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► **To cite this version:**

Thierry Latreille, Henri Sterdyniak, Paola Veroni. Financing Large-scale EU Infrastructure Projects. 2000. hal-03458439

HAL Id: hal-03458439

<https://hal-sciencespo.archives-ouvertes.fr/hal-03458439>

Preprint submitted on 30 Nov 2021

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Part II: FINANCING LARGE-SCALE EU INFRASTRUCTURE PROJECTS

Introduction

This study discusses the proposal which consists of financing large-scale infrastructure investments by issuing EU bonds, first introduced by President Delors in his White Paper on “Growth, Competitiveness and Employment” in 1993. This proposal has been partly implemented insofar as the European Commission and the EIB have financed a number of large projects. But it is not considered as a major tool of European economic policy. Monetary policy is the major instrument of short and medium-run oriented strategies while fiscal policy is mainly devoted to the reduction of public deficits and debts. From a more structural point of view, European policies stress the liberalisation of product and labour markets over the last years. In the current context, shall the proposal on large-scale investments be abandoned or shall it still be part of European strategy?

This paper will first examine the state of public accounts, with a view to assessing whether there is any room for increasing public investment within the framework of the Stability Pact. Taking into account the current state of the EU economy, namely the growth revival, is there any need for such an increase? The current state of public investment will then be analysed. Are there indications showing that its present level is too low?

Second, the outcome of the Delors Plan in this field will be examined. What assessment can be made in early 2000 of the large EU infrastructure projects financed since 1994? At the microeconomic level, was it useful to promote some kind of investment, which would have been decided otherwise? Are there large EU infrastructure projects, concerning many EU countries with a high collective profitability, which need to be financed by a common European body? What are the costs of these investments as compared to national public or private financing? What financial instruments would be required?

Third, the impacts of such a measure on activity, inflation, public debt and deficit, interest rates and exchange rates will be analysed. Can these instruments be useful for stabilisation purposes or for structural macroeconomic improvement?

Some more general topics of the European Commission’s report “*The EU economy: 1999 Review*” are discussed in the annex.

1. The Current Macroeconomic Context

A satisfactory level of growth.

It is now expected that, from 1996 to 2001, the annual GDP growth rate will be of 2.7 per cent for the EU15 (table 1), with four countries with a growth rate higher than 3.5 per cent (Ireland, Finland, Spain and Netherlands) and three countries lagging behind (Denmark, Germany and Italy). The main problem is the interpretation of this quite satisfactory level of growth. Do we currently stand in the upper part of the cycle or in the beginning of a new period of growth, boosted by the return of a good *policy mix* and/or by *New Economy* phenomena?

This evolution has induced a net decrease of the unemployment rate in the EU (2 points since 1996) and especially in Spain, Ireland and Finland. At the beginning of 2000, six countries

have an unemployment rate below 6 per cent, but seven have always mass unemployment. The average unemployment rate is 9.7 per cent for EU11, 8.8 per cent for EU15.

Table 1. GDP growth rates and unemployment rate in EU

	1996/2001*	Unemployment rate**	Unemployment rate evolution***
Austria	2.8	4.2	- 0.1
Belgium	2.8	8.7	- 1.0
Finland	4.2	9.9	- 4.7
France	2.9	10.4	- 2.0
Germany	2.2	9.0	0.1
Ireland	8.2	5.8	- 5.8
Italy	1.9	11.1	- 0.6
Netherlands	3.7	2.6	- 3.7
Portugal	3.2	4.4	- 2.9
Spain	3.7	15.0	- 7.2
EU11	2.7	9.7	- 1.7
Britain	2.7	5.9	- 2.1
Denmark	2.4	4.1	- 2.7
Greece	3.2	11.1	1.1
Sweden	3.0	6.6	- 3.0
EU15	2.7	8.8	- 2.0

* consensus forecast for 2000 and 2001.

** end 1999.

*** since 1996.

With annual increases of 0.5 per cent in labour supply and of 2 per cent in labour productivity, the EU11 economy still needs a growth rate of 3.5 per cent for 5 years in order to bring the level of the unemployment rate down to 5 per cent. During the nineties, the average GDP growth was 2.0 per cent for the EU and 3.2 for the United States.

