and current account reached record deficit levels: -16.4% and -12.2%, respectively. These deficits could not but shatter the confidence in the Irish economy and necessitated a turn towards restrictive policies in the 1980s. The details of these policy changes are entered into below after considering the savings ratios in Ireland.

The private savings ratio is an important tool in our analysis; it also depends, however, on the terms of reference chosen. As already explained, in this paper we define the relationship between (IP+D+TB) and GDP as the (*domestic style*) private savings ratio q. However, as already mentioned, in (IP+D+TB) we can replace the term TB, the trade balance, by the term CA, the current account balance, and refer the term (IP+CA+D) to GNP. This gives us the (*national style*) private savings ratio denoted as before by Q. From

Figure 7 we can see that up until 1980 the coefficients q and Q developed along similar lines; thereafter the coefficient q veered towards a rather strongly increasing trend while the coefficient Q continued to oscillate around an almost constant trend. In 1981 the two coefficients were almost equal (approx. 19%), but in 1970 Q exceed q by 4.4 (=18.1-13.7) percentage points and in 2000 it fell short by 10.5 (=21.3-31.8) percentage points. As Q also contains net factor income from abroad (NFIfA), increasing amounts of which were being transferred from Ireland to the rest of the world, it would seem preferable to use the

Figure 6

Trade (TB) and current account (CA) balances, Ireland, 1960-2000
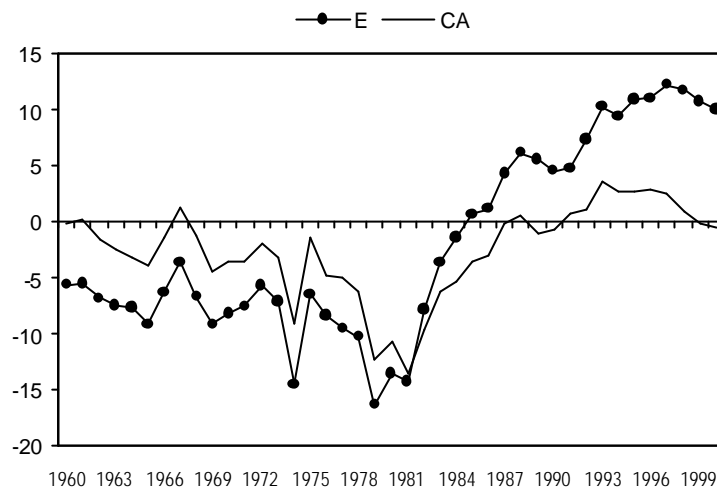
(in per cent of GDP)

Figure 7

Private savings ratios q and Q, Ireland, 1970-2000

(in per cent of GDP)

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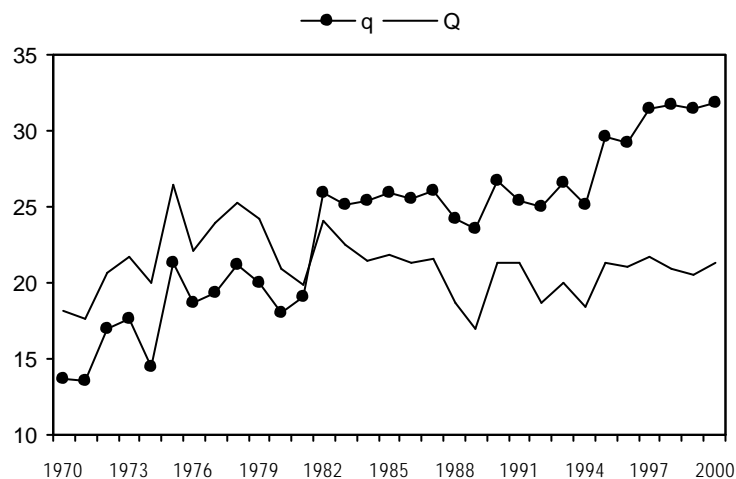
term Q rather than q as an effective measure of the propensity to save in Ireland. Indeed, Q alone reflects the saving propensity of both Irish private firms and of Irish private households.

7. Detailed data on the structure and growth of GDP and its main elements for the past 40 years are presented in Tables 1 and 2. Table 1 introduces a new coefficient sp; it measures the relation SP/YD, where YD=(1-tn)GDP denotes disposable income. Hence sp, the private propensity to save out of disposable income, is equal to q/(1-tn), where q is the private propensity to save out of GDP. The benchmark years for both tables are 1960, 1978, 1994 and 2000. In addition, account is also taken of 1970 because certain data were only available with effect from that year.

A characteristic feature of Ireland's development is the unusual large difference between GDP and GNP. In 1960 GNP outstripped GDP by 8.7 percentage points while in 2000 it stood 10.8 percentage points lower; hence, the difference amounted to almost 20 percentage points over the past forty years. In these circumstances, determining the proper measure of economic development poses a problem. From the standpoint of the welfare of the Irish population, GNP and not GDP is the proper yardstick. Indeed, when NFIfA is negative, funds flow outward to the rest of the world and can neither be consumed nor saved in Ireland itself.

The main features of Ireland's growth over the past 40 years are presented in Table 2. In this table we also report the growth rates of labour productivity (the GDP/employment ratio), of the real wage, of unit labour costs (ULCs) in national currency and in euro, and the change of the real exchange rate (RER). The average unemployment rates for the periods are recorded as well. Over the period 1960-2000 Ireland's GDP grew by 4.7% p.a. (i.e., by a factor of 5.9): an achievement that brought about a significant change in the country's economic position relative to Europe and the world as a whole. Up until 1978, the GDP growth rate was 4.6% p.a.; in the period 1979-1994 it declined to 3.5% only to increase after 1995 to an impressive 8.6%. A similar, albeit not identical picture emerges when analysing GNP growth. Over the period 1960-2000, GNP grew by 4.2% each year (i.e., by a factor of 5.2): although slower than GDP, it is still an impressive showing. Up until 1978, the GNP growth rate was 4.3%; in the period 1979-1994 it declined to 2.8% and in 1995-2000 it increased to 8%.

In the first period (1960-1978) GCF increased at a rate of 8% and outstripped GDP. Both exports and imports also increased more rapidly than GDP, but exports less so than imports. As a result the import surplus increased from 5.7% of GDP in 1960 to 10.3% in 1978. At the same time, the current account deficit rose from 0.1% to 6.2% of GDP. In the following year (1979), as already mentioned, both the trade balance and current account deficits reached a dangerous level. The fiscal balance also deteriorated visibly. The

general government deficit rose from 2.3% of GDP in 1960 through 7.9% in 1978 to 9.5% in 1979. The increase in the fiscal deficit over the period 1970-1978 was the outcome of government expenditure G growing more rapidly than GDP, while government revenue TN grew at a slower rate.

Table 1

Structure of final demand, Ireland, 1960-2000

(in per cent for GDP)

	1960	**1970**	**1978**	**1994**	**2000**
GDP	100.0	100.0	100.0	100.0	100.0
GNP	108.7	108.0	102.5	92.4	89.2
C	93.0	87.3	84.6	75.0	63.2
CP	80.0	71.9	66.5	57.5	49.3
CG	13.2	15.4	18.1	17.5	13.9
GCF	15.8	23.5	27.9	16.2	27.0
IG	.	4.0	4.4	2.3	2.6
IP	.	19.6	23.6	13.9	24.5
X	29.3	34.0	45.9	69.4	87.6
M	35.0	42.2	56.2	60.0	77.6
TB	-5.7	-8.2	-10.3	9.4	10.0
G	.	19.4	22.5	19.8	16.5
TN	13.2	17.1	14.5	17.9	19.2
D	.	2.3	7.9	1.9	-2.7
(IP+D+TB)	.	13.7	21.2	25.1	31.8
CA	-0.1	-3.7	-6.2	2.7	-0.5
IPCAD	.	18.2	25.3	18.4	21.3
IP+G+X	.	73.0	91.9	103.0	128.5
Coefficients					
sp	.	16.5	24.8	30.6	39.3
q=sp(1-tn)	.	13.7	21.2	25.1	31.8
q+tn+m	.	73.0	91.9	103.0	128.5
Q	.	16.9	24.7	19.9	23.9
sp(n)=Q/(1-tn)	.	0.2	0.3	0.2	0.3
Memo item					
GDP (1995 pr.) in NCU	9.7	14.6	21.8	37.5	61.4

Source: AMECO Database, own calculations.

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Table 2

Growth rates of GDP and its main elements, Ireland, 1960-2000

(in 'conventional[5] constant prices; in per cent p.a.)

	1960-1978	1970-1978	1979-1994	1995-2000	1960-2000	1970-2000
GDP	4.61	5.13	3.45	8.58	4.73	4.91
GNP	4.27	4.45	2.78	7.96	4.21	4.24
C	4.06	4.71	2.67	5.54	3.72	3.78
Cp	3.55	4.11	2.51	5.84	3.47	3.60
Cgg	6.46	7.24	3.21	4.54	4.86	4.54
GCF	7.97	7.40	-0.01	18.26	6.14	5.39
IP	.	7.60	0.07	19.37	.	5.69
IG	.	6.38	-0.48	10.33	.	3.41
X	7.25	9.14	6.16	12.88	7.63	8.27
M	7.40	8.96	3.88	13.33	6.83	7.06
G	.	7.07	2.64	5.31	.	4.34
TN	5.16	3.00	4.83	9.78	5.71	5.31
(IP+D+TB)	.	11.04	4.54	12.95	.	7.89
q	.	5.62	1.05	4.02	.	2.85
(IP+D+CA)	.	9.53	1.41	11.27	.	5.46
Q	.	4.86	-1.33	3.07	.	1.16
IP+G+X	.	8.20	4.19	12.65	.	6.90
q+tn+m	.	2.92	0.72	3.75	.	1.90
Memo items						
Growth rates:						
GDP/employment	4.3	4.4	3.0	3.9	3.7	3.6
GNP/employment	4.0	3.8	2.3	3.3	3.2	2.9
real wage (CPI deflated)	4.4	4.3	2.1	1.7	3.1	2.7
ERDI	0.7	1.6	0.2	-2.4	0.0	0.0
nominal ULC (NC)	8.8	13.2	6.2	0.5	6.5	7.0
nominal ULC (€)	5.4	7.1	5.1	0.7	4.5	4.9
real exchange rate (- = appreciation)[1]	1.3	3.0	0.1	0.6	0.7	0.8
Unemployment rate	6.4	7.5	14.0	8.9	9.7	11.1

Note: 1) Calculated with ULCs.

Source: AMECO Database, own calculations.

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[5] In Table 2 (and similar tables in this paper) we deflate all elements in current prices through the GDP deflator. We therefore get the growth rates of all elements in constant prices to the GDP deflator. As all elements – with the exception of GDP – may and do have deflators differing from the GDP deflator, the growth rates of these elements in proper constant prices would as a rule differ from our figures. The advantage of our 'conventional' constant prices is the fact that at these prices the relation between different elements of GDP is the same as at current prices at which the real economic process takes place.

The period thereafter (1979-1994) was characterized by restrictive monetary and fiscal policies. GCF and IP came to a standstill and the budget deficit was reduced from 7.9% to 1.9% of GDP. This was due to government expenditure growing more slowly than GDP and government revenue growing more rapidly. On the other hand, both the trade balance and the current account recorded surpluses in 1994: 9.4% and 2.7% of GDP, respectively. In the final period (1995-2000), both GCF and IP registered extraordinary growth (more than double the GDP and GNP growth rates). Mostly on account of accelerated GDP growth, the government budget switched from a deficit to a surplus (2.7% of GDP in 2000). The trade balance also went on to improve further (10% of GDP in 2000), whereas the current account recorded a minor deficit (0.5% of GDP in 2000). The combined effect of these developments is shown in Figure 8.

The period 1979-1994 is especially interesting. Over the period the term (IP+D+CA) increased by only 1.4%; that notwithstanding, GNP growth was 2.8% because the coefficient Q registered an annual decline of 2%.

Figure 8

GDP, IP, (IP+D+TB); q; (IP+D+CA),Q; Ireland, 1970-2000

(real change in 'conventional' constant prices; in per cent p.a.)
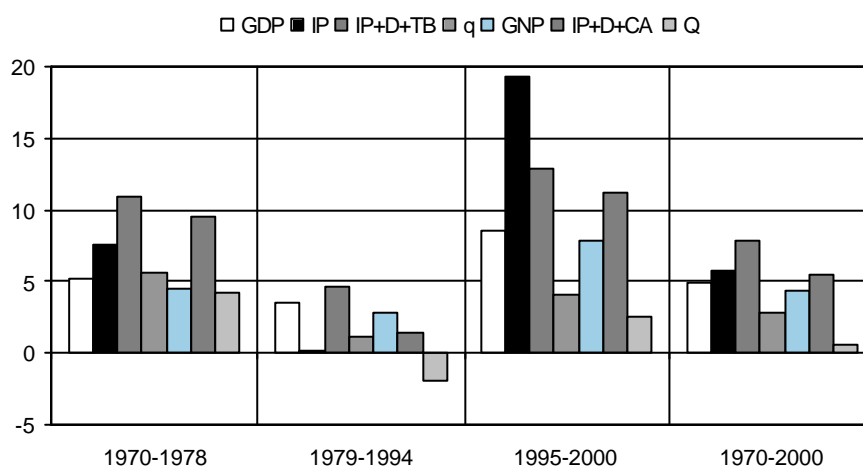
The reasons for Ireland's growth are still very much the subject of discussion. Repeatedly such features as the restrictive fiscal policy in the 1980s, a social partnership leading to prudent wage policy, exchange rate policy and stable macroeconomic conditions are quoted. No doubt all these factors played a role. The most important factor, however, was the upsurge in FDI in the 1990s. The problems related to the impact of FDI upon Ireland's growth are discussed in a separate section in Chapter III.

II.2 Greece

8. In 1960, Greece was one of the poorest countries in Europe; at that time its GDP per capita in PPS terms was only 44% of the average of those 15 countries that comprise the EU today. The low income level was partly reflected in the country's production structure. Up until 1985, the highest share of employment was to be found in agriculture as over one quarter of those employed were working in that sector. Since then agriculture has declined only marginally in importance and still accounts for 20% of the country's workforce. Unlike other countries, the industrial sector in Greece has never taken on any real importance: in the year 2000, it contributed just 20% to the economy's total gross value-added, as compared to still 30% in 1970. The sector with the highest share in final output has been the tertiary sector (services), producing 72% of total gross value added in 2000 (Bryant et al., 2001, p. 9). A special role in this sector is played by transport and tourism. Since the mid-1980s employment in that sector has increased significantly, making the services sector the most important one in the Greek economy today.

Figures 9 and 10 demonstrate the growth rates of GDP as well as unemployment and inflation in Greece between 1960 and 2000. Strangely enough, it is difficult to find a clear relation between these three indicators. Unemployment was low until 1980, whereafter it increased almost continuously to reach about 10% in 2000. On the other hand, inflation became a problem, as elsewhere, after 1973 and remained high up until 1990; thereafter it started to decline, especially after 1996. As in many other countries a clear link can be found between inflation as measured by the GDP deflator and the dynamic of the unit labour costs (ULCs). This is demonstrated in Figure 11.

Figure 9

GDP growth, Greece, 1960-2000

(annual real change in per cent)

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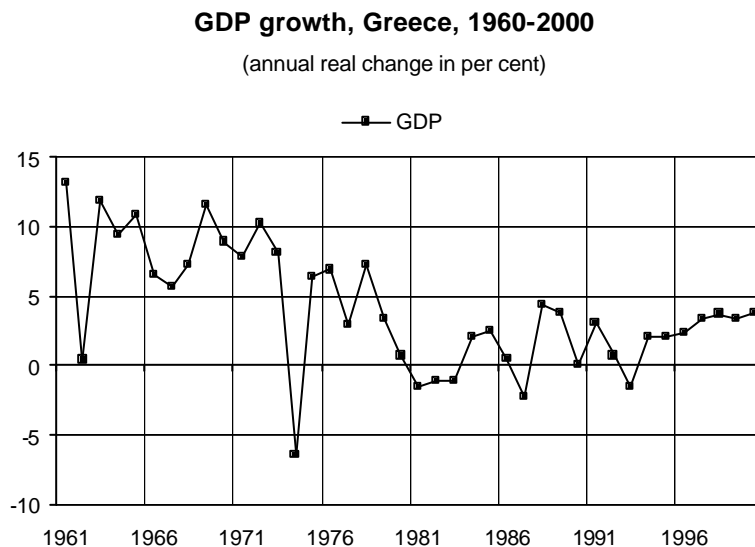
Figure 10

Unemployment rate and inflation, Greece, 1960-2000

(in per cent p.a.)
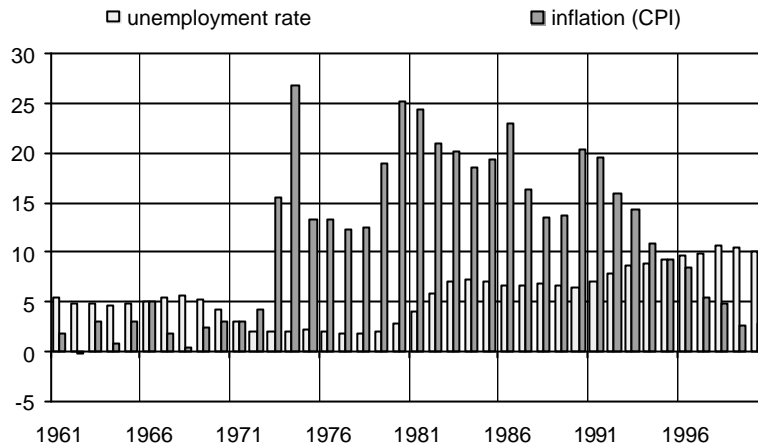
Figure 11

Unit labour costs and GDP deflators, Greece, 1960-2000

(annual change in per cent)
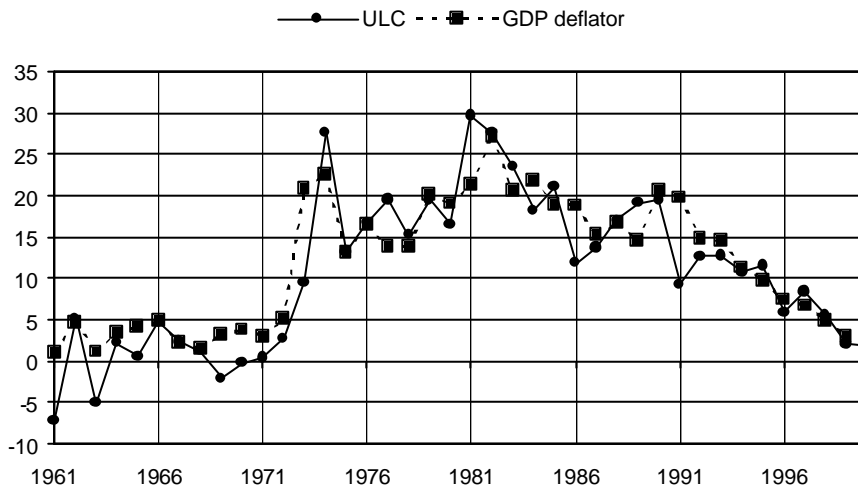
However, on focusing our further analysis on GDP growth, one can divide the 40 years under consideration into four periods: 1960-1973, 1974-1980, 1981-1994 and 1995-2000. Each period calls for separate analysis. In the first period, the average GDP growth rate was extremely high. The slowdown in growth after 1973 is easily explained as the consequences of the oil shock of 1973. The reasons for the poor showing in the years 1981-1994 are much more complicated; they were provoked by internal and external macroeconomic imbalances. In the final period, 1995-2000, the growth rate stabilized at over 3%. Although it does not look bad in the context of the

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EU, a rate of growth such as that is barely adequate for the poorest member of the Union.

Figure 12

Gross capital formation (GCF) and private investment (IP), Greece, 1960-2000

(in per cent of GDP)
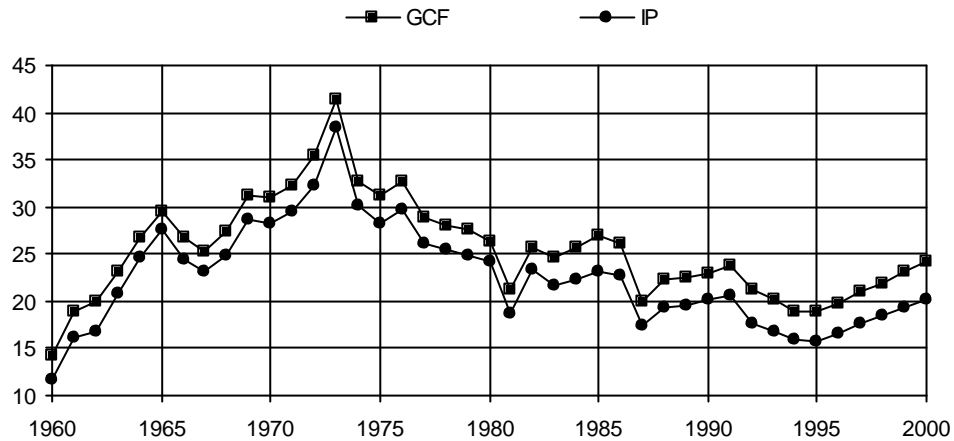
Figure 12 provides the main answer to the point at issue. Both GCF and IP as shares of GDP increased rather steeply up until 1973, before entering into a period of more or less continuous decline that lasted up until 1995, when things slowly picked up again. The development of the fiscal situation is shown in Figure 13. Up until 1974 the general government budget recorded surpluses, but then registered minor deficits up until 1981.