So the question is how such a level of growth may be reached and maintained. Three replies can be given. The first one is to call for a more expansionist policy mix. If the Euro zone equilibrium rate of unemployment is really 5 per cent, the output gap is currently close to - 4.5 per cent (and not to - 0.8 as in OECD estimates) which means that:

- the neutral interest rate, according to the Taylor rule, is near 1.4 % (with an expectation of 1.6 for the inflation rate and with a real equilibrium rate of 2.5).
- the public sector structural balance showed a surplus of 1.3 per cent of GDP in 1999 (a deficit of 1.2 per cent and a cyclical deficit of 2.5 per cent and interest payments of 3.9 per cent of GDP), which gives some room for a more expansionary policy.

The second says that it will not be possible to reach a level of unemployment rate like 5 or 6 per cent unless most European countries undertake strong reforms of their labour markets. If

not, the current expansion episode will end with a high level of wage increases, then of inflation. Current increases of real wages are clearly lower than the standard increase in labour productivity in all EU countries except Britain, which is near full employment (table 2). So European countries still have room for conducting more activist economic policies. Nevertheless, two problems may appear. Some countries, which are already in full-employment, do not need these policies, but they represent only 12 per cent of EU11 GDP when mass unemployment countries represent 88 per cent. For a long period of time, the ECB and the financial market may think that the equilibrium unemployment rate in the Euro zone is something like 9 per cent. So the ECB will increase too quickly its interest rate or the financial market will increase the long term interest rate, particularly because they think that monetary policy takes time to act and that central bankers must act preventively. So they may impede, being scared by a non-existent risk of inflation, the potential of growth to be realised.

	Inflation*	Wages*	Real wages*
	1.4	2.0	0.6
Belgium	2.0	2.9	1.4
Britain	2.0	6.2	4.2
Denmark	3.2	4.1	0.9
France	1.6	2.7	0.9
Germany	1.8	1.5	- 0.3
Italy	2.4	2.0	- 0.4
Netherlands	1.9	2.8	0.9
Spain	2.9	2.2	- 0.7
Sweden	0.9	2.1	1.2
EU11	2.0	2.4	0.4

* Increases in percent in 1999.

The third says that EU countries must make significant efforts in the fields of gross fixed capital formation and investment in R&D to be able to have a high level of growth. The problem is that EU countries already have low interest rates. In March 2000, the euro bank prime interest rate was 3.7 per cent, which is 1.2 point of percentage below the expected GDP growth (against 2.1 per cent above in the United States). The 10-year yields of corporate bonds are around 5.9 per cent which is 1.1 per cent above the expected GDP growth (the same level as in the United States). The level of firms' profitability is good. So it is hard to see what could be done to foster private investment. As far as public investment is concerned, the investments that would have a positive impact on potential growth have to be listed. The main contribution that economic policy may make to boost investment is to make credible the sustainability of growth. But the ECB cannot give up its inflation target and governments cannot give up the Stability Pact. A more expansionist economic policy could lead, at least in the short run, to an increase in long run interest rates if markets fear an inflation revival.

A Favourable Budgetary Framework

The use of an active fiscal policy during an economic slowdown was largely debated during the first half of 1999. Should automatic stabilisers have supported domestic demand during

the weakening of economic growth at the beginning of 1999? The first year of the euro was considered as central to build the credibility of the zone. This objective clearly stood in the way of an expansive fiscal policy. This search for credibility is not so obvious in 2000. It may leave open the possibility of room for manoeuvre to speed public investment.

European economic activity is picking up strongly, bolstered by a favourable international environment. We expect a GDP growth in the EU of around 3.3 per cent in 2000 and 2001, with no serious inflationary threat. How will European governments use this extra room for manoeuvre resulting from this sustained forecasted growth for the second half of 1999 and 2000?

Given the expected dynamism of growth in 2000, governments are not obliged to undertake restrictive fiscal policies to improve budgetary positions. Most governments have chosen to split the resources induced by growth between the automatic improvement of public deficit and some tax reductions. With these aims in view, the growth of expenditure will have to be limited. This will limit the scope for expanding public investment. The details of the expenditure choices presented in the stability programmes may help to measure the room for manoeuvre available for public investment.

EU countries now conduct their fiscal policies within the framework of the Stability and Growth Pact. Each country has to produce a yearly stability programme (for the countries in the euro area) or a convergence programme (for those outside the euro area). Those programmes must present the fiscal choices to reach the “medium-term objectives for budgetary positions close to balance or in surplus”.

The OECD and the European Commission have recently published new estimates of the minimum benchmarks for EU Member States’ budgetary positions consistent with an active counter-cyclical fiscal policy, keeping the deficit below the 3 per cent of GDP reference (but arbitrary) value. The conclusions of both studies are relatively optimistic. It appears that the “medium-term objectives of budgetary positions close to balance or in surplus” presented in the stability and convergence programmes of 1999 are well sufficient to support a cyclical downturn and to let the automatic stabilisers operate. The deficit targets presented by the Member States are even more ambitious than the minimum required according to the EU calculation. This minimum budget deficit offering sufficient safety margins has been estimated at – 1 per cent in 2002, compared to the projection of – 0.8 per cent in the stability programmes (respectively – 0.8 per cent and – 0.5 for the Union as a whole).

The latest estimates of the Member States’ budgetary positions show a better than expected budget balance for 1999 (table 3). The likely reduction of global fiscal deficit is 0.4 per cent of GDP in the euro area and 0.5 per cent in the European Union. This fiscal improvement has been obtained despite the weakening of economic conditions in the first half of 1999. When the first 1999 programmes were presented, projections were more optimistic for 1999 economic growth, but estimates for fiscal positions in 1998 were slightly worse than their realisations. Despite the slowdown during the first half of 1999, the favourable fiscal developments can be explained by the better than estimated starting point, by expenditure control and by the further reduction in debt service costs. The rapid and strong recovery in the second half of 1999 allowed a rise in tax revenues. All these factors explain why the first estimates of the fiscal positions are better than the previous targets for all countries but Italy (whose government revised last May its target for 1999). European fiscal policies could be qualified as neutral, except in Denmark, Spain and Finland where restrictive fiscal policies have been implemented. The deficit level targets for 2000, presented in the first stability programmes, are therefore likely to have already been achieved at the end of 1999.

Table 3. Budget Balances, realisation, forecasts and 1999 SGP

% of GDP

	1997	1998	1999*	Stability Programme 1999	
				1999	2000
Belgium	- 1.8	- 1.0	- 1.0	- 1.3	- 1.0
Germany	- 2.6	- 1.7	- 1.6	- 2.0	- 2.0
Spain	- 3.1	- 2.3	- 1.4	- 1.6	- 1.0
France	- 3.0	- 2.7	- 2.1	- 2.3	- 2.0
Ireland	0.6	2.0	2.9	1.7	1.4
Italy	- 2.8	- 2.7	- 2.2	- 2.0	- 1.5
The Netherlands	- 1.2	- 0.8	- 0.4	- 1.3	- 1.2
Austria	- 1.9	- 2.4	- 2.2	- 2.0	- 1.7
Portugal	- 2.0	- 1.5	- 1.3	- 2.0	- 1.5
Finland	- 1.6	1.4	3.5	2.4	2.2
EUR - 11	- 2.6	- 2.0	- 1.6	- 1.8	- 1.6
Denmark	0.1	0.9	3.0	2.5	2.8
Greece	- 3.9	- 2.5	- 1.9	- 2.1	- 1.7
Sweden	- 2.0	2.3	1.9	0.3	1.6
United Kingdom	- 2.0	0.2	0.6	- 0.3	- 0.3
EUR - 15	- 2.4	- 1.5	- 1.0	- 1.4	- 1.2

* Estimation.

Source: European Commission.