Figure 13

General government deficit, Greece, 1960-2000

(in per cent of GDP)

15
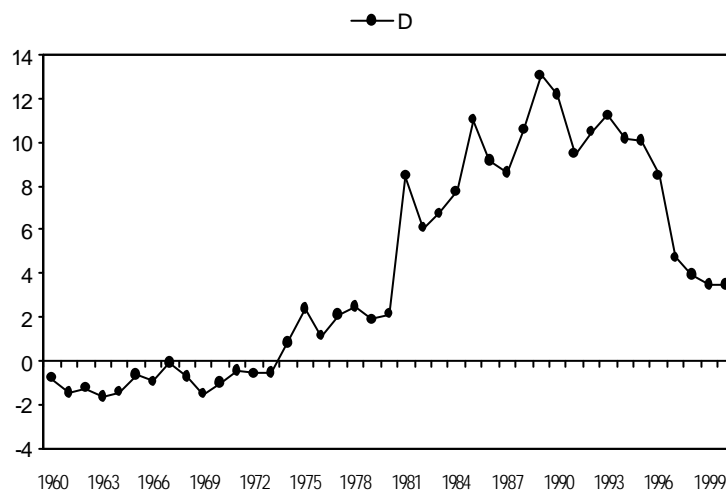
From 1981 onwards the deficit increased almost continuously to reach an extreme level of some 13% of GDP in 1990. In the period 1991-1995 the deficit started to decrease, but still amounted to 10% of GDP in 1995. Only over the past five years has the deficit declined rapidly; by 2000 it had dropped to a level of 3.5% of GDP.

Figure 14 characterizes the external position of Greece in the period under review. Greece was always an import surplus-country (TB<0). The import surplus increased from over 3% of GDP in 1960 to 9% in 1966; it diminished thereafter to reach its lowest level in 1982. Since then the import surplus has increased almost continuously (with the exception of short periods around 1987 and 1994), still amounting to about 8% of GDP in 2000. The current account developed along similar, but less extreme lines. In 1960 the current account deficit was only 1.3%; between 1980 and 1983 the current account even registered a surplus and then oscillated between close to zero and over 4% of GDP. In the past five years, the current account has been negative at a level of about 2% of GDP.

Figure 14

Trade and current account balance, Greece, 1960-2000

(in per cent of GDP)

——●—— TB ——— CA
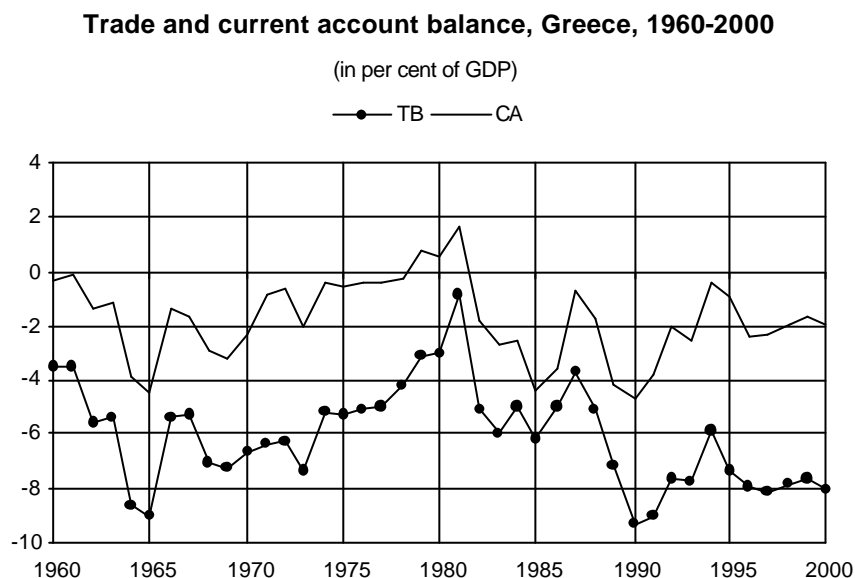
Figure 15 records the value of the SP/GDP ratio. Starting from a very low level in 1960, the coefficient q had climbed to over 30% of GDP by 1973. Between 1974 and 1989, it averaged about 25% of GDP; it declined rather sharply thereafter to reach less than 15% of GDP in 1997. It has increased slightly since and by 2000 it had reached the level of 15.7% of GDP.

Figure 15

Private savings ratio q, Greece, 1960-2000

(in per cent of GDP)
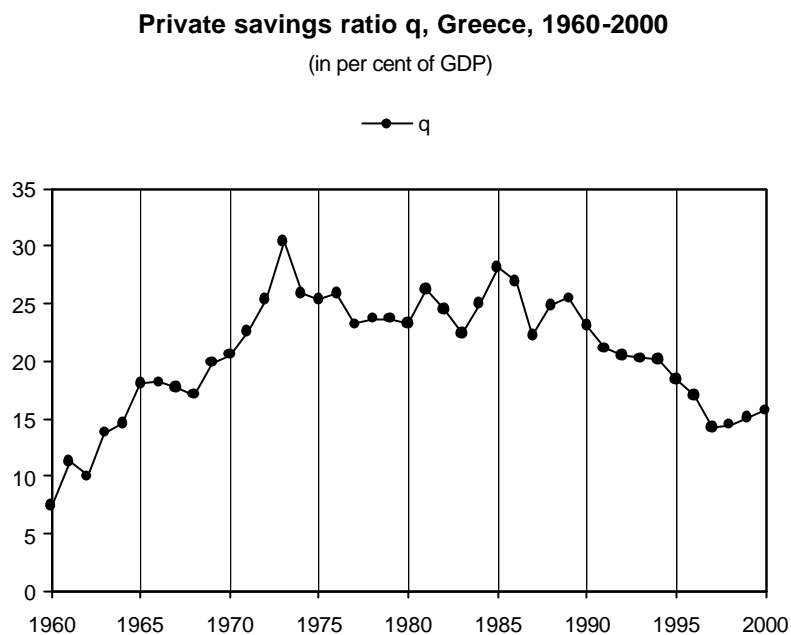
9.   In the light of the foregoing, we are now in a position to investigate more closely the four periods. Table 3 illustrates the structure of final demand in the years 1960, 1973, 1980, 1995 and 2000. Table 4 shows the growth rates of GDP and its main elements for the corresponding periods.

Taking as our starting point Table 4, which is also supported by Figure 16, the growth rate of GDP in the first period (1961-1973) can be seen to have been driven by a marked growth in GCF which was even stronger than the growth in IP (17.8% and 15%, respectively). Although the import surplus increased from 3.4% to 7.4% of GDP, (IP+D+TB) registered an impressive growth of 15.3%. As the coefficient q increased by 6.2% over the same period, the resulting GDP growth rate was 8.5%. A growth rate of 8.5% over 13 years means that in the first period GDP in Greece almost trebled. The remarkable growth of the Greek economy in that first period was mainly due to the strong investment expansion supported by the government, to substantial inflows of FDI and to the political stability of the country.

In the second period (1974-1980) the situation changed: the previous industrial policy, supporting especially manufacturing investment, was stopped and GCF and IP decreased by 3.6% and 3.7%, respectively. At the same time the county's external position improved because export increased ahead of imports while the fiscal position of Greece deteriorated. Those two developments more or less offset each other. In the end (IP+D+TB) decreased by 1%. The notwithstanding, the positive GDP growth rate of 2.9% was triggered off exclusively by a pronounced decline of 3.7% in the coefficient q.

Table 3

Structure of final demand, Greece, 1960-2000

(in per cent of GDP)

	1960	1973	1980	1995	2000
GDP	100.0	100.0	100.0	100.0	100.0
GNP	104.2	104.8	105.7	103.2	103.1
C	88.7	66.5	77.8	88.4	83.8
CP	77.7	56.9	64.5	73.1	69.6
CG	10.9	9.6	13.4	15.3	14.2
GCF	14.2	41.3	26.2	18.9	24.2
IP	11.7	38.3	24.2	15.7	20.3
IG	2.6	3.0	2.1	3.2	3.9
X	12.4	14.5	24.7	17.6	18.4
M	15.8	21.9	27.7	24.9	26.4
TB	-3.4	-7.4	-3.0	-7.3	-8.0
G	13.4	12.6	15.4	18.6	18.1
TN	14.2	13.2	13.3	8.5	14.6
D	-0.8	-0.6	2.2	10.1	3.5
(IP+D+TB)	7.4	30.4	23.3	18.4	15.7
CA	-0.4	-2.0	0.5	-0.9	-1.9
IP+D+CA	10.5	35.8	26.9	24.8	21.8
IP+G+X	37.5	65.5	64.3	51.9	56.8
Coefficients					
sp	8.7	35.0	26.9	20.1	18.4
q=sp(1-tn)	7.4	30.4	23.3	18.4	15.7
q+tn+m	37.5	65.5	64.3	51.9	56.8
Memo item					
GDP (1995 pr.) in NCU	6754.8	19584.1	23906.6	27235.2	32052.5

Source: AMECO Database, own calculations.

Table 4

Growth rates of GDP and its main elements, Greece, 1961-2000

(in 'conventional' constant prices; in per cent p.a.)

	1961-1973	1974-1980	1981-1995	1996-2000	1961-2000
GDP	8.5	2.9	0.9	3.3	4.0
GNP	8.6	3.0	0.7	3.3	3.9
C	6.2	5.2	1.7	2.2	3.8
CP	6.0	4.8	1.7	2.3	3.7
CG	7.5	7.8	1.8	1.7	4.7
GCF	17.8	-3.6	-1.3	8.5	5.4
IP	15.0	-3.7	-2.0	8.8	4.3
IG	9.8	-2.3	3.9	7.5	5.1
X	9.9	11.0	-1.4	4.2	5.0
M	11.3	6.4	0.2	4.5	5.3
G	8.0	5.9	2.1	2.8	4.7
TN	7.9	3.0	-2.1	15.2	4.0
(IP+D+TB)	15.3	-1.0	-0.7	0.1	4.3
q	6.2	-3.7	-1.6	-3.1	0.3
IP+D+CA	14.9	-1.2	0.3	0.6	4.6
IP+G+X	11.9	2.6	-0.6	5.2	4.6
q+tn+m	3.1	-0.3	-1.4	1.8	0.6
Memo items					
Growth rates:					
GDP/employment	9.0	2.1	0.0	2.3	3.5
real wage (CPI deflated)	6.4	3.5	-0.2	2.4	2.9
ERDI	1.8	0.9	-0.2	-0.8	0.6
Nominal ULC (NCU)	1.0	18.2	17.0	4.7	10.2
Nominal ULC (€)	-0.2	10.5	5.0	3.2	4.0
real exchange rate (− = appreciation)[1]	5.2	-0.1	-1.4	-2.0	0.9
Unemployment rate	4.5	2.1	7.1	10.1	5.7

Note: 1) Calculated with ULCs.

Source: AMECO Database, own calculations.

Figure 16

GDP, IP, (IP+D+TB), q, Greece, 1961-2000

(real change in 'conventional' constant prices; in per cent p.a.)
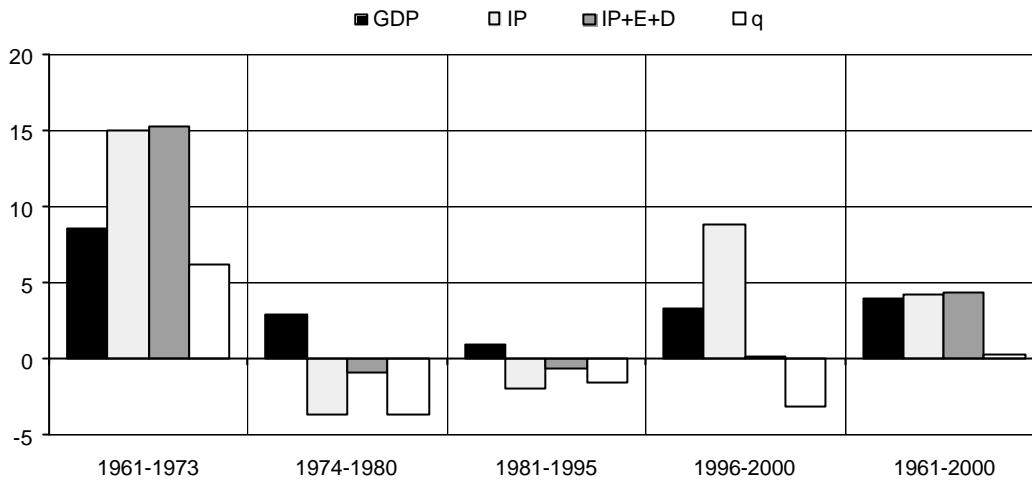
The same pattern was also characteristic of the third period (1981-1995). Over those 15 years GCF and IP were falling by 1.3% and 2%, respectively; the import surplus increased from 3% to 7.3% of GDP; the only item boosting aggregate demand was a spiralling fiscal deficit and public debt. As a result (IP+D+TB) fell by 0.7% and thanks solely to a further decrease of 1.6% in the coefficient q could a GDP growth rate of 0.9% be achieved. This artificial configuration – declining capital formation and some, albeit slow growth of GDP – could not be maintained for very long, all the more so as it was accompanied by growing external and internal imbalances.

In the final period (1996-2000), Greece made a great effort to meet the Maastricht criteria and to become, with some time lag, a member of the EMU. These efforts were successful. GCF and IP started to grow impressively once more – 8.5% and 8.8%, respectively. The budget deficit declined from 10.1% to 3.5% of GDP. Nonetheless, a dramatic decrease in the fiscal deficit instigated the stagnation of (IP+D+TB); hence, the growth rate of 3.3% was *in toto* due to a further decline in the coefficient q. By 2000 it had reached the level of 15.7%: approximately half of the propensity to save out of GDP recorded in 1973. It should, however, be stressed that sp, the propensity to save out of disposable income, diminished less (by 1.7 percentage points) than q (by 2.7 percentage points) because over the same period of time the average tax rate rose from 8.5% (1995) to 14.6% of GDP (2000). It is believed that the distribution of income between wages and profits has an impact on q, the private savings ratio. This hypothesis is borne out to some degree by data from Greece. As far as the ratio of operating surplus to GDP may substitute the profit/GDP ratio, the former dropped from 65.3% to 53.3% over the period 1973-2000, thus possibly explaining – at least partly – the decline that the coefficient q underwent in Greece.

10. According to Georgakopoulos (2001) the first 15 post-accession years were partly responsible for the country's economy woes. Despite 20 years' association with the EU (we do not differentiate between EC and EU), Greece was badly prepared for accession. In terms of imports it was still a heavily protected country and its exports enjoyed extensive subsidies. Whereas tariffs were gradually aligned to the EU external tariffs, overall protection was increased somewhat by measures of other devices such as quantitative restrictions, advanced deposit requirements, invoice controls, government procurement policies and, in particular, indirect taxes that discriminated openly against imports and ensured a high degree of protection for local manufactures – by introducing an artificial distinction between luxury (imported) and non-luxury (domestic) goods. The mandatory abolition of this informal protection in the 1980s was bound to increase imports, but it did not help exports, which had already been granted free access to the EU in 1968. On the contrary, the lifting of the extensive subsidies undermined the artificial competitive advantage that some exports had previously enjoyed. On the other hand, cheap meat and butter import from third-party countries had to be stopped and be replaced by expensive imports from EU countries, thus leading to a sharp rise in domestic prices for those products following accession.

Georgakopoulos also points to problems that the Greek economy has had to face with the massive transfers it received from the EU budget. He argues that those resources were offset in part by direct transfers (via trade) from Greek consumers to EU producers. As an example, he quotes the fact that Greece is a net importer of cereals and animal products from other EU countries and a net exporter to EU consumers of Mediterranean products. Cereals and animal products, however, are supported by tariffs and levies, while Mediterranean products are mostly supported via the EU budget. He comes to the conclusion that at the outset, budgetary transfers were offset to a high degree by direct trade transfers. With transfers increasing over time, the direct trade losses are now equivalent to one third of the budgetary transfers. Nevertheless, even the remaining transfers are of a considerable order: 2.5% to 3% of GDP. Their impact upon the economy, however, was disproportionate to their volume as the transfers mostly went to farmers and so helped to finance excessive imports. Hence, they failed to promote economic activity and employment. The structure of the funds gradually improved, however, in the wake of greater investment in physical and human capital, thus helping the move to a new phase of growth in 1995.

II.3 Portugal

11. In 1960, Portugal was the poorest member of the CC group in GDP per capita terms. As in the other CCs, agriculture still played a major role in the economy, but over time the production structure also shifted away from agriculture towards industry and services.

Portugal's economic development is presented in general terms in Figure 17.

Figure 17

GDP and GNP growth, Portugal, 1961-2000

(annual real change in per cent)
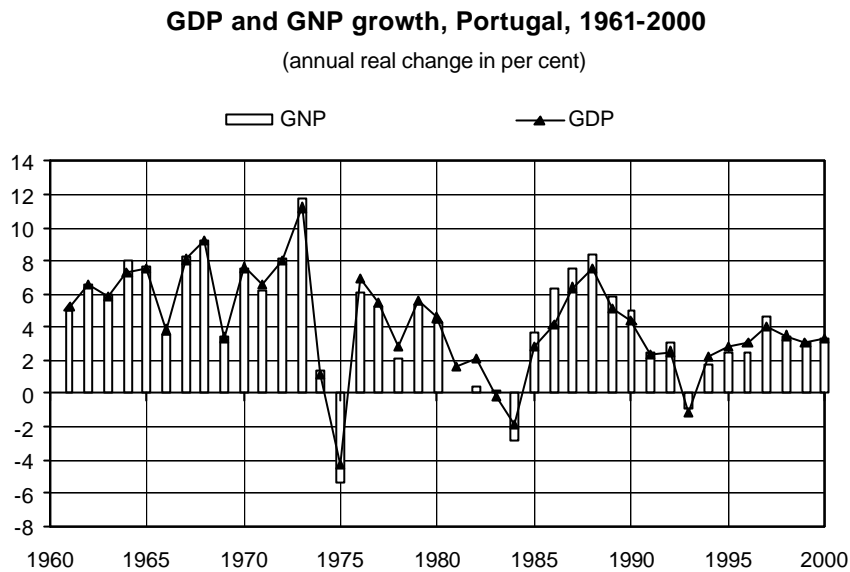
Four distinct phases can be detected in Portugal's growth. The first phase ends about 1973, the second and third in 1985 and 1994, respectively, while the final phase extends up until 2000. In a period of 40 years, the country experienced three crises involving negative growth rates. The most profound crisis occurred in 1975 when the GDP slumped by more than 4%.

Figure 18 shows the development of inflation and unemployment rates.

Figure 18

Unemployment and inflation rates, Portugal, 1960-2000

(in per cent p.a.)
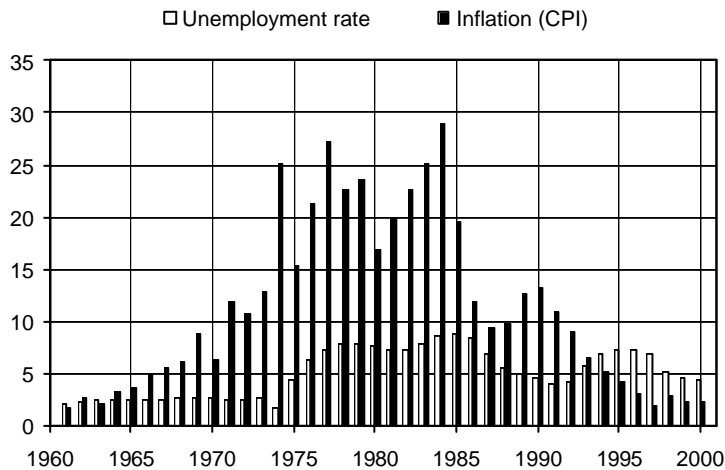
From the moderate inflation and low unemployment rates that marked the 1970s, Portugal moved to higher rates in the following period. The inflation rate exceeded 25% in some years; real and steady disinflation only started in 1990.

Figure 19 shows the well-known link between ULCs and GDP deflators; however, in years marked by strong acceleration of ULCs that link is not as pronounced as in calmer periods.

Figure 19

Unit labour costs and GDP deflators, Portugal, 1961-2000

(annual change in per cent)
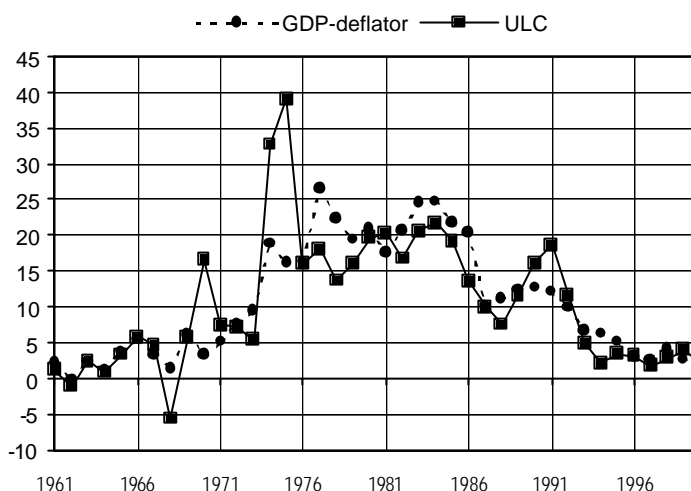
Figure 20 shows the movement of GCF and IP: the most important items in final demand. For the most part, their shares in GDP match the shifts in the GDP growth rates. This is best seen by comparing Figure 20 with Figure 17.

Figure 20

Gross capital formation (GCF) and private investment (IP), Portugal, 1960-2000

(in per cent of GDP)
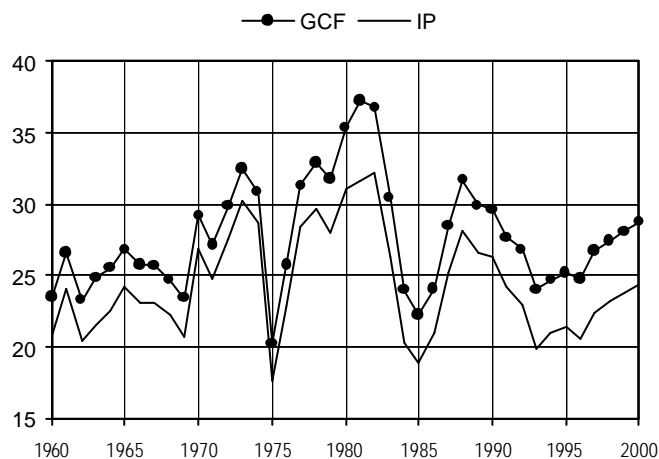
The general government fiscal balance is presented in Figure 21. Up until 1974 Portugal had a balanced budget and in most years it showed some surpluses. After that period, however, the fiscal deficit exploded and peaked at more than 12% of GDP in 1981. It declined rather slowly thereafter to reach about 3% in 2000.

Figure 21

General government deficit D, Portugal, 1960-2000
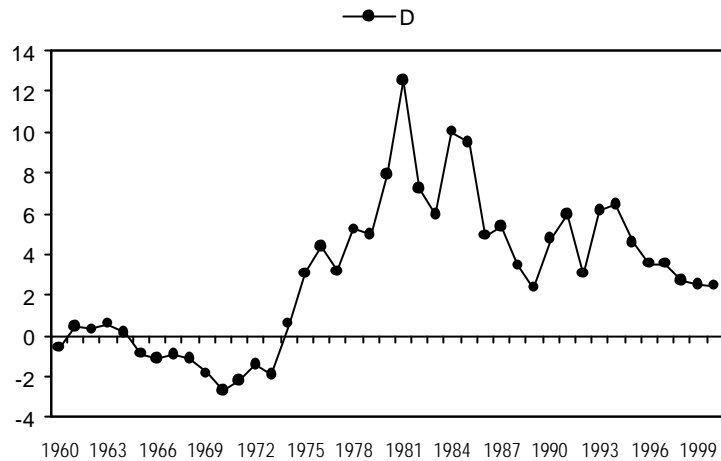
(in per cent of GDP)

Figure 22 characterizes Portugal's external position. The import surplus has always been large; it stood at over 15% of GDP in the early 1980s and at approx. 12% in 2000.

Figure 22

Trade (TB) and current account (CA) balances, Portugal, 1960-2000

(in per cent of GDP)

24
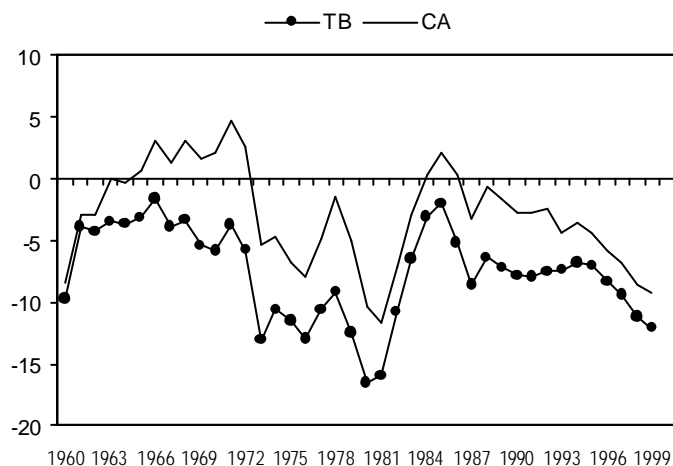
The current account took a more favourable turn; in the periods 1965-1974 and 1986-1988, it was even positive. However, in the early 1980s and in 2000 the current account followed the pattern of extreme deficits set by the balance of trade.

Figure 23

Private savings ratios q, Portugal, 1960-2000

(in per cent of GDP)
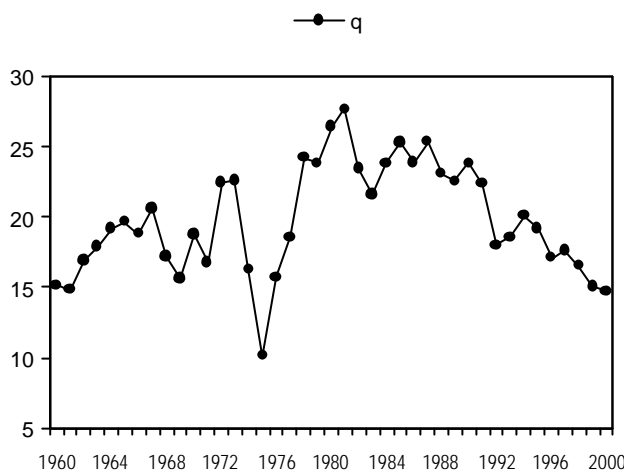
The changes in the private savings ratio q is to be found in Figure 23. The coefficient q increased most of the time between 1960 and 1973 and then between 1975 and the early 1980s. In the early 1980s it achieved the maximum, around 1975 the lowest value. Since 1981 the private savings ratio has declined almost continuously.

12. We move now to Tables 5 and 6 containing data relating to the structure and growth of elements of final demand in Portugal in 1960-2000. Over the period 1961-2000, GDP in Portugal increased by a factor of 5.2; this corresponds to an average GDP growth rate of 4.2%. GNP grew in tandem with GDP. In the period 1961-1973, the annual GDP growth rate ran at 6.9%; therefore this period is sometimes called the Golden Age of Portugal's growth. Three economic plans were introduced in Portugal between 1959 and 1973. They evolved from a simple listing of public investments to a more global and integrated approach. The emphasis was on industry, the regulated private sector and external economic relations (Neves, 1996, pp. 339-342). Private consumption grew at a slightly slower rate, while GCF – and especially IP – grew more quickly than GDP; hence, the share of CP in GDP decreased from 70% to 62%, while that of IP increased from 21% to 30%. Government revenues TN outstripped government expenditure and the budget surplus increased from 0.6% to 1.9% of GDP. The external position was also stable.

Table 5

Structure of final demand, Portugal, 1960-2000

(in per cent of GDP)

	1960	**1973**	**1985**	**1994**	**2000**
GDP	100.0	100.0	100.0	100.0	100.0
GNP	99.9	100.5	94.4	100.0	99.4
C	80.9	75.1	80.7	82.7	83.4
CP	70.1	62.2	65.2	64.0	62.9
CG	10.3	12.6	15.2	18.7	20.5
GCF	23.5	32.5	22.2	24.7	28.7
IP	20.9	30.3	18.9	21.0	24.4
IG	2.6	2.2	3.4	3.6	4.4
X	15.6	23.8	33.2	28.2	31.7
M	20.8	29.5	36.3	35.6	43.8
TB	-5.2	-5.8	-3.1	-7.4	-12.1
G	13.0	14.8	18.6	22.3	24.8
TN	13.6	16.7	9.1	15.9	22.4
D	-0.6	-1.9	9.5	6.4	2.4
(IP+D+TB)	15.1	22.6	25.3	20.1	14.7
CA	-3.5	2.6	0.3	-4.4	-9.3
IP+D+CA	16.8	31.0	28.7	23.1	17.5
IP+G+X	49.5	68.8	70.7	71.5	80.9
Coefficients					
sp	17.5	27.1	27.8	23.9	19.0
q=sp(1-tn)	15.1	22.6	25.3	20.1	14.7
q+tn+m	49.5	68.8	70.7	71.5	80.9
Memo item					
GDP (1995 pr.) (NCU)	3645	8718	11294	15656	19031

Source: AMECO Database, own calculations.

Table 6

Growth rates of GDP and its main elements, Portugal, 1961-2000

(in 'conventional' constant prices; in per cent p.a.)

	1961-1973	1974-1985	1986-1994	1995-2000	1961-2000
GDP	6.9	2.2	3.7	3.3	4.2
GNP	7.0	1.6	4.4	3.2	4.2
C	6.3	2.8	4.0	3.4	4.3
CP	6.0	2.6	3.5	3.0	3.9
CG	8.6	3.8	6.1	4.9	6.0
GCF	9.6	-1.0	4.9	5.9	4.7
IP	10.0	-1.8	4.9	5.9	4.6
IG	5.5	5.8	4.6	6.4	5.5
X	10.5	5.1	1.8	5.4	6.1
M	9.9	3.9	3.5	6.9	6.2
G	8.0	4.2	5.8	5.2	5.9
TN	8.6	-2.8	10.3	9.4	5.5
(IP+D+TB)	10.3	3.1	1.1	-1.9	4.1
q	3.1	0.9	-2.5	-5.1	-0.1
IP+D+CA	12.1	1.5	1.3	-1.4	4.3
IP+G+X	9.7	2.4	3.8	5.5	5.5
q+tn+m	2.6	0.2	0.1	2.1	1.2
Memo items					
Growth rates:					
GDP/employment	6.6	2.6	3.3	2.0	4.0
GNP/employment	6.6	2.1	4.0	1.9	3.9
real wage (CPI deflated)	6.7	1.6	3.4	2.1	3.7
ERDI	1.1	1.7	-1.6	-1.0	0.3
nom ULC (NCU)	4.0	20.9	10.6	3.1	10.2
nom ULC (€)	4.0	7.1	5.6	2.8	5.1
real exchange rate (- = appreciation)[1]	0.9	1.0	-2.5	-1.5	-0.2
Unemployment rate	2.4	6.9	5.7	5.9	5.0

Note: 1) Calculated with ULCs.

Source: AMECO Database, own calculations.

Figure 24 summarizes to some degree the preceding analysis. In all four periods, the (IP+D+TB) growth rates can be seen to have fallen continuously from positive to negative values: the same applies to the coefficient q. The resultant GDP growth rates, however, are quite different. They were high in the first period, low in the second and moderate in the two final periods.

Figure 24

GDP, IP, (IP+D+TB), q; Portugal, 1961-2000

(real change in 'conventional' constant prices; in per cent p.a.)
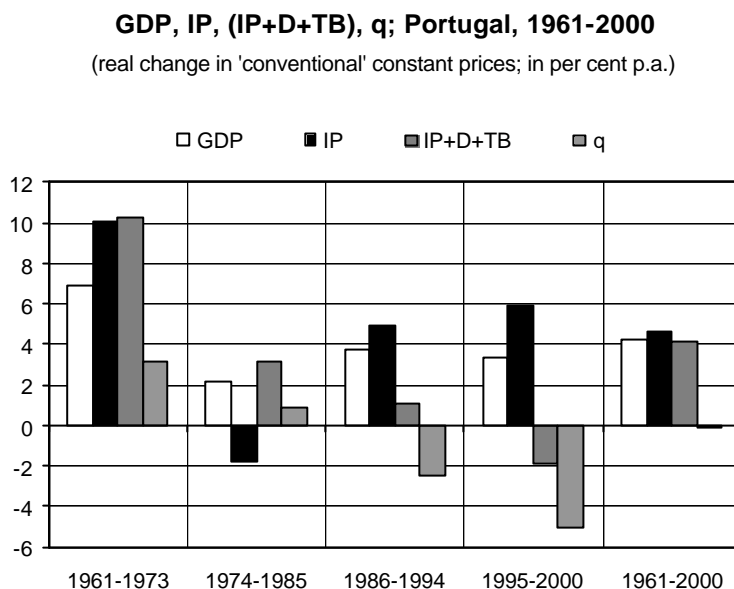
II.4 Spain

13. In 1960, of the four CCs Spain ranked second behind Ireland in GDP per capita terms. In 1970, the share of agriculture in employment still stood at 30%; by 1997 it had declined to 7%. The share of agriculture in final output also declined and stood at only 3% of GDP in 1997. This decline in the importance of agriculture was accompanied by a decline in the importance of industry. The latter sector's share in GDP shrank from 28% in 1970 to 18% in 1997. Once again the sectoral 'winner' over this period was the services sector; it grew considerably in importance, not only in terms of employment, but also on account of its rising contribution to the GDP.

In several ways the economic development of Spain has been quite similar to that of Portugal. Up until the early 1970s, both countries had an authoritarian regime; in economic terms they both edged rather slowly towards an open liberal market system. In 1986, both countries joined the EU, further to which they have a geographic identity in common: the Iberian Peninsula. In the late 1950s, the autarkic regime imposed by Franco's rule was gradually liberalized. Spain concluded bilateral agreements with the USA, and joined the

IMF, the World Bank and OECD. The new policy provided for the inflow of foreign capital and the migration of labour; it supported market mechanisms, but still controlled the growth of domestic prices, monitored the banking system and pursued an orthodox fiscal policy. The peseta was devalued and imports were gradually liberalized. Since 1964, government economic policy has been coordinated in a series of four-year plans.

Spanish growth is summarized in the figures below.

Figure 25

GDP growth, Spain, 1961-2000

(annual real change in per cent)

The period 1960-2000 can be divided into four phases with the benchmark years 1974, 1987 and 1993. 1974 marked the close of a phase of very intensive GDP growth, 1987 was the year with the highest GDP growth rate following the meagre years in the post-1974 period, and 1993 was the only year with a perceptible drop in GDP.

Figure 26 shows data relating to inflation and unemployment in Spain. Up until the second oil crisis, unemployment (which had always been less than 5%) did not constitute a major problem in Spain. However, in the 1980s and 1990s it increased dramatically and in some years it soared above 20%. Only after 1995 did the unemployment rate start to drop, even though in 2000 it still stood at almost 14%. Average inflation was moderate in the 1960s, but very high in the 1970s (24.5% in 1976), whereafter it dropped continuously to reach 2% in the period after 1995.

Figure 26

Unemployment rate and inflation, Spain, 1960-2000

(in per cent p.a.)

□ Unemployment rate   ■ Inflation (CPI)

As in other countries a strong link has been observed in Spain between labour unit costs and GDP deflators. This link is clearly perceptible in Figure 27. The close relationship between these two factors (a feature common to all fours CCs – and one observed elsewhere) puts in question the widely held opinion that prices are mostly determined by the quantity of money in circulation.

Figure 27

Unit labour costs and GDP deflators, Spain, 1960-2000

(annual change in per cent)

- - ● - - GDP-deflator   ——■—— ULC
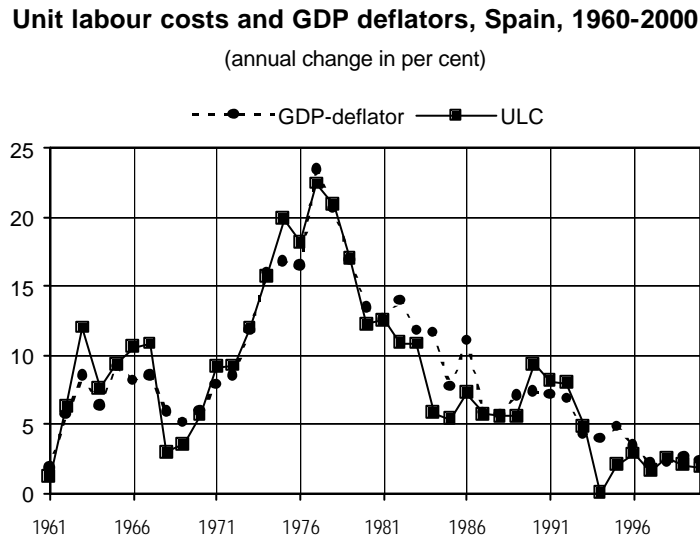
It is commonly accepted that capital formation is the factor that decisively influences the level of economic activity and future growth opportunities. Data concerning that factor are presented in Figure 28.

Figure 28

Gross capital formation (GCF) and private investment (IP), Spain, 1960-2000

(in per cent of GDP)
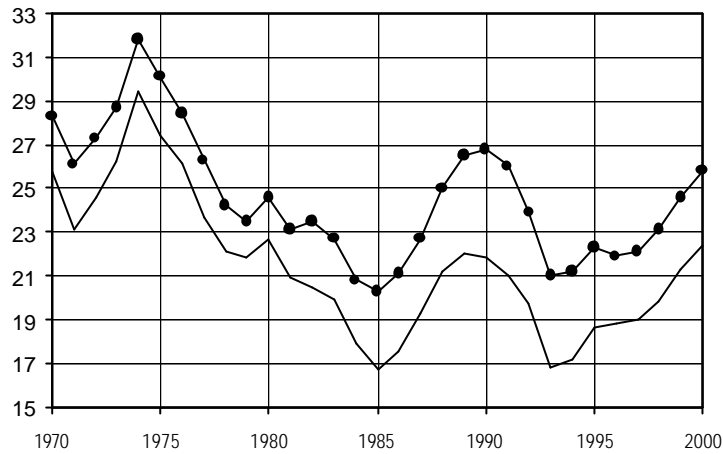
The largest shares of GCF and IP in GDP were recorded in 1974: 31.8% and 29.7%, respectively. In the following years, those shares went into almost continuous decline up until 1985, whereafter they have hovered for the most part around 24% and 20%, respectively.

Figure 29

General government deficit D, Spain, 1960-2000

(in per cent of GDP)
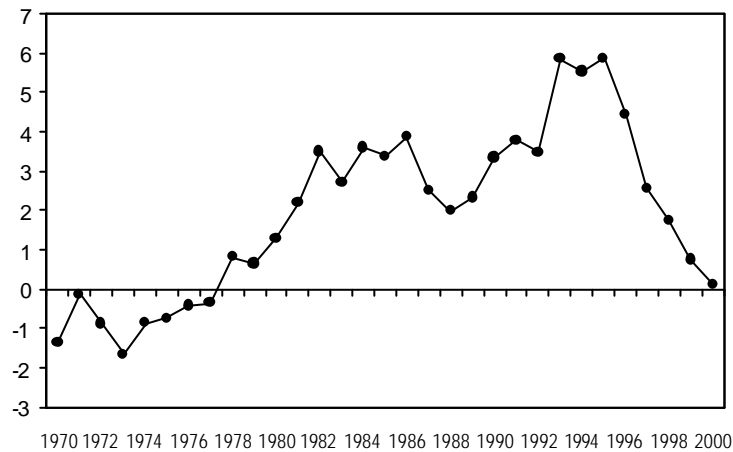
The fiscal situation is presented in Figure 29. Up until 1977 the general government budget recorded a small surplus, whereafter the fiscal deficit increased and stabilized at around 3.5% of GDP in the 1980s. A renewed upsurge in the deficit started thereafter, reaching almost 5% in 1993-1995. In the final period the deficit sank very rapidly and practically disappeared in 2000.

Figure 30

Trade (TB) and current account (CA) balances, Spain, 1960-2000

(in per cent of GDP)
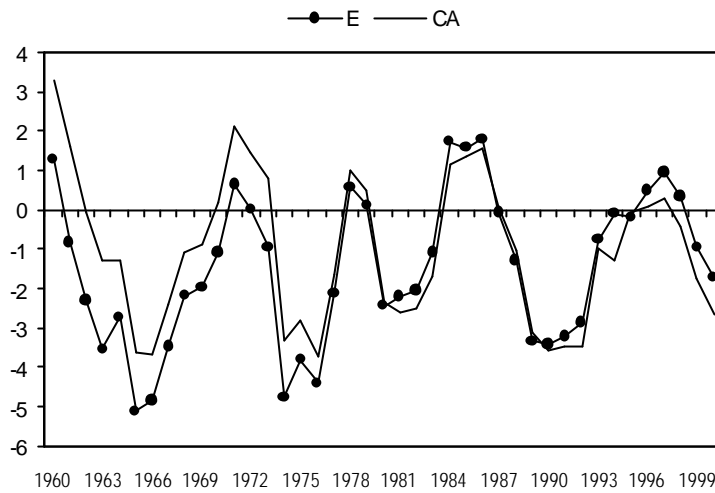
Over the past 40 years the external position of Spain has for the most part been stable. The trade balance TB and current account CA moved in parallel. Deficits followed surpluses and *vice versa;* the spread, however, was fairly limited and ranged between plus 2% and minus 5% of GDP (in the mid-1960s and mid-1970s). Strangely enough, the years preceding the financial crisis of 1992 were marked by comparatively small deficits in the order of 3% of GDP.