At 1.2 per cent of GDP, the average EMU-deficit in the euro-zone for 1999 is 0.7 point of GDP lower than forecast last year and 0.1 point below the 1.3 per cent of GDP forecast in the updated stability programmes. Budgetary positions improved in every country. In 1999, Ireland, Luxembourg, the Netherlands and Finland show a budget surplus. As in 1998, Denmark, Sweden and the UK are the three other countries of the EU with a surplus. The debt ratio slowed down in 1999 at 72.2 per cent of GDP after 73.4 per cent in 1998. It slightly rose in Germany, Austria and Portugal. Eight member states still have a debt ratio above 60 per cent of GDP, and three of them (Belgium, Greece and Italy) above 100 per cent.

The updated *Stability programmes* (SP) presented in 2000 are somewhat more optimistic. They assume a robust economic growth, boosted by a recovering international economic environment. They are however based on a very prudent assessment of European growth prospects for the next three years. If we compare the global growth assumption of the central scenarios presented in the SP with the Observatoire Français des Conjonctures Economiques (OFCE) growth forecasting, the OFCE scenario is much more favourable (+ 0.75 point of GDP for 2000 and 2001 growth) than the cautious one chosen to build the *Stability*

programmes (see table 4). The budgetary positions are likely to be better than those described in the SP. OFCE notes for example that the French deficit for 1999 is now estimated at 1.8 per cent of GDP (0.3 point below the updated programme estimation).

Table 4. General government financial balance, debt and main indicators between 1998 and 2003, according to the Stability Programmes of 2000, as a percentage of GDP

Aggregate for the Euro –Zone

	1998	1999	2000	2001	2002	2003
GDP growth assumption	2.8	2.2	2.8	2.5	2.5	2.5
<i>OFCE Forecast</i>	<i>2.8</i>	<i>2.3</i>	<i>3.5</i>	<i>3.3</i>		
Financial Balance	– 1.9	– 1.3	– 1.1	– 0.8	– 0.5	– 0.1
Debt	72.4	72.3	71.1	69.7	67.9	66.0
General government revenue	43.3	43.7	43.4	43.1	42.7	42.5
General government expenditure	47.6	47.7	46.9	46.0	45.2	44.7

Most of the governments intend to run a budget close to balance at the end of the period. General government expenditure growth will be moderate. Each country announces a decline of the expenditure/GDP ratio, at different speeds. Public expenditure will therefore contract from 47.7 per cent of GDP in 1999 to 44.7 per cent of GDP in 2003. For a GDP growth of 2.6 per cent on average, public expenditures growth is planned to be only 0.9 per cent. General government revenue will decrease from 43.7 per cent to 42.5 per cent over the same period. Fiscal policies could be qualified as slightly restrictive, with the choice to reduce public expenditure to decrease taxes. The debt/GDP ratio is expected to fall to 66 per cent of GDP by 2003 from an estimated 72.2 per cent at end 1999 on an ESA95 basis. It should be close to 100 per cent of GDP in Belgium and Italy (see table 5).

The Stability programmes set out the main points of budgetary policy for the coming years. We can observe a convergence of the budgetary orientations. Most countries present a combination of deficit reduction and tax reduction. On the taxation side, each country has planned or pursued a reform of the tax system. It includes employment–incentives, a reduction of income tax or an improvement in tax recovery (particularly in Portugal and Italy). The pace of the privatisation programmes is expected to decelerate. The extended control of expenditures doesn't leave much room for manoeuvre. However, the priorities are similar from one country to another. Improving employment, education and training, social aid and health care are the main concerns of the Stability Programmes. The effects of the ageing of the population are essential for the long term forecasting of care expenditure. A reform of the pension system is often mentioned. Ecology is a matter of concern in the Northern European countries, whereas Spain, Ireland and Portugal emphasise public investment in infrastructure.