Figure 31

Private savings ratio q, Spain, 1970-2000

(in per cent of GDP)
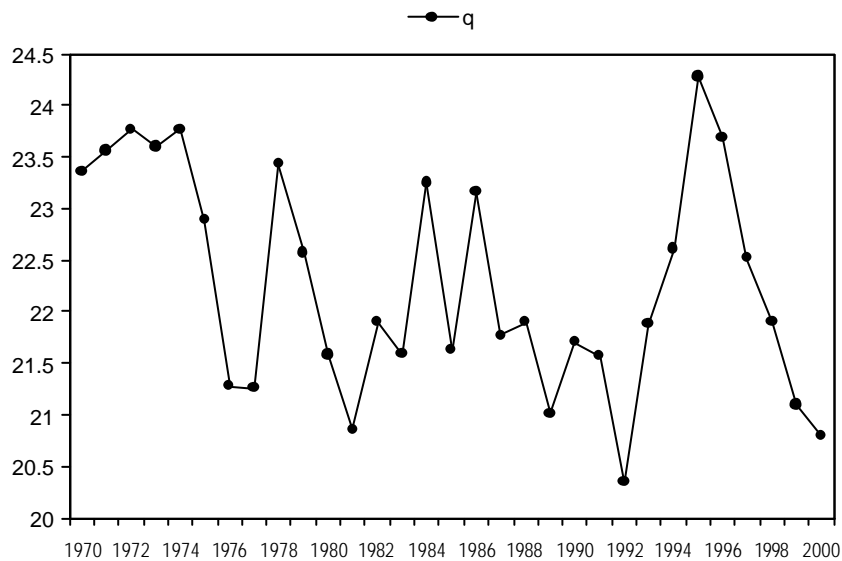
An important tool in our analysis is the coefficient q, the SP/GDP relation. This coefficient is presented in Figure 31. In Spain, unlike the other CCs, the private savings ratio was relatively stable. For the most part, it moved between 21% and 24% of GDP. The steepest rise occurred over the period 1992-1995, the sharpest drop after 1995.

14. The most important data for our analysis are presented in Tables 7 and 8, as well as in Figure 32. The two tables characterize the structure and growth of the main items of final demand in Spain. Over the past 40 years, GDP has grown by 4.1% a year; this means that in 2000 the GDP was five times larger than in 1960. GNP increased apace with GDP.

The period 1960-1974 has been called the Golden Age of the Spanish economy in the 20th century. In that period GDP grew by 7.1%. The share of agriculture in GDP fell from 25% to less than 10%. By 1975, the services sector was already generating half of the country's GDP and it employed 40% of labour force. The share of GCF in GDP increased from 21.5% in 1960 to 31.8% in 1974: an increase of more than 10 percentage points over 14 years. However, imports surged far ahead of exports; the balance of trade as a share of GDP moved from a surplus (1.3%) to a deficit (4.8%). National accounting data for the private and government sectors in Spain are available only from 1970. Therefore, separate data are cited for the sub-period 1970-1974. Over those four years GDP rose by 6.5%: a development attributable to (IP+D+TB) increasing by 7% and the coefficient q by 0.4%.

The period 1975-1987 records the slowest growth rate: a mere 2%; this is less than one third of the GDP growth rate in the preceding period. GCF, and IP in particular, declined; the latter by 1.2%. The budget moved from a surplus to a deficit (by 3.4 percentage points), while the import surplus declined (by 3.7 percentage points). The item (IP+D+TB) increased by 1.3%, mostly on account of deficit spending and a concomitant decline in the coefficient q of 0.7%.

The two periods thereafter were similar in terms of GDP growth rates: 2.5% in the period 1988-1993 and 3.2% in the period 1994-200. The major growth factor in the first period was deficit spending (the deficit share in GDP increased from 2.5% in 1987 to 5.8% in 1993), while private investment IP practically stagnated. By way of contrast, the major growth factor in the second period was private investment (IP grew by 7.5%), while the budget deficit was wiped out (it dropped to 0.1% of GDP in 2000).

Table 7

Structure of final demand, Spain, 1960-2000

(in per cent of GDP)

	1960	1970	1974	1987	1993	2000
GDP	100.0	100.0	100.0	100.0	100.0	100.0
GNP	100.5	100.0	100.7	99.8	99.8	98.8
C	76.6	73.3	73.8	77.4	79.8	75.9
CP	66.6	62.3	62.4	60.9	60.8	59.2
CG	9.0	10.2	10.7	16.3	19.0	16.7
GCF	21.5	28.3	31.8	22.7	21.0	25.8
IP	.	25.8	29.4	19.3	16.8	22.4
IG	.	2.5	2.4	3.4	4.2	3.4
X	8.4	12.5	13.6	18.2	18.3	28.7
M	7.1	13.6	18.3	18.3	19.1	30.4
TB	1.3	-1.1	-4.8	-0.1	-0.8	-1.7
G	.	12.8	13.1	19.7	23.2	20.1
TN	.	14.1	14.0	17.2	17.3	20.0
D	0.0	-1.3	-0.9	2.5	5.8	0.1
(IP+D+TB)	.	23.4	23.8	21.8	21.9	20.8
CA	3.3	0.2	-3.3	0.1	-1.0	-2.7
IP+D+CA	.	24.6	25.2	21.9	21.7	19.9
IP+G+X	.	51.1	56.1	57.3	58.3	71.2
Coefficients						
sp	.	27.2	27.6	26.3	26.5	26.0
q=sp(1-tn)	.	23.4	23.8	21.8	21.9	20.8
q+tn+m	.	51.1	56.1	57.3	58.3	71.2
Memo item						
GDP (1995 pr.) (NCU)	17635	35825	46159	59639	69354	86428

Source: AMECO Database, own calculations.

Table 8

Growth rates of GDP and its main elements, Spain, 1961-2000

(in 'conventional' constant prices; in per cent p.a.)

	1961-74	1970-1974	1975-87	1988-93	1994-2000	1961-2000	1970-2000
GDP	7.1	6.5	2.0	2.5	3.2	4.1	3.0
GNP	7.1	6.7	1.9	2.5	3.0	4.0	2.9
C	6.8	6.7	2.4	3.1	2.5	4.0	3.1
CP	6.6	6.6	1.8	2.5	2.8	3.7	2.8
CG	8.4	7.7	5.4	5.2	1.3	5.7	4.7
GCF	10.2	9.7	-0.6	1.2	6.3	4.5	2.7
IP	.	10.1	-1.2	0.2	7.5	.	2.5
IG	.	5.3	4.7	6.2	0.3	.	4.0
X	10.9	8.8	4.3	2.6	10.0	7.3	5.9
M	14.6	14.9	2.0	3.2	10.3	7.9	5.8
G	.	7.2	5.2	5.4	1.1	.	4.5
TN	.	6.3	3.6	2.7	5.3	.	4.2
(IP+D+TB)	.	7.0	1.3	2.6	2.5	.	2.6
q	.	0.4	-0.7	0.1	-0.7	.	-0.4
IP+D+CA	.	7.2	0.9	2.4	1.9	.	2.2
IP+G+X	.	9.1	2.2	2.8	6.2	.	4.1
q+tn+m	.	2.4	0.2	0.3	2.9	.	1.1
Memo items							
Growth rates:							
GDP/employment	6.4	5.2	2.9	1.4	1.0	3.6	2.6
real wage (CPI deflated)	7.3	5.4	1.9	2.2	-0.3	3.4	2.0
ERDI	-1.4	-2.1	-0.2	-1.2	0.6	-0.7	-0.5
nom ULC (NCU)	8.2	10.3	12.8	6.9	1.8	8.3	8.7
nom ULC (€)	7.6	11.1	6.7	6.0	0.2	5.7	5.8
real exchange rate (- = appreciation)[1]	-1.9	-1.7	1.0	-1.9	0.9	-0.5	0.0
Unemployment rate	2.6	2.9	13.4	18.4	19.8	11.3	14.1

Note: 1) Calculated with ULCs.

Source: AMECO Database, own calculations.

Figure 32

GDP, IP, (IP+D+TB) and q, Spain, 1971-2000

(real change in 'conventional' constant prices; in per cent p.a.)
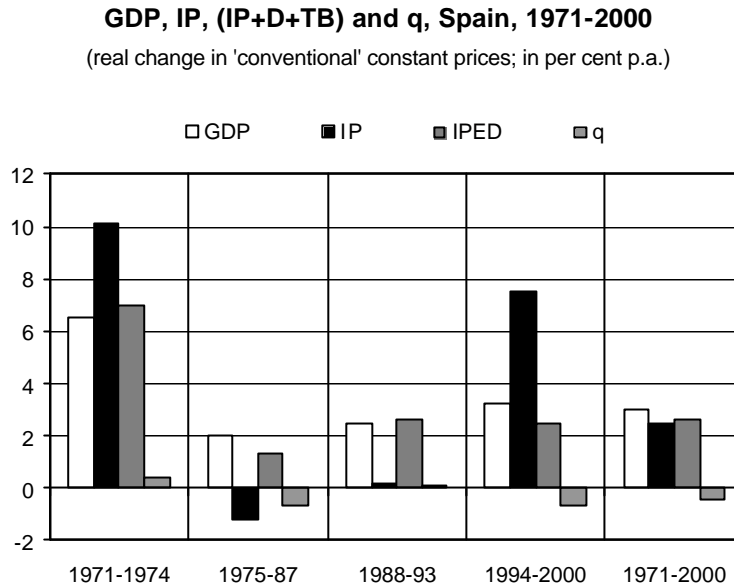
Figure 32 offers a clear presentation of the factors governing GDP growth in Spain in the four periods. On the one hand, the first and fourth periods bear similarities to each other, as do the second and third periods, on the other. In the former group investment outstrips (IP+D+TB), while in the latter the opposite is true. Changes in the private savings ratio did not follow that pattern but, as already mentioned, the coefficient q proved much more stable in Spain than in the other CCs. The item (IP+D+TB) increased in both groups at a similar rate, but the coefficient q was almost constant in the period 1988-1993 and decreased by 0.7% in 1994-2000. This decline was the cause of some growth acceleration in 1994-2000.

II.5 Conclusions for Accession Countries

15. We start by two quite general observations. The first conclusion we can draw from the present chapter is that in one respect we can learn nothing useful from the experience of the CCs for the ACs, especially from Central and Eastern Europe, although the two groups of countries are similar from a certain point of view. Spain and Poland are medium-sized countries, the other ones are small or very small countries. All are located on the periphery of Western Europe. Prior to accession to the EU, their level of economic development is/was lower than the average of the European Union. With only one exception (Ireland) they experienced, for a longer or shorter period of time, despotic or totalitarian regimes. There is, however, at least one major difference: even under undemocratic regimes, the CCs remained market economies based on private property, while the ACs were centrally planned economies based on the collective property of the means of production and rejecting, on principle, the very mechanism of market coordination of major economic

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activities. As a result they have lacked the legal and institutional infrastructure of market economies. Hence the study of the CCs is of no help when answers to specific questions related to the transition from a centrally planned to a market economy are looked for.

The second general conclusion is related to the obvious observation that economic life is determined by a multitude of internal (history, social institutions and endowment with natural resources) and external (e.g. the oil crises) factors; therefore it is so difficult to find a clear causality between any single factor and the economic growth of a country. This difficulty even applies to such a significant event as joining the EU. When analysing the four CCs, we learned that the date of their accession to the EU did not constitute a benchmark in their development. Yet this does not mean that this important event did not play a role. In some cases the consequences manifested themselves with great intensity only after several years, as in Ireland. The creation of the single market in the early 1990s and the following surge of FDI in that country would not have occurred without Ireland being a member of the EU and the single market. Some authors (see, e.g., Georgakopoulos, 2001) argue that accession was partly responsible for Greece's economic difficulties after 1981, but also for the country's economic achievements in the late 1990s. Similar examples with less important consequences could be found in other countries as well. Thus it is quite possible that benign or less benign consequences for the ACs might manifest themselves with some time lag, especially if institutions and policies inside the EU were to evolve taking into account the specific needs of the new entrants.

16. After these introductory remarks we concentrate on two topics. They are related to effective demand and are of a more general nature. In the chapters devoted to the individual CCs we have identified several common phenomena which deserve our attention because they are valid for the ACs as well. Of major importance in this respect is the similarity of the growth rates of GDP and IP for the whole period under investigation. For a mainstream economist this is hardly a surprise. Assuming a constant (marginal) capital/output ratio, the growth rate of investment over a longer period of time would also approximate the growth rate of capacity. Hence, at a more or less constant degree of capacity utilization, final output should grow at a similar rate. This conclusion does not hold, however, when we look at sub-periods. In some of them GDP grows faster than IP, in some more slowly, and sometimes positive growth rates of GDP are accompanied by negative growth rates of IP. This phenomenon can easily be explained with the help of the theory of effective demand. The latter does not neglect the supply side, as is often maintained by mainstream economists. On the other hand, mainstream economists do disregard the demand side – either completely or by treating it as a short-term phenomenon that can be neglected in longer-term analyses. They are convinced that supply alone matters, because according to Say's law, 'supply creates its own demand'. Keynesians, on the other hand, never forget that investment has not only a capacity- but also an income effect. Therefore, when investment growth slows down or stagnates, so

does GDP, although at a given level of investment the capacity may still grow while its level of utilization falls.

Once the income effect of investment is taken account of, it cannot be limited to investment alone. The same effect emanates from deficit spending and export surplus because it is the sum (IP+D+TB) which determines net injections into the circular flow of incomes in the economy. Net injections can move in the same direction as IP but also in the opposite one. This is the explanation for the fact that under certain conditions opposite movements of IP and GDP can be observed. The movement of the private savings ratio q plays a role as well. Although for the period under review as a whole the coefficients q did not change very much, we have registered major changes in sub-periods. More specifically, we have seen that at given (IP+D+TB) growth the decline of q has supported, and the increase of q has weakened, GDP growth.

The conclusions for ACs derived from this part of our study is the need to deal with the problem of aggregate demand in a responsible way. Deficit spending and import surplus should not be just considered as (internal and external) financing troubles, because they do co-determine net injections into the economy and the growth rate of GDP. On the other hand, it does not make economic sense to increase the private savings ratio when injections grow not fast enough to guarantee a satisfactory GDP growth rate.

17. The second important topic is the development of inflation and of unemployment before and after the early 1970s. After the oil crises inflation surged in all four countries. The restrictive monetary and fiscal policies following this development resulted in most countries in a reduction of inflation leaving, however, unemployment at levels unknown before the oil crises. This development was not influenced by the date of joining the EU, although the reduction of inflation in the 1990s was linked to the Maastricht criteria and the introduction of the euro.

A characteristic feature observed in all countries has been the strong link between unit labour costs (ULCs) and inflation as measured by GDP deflators. This proves that most prices are of the cost plus mark-up type and that inflation – disregarding demand-determined prices of raw materials, energy and agricultural products – is provoked mostly by the increase in nominal wages in relation to labour productivity, hence ULCs. Thus an increase in nominal wages ahead of (or staying behind the) labour productivity does not influence the level of employment but mostly the level of prices. The best policy from this point of view is the broad conformity of growth of nominal wages and labour productivity because it creates conditions for a more or less stable inflation rate. On the other hand, the belief that one can increase employment by reducing wages in relation to labour productivity disregards the influence of this factor on aggregate demand. Only if the reduction of wages were accompanied by an immediate increase in investment this policy

would work. But if investment do indeed increase, their positive influence on GDP and employment growth would be even stronger if wages remained constant in relation to labour productivity.

The important lesson for ACs is to treat inflation not exclusively or mainly as a demand-pull phenomenon. It is much more a cost-push phenomenon (disregarding rare occurrences). Therefore income policies are a much more important instrument in fighting inflation than the restrictive monetary and fiscal policy which kills the very vehicle of growth, namely investment. The greatest danger from this point of view is the concentration of the central bank responsibility on inflation only. The goal of the central bank should also be to check income policies in the sense of intervening if and when nominal wages grow out of proportion in relation to labour productivity, provoking an acceleration of the prevailing inflation rate. The central bank's main task, however, should be supplying the economy with liquidity at interest rates allowing an expansion of investment and economic growth corresponding to existing capacity and labour force supply.

III. Influence of capital inflows, in particular FDI, on GDP, the external position of Cohesion Countries and conclusions for Accession Countries

18. All ACs, with the only exception of Slovenia, have reported substantial trade and current account deficits for many years. At the same time their national currencies have appreciated more or less regularly. The explanation for this rather strange coincidence are ample inflows of foreign capital, especially in the form of foreign direct investment (FDI). Although that combination does not represent a stable solution, it is hoped that the ACs' ability to cover the necessary imports with adequate exports will increase and sooner or later make them independent of constant inflows of foreign capital. It is also hoped that, after joining the EU, inflows of FDI will increase and shorten the period needed for the countries concerned to achieve the goal of self-sustaining growth. In the following we analyse the experience of CCs with respect to FDI inflows and the latter's influence on the CCs' external position. Our main interest is to find out whether that experience supports the expectations of ACs just mentioned with respect to capital inflows, especially in the form of FDI.

19. Investments in the sense of national accounting are activities related to the replacement of old and the creation of new capacity. FDI, on the other hand, has partly the same meaning, partly a different one. Thus FDI in the form of 'green-field investment' or expansion or modernization of already existing capacity (sometimes termed 'brown-field investment') is investment also in the national accounting sense. In contrast, the acquisition of a certain amount of shares in existing enterprises, whether or not related to privatization, mergers and similar activities do not represent investment in the national accounting sense, but rather a special form of capital inflows, often called non-debt creating capital

inflows (as opposed to credits). It would be quite interesting to find out which part of FDI in ACs belongs to which group. It is being estimated that about half of the past FDI in ACs is not investment in the national accounting sense because FDI-related privatization of already existing capacity has been extremely intensive in these countries. In that sense the comparability of FDI in ACs and CCs suffers because in the latter group FDI-related privatization of collectively owned assets has not played a comparable role. Nevertheless, even in the case of the CCs we should not forget that statistical data on FDI do not necessarily represent investment in the national accounting sense. This distinction is important as the influence on the size of GDP of that part of FDI which represents investment and of that part which does not, is not only of a different kind but may even go in an opposite direction.

20. To elaborate on this point we introduce a new equation which shows the factors determining GDP from the demand side, when the private and the government sectors are comprised in one domestic sector. The elements of final demand are then CD, ID and TB, representing domestic consumption, domestic investment and, as previously, the trade balance, respectively. Assuming further that cd and sd =(1-cd) denote the domestic consumption and domestic savings ratios, respectively, we get the equation

$$GDP=(ID+TB)/sd \qquad\qquad (12)$$

where ID, ID+TB and sd denote GCF=ID, domestic savings SD=ID+TB and the domestic savings ratio, defined as the relationship between domestic savings SD and GDP, respectively. We recall that in the theory of effective demand, the causality runs from domestic investment and trade balance to domestic savings and, given sd, to GDP, and not in the opposite direction. At the very base of (12) lies the income effect of investment; it is related to primary revenues earned by those involved in the execution of investment orders and to the chain of secondary expenditures on consumer goods financed from the primary revenues. At given sd and TB, any increase in ID causes an increase in GDP, which is a multiple of the investment increase; therefore the whole process is called investment multiplier. The other factor in the numerator of (12) is the trade balance: here, too, an increase in the trade balance at given sd and ID causes an increase in GDP, which is a multiple of the trade balance increase; therefore the whole process can be called trade balance multiplier. Of course, both multipliers can work also in the opposite direction: this is the case when ID or TB decrease.

There are two important differences between ID and TB. Investment – when put into operation – has a capacity effect, because it increases the existing domestic production possibilities: it follows that the capacity effect materializes only when the income effect is gone (the latter being linked to the gestation period of investment). This effect does not exist in the case of the trade balance, although the latter has a financial wealth effect in the

sense of claims with respect to the rest of the world. The second difference is linked to the fact that ID is non-negative; in the extreme case it may become zero. Thus the income effect of ID is the smaller the smaller ID; it can never become negative. In contrast, the term TB may be positive (export surplus), zero, or negative (import surplus). With an export surplus (TB>0) domestic savings are larger than domestic investment and at given ID and sd the final output and employment are larger than they would be otherwise. With an import surplus (TB<0) domestic savings are smaller than domestic investment and at given ID and sd the final output and employment are smaller than they would be otherwise. This is the main reason why capitalist countries try to become net exporters and to avoid being net importers. In the first case they win jobs from the rest of the world, in the second case they lose them to the rest of the world.

In the 1990s, the EU countries – as one of the results of the transformation in Central and Eastern Europe – won substantial new markets in ACs and thus were able to increase their GDP and employment. In the political discussions in Austria, this argument has often been used against political forces opposing the EU's Eastern enlargement even by those economists who in principle are very critical of the theory of effective demand. Yet it should be obvious that an export surplus can only be used as an argument for securing additional jobs if equation (12) is understood as a causality link going from the left to the right. If one assumes that GDP (i.e. the right side of equation [12]) is given, then an increase of TB, given sd, means only a fall of ID, or, given ID, means only an increase of domestic consumption. In both cases employment, being a function of GDP, cannot be influenced by an export surplus.[6]

21. This analysis brings us back to the role played by FDI, and by capital inflows in general, in determining GDP from the demand side by influencing – at given sd – both terms ID and TB.

Point A in Figure 33 represents the initial situation without capital inflows. At domestic investment ID_0 and a zero trade balance (because the country is assumed to be capable of covering its import requirements via sufficient exports) we have domestic savings $SD_a=ID_0$ and GDP=Y_a. Let us assume that the investment ratio $id_0=ID_0/Y_a$ assures the GDP growth rate g_a.

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[6] In the same vein, many economists, after the burst of the speculative bubble in the USA in 2000, expect that consumer confidence will return and help to redress the situation. Once more this is understandable when equation (12) is read from the left side to the right. Indeed an 'increased consumer confidence' in terms of equation (12) means a further decrease of sd and an increase of GDP at given SD. Thus a lower propensity to save is expected to improve the economic situation. For an economist adhering to the theory of effective demand this is a quite normal way of thinking, however, for a mainstream economist praising thrift as a social virtue in all circumstances this is a clear case of *non sequitur*.

Figure 33

GDP and capital Inflows

ID, ID+TB

s

A

$SD_a = ID_0$

B   C

$SD_b = ID_0+TB_0$

0

Y_b Y_a

Y
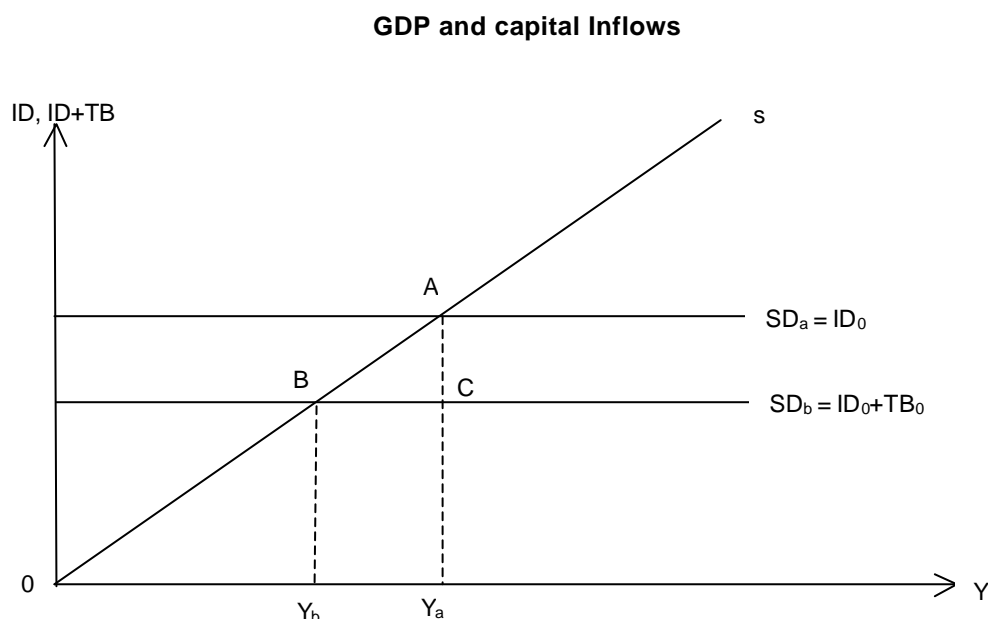
Now we introduce capital inflows and start our analysis by investigating two extreme solutions. In the first case capital inflows cause additional investment equal to ?ID, hence domestic investment amounts to $ID_1=ID_0+?ID$ while at the same time the trade balance moves from zero to a deficit $TB_0<0$, where $|TB_0|$ denotes the import surplus and $?ID=|TB_0|$.[7] In this case domestic savings and GDP would remain $SD_a=ID_1+TB_0$ and Y_a, respectively; however, the share of investment in GDP would increase and absorption would amount to $Y_a+|TB_0|$. The other extreme possibility is that capital inflows do not influence domestic investment at all but are responsible for moving the trade balance into deficit at given ID and sd. Ample foreign capital inflows lead to real appreciation of the domestic currency, making export more difficult and import cheaper. This real appreciation very often follows the use of the exchange rate as an anchor to fight inflation; indeed the idea that the nominal exchange rate should increase more slowly than the domestic price level means at given foreign prices real appreciation as a direct consequence of a successful use of the foreign exchange anchor in the disinflation process. This development also opens the door to foreign speculators who use high interest rates and gains from appreciation when they invest capital in securities denominated in national currencies. The other factor that may be responsible for the trade balance deficit – not caused directly by capital inflows but made possible by them – are changes in the distribution of incomes. With growing income inequality, groups of private households come into existence with growing demand for, mostly imported, luxury goods. All these factors increase the import intensity of GDP in the presence of ample capital inflows.[8]

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[7]   This can be interpreted in that way that the whole additional investment is being imported from abroad without any domestic input.

[8]   See Podkaminer (2000).

Point B in Figure (33) represents the configuration just discussed. At domestic investment remaining at the initial level ID_0 and a trade balance $TB_0 < 0$, domestic savings are $SD_b = ID_o + TB_o$, $SD_b < SD_a$ and GDP is equal to Y_b, $Y_b < Y_a$. Not only GDP (and of course employment) is smaller in the second case than in the first one, but also absorption (equal to $Y_o + |TB_0|$) is smaller than Y_a because, with $0 < sd < 1$, the segment $|TB_0| = AC$ is smaller than the segment $?Y = Y_a - Y_b = BC$. Point B may be interpreted as presenting the influence of capital inflows exclusively on the trade balance, without any influence on domestic investment.

If we now specify capital inflows as FDI, the real development would lie most probably between the two extremes as represented by points A and B. FDI in the form of green-field investment could be represented by point A, while FDI in the form of pure privatization could be represented by point B. In reality FDI is neither green-field investment nor privatization deals only; thus it causes partly some additional investment and partly some deterioration of the trade balance. If $?ID < |TB_0|$, $?ID > 0$, $TB_0 < 0$ and domestic investment increases less than does the import surplus, GDP would be greater than Y_b but smaller than Y_a because, at given savings ratio sd, aggregate demand would suffer, aggregate production would fall and so would employment. Countries achieving an export surplus rightly stress – as was already said – that an increase in the trade balance, $TB_0 > 0$, creates jobs as their GDP would be greater. The other part of the story, an aspect mostly neglected in analysis, is the destruction of jobs in countries that have an import surplus which is not fully offset by an investment increase. Of course, for all points lying between A and B investment is higher than ID_0 and consequently the investment ratio is higher than id_0. This higher investment ratio – seen from the supply side – may provoke a growth rate of domestic investment and GDP higher than g_a accompanying the investment ratio id_0. This is, however, not certain. Indeed, the increase in capacity with FDI would be higher than without FDI. On the other hand, the degree of capacity utilization with an import surplus would be lower than in the case of a balanced foreign trade. This factor may negatively influence investment decisions and future investment and in the end endanger the acceleration of FDI-supported growth in comparison to FDI-free growth.

22. We have discussed the possible consequences of capital inflows for aggregate demand as well as the question whether these inflows have an impact – and to a satisfactory degree – on domestic investment. In the long run, this is a very important aspect because domestic investment creates new capacities and as a rule those related to FDI display high levels of technical and managerial efficiency in terms of labour productivity and product quality. Even when FDI is limited to privatization alone the consequences are as a rule similar – albeit somewhat belated.

The growth of labour productivity related to FDI benefits the economy, assuming that it is transformed into GDP growth, a higher rate of employment and an improvement in general

welfare. However, for a country suffering unemployment it may be preferable to opt for a less capital-intensive and more labour-intensive technology. Indeed, if higher labour productivity incurs redundancies, it will merely increase the pool of unemployed or slow down attempts to reduce unemployment. Under conditions such as these, less capital-intensive techniques and lower labour productivity would be preferable. According to orthodox theory, this is exactly what should happen. Since in countries at a lower level of development the cost of capital is as a rule higher – and that of labour lower – than in developed countries, FDI should opt for labour-intensive as against capital-intensive techniques as factors of production that minimize costs. In reality, this whole concept does not work. The bulk of FDI is located in highly developed countries, not in the less developed countries, despite capital costs being relatively high in the former. In addition, as a rule foreign investors apply exactly the same principles across the globe. This holds especially true for green-field investments. We can thus conclude that the choice of technology is not related to the price ratio of production factors. In the eyes of the multinationals, the main agents behind FDI, the best technology is the most modern one of its kind currently available. They would even choose the technologies of tomorrow, were they available today. This is quite understandable since competitive advantage hinges on the technology used.

23. Although very important, the volume of domestic investment is only one side of the problem. The other side relates to their structure. The special (and from our point of view decisive) question related to capital inflows, especially FDI, is their impact on foreign trade constraints in the host countries. In contrast to other forms of capital imports, FDI inflows play a direct role in modernizing the economy; they thus help to bridge the technological gap between less and more developed countries. This is especially important when a drive towards modernization improves the foreign trade situation by promoting export activities and reducing import requirements. It is, however, not clear whether foreign firms as a whole act along these lines or whether they themselves do not constitute part of the problem. It is understandable that in the investment phase, FDI inflows would have a rather negative impact on the trade balance because of the increased imports of capital goods. The real issue related to the impact of FDI on the balance of trade is the time at which new capacities are put into operation. It may happen that sooner or later foreign firms in a given country become net exporters, however, they may also remain ultimately net importers. In many cases major international corporations are interested in local markets, especially in larger countries.[9] Foreign firms export large quantities, but import large quantities as well. Being international by their very nature, they import components from elsewhere; in that sense they are import-intensive. It may thus happen that foreign firms as a whole not only fail to improve the balance of trade, but they may even be responsible for a large part of

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[9]   Christie (2003, p. 18) has found that 'FDI stocks (at the end of 1998) in the more advanced economies of Central Europe are mainly of the horizontal, market-seeking type' as opposed to the efficiency-seeking type.

the host country's trade deficit. This situation may change over time for export-intensive firms, especially in the manufacturing sector. When, however, foreign firms are engaged in activities with a low degree of export intensity (such as telecommunications, energy, banking and insurance or retail trade), they would have a rather negative impact on the trade balance. Thus, by treating all foreign firms as a separate sector, that sector would help to solve the country's foreign trade difficulties only if it becomes a net exporter. This is the crux of the problem because sooner or later a capital-importing country has to balance its trade and current account and has to become able to promote self-sustained growth.

24. Empirical data illustrating this analysis are difficult to present. However, data on FDI inflows to CCs between 1970 and 1999 are easily available. They are presented in Figure 34 and Table 9. In Ireland, FDI inflows did not play any relevant role, not only before 1973 but also for a number of years thereafter up until the early 1990s. In the 1990s, however, FDI inflows exploded and finally reached about USD 16 billion (!) in 2000. The yearly average between 1990 and 2000 was USD 5 billion. The yearly average of FDI inflows between 1970 and 1973 was only USD 35 million, and between 1974 and 1989 just USD 165 million. Thus, the date of Ireland's accession to the EU had no bearing on FDI inflows in any way, although the country's membership played a decisive role in attracting FDI in the 1990s as was already explained in another part of this study.

Figure 34

FDI inflows to CCs, 1970-1999

USD million
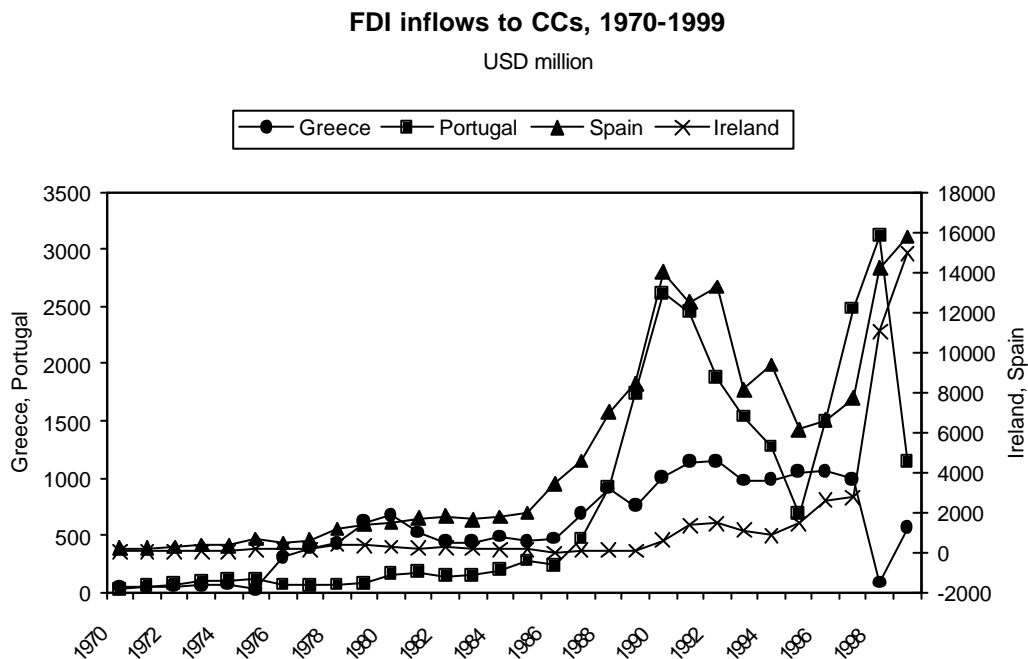
In Greece, FDI inflows in 1981-1985 were even lower than before the EU accession in 1981; only in the 1990s did they record some increase. On the other hand, data for

Portugal and Spain might suggest that in both countries accession was instrumental in attracting FDI: after 1986 and especially in the 1990s, the inflow of FDI into the two countries was much greater than in the period before 1986. This, however, would seem to be a coincidence as the Iberian countries joined the EU at a time when FDI inflows in both Europe and the world exploded. Annual FDI to developed countries amounted to USD 26.6 billion in the 1970s, rising to USD 120.9 billion in the 1980s and USD 317.5 billion in the 1990s. This factor played a major role. At the same time every country could create more or less favourable conditions for FDI inflows. The example of Greece in the 1990s proves that these conditions were not attractive enough.

Table 9

FDI (yearly average inflows) in CC-4, 1970-2000

USD million

	1970-73		**1974-89**	**1990-2000**
Ireland	35		165	4952
	1976-80	**1981-85**	**1986-89**	**1990-2000**
Greece	481	465	703	918
	1970-85		**1986-89**	**1990-2000**
Portugal	114		841	2083
	1970-85		**1986-89**	**1990-2000**
Spain	1003		5868	13117

Source: World Investment Report, 2001.

Figure 35

FDI stocks in relation to GDP (in per cent), 1980-2000

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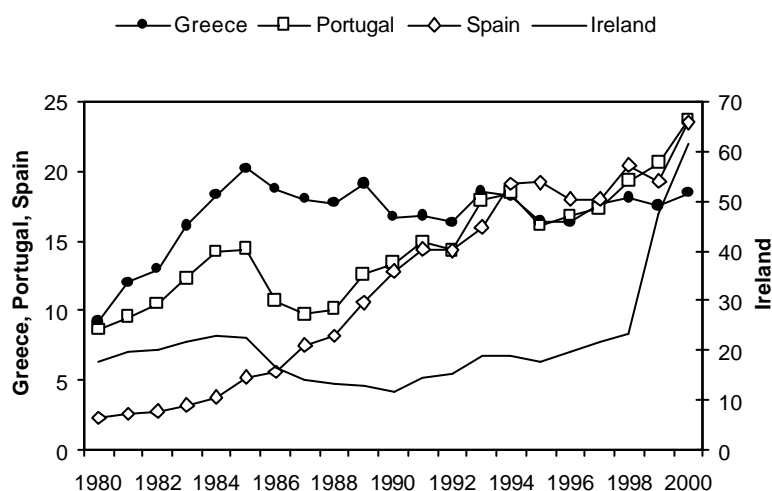
It is evident that the absorption capacity of inward FDI is limited to some extent by the size of the GDP. In general, every country offers a certain number of investment opportunities, which are primarily determined by market size as represented by its GDP. Once these opportunities have been seized, further FDI inflows would only materialize when new openings for profitable investment (new products, new means of producing old goods) arise. This hypothesis is borne out to some degree by the data relating to the FDI stock/GDP ratio in the CCs (see Figure 35).

Up until 1998, the FDI stock/GDP ratio in the CCs climbed up to a level of some 20-25% whereafter, except for Ireland, this process would seem to have gradually come to a halt. In 1999, the FDI stock/GDP ratio was 50.7% for Ireland and 17-21% for the other three countries. The average for the EU as a whole in the same year was 22.2%. Once the FDI stock in a country has reached its saturation level, the current FDI inflows in relation to GDP become constant.[10]

25. Empirical data illustrating FDI in relation to TB and GDP are much more difficult to present and analyse. In reality ID and TB are influenced by many factors, some of which may be more important than capital inflows and FDI. In addition, the domestic savings ratio sd does not remain constant as assumed in Figure 33. In Table 10 the most important data related to the external position of the four CCs are presented as averages for the past three decennia. We note that the domestic investment ratio (ID/GDP) declined in all CCs except Spain where it remained constant. The most marked decline between the 1980s and 1990s, some 3 percentage points, occurred in Greece and Portugal.

As far as the TB/GDP and CA/GDP ratios are concerned, the general picture is similar. Except for Ireland, which moved to a strongly positive balance of trade and a slightly positive current account, the three other countries continued to report negative external positions. The balance of trade deteriorated by 3 percentage points in Greece; in Portugal and Spain it remained more or less unchanged. The current account deteriorated by about 1 percentage point in Portugal and Spain, yet remained almost constant in Greece.

The share of SD=ID+TB in GDP increased in Ireland and decreased in Greece; between the 1980s and 1990s it decreased in Portugal and remained almost constant in Spain.

Foreign deficits were covered by FDI inflows and net balance of payments (Net BoP) inflows from the EU. It can be seen that in the 1990s FDI inflows as a percentage of GDP were (with the exception of Greece) higher than previously; in Portugal and Spain they

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[10] For example, if the constant ratio of FDI stock to GDP amounts to **a** per cent and the growth rate of GDP to **b** per cent, the FDI inflow would constitute **(ab)**/100 per cent of GDP.

Table 10

External position of the CCs, 1970-2000, annual averages

(in per cent of GDP)

Ireland	1970-1979	1980-1989	1990-2000
ID/GDP	25.8	21.3	20.4
TD/GDP	-9.4	-2.3	9.3
(ID+TD)/GDP	16.3	18.9	29.7
FDI/GDP	1.3	0.6	6.0
CA/GDP	-5.1	-5.3	1.4
Funds / GDP[1]		1.36	2.06
Agricultural subsidies / GDP[1]		3.38	3.19
Total transfers / GDP[1]		4.74	5.31
Net BoP flows / GDP[2]		3.01	4.11

Greece	1970-1979	1980-1989	1990-2000
ID/GDP	32.1	24.1	21.4
TB/GDP	-5.4	-4.7	-7.9
(ID+TB)/GDP	26.6	19.4	13.6
FDI/GDP	0.7	1.1	0.9
CA/GDP	-0.7	-2.0	-2.2
Funds / GDP[1]		1.14	2.24
Agricultural subsidies / GDP[1]		2.23	2.79
Total transfers / GDP[1]		3.38	5.12
Net BoP flows / GDP[2]		2.35	3.96

Portugal	1970-1979	1980-1989	1990-2000
ID/GDP	29.1	30.0	26.7
TB/GDP	-8.9	-8.7	-8.4
(ID+TB)/GDP	20.3	21.3	18.3
FDI/GDP	0.5	1.1	2.2
CA/GDP	-2.0	-3.8	-4.7
Funds / GDP[1]		1.35	2.98
Agricultural subsidies / GDP[1]		0.39	0.66
Total transfers / GDP[1]		1.74	3.79
Net BoP flows / GDP[2]		1.23	2.38

Spain	1970-1979	1980-1989	1990-2000
ID/GDP	27.5	23.0	23.5
TB/GDP	-1.6	-0.7	-1.0
(ID+TB)/GDP	25.9	22.3	22.5
FDI/GDP	0.5	1.3	2.3
CA/GDP	-0.5	-0.9	-1.6
Funds / GDP		0.31	1.01
Agricultural subsidies / GDP		0.46	0.88
Total transfers / GDP		0.77	1.95
Net BoP flows / GDP[2]		0.29	0.80

Notes: 1) Mainly Structural and Cohesion Funds; averages 1987-1989, 1990-1999. - 2) Averages 1987-1989, 1990-1998.