Table 5. General government financial balance, debt and main indicators between 1998 and 2003, according to the Stability Programmes of 2000, as a percentage of GDP*Euro-zone countries*

		1998	1999	2000	2001	2002	2003
GDP -growth assumption	Belgium	2.8	1.7	2.5	2.5	2.3	2.3
	Finland	5.6	3.8	3.9	3.0	2.6	2.6
	France	3.4	2.8	3.0	2.5	2.5	2.5
	Germany	2.2	1.5	2.5	2.0	2.0	2.0
	Ireland	8.1	8.4	7.4	6.5	5.7	
	Italy	1.3	1.3	2.2	2.6	2.8	2.9
	Luxembourg	5.0	4.9	4.9	5.1	5.2	5.4
	Netherlands	3.7	2.8	2.5	2.0	2.0	
	Portugal	4.0	3.1	3.3	3.6	3.6	3.5
	Spain	4.0	3.7	3.7	3.2	3.2	3.2
Public balance	Belgium	-1.0	-1.1	-1.0	-0.6	-0.1	0.4
	Finland	0.9	3.1	4.7	4.2	4.6	4.7
	France	-2.7	-2.1	-1.7	-1.1	-0.7	-0.3
	Germany	-1.7	-1.2	-1.3	-1.0	-1.0	-0.5
	Ireland	2.1	3.2	3.3	2.8	2.9	
	Italy	-2.7	-2.0	-1.5	-1.0	-0.6	-0.1
	Luxembourg	2.6	2.3	2.5	2.6	2.9	3.1
	Netherlands	-0.8	-0.6	-0.6	-1.3	-1.1	
	Portugal	-2.1	-2.0	-1.5	-1.1	-0.7	-0.3
	Spain	-2.3	-1.3	-0.8	-0.4	0.1	0.2
Public debt	Belgium	116.2	114.9	112.4	108.9	105.2	101.2
	Finland	49.7	46.6	42.9	40.7	38.0	35.2
	France	60.3	60.3	59.4	59.0	58.4	57.7
	Germany	60.7	61.0	61.0	60.5	59.5	58.0
	Ireland	55.0	52.0	46.0	40.0	36.0	
	Italy	116.8	114.7	111.7	108.5	104.3	100.0
	Netherlands	66.6	64.3	62.3	61.8	61.0	
	Portugal	58.0	56.6	57.1	55.2	53.3	51.0
	Spain	64.8	63.5	62.8	60.6	58.1	55.8
	General government expenditures	Belgium	39.9	40.2	39.8	39.4	39.1
Finland		49.2	47.6	46.1	45.7	45.1	44.6
France		54.2	53.9	53.0	52.2	51.7	51.1
Germany		48.3	49.0	48.0	47.0	46.0	45.5
Ireland		29.0	28.9	27.8	26.4	25.3	
Italy		49.2	48.7	47.8	46.9	45.8	45.0
Luxembourg		42.3	44.1	42.7	41.7	40.5	39.3
Netherlands		39.3	40.1	39.8	39.2	38.7	
Portugal		39.3	40.9	42.2	42.0	41.7	41.3
Spain		42.2	41.3	40.8	40.4	39.8	39.5
General government revenues	Belgium	46.6	46.4	45.8	45.5	45.4	45.2
	Finland	51.2	51.2	51.4	50.4	49.9	49.3
	France	44.9	45.3	44.8	44.6	44.4	44.2
	Germany	42.3	43.0	42.5	42.5	42.0	42.0
	Ireland	34.5	34.1	33.7	32.8	32.6	
	Italy	46.5	46.7	46.3	45.8	45.3	44.9
	Luxembourg	44.9	46.4	45.2	44.3	43.4	42.4
	Netherlands	38.3	39.2	39.0	37.7	37.3	
	Portugal	40.4	43.0	44.7	44.8	44.9	45.0
	Spain	39.9	40.1	40.1	40.0	39.9	39.8
Public investment	Ireland	3.5	3.4	3.8	3.9	3.7	
	Portugal		4.0	4.0	4.0	4.0	4.0
	Spain	3.3	3.4	3.5	3.6	3.7	3.8