Source: AMECO Database, World Investment Report, UNCTAD, Eurostat New Cronos database, own calculations.

accounted for 2.2% and 2.3%, respectively, and in Ireland for 6.0%. In addition, the CCs received sizeable transfers from the EU. In the 1990s, gross transfers in relation to GDP were much higher than in the 1980s. Gross transfers were highest in Ireland and Greece (above 5%) as compared to Portugal and Spain (close to 4% and 2%, respectively). It should be added that some of these transfers were linked to the Structural and Cohesion Funds, hence to real investment. The Funds/GDP ratio amounted to about 2% in both Greece and Ireland, to 3% in Portugal and 1% in Spain. Thus, in all four countries the sum of FDI plus transfers related to domestic investment increased substantially in the 1990s. At the same time, as already mentioned, the share of ID in GDP declined everywhere – with the sole exception of Spain where it remained nearly constant. *Post hoc non est propter hoc*; thus, we do not maintain that the drop in the ID/GDP ratio was caused by the increase in the sum of FDI and EU transfers (in relation to GDP). Perhaps the drop in the domestic investment ratio would have been even more pronounced without the latter inflows.

It should be added that net flows from the EU to the CCs were quite appreciable. In the 1990s, in relation to GDP they amounted to 4.1% in Ireland, 4% in Greece and 2.4% in Portugal. With the exception of Spain and *ceteris paribus*, the CA/GDP ratios would have been much worse without them.

26. Disregarding foreign capital inflows and changes in production capacity, a country with a foreign trade deficit and a national currency can redress its foreign position in two main ways: (a) depreciate the national currency at given nominal wages (and labour productivity) or (b) reduce nominal wages at a given exchange rate (and labour productivity) against its main trading partners. Each method offers certain benefits and incurs certain risks. The major risk in the first approach is that the price increases due to initial depreciation and an inevitable rise in import prices of finished and intermediate goods might be followed by nominal wage increases (at given labour productivity), thus ultimately re-establishing the initial relationship between the exchange rate and nominal price levels. In this case, the only outcome of depreciation would be an acceleration of inflation. The major benefit of the first method is that the price increase due to initial depreciation and an inevitable rise in import prices of final and intermediary goods might not be followed by nominal wage increases (at given labour productivity). In the latter case – assuming Marshall-Lerner conditions are met – the country's foreign position would improve, accompanied by a certain drop in real wages.

The second method relies exclusively on a reduction in nominal wages and at given labour productivity on a reduction in unit labour costs (ULCs) as a means of regaining international competitiveness. As labour productivity increases, nominal wages must not necessarily decrease; it would suffice to keep nominal wage growth lower than labour

Table 11

Competitiveness in the four CCs, 1980-2001

	Indices 1980 = 100					Growth rates in per cent per annum				
	1980	1986	1991	1999	2001	1981-1986	1987-1991	1992-1999	2000-2001	1980-2001
nominal unit labour costs (in NCU)										
Greece	100.0	326.6	676.1	1312.5	1360.3	21.8	15.7	8.6	1.8	13.2
Spain	100.0	168.1	239.4	310.3	330.5	9.0	7.3	3.3	3.2	5.9
Ireland	100.0	159.0	170.9	188.9	203.3	8.0	1.4	1.3	3.7	3.4
Portugal	100.0	278.8	493.5	651.9	720.4	18.6	12.1	3.5	5.1	9.9
EU 15	*100.0*	*143.7*	*177.3*	*202.9*	*211.5*	*6.2*	*4.3*	*1.7*	*2.1*	*3.6*
nominal ULCs (in EUR)										
Greece	100.0	141.2	178.4	239.4	237.2	5.9	4.8	3.7	1.8	4.4
Spain	100.0	121.9	185.8	186.0	198.0	3.4	8.8	0.0	3.2	3.3
Ireland	100.0	146.6	150.4	162.1	174.5	6.6	0.5	0.9	3.7	2.7
Portugal	100.0	131.8	192.2	226.2	249.9	4.7	7.8	2.1	5.1	4.5
EU 15	*100.0*	*143.7*	*177.3*	*202.9*	*211.5*	*6.2*	*4.3*	*1.7*	*2.1*	*3.6*
nominal wages										
Greece	100.0	308.0	689.4	1456.4	1641.6	20.6	17.5	9.8	6.2	14.3
Spain	100.0	198.4	299.3	437.0	472.1	12.1	8.6	4.8	3.9	7.7
Ireland	100.0	193.4	251.9	356.7	423.9	11.6	5.4	4.4	9.0	7.1
Portugal	100.0	323.2	678.3	1151.3	1294.6	21.6	16.0	6.8	6.0	13.0
EU 15	*100.0*	*150.5*	*193.3*	*247.6*	*265.2*	*7.0*	*5.1*	*3.1*	*3.5*	*4.8*
real wages (GDP defl.)										
Greece	100.0	95.7	96.3	102.0	107.7	-0.7	0.1	0.7	2.8	0.4
Spain	100.0	104.1	114.0	122.8	123.4	0.7	1.8	0.9	0.2	1.0
Ireland	100.0	108.8	125.8	133.8	145.3	1.4	2.9	0.8	4.2	1.8
Portugal	100.0	100.0	124.5	138.7	144.5	0.0	4.5	1.4	2.1	1.8
EU 15	*100.0*	*105.6*	*110.2*	*118.6*	*121.4*	*0.9*	*0.8*	*0.9*	*1.2*	*0.9*
labour productivity[1]										
Greece	100.0	94.3	102.0	111.0	120.7	-1.0	1.6	1.1	4.3	0.9
Spain	100.0	118.0	125.0	140.6	142.4	2.8	1.2	1.5	0.6	1.7
Ireland	100.0	121.6	147.4	188.9	208.6	3.3	3.9	3.1	5.1	3.6
Portugal	100.0	115.9	137.4	176.6	179.7	2.5	3.5	3.2	0.9	2.8
EU 15	*100.0*	*112.4*	*118.7*	*135.3*	*138.0*	*2.0*	*1.1*	*1.6*	*1.0*	*1.5*
exchange rate (NCU/EUR) (+ = depr)										
Greece	100.0	231.3	379.0	548.4	573.5	15.0	10.4	4.7	2.3	8.7
Spain	100.0	137.9	128.9	166.9	166.9	5.5	-1.3	3.3	0.0	2.5
Ireland	100.0	108.5	113.6	116.5	116.5	1.4	0.9	0.3	0.0	0.7
Portugal	100.0	211.5	256.8	288.2	288.2	13.3	4.0	1.5	0.0	5.2
real exchange rate (NCU/EUR) (+ = depr)[2]										
Greece	100.0	93.6	88.2	73.4	77.2	-1.1	-1.2	-2.3	2.6	-1.2
Spain	100.0	117.6	94.0	107.3	105.0	2.7	-4.4	1.7	-1.1	0.2
Ireland	100.0	97.1	116.8	124.0	119.9	-0.5	3.8	0.7	-1.7	0.9
Portugal	100.0	105.8	86.3	82.8	77.8	0.9	-4.0	-0.5	-3.0	-1.2

Notes: 1) Real GDP per employee. - 2) Deflated with ULCs.

Source: AMECO Database, own calculations.

productivity growth in order to reduce ULCs measured in national currency units (NCUs). However, in order to improve a given country's relative position, unit labour costs measured in NCUs must be more effectively reduced than those prevailing in competing countries. This must be done at a given exchange rate in terms of some common currency: the one mostly used in foreign trade transactions. The major risk associated with this method is its impact on domestic demand. In fact, the real wage cuts induced by the second method are greater than those brought about as a result of successful depreciation; the reduction of aggregate demand and GDP is thus larger when the whole burden of adjustment has to be borne by nominal wage restrictions.

These general remarks may be illustrated with the help of empirical data relating to the four CCs over the period 1980-2001 (see Table 11). In contrast to previous chapters, the focus here is only on those 21 years because the EMS was introduced in 1979. Furthermore, in both the table and analysis below the 21-year period has been divided into four sub-periods. The first period extends from 1980 to 1986. The second period starts with 1987, the year in which the EMS underwent major modification, as well as being the year in which Spain and Portugal joined the EU. The third period starts in 1992 (introduction of the Maastricht criteria) and ends in 1999, the year in which the euro was formally introduced.

27. Using the data recorded in this part of our study we are now able to make some comments regarding changes in the external positions of the four CCs. Important developments may be lost when only decennial or similar averages are investigated. Sometimes the time profile of certain variables deserves more attention than the averages that cover longer time intervals. In Ireland, the domestic investment ratio increased continuously between 1960 and 1973, together with an increasing import surplus. This development continued until the early 1980s, with the ID/GDP and |TB|/GDP, TB<0, ratios reaching record levels in 1979: 31.7% and 16.4%, respectively. The external position deteriorated almost continuously although the real exchange rate (calculated with ULCs) depreciated quite strongly (see Table 11). The critical external position of Ireland together with a budget deficit of more than 10% required a radical shift towards restrictive policies in the 1980s. GDP growth decelerated from about 5% p.a. in the 1960s and 1970s to only 2.8% p.a. in the period 1979-1994. Over the same period, domestic investment stagnated and the investment ratio dropped to 16% in 1994; thereafter the ID/GDP ratio increased to reach 28% in 2001. The trade balance improved continuously after 1979, the year in which Ireland joined the ERM and broke its link with the British pound. While exports developed normally, imports – which in some years had increased quite strongly before 1979 – even declined thereafter. This was due to Ireland's growth slowing down but probably also to the strong depreciation of the punt against the British pound, the currency of Ireland's main trading partner. The trade balance became positive in 1985 and recorded an average export surplus of over 10% of GDP in the period 1995-2001. At the same time, given the enormous outflows of NFIfA, the current account was more or less balanced. Three

important conclusions can be drawn from this overview: first, the foreign trade bottleneck manifested itself with great intensity in the 1970s; second, large FDI inflows occurred when Ireland achieved already a balanced foreign position; and third, Ireland joined the EMU with an exchange rate assuring satisfactory competitiveness within the EU. In fact in 1995, the exchange rate of the punt (measured in terms of the German mark) was merely 80% of its value in 1986.[11] And even a small revaluation of the punt in March 1998 was not able to prevent Ireland from entering the EMU at a very competitive exchange rate.

Since 1960, Greece has been an import surplus country. This surplus increased from over 3% of GDP in 1960 to 9% in 1965 and subsequently diminished almost continuously up until 1981 when it stood at about just 1% of GDP. Since then it has mostly increased, still amounting to about 8% of GDP in 2000. The current account reflected that development, but for some years around 1980 it even recorded a surplus. The critical year was 1990, with a foreign trade deficit of over 9% and a current account deficit of almost 5% of GDP. One of the reasons for the deterioration of Greece's foreign position may have been the drop in competitiveness as measured by changes in relative ULCs in euro. In the period 1981-1986 the increase in these costs in Greece was slower than in the EU-15; thereafter, however, the opposite was the case. In the periods 1987-1991 and 1992-1999, the increases were more rapid in Greece than in the EU-15: by 0.5 and 2 percentage points p.a., respectively. This was accompanied by real appreciation of the national currency, although the nominal exchange rate depreciated continuously. Only in the years 2000-2001 was this trend reversed.

Portugal's external position was stable in the period 1960-1973, although the country at that time registered a growth rate of almost 7% p.a. The import surplus mostly hovered around 5% of GDP and in some years the current account even registered a surplus. Up until the mid-1980s, the exchange rate depreciated almost continuously. However, at the end of that period, the external position visibly deteriorated. In 1974-1985 a marked slowdown in growth (related to the revolution of April 1974 that ended an authoritarian regime of 50 years standing) was to be observed and the foreign position continued to deteriorate up until about 1981 when the foreign trade and current account deficits reached some 16% and 12% of GDP, respectively. In the following years, the situation improved markedly and the import surplus declined to 3.1% of GDP in 1985, while the current account even registered a small surplus. After 1985, GDP growth accelerated and the external position deteriorated, as was to be expected. The import surplus as a share in GDP moved from 3.1% to 7.4% in 1994 and to 12.1% in 2000: an increase of 9 percentage points. The development of the current account deficit was similar to that of the trade deficit. One of the reasons for this deterioration was the decreasing competitiveness of Portugal's economy, manifest in a relative increase in the ULCs measured in EUR after

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[11]   See Kowalewski and Reitschuler (2003).

accession to the EU. Indeed, in the period 1981-1986 ULCs increased by only 4.7% p.a. against 6.2% p.a. in the EU-15, whereas after 1986 the opposite was the case (1987-1991, 1992-1999 and 2000-2001 in per cent p.a.: 7.8 against 4.3, 2.1 against 1.7 and 5.1 against 2.1, respectively). Similarly, the real exchange rate appreciated very strongly, not only in 1987-1991 but also thereafter, though not so intensively. Another important factor was Portugal's growth in 1986-2002: the GDP growth rate (3.5%) was approximately 1.1 percentage points higher than in the EU; consequently, Portugal's imports surged ahead of exports, leading to a large gap in the foreign trade balance..

Spain's external position over the past 40 years has been mostly stable. The trade balance and current account moved in parallel: deficits followed surpluses and *vice versa*, but the range was rather limited: mostly between plus 2% and minus 5% of GDP (in the mid-1960s and mid-1970s). In the period 1980-1985 Spain's external position improved and reached a modest trade balance and current account surplus. After joining the EU, its external position deteriorated abruptly by about 5 percentage points of GDP; this development was caused to a great degree by real appreciation (almost 20%) of the national currency in the period 1987-1991. The financial crisis of 1992 followed soon thereafter, although the foreign trade and current account deficits were in the order of 3-4% of GDP. This goes to show that even minor external deficits in a medium-sized country do not exclude the risk of an efficient speculative attack being launched on a national currency when capital markets are liberalized under conditions marked by major differences in inflation rates and the movement of relative ULCs. Indeed, in the period 1981-1986 ULCs measured in EUR increased in Spain and the EU-15 by 3.4% and 6.2% p.a., respectively: thus, they increased much more slowly in Spain than in the EU-15. In the period 1987-1991 the situation was reversed: ULCs measured in EUR increased by 8.8% p.a. in Spain while in the EU-15 by only 4.3% p.a. The pronounced nominal and real depreciation of the national currency following the crisis of 1992 caused the ULCs measured in EUR to remain constant in Spain over the period 1992-1999 while in the EU-15 they increased by 1.7% p.a.

In the years preceding the entry of Spain into the EMU, the Spanish peseta had lost nearly one third of its value against the German mark. Hence, as was the case in Ireland, Spain joined the EMU with a competitive exchange rate.[12] These developments underscore the potential significance of sovereign decisions governing exchange rate policy in instances when the financial position of a country takes an unexpected turn.

27. It is rather difficult to draw general conclusions from this analysis. One can, however, say that nowhere outside Ireland did the cohesion countries' external position improve. This emerges more clearly from Figure 36, in which exports are measured as per cent of

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[12]   See Kowalewski and Reitschuler (2003).

imports. Indeed, at the time of its accession Greece still covered 100% of its imports by exports. From 1981 onwards, the coefficient X/M declined almost systematically; by 2000 it amounted to 70% only. In Portugal, the same coefficient declined from 94% in 1986 to 72% in 2000. In Spain, import coverage by exports improved significantly after the crisis of the early 1990s, yet whereas the coefficient stood at 111% in 1986, it was only 94% in 2000.

Figure 36

CC exports as per cent of imports, 1960-2000
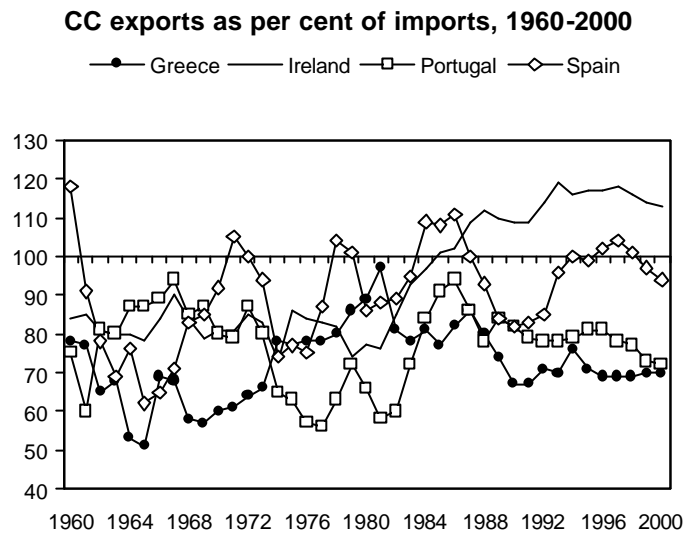
Interesting information is supplied by Figure 37 which shows the time profile of import intensities in CCs. The import intensity in Greece after 1981 did not change at all. In the

Figure 37

CC import intensities, 1960-2000

Imports in % of GDF
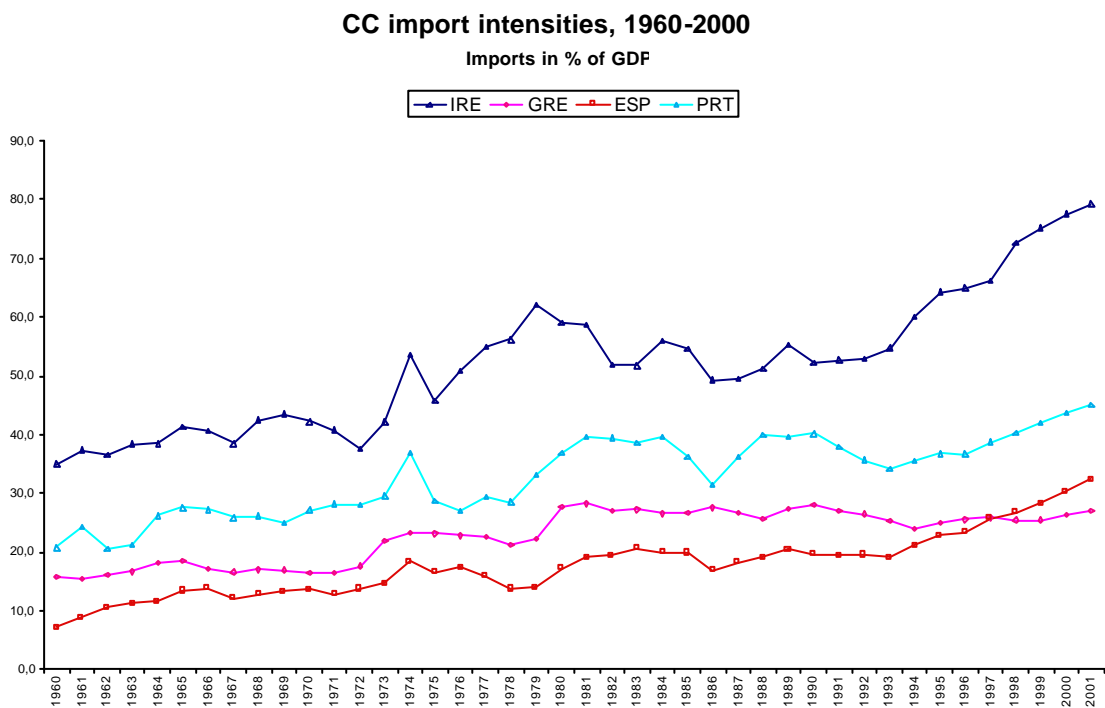
Iberian countries the trend was similar between1986 and 1993, but thereafter import in relation to GDP increased rather sharply. Hence changes in the external position of the three countries were most of the time related to results in export expansion rather than to import expenditures. It should be stressed that at the time of their accession to the EU, all three countries were able to cover their import expenditures by exports revenues. Over time, however, they lost that ability to differing degrees.

28. The persistent trade balance and current account deficits displayed in some CCs raise the question as to their long-term financing. Disregarding FDI and net inflows from the Community, this financing implies foreign credits. Can they sustain a steady-state growth at a rate g, g>0, if an import surplus |TB|, TB<0, being a constant part z of GDP, 0<z<1 (the coefficient z being the difference between x and m, constant export and import ratios, with x<m) does persist? In other words, can a country indebt itself every year by |TB|=zGDP in order to finance its trade deficit as well as iDF, its debt service, where i and DF denote the constant rate of interest and the accumulated foreign debt, respectively? It can be proved that under certain conditions (g>i) the foreign debt DF in relation to GDP would tend to reach a certain limit whereupon it becomes constant. The detailed answer to this question can be found in Annex 1. When the rate of interest is lower than the growth rate, i<g, the DF/GDP ratio has a limit amounting to z/(g-i). If, for example, z=0.03, g=0.05 and i=0.03, the D/GDP ratio would tend towards the limit [0.03/(0.05-0.03)]=1.5. In other words, foreign debt would increase in relation to GDP until it reaches the limit of 1.5, whereupon the ratio would stop increasing (and foreign debt would be one and a half times greater than GDP). We can illustrate this situation using the following figures: at GDP equal to 100 and foreign debt equal to 150, the new credit required would amount to zGDP=3 in order to finance the foreign trade deficit, plus iDF=0.03(150)=4.5 in order to service the foreign debt. Taken together, new loans would amount to 3+4.5=7.5; this comprises exactly 5% of the existing foreign debt of 150. Thus, foreign debt would increase apace with GDP by 5% as initially assumed.

This whole construction may seem strange. The rest of the world lends 7.5, of which 4.5 is being used to pay interest due on foreign debt to the rest of the world. If we were dealing with a single bank, the latter would very soon realize that it was funding interest due to none other than the bank itself. If, however, a country is negotiating with a whole array of banks, some of which provide the loans and others fund the interest due on those loans, an arrangement of this kind might last for a time before the anomaly becomes painfully apparent. This indeed is what happens because lenders would carefully observe such parameters as the DF/GDP ratio and would hardly be inclined to wait for the ratio to ultimately stabilize. They would also analyse the relationship between export revenues and new credit requirements. Hence, although it could be assumed that in very special circumstances steady-state growth is possible with a constant foreign trade deficit, the

whole conclusion is in fact worthless because the lenders would sooner rather than later refuse to finance such an artificial configuration.

29. Nevertheless, it is worth devoting some thought to the problem discussed above when the funds needed to cover the foreign trade deficit are supplied on non-commercial terms. In Germany, the new *Länder* (the provinces comprising the former GDR) are a case in point; they receive huge federal transfers to finance their trade deficit with the rest of the world, mostly with the old *Länder*. In 2000 this deficit amounted to about EUR 100 billion and covered about one third of the internal demand estimated at about EUR 324 billion. Hence GDP of the new *Länder* is estimated to be about EUR 224 billion, i.e. only about 70% of the internal demand.[13] In this way, large transfers artificially support a high level of aggregate demand, especially of consumer spending, but at the same time limit production and employment. It is very difficult to tell what would be the situation in the new *Länder* had a different policy been chosen in 1990, especially if they had avoided the politically motivated extreme appreciation of the GDR currency, which scuppered the country's competitiveness from one day to the next. In any event, the difference between internal demand and GDP would be much smaller and the employment situation probably much better than it is now. The most important point is that future developments would be much more promising than the cul-de-sac in which the new *Länder* seem to find themselves today.

To some degree, this also applies to the CCs, which are recipients of significant non-commercial transfers from the EU, although in terms of size the latter are but a very small fraction of those in Germany. No doubt, such transfers help to keep domestic absorption above the level of GDP. It is less obvious that the very same mechanism keeps GDP and employment below a level that could be achieved, were a different policy to be followed that militated against a constant foreign trade deficit in the first place. We have stressed this possibility when analysing Figure 33. Even if financed on non-commercial terms, a constant trade balance deficit does not complement domestic savings as is frequently argued. In reality, if it perpetuates constant import surpluses, this kind of financing means lower employment and higher unemployment in the recipient countries. In orthodox theory, an import surplus is termed 'foreign savings'. The term 'import of unemployment' from capital-exporting countries to capital-importing countries would be a more adequate description of the real consequences of such a policy.

The general conclusion of this section of our paper is that with the exception of Ireland, in no country did the external position improve after 1980. We have stressed time and again that if they are to alleviate future foreign trade bottlenecks in growth acceleration, capital

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[13]   These estimates have been supplied by Dr. Hubert Gabrisch from the Institute for Economic Research Halle (IWH), Germany, whom we would like to thank for his help.

inflows, including FDI, should not only help to fund the current account import surplus, but first of all they should create conditions conducive to export expansion and import substitution. A similar role – at least in an indirect manner – should be played by the Structural and Cohesion Funds. The experience of Greece and Portugal would seem to imply that these expectations have not been met, at least not until now.

30. At the end of this part of our study we would like to recapitulate the most important lessons which the ACs can learn from the experience of the CCs. The first question is whether Ireland's booming economy can be a model for other countries. The second question relates to whether the expectations of accelerated FDI inflows after accession are justified. The third – and probably the most important – question concerns the changes in competitiveness of the CCs after their EU accession.

Although in the period 1950-2000 Ireland's GDP grew at the same rate as the other CCs, it is the only country to have grown more quickly after 1973 than before. However, immediately upon joining the EU, Ireland's growth slowed down markedly. The radical acceleration of growth in Ireland occurred in the 1990s – almost 20 years after the country's accession. Ireland is often cited as the best example of a national economy successfully opening up to foreign capital penetration. This is true, albeit with three caveats: (a) the open trade and investment policy was enforced from the early 1960s onwards, but growth acceleration took place only in the 1990s: the latter was directly linked to the adoption of the European single market, which made Ireland attractive as a base for US transnational corporations (TNCs) that wanted to expand their European operations (Bosworth, 2001, p. 187); this was the main reason for the upsurge in FDI in the 1990s;[14] (b) opening up was linked to a clear concept of branch-type industrial policy, and (c) the success, although genuine, has been largely overstated by transfer pricing.

Other than linguistic and cultural proximity, the reasons for the concentration of mostly US-dominated FDI in Ireland as a site inside the EU were the specific industrial policy measures linked to major incentives for multinational corporations. The most important incentive has been the 10% corporation tax (as against 30-40% in most competing countries). Tax relief has been granted primarily in respect of profits from the sale of goods manufactured in Ireland. The scope of tax relief, however, has been extended to cover certain well-defined non-manufacturing activities.[15] The success of this policy is borne out by the concentration of foreign businesses in the following sectors:

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[14] In Ireland, in the period 1974-1989 the average annual inflow of FDI amounted to USD 165 million and in the period 1990-2000 to USD 4952 million; this means they increased by a factor of 30. At the same time, FDI in the remaining CCs increased by a factor slightly above 2.

[15] These activities include:
- International financial services activities carried on at the International Financial Services Centre, Dublin.
- Certain computer services (software development, data processing and related technical and consultancy services) which have been grant aided.

a) Electronics and information technology (supplying one third of Irish exports)
b) Engineering, especially automotive components and aerospace technology
c) Pharmaceutical products
d) Consumer products
e) International services, including software development
f) Financial services.

TNCs focused on export activities in three sectors: computers, chemicals and electrical engineering. O'Hearn (2001) comes to the conclusion that 'Ireland's most important function today is (to be) a site where US companies can shift their products into Europe, while accumulating profits in order to avoid taxation.' If the hypothesis concerning the shift of profits to Ireland as a tax haven is correct, there must be ways and means which serve that goal. From this viewpoint, analysis of unit value prices (ECU per ton) in Irish foreign trade reveals some interesting findings. The details of that investigation are presented in Annex 2 to this chapter.[16] It can be seen that in intra-EU trade in the biennium 1989-1990, the average unit value prices (UVP) of Irish exports were twice as high as those in the EU or UK whereas in the biennium 1997-1998 they were already 3.5 to 4 times higher. On the other hand, in the biennium 1989-1990 the average UVPs of Irish imports were equal to those in the EU and about half of those in the UK. During the 1990s, the UVPs of imports displayed similar increases in all three cases. In extra-EU trade, the results for the same periods were similar, but not so much to Ireland's advantage. These figures may be interpreted as showing that high export prices were used as a vehicle to shift profits to Ireland, especially within the EU.

The above hypothesis is supported by the observation that profits made by foreign firms in Ireland are out of all proportion to FDI stock (see Table 12). Indeed, in the 1990s the direct investment income paid in relation to FDI inward stock was in the order of 50% to 100%. In 1998, out of an FDI inward stock of USD 20 billion, direct investment income was USD 22 billion (!). It should also be stressed that the increase in export surpluses in the 1990s has to a great degree been 'sanitized' by Net Factor Income from Abroad (NFIfA) leaving Ireland. In the period 1990-1998, the export surplus increased by about USD 10 billion while the current account increased by USD 1.5 billion only. The unusual amount of NFIfA has also influenced the relationship between GDP and GNP. Whereas in 1960 Ireland's GNP was about 9% higher than GDP, in 2000 it was about 11% lower.

- Wholesale sales by special trading houses of goods manufactured in Ireland.
- Design and Planning services rendered in Ireland in connection with specified engineering works executed outside the European Union. This applies to services provided by engineers, architects and quantity surveyors.
- Repair or re-manufacture of own manufactured computer equipment.
- Repair of ships, aircraft and aircraft engines or components.
- Certain shipping activities.
- Production of films (movies).
- Fish farming, meat processing, micro-propagation and cloning of plants.

[16] We are grateful to Robert Stehrer, wiiw, for the respective calculations.

Hence – as already stressed in another place in this study – over a period of forty years the ratio of GNP to GDP declined by some 20 percentage points.

Table 12

FDI stocks and direct investment profits (after taxation) in Ireland

USD million

		1990	1991	1992	1993	1994	1995	1996	1997	1998
1	Inward FDI stocks[1]	5502	6859	8300	9422	10260	11707	14324	17067	19988
2	Direct investment income[2] paid	4350	4077	5174	4989	5645	8334	9324	11219	22054
3 = 2/1	in per cent	79	59	62	53	55	71	65	66	110
	Memorandum item									
	Trade balance	2211	2298	4015	5185	5233	7270	8055	9616	12499
	CA	-361	284	607	1765	1577	1721	2049	1866	1016

1) *Source*: World Investment Report. - 2) *Source:* IMF, Balance of Payments.

Thus the answer to the question whether the success of FDI-supported Irish growth in the 1990s can be taken as a model for other countries seems to be negative. Major US transnational computer, pharmaceutical and electrical engineering enterprises searching for sites within the EU have already found them; it is doubtful whether they need a second site outside Ireland. Tax incentives may work only if other countries do not follow suit. No other CC has recorded results even partly similar to those in Ireland. Last but not least, it is also impossible to find a country outside Europe which has experienced a development such as that recorded in Ireland (with the exception perhaps of such places as Hong Kong or Singapore).

31. We move to the second question: does the experience of CCs support the expectations that joining the EU will accelerate the inflows of FDI to the ACs? The answer to this question also seems to be negative. This was not the case with earlier rounds of enlargement; it will probably not happen this time either. The idea of relatively low labour costs attracting FDI is not a convincing argument in most cases. It should be recalled that of the four CCs, Ireland was the one with the highest GDP per capita and the highest labour costs; nevertheless, owing to other factors which cannot be replicated elsewhere, it was Ireland alone that succeeded in attracting the highest FDI inflows per capita or in relation to GDP.

It is estimated that about half of the FDI inflows to the ACs over the past few years were linked to privatization. After the assets to be privatized have been sold off, this source of FDI inflow will dry up. The share of FDI stock in relation to GDP is already relatively high; thus, the ACs are swiftly approaching what we have termed 'saturation level'. In the transition countries, given the volume of privatization activities that are mainly in the hands

of foreign investors, this share would probably be much higher: sooner or later, however, it must reach a limit as well. Thereafter the FDI stock would change apace with GDP; hence the flow of FDI as a percentage of GDP would remain more or less constant. At this level FDI inflows can no longer be used to fund foreign trade deficits. On the contrary, even disregarding FDI outward flows which are already occurring and will continue in the future, when things reach the saturation level, net outflows rather than inflows of foreign currency linked with inward FDI are to be expected.

Let us assume that the FDI stock/GDP ratio has already reached the saturation level of 50%. Let us assume further that the economy grows at 4% p.a. Thus FDI stock would have to increase by 4% as well, which means that FDI inflows in relation to GDP would have to amount to 2% of GDP [0.04(0.5)=0.02]. Assume also that the ratio of profits to FDI stocks is 4%. Hence foreign profits in relation to GDP would amount to 0.04(0.5)=0.02, i.e. to 2%. If no foreign profits are distributed, meaning that all those profits are reinvested, no fresh foreign currency comes into the country and no part of current account deficit can be financed by FDI inflows. If the profit ratio on FDI is higher than the growth rate of GDP and/or part of profits have to be distributed, a net outflow of foreign currency on account of FDI has to be expected.

32. The last question deals with competitiveness. The term is to be understood as the ability to cover imports at the required growth rate with adequate exports or, in other words, the ability to overcome the foreign trade bottlenecks that endanger growth acceleration in any country endeavouring to catch up. We have seen that, apart from the atypical case of Ireland, no cohesion country has been able to achieve any progress in this direction, despite their starting point having been much better than that now prevailing in the ACs. All three CCs have reported lower exports in relation to imports at the end of the investigation period, i.e. lower import coverage by exports than at the time of their accession. The reader should be reminded that at that time they were still able to cover their import expenditures by export revenues. It is easy to imagine the difficulties that an applicant country would meet entering the EU with a coefficient X/M significantly below 100%, as is the case with the present ACs.

The difficulties in foreign trade may be due to a range of exports failing to penetrate foreign markets or excessive ULCs in relation to the main trading partners. Indeed, after joining the EU, the ULCs measured in EUR in CCs increased mostly more rapidly than in the EU-15, thus competitiveness so measured has deteriorated rather than improved. This has happened despite the countries in question making vigorous use of exchange rate policy in order to offset the excessive growth in nominal ULCs in national currency units. In the light of this experience, the ACs should draw appropriate conclusions with respect to the usefulness of a sovereign exchange rate policy within the EU. In fact, depreciation of the national currency might help to redress a country's foreign position by making imports

more expensive, accelerating inflation somewhat and lowering real wages (at given nominal wages and labour productivity). Without national currency the only way a country can redress its foreign position is by cutting nominal and real wages (at given labour productivity) in order to lower ULCs. This may improve the competitiveness of a country, as does depreciation in the former case; however, domestic demand would suffer much more since the whole burden of necessary adjustment would have to be borne by wage restrictions in the latter case.

This factor should be taken seriously into account by ACs when and if they decide to join the EMU. The difficulties they are going to meet will be the greater the more appreciated is the exchange rate of their national currencies at that time. In contrast, the more depreciated is the exchange rate at the moment of entering the EMU, the wider the space for necessary increases in ULC without losing competitive advantages.

Annex 1

Debt/GDP ratio

We assume that the FDI stock/GDP ratio has reached a saturation level. This means that with steady-state growth, FDI stock and GDP increase at the same growth rate g. We also assume that non-distributed profits coming from FDI are invested back in the country and finance exactly the increase of FDI stock by an amount equal to g(FDI stock). In other words, non-distributed profits and FDI inflow in any one year are equal to g(FDI stock).

We assume further that the economy has a constant import surplus |TB|=zGDP, TB<0, 0<z<1, where the coefficient z is equal to the difference between x and m, constant export and import ratios, respectively, with m>x. This surplus is financed by foreign credits at a constant interest rate i; hence the debt DF which has to be serviced at time t denoted DF(t) is

$$DF(t) = zGDP(t) + zGDP(t-1)(1+i) + zGDP(t-2)(1+i)^2 + \ldots$$
$$\ldots + zGDP(1)(1+i)^{t-1} + zGDP(0)(1+i)^t$$

(a)

As GDP increases at a rate g, we have also

$$GDP(t) = GDP(t-j)(1+g)^j$$

$$GDP(t-j) = GDP(t)/(1+g)^j$$

(b)

Dividing (a) by (b) we get

$$DF(t)/GDP(t) = z + z[(1+i)/(1+g)] + z[(1+i)/(1+g)]^2 + \ldots + z[(1+i)/(1+g)]^{t-1} + z[(1+i)/(1+g)]^t$$
$$= z\{1 + [(1+i)/(1+g)] + [(1+i)/(1+g)]^2 + \ldots + [(1+i)/(1+g)]^{t-1} + [(1+i)/(1+g)]^t\}$$
$$= z[(1+g)/(g-i)]\{1 - [(1+i)/(1+g)]^{t+1}\}$$

or

$$DF(t)/GDP(t+1) = [z/(g-i)\{1 - [(1+i)/(1+g)]^{t+1}\}]$$

$$\lim_{t \to \infty} \frac{DF(t)}{GDP(t+1)} = z/(g-i)$$

(c)

for g > i;

and

$$\lim_{t \to \infty} \frac{DF(t)}{GDP(t+1)} = +\infty$$

(d)

g<i.

Annex 2

Table A/1

Unit value prices in foreign trade, Ireland, 1989-1998

Part A						Intra-EU trade					(1997-98)/
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	(1989-90)
Ireland											
exports	1.893	1.821	1.816	1.901	2.18	2.525	2.916	3.253	3.518	4.153	2.065
imports	0.874	0.827	0.612	1.008	1.04	0.973	1.144	0.742	1.406	1.416	1.659
United Kingdom											
exports	0.963	0.942	0.926	0.889	0.884	0.787	0.87	0.909	0.981	1.03	1.056
imports	1.525	1.474	1.488	1.519	1.625	1.57	1.645	1.81	2.056	1.965	1.341
EU-average											
exports	0.902	0.951	0.986	0.988	0.961	0.958	1.07	1.069	0.419	1.242	0.896
imports	0.896	0.921	0.93	0.933	0.919	0.934	1.039	1.052	0.364	1.174	0.846
Part B						Extra EU-trade					
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Ireland											
exports	3.056	3.197	2.97	3.006	3.723	3.847	4.203	5.737	6.743	7.522	2.281
imports	0.7	0.682	0.617	0.508	0.608	0.735	0.852	0.919	0.981	1.18	1.564
United Kingdom											
exports	1.495	1.402	1.513	1.333	1.226	1.209	1.447	1.883	2.429	2.329	1.642
imports	0.707	0.663	0.643	0.618	0.693	0.766	0.762	0.834	0.968	1.052	1.474
EU-average											
exports	1.446	1.429	1.442	1.414	1.328	1.392	1.603	1.706	1.861	1.9	1.308
imports	0.425	0.422	0.426	0.409	0.441	0.439	0.431	0.463	0.524	0.537	1.253

Source: New Cronos Database.

IV. Convergence of the cohesion countries to the average EU level and conclusions for accession countries

33. The issue of the CCs' catching up with the more developed EU countries can be analysed from two angles. First, did accession to the EU accelerate the growth of the CCs? Secondly, did accession to the EU accelerate their catching-up process?

Let us start with some brief methodological remarks. If we have to compare the size of two baskets with at least two goods, we are able to obtain a clear-cut answer in two very special cases: when either the material structure of the goods or the price structure in both baskets is identical. The real difficulty arises when – as always happens – both the material and price structures differ. In those circumstances, the size of both baskets and their relationship to each other depend on the common price system chosen for comparisons. This is the familiar problem associated with the Laspeyres and Paasche quantity indices and arises when two different baskets of goods (e.g. GDP per capita) are being compared in the same country over time.

When two different countries are being compared, an additional complication emerges. The two price systems differ not only in structural terms, but they are also denominated in different currencies. Comparability thus has to be achieved via exchange rates; either those prevailing in reality or others constructed specifically to that end. It should be clear that what we treat as real values when comparing two baskets over time in the same country is not identical to what we treat as the real values when comparing two baskets over space (i.e. in two different countries) at the same time. In fact, the price systems used in internal and international comparisons are not the same; thus, the results may and do differ substantially. It may even happen that GDP per capita can be seen to have grown more rapidly in country A than in country B, while the difference between country A and country B in terms of their GDP per capita has not increased, remained the same or even diminished. This means that the results of the two approaches are not transitive.[17]

34. In Table 13 the years 1973, 1981 and 1986 divide the 40-year period into corresponding sub-periods. Growth decelerated after every benchmark year in the EU-11 (i.e. the EU-15 minus the four CCs) and three CCs, except for Ireland.[18] It should be stressed that after 1981 growth in Greece was even slower than in the EU-11. In Portugal and Spain (and, of course, Ireland) the opposite was the case. The differences between GDP per capita growth rates in the EU and the three CCs, measured in percentage points, were higher after accession than before: they amounted to 2.8 as against 0.8 in Ireland, to

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[17] From Table 13 it follows that in the period 1960-2000 Turkey experienced a higher GDP per capita growth than the EU-11 (2.3% as against 1.9%); however, from Table 14 we learn that the relative position of Turkey in relation to the EU-11 deteriorated instead of improving.

[18] However, in terms of GNP per capita, the growth rate after 1973 was slightly lower than that before 1973 even in the case of Ireland.

2.4 as against 1.8 in Portugal and to 1.9 as against 1.3 in Spain. Hence, the differences lay in the range of 1.9 to 2.8 percentage points and, disregarding Ireland, in the range of 1.9 to 2.4 percentage points. In Greece, however, the growth rate after accession was practically the same as in the EU-11, whereas before accession it had been 2.4 percentage points higher.

Table 13

GDP per capita real growth rates in the EU-11, the CCs, Turkey and USA, 1960-2000

(in per cent p.a.)

	1960-1973	1960-1981	1960-1986	1973-2000	1981-2000	1986-2000	1960-2000
EU-11	2.95	2.42	2.31	1.34	1.24	1.03	**1.86**
GRC	8.15	**4.84**	3.73	1.23	**1.22**	1.64	2.91
ESP	6.14	4.08	**3.64**	2.09	2.63	**2.93**	3.39
IRL	**3.71**	3.43	3.03	**4.15**	4.64	5.83	4.01
PRT	6.98	4.76	**4.08**	2.39	2.88	**3.45**	3.86
IRL GNP	**3.55**	3.09	2.49	**3.46**	3.93	5.36	3.49
TUR	2.99	2.38	2.45	2.00	2.26	2.08	**2.32**
USA	3.08	2.50	2.48	2.09	2.32	2.29	**2.41**

Source: AMECO Database.

35. For some time now systematic inter-country comparisons (i.e. comparisons in space against comparisons in time that we have just discussed) have been made in terms of purchasing power parities (PPP) and then in terms of purchasing power standards (PPS); they currently cover a relatively long period of time. Table 14 presents some results of these investigations. If we assume the average GDP per capita in the EU-11 to be 100, we can express the relative position of each country as a percentage of that average. It emerges that in both 1960 and 2000 Ireland was the most developed CC. In 1960 the least developed CC was Portugal (with 36% of the average) and in 2000 it was Greece (with 65% of the average). However, the relative position of the individual countries has changed over time. This applies especially to Ireland and Greece. Ireland lost its lead position as early as 1973, and in 1986 it was still trailing behind Spain. As we already know, Ireland's GNP differs substantially from its GDP; in 1986 Ireland's relative GNP was still lower than it had been in 1960 and 1973. However, in 2000 its GNP per capita was only slightly below the average GDP per capita of the EU-11, while its GDP per capita was distinctly above that level. As far as Greece is concerned, its relative position improved appreciably over the period 1960-1973 (from 40% to 67% of the average) and deteriorated thereafter up

Table 14

GDP per capita (in PPS terms) in the CCs, Turkey and USA, 1960-2000

(EU-11 = 100)

	1960	1973	1981	1986	2000
EU-11	100.0	100.0	100.0	100.0	100.0
GRC	40.2	67.2	**64.1**	58.5	64.6
ESP	54.1	72.9	67.5	**66.9**	**78.9**
IRL	57.5	**56.7**	62.8	60.8	**110.0**
PRT	36.5	54.8	52.4	**50.7**	**72.8**
IRL GNP	60.7	**60.6**	63.4	57.8	**97.9**
TUR	**29.6**	27.1	26.2	27.3	**27.0**
USA	**148.3**	136.8	134.2	137.1	**148.2**

until 1986. In 2000, the GDP per capita in Greece was not only the lowest of the CCs, but also even lower than it had been in 1973. This short presentation goes to show that the year of accession (1973 for Ireland and 1981 for Greece) did not influence their catching up with the EU-11 average. However, after 1986 when Portugal and Spain joined the Union, an impact on their catching-up process did materialize and partly overcompensated the losses of the preceding years. Figure 38 shows some additional details in comparison to Table 14 because it covers not only the benchmark years, but also the whole 40-year period. Indeed, the direction of changes reported in Figure 38 is not uniform.

Figure 38

GDP per capita at PPS

(EU-11=100)
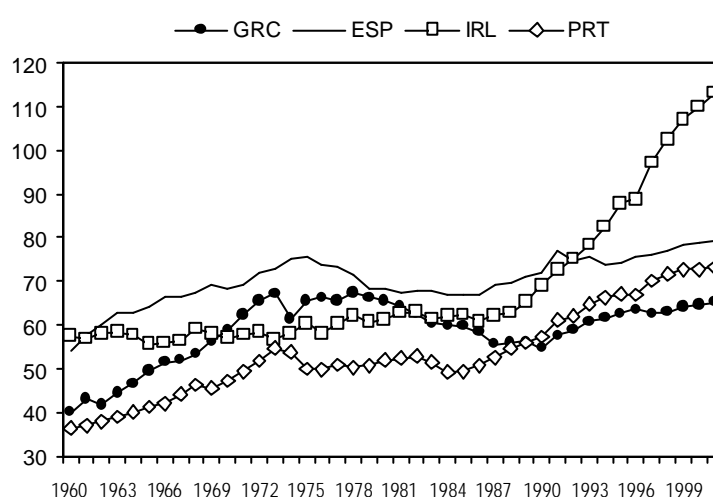
Ireland's catching-up process really only started in the late 1980s, while Portugal stagnated in the years between the early 1970s and late 1980s. As already mentioned, for most of the 1970s Greece stood higher than the relative position it achieved in the late 1990s, while Spain's relative position in the late 1990s was only slightly better than it had been in the mid-1970s.

36. We have separately analysed data in constant prices, showing changes over time, and in PPS, showing changes over space in the EU-11 and the four CCs. It is possible to combine both approaches by using constant PPP or constant PPS. In that case by starting from data of a certain year, we can obtain the ranking over time of countries by using their real growth rates. One should stress, however, that the choice of the year influences the results of the whole exercise. Maddison (2001) produced this kind of data in 1990 international Geary-Khamis (G-K) dollars for almost all countries in a millennial perspective. Ellison (2001) used them to analyse the long-term convergence process among regions in Europe.

In that context, he introduced the concept of the CCs as a region and we have adopted his idea in order to analyse the catching-up process in the CCs. The results covering the period 1950-2002 (divided into sub-periods according to the CCs' accession years: 1973, 1981 and 1986) are presented in Table 15 and Figure 39. Although our interest is focused on the CCs and the EU, we have introduced data for some other regions as a useful background for our analysis. According to Table 15, GDP per capita in the CCs in 1950 represented only 47% of the EU-10 average, yet by 1973 it already constituted 68% of that average. The improvement in the CCs' relative position by 21 percentage points required 23 years. In the period 1973-1986 the relative position of the CCs deteriorated by 5 percentage points and fell back to 64% of the EU-10 average. Over the period 1986-2002 the catching-up process restarted: the CCs' relative position improved by 10 percentage points. In sum since 1973, i.e. in a period of almost 30 years, the position of the CCs in relation to the EU-10 has improved by a mere 9 percentage points, reaching a level of 77% of the EU-10 average in 2002. Data on the individual countries are also interesting. In the period 1950-1986 (i.e. over 36 years) Ireland lost over 9 percentage points only to gain in the 16 years thereafter almost 60 percentage points (at least in GDP terms; in GNP terms some14 percentage points less). Greece did not improve its position after accession, but was the most successful country before accession. The Iberian countries improved their position by 12 to 14 percentage points after accession and by 14 to 17 percentage points before accession.

An efficient catching-up process was to be observed in Italy, and especially in Austria. Over the period 1950-2002 the latter country grew by 3.3%, an average of 4.9% before 1973 and 2.1% after 1973. In 1950 its GDP per capita stood at 75.2% and in 1995, the

year Austria joined the Community, it stood at 101.2% of the EU average. Thus, Austria's catching-up process occurred outside the EU.

A much more spectacular catching-up process has been recorded by the 'Asian Tigers'. In 1950 their GDP per capita amounted to only 19% of the EU-10 average. However, over the whole period their growth rates were 5.8%: 3 percentage points more than in the EU-10. As a result, in 2002 the GDP per capita of the 'Asian Tigers' already stood at 79% of the EU-10 average (an improvement of 60 percentage points), slightly above the level reached by the CCs.

Table 15

GDP per capita, 1950, 1973, 1981, 1986 and 2002

(in constant 1990 international G-K dollars, EU-10 = 100)

	1950	**1973**	**1981**	**1986**	**2002**
Austria	75.2	93.3	98.5	98.2	101.7
Belgium	110.8	101.1	102.6	98.9	105.2
Denmark	140.9	115.8	108.4	117.4	118.2
Finland	86.2	92.1	94.3	96.7	102.1
France	106.9	109.0	109.0	105.5	105.7
Germany	78.7	99.4	101.6	101.0	94.3
Italy	71.0	88.4	94.8	94.7	95.0
Netherlands	121.6	108.7	104.3	101.9	108.3
Sweden	136.6	112.1	107.2	107.9	103.6
United Kingdom	140.1	99.9	91.6	96.1	101.2
EU-10	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Ireland	69.9	57.0	62.6	60.4	118.4
Greece	38.8	63.6	63.9	61.5	63.0
Portugal	42.0	61.0	58.3	55.8	70.6
Spain	48.6	72.6	67.7	66.5	78.8
Cohesion countries	**47.2**	**68.5**	**65.3**	**63.6**	**77.3**
Turkey	**36.9**	**31.2**	**29.9**	**31.4**	**30.2**
United States	**193.9**	**138.6**	**135.5**	**138.6**	**148.3**
Asian Tigers	**19.4**	**30.2**	**40.4**	**51.4**	**79.2[1)]**

Asian Tigers: Hong Kong, Singapore, South Korea, Taiwan,

Note: 1) Asian Tigers only up to 1999

*Source:* Maddison (2001); own calculations.

37. Figure 39 records absolute levels of GDP per capita over time and thus helps us to understand the difference between the catching-up process in percentage and volume terms. GDP per capita growth measured in per cent is one side of the story, the basis for the percentage calculation is the other. The greater the initial difference in the level of GDP

per capita, the greater the difference in growth rates has to be in order to reduce the difference between the target and the catching-up countries in volume terms.

Figure 39

GDP per capita in different areas, 1950-2002, according to Maddison

(in constant 1990 international G-K dollars)
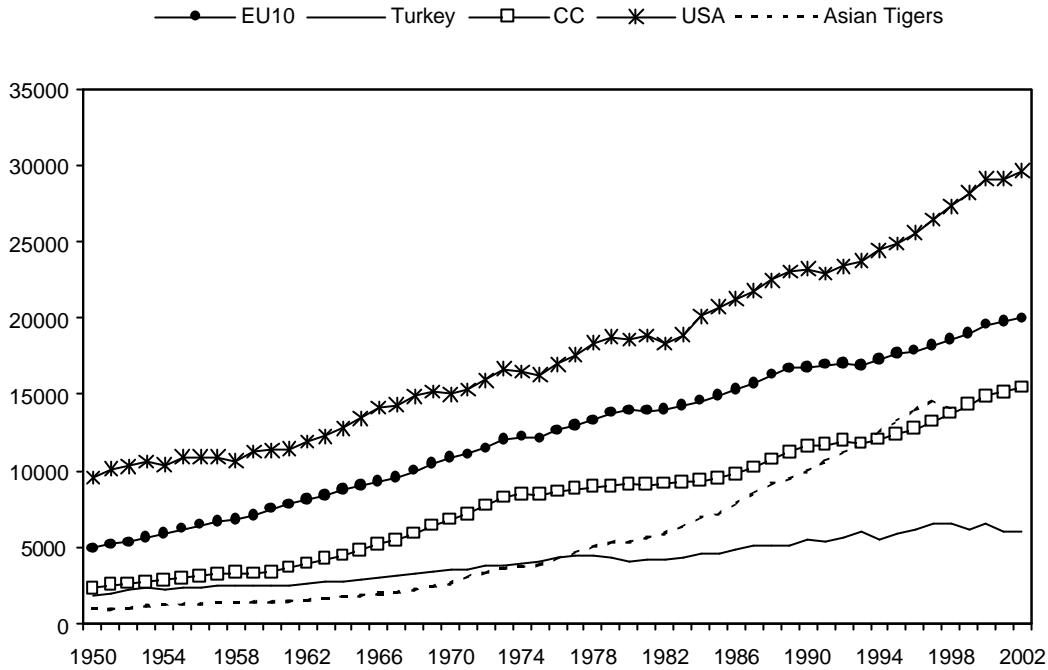
Indeed, a successful catching-up process in terms of per cent of the target GDP does not necessarily mean that absolute differences between the countries diminish.[19] This problem is illustrated by Figure 40, in which each point measures the difference between GDP per capita in any group of countries (or the USA) and GDP per capita in the EU-10 in the period 1950-2002. As we already know, the GDP per capita in the CCs increased its share in relation to GDP per capita in the EU-10 from 47% in 1950 to 77% in 2002. However, the absolute difference between both groups increased over the same period from $ 2,605 in 1950 to $ 5,482 in 1989, dropping thereafter to $ 4,545 in 2002.

Similarly, the difference in volume terms between the 'Asian Tigers' and the EU-10, which in 1950 amounted to $ 3,973, continued to increase until about 1980, whereafter it started to decrease and reached a value of $ 4,511 in 1998.

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[19] For the distinction between β and σ convergence see Barro and Sala-I-Martin (1995), pp. 382 ff.

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Figure 40

Differences between GDP per capita in different countries and GDP per capita in the EU-10, 1950-2002

(in constant 1990 international G-K dollars)
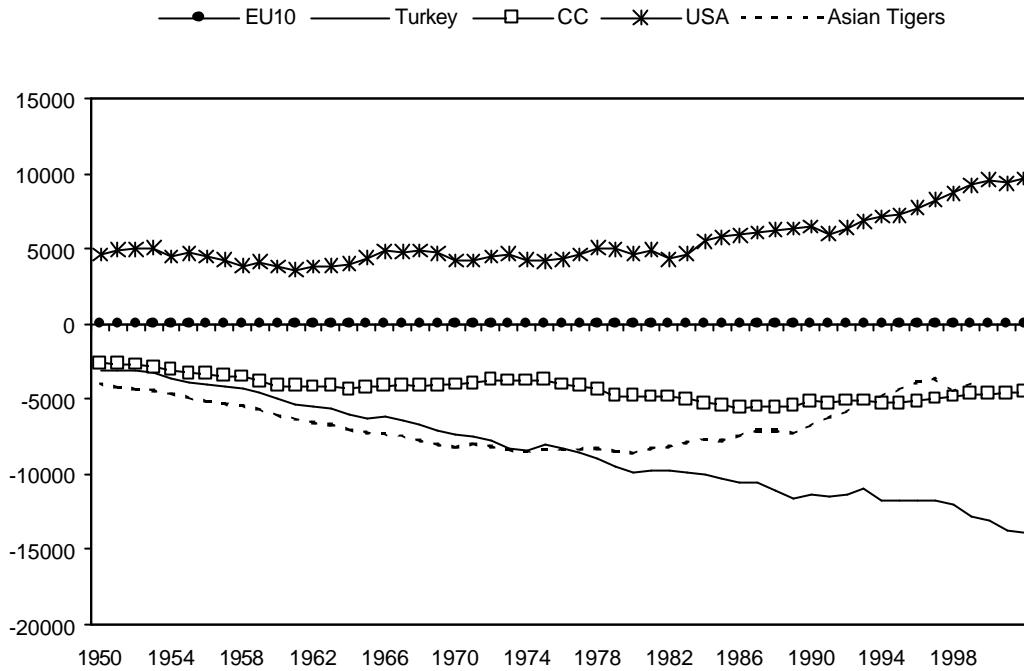
38. The conclusions to be drawn from this part of our study seem to be rather important for the ACs. First, even in percentage terms it took the CCs half a century to move from 47% to 77% of the GDP per capita of the EU-10. Over the same period, the differences in volume terms almost doubled. Second, the substantial part of the catching-up process in percentage terms took place before 1973, a period in which Europe as a whole reported growth rates 'unknown' in history. Third, in that period all the CCs pursued a hyperactive industrial policy of the old type, protection levels for the domestic economy were high and capital markets were strictly regulated. This also applies to Austria but especially to the group of 'Asian Tigers', which were exceptionally successful in catching up with the EU-10.

Data for the ACs are presented in Table 16. In 2002, the average GDP per capita for the ACs was EUR 10,463 and for the EU-15 EUR 23,337; thus GDP per capita in the ACs amounted to 46.4% of the EU-15 level in the same year. Within the AC group, major differences are visible: for example, GDP per capita in the Czech Republic is almost 60% higher than in Poland.

Table 16

GDP per capita in the ACs, 2002 (in constant 1999 PPS)

	Czech Republic	Slovakia	Hungary	Poland	Slovenia	AC5
in EUR	13740	11593	11783	9258	16025	11000
in % of EU15	60.9	51.4	52.2	41.0	71.0	48.8

Source: Authors' estimate.

The growth rates for the ACs in the period 1990-2002 are presented in Table 17. It turns out that over the whole period 1989-2002, GDP per capita in the ACs increased more slowly than in the EU-15; however, in the sub-period 1995-2002 it rose by 1.5 percentage points faster.

Table 17

Growth of GDP per capita in the ACs and the EU-15, 1990-2002

(in per cent p.a.)

	1990-1995	1996-2002	1990-2002
EU-15	1.3	2.0	1.7
Czech Republic	-1.0	1.9	0.6
Hungary	-2.5	4.1	1.0
Poland	-0.5	4.0	1.9
Slovakia	-3.1	3.7	0.5
Slovenia	-1.2	3.9	1.5
ACs	-1.2	3.5	1.3

Source: wiiw Database.

Let us assume that the EU-15 will grow at 2% p.a. in the future, a bit more quickly than in the period 1990-2002. Assuming that the ACs enjoy a future growth rate of 3%, 4% or 5% p.a., we can determine the number of years they will need to reach 75% and 100% of the EU-15 average, respectively. The results are presented in Table 18. It seems that for the ACs the catching-up process will be at least as difficult as it was for the CCs. Indeed, they would not have the benefit of the period 1950-1973 when growth rates in Europe were extremely high and pronouncedly interventionist economic policies were all the rage. Even if they were willing to pursue such policies (which is not the case by any means), once inside the EU measures of that kind would simply be prohibited under the competition policy rules and regulations that are monitored by Brussels. The second factor is the foreign trade bottlenecks that already exist in all ACs today, even though their growth rates are modest when viewed in terms of the requirements for the catching-up process. It is quite probable that any acceleration of growth would very quickly have a negative impact on the trade and current account balances, thus calling for restrictive measures in order to keep the deficits within tolerable limits.

Table 18

Number of years the ACs need to reach 75% and 100% of the EU-15 GDP per capita

(assuming a 2% p.a. growth rate for the latter and a stagnant population in all countries)

Catching-up measured as percentage of EU-115 GDP p.c.	GDP p.c. growth in the ACs at 3% p.a.	GDP p.c. growth in the ACs at 4% p.a.	GDP p.c. growth in the ACs at 5% p.a.
75%	50 years	27 years	19 years
100%	80 years	42 years	29 years

Under these conditions, it may turn out that it will not be easy to obtain even a 3% variant of GDP per capita growth. Since we can expect some years with lower growth rates, an average of 3% implies years when growth rates will have to exceed that level. It should be stressed that in the period 1973-2002, the CCs only achieved an average GDP per capita growth rate of 2.1%. On the other hand, the EU-15 future growth rate of 2% may well be overstated, especially if we take into account their record after 1989. Perhaps 1.5% is a more realistic prognosis for the coming decennia. If we assume that over the next decennia GDP per capita in the EU-15 and the ACs will grow by 1.5% and 3.5% p.a., respectively, it transpires that in the final analysis the ACs will need close on half a century to achieve about 75% of the average EU-15 level. Of course, if within the AC group the same differences in percentage points apply throughout, Slovenia and the Czech Republic, for example, would reach the 75% level much more quickly than Poland.

V.   Concluding remarks

39. There is no doubt that the EU will stabilize the democratic process in the ACs, thus enhancing the political situation in Europe. Seen from this angle, we are at a turning point in the history of Europe. It seems doubtful, however, whether the same factor will actually accelerate growth in the ACs and significantly further their catching-up process.[20] Indeed, the strategy chosen by the ACs in the early 1990s as a way to modernize their economy was rather unique. History seems to be telling us that without exception those countries now considered developed went through a phase in which they protected their infant industries – and only after an appropriate period of time did they open up their markets to foreign competition. That notwithstanding the *Zeitgeist* at the beginning of transition in the early 1990s was quite different. The message that most developed countries conveyed to the transition countries at the time was more along the lines of 'Don't do what we did, do what we say!'.

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[20] Ellison (2001, p. 46) goes even further in his analysis: '... government officials and others in the CEEC's frequently point out that they have no choice but to join the European Union in order to become more economically competitive and politically stable. Ironically, this one argument may in fact be one of the strongest points for remaining outside. Many countries have successfully promoted economic growth and convergence while remaining outside the EU. Ultimately, this may constitute a more viable alternative.'

Dani Rodrik described this contradiction in very precise terms. We would thus like to conclude this study by quoting from his paper 'Development Strategies for the 21st Century' (Rodrik, 2001, pp.100-101): 'No country has developed successfully by turning its back on international trade and long-term capital-flows. … But it is equally true that no country has developed simply by opening to foreign trade and investment. The trick in the successful cases has been to combine the opportunities offered by world markets with a domestic investment and institution building strategy to stimulate the animal spirits of domestic entrepreneurs. … almost all the outstanding cases have involved partial and gradual opening to imports and foreign investment. Multilateral institutions such as the World Bank, International Monetary Fund, and Organisation for Economic Co-operation and Development regularly give advice predicated on the belief that openness generates predictable and positive consequences for growth. Yet there is simply no credible evidence that across-the-board trade liberalization is systematically associated with higher growth rates.'

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