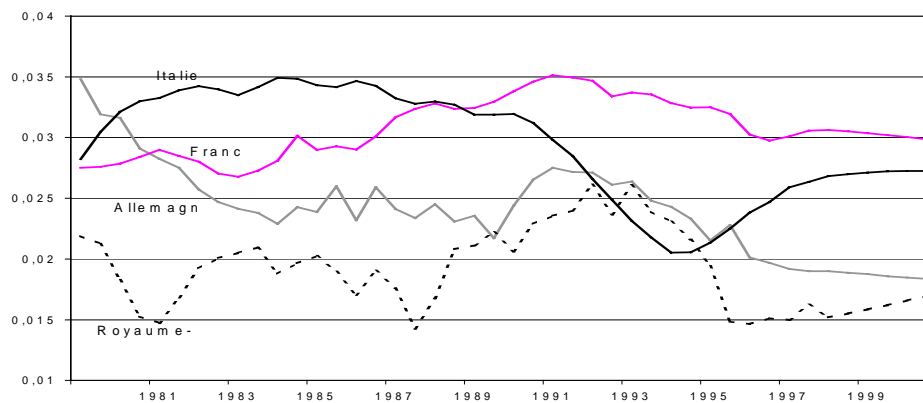
Historical Trends of Public Investment in Europe

It is quite difficult to draw comparisons over time and across countries as regards the evolution of public investment, because the definition and the structure of the public sector have considerably changed in the last decades, at a different pace in each country. We will here comment on OECD data when available as they offer a minimum homogeneity.

In the EU as a whole, general government fixed capital formation has increased from WWII to the mid 60s. This phase of expansion culminated in the late 60s and was followed by a downward trend. In most of the European countries, public investment was reduced in line with cuts in expenditure in order to improve fiscal balances, but also with the broad movement of privatisation in the 80s. Public sector investment was automatically reduced as the main spenders were privatised.

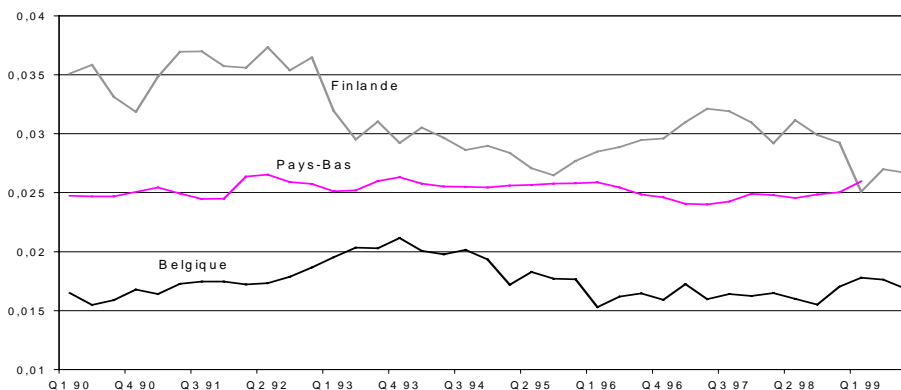
The short recovery of the beginning of the 90s was interrupted after the recession of 1993 and during the European convergence and fiscal consolidation process.

Graph 1. General government gross fixed capital formation (% GDP)



Source : OCDE.

Graph 2. General government gross fixed capital formation (% GDP)



Source : national statistics.

In the UK, whereas public sector investment is still falling, infrastructure investment has also been undertaken by the private sector and could consequently be maintained in the nineties

above the low level reached in the mid-eighties. As general government fixed capital formation has been slightly declining in the nineties, a recent public spending plan has announced the doubling of public capital investment from 1999 to 2002.

As a percentage of GDP, government investment has oscillated between 3 and 4 per cent in France over the last thirty years. This level is well above those observed in Germany or in the UK. Public investment seems to have recovered early in France in the mid 80s. It has gradually declined since 1991. Some investments may have been delayed in order to keep the budget deficit below 3 per cent. Beyond the state level, investments at the local level were also reduced, though the budgetary situation of local administrations improved during the 90s.

Public capital formation declined in Germany from 4 per cent of GDP in the late sixties to 2 per cent in 1988. Investment spending suffered from the global consensus on the reduction of government expenditure, current spending decreasing at a lower rate. German reunification explains the sharp rise to 2.5 per cent of GDP in 1991. Public investment has since then been once more downwards oriented in line with the tight fiscal stance of the government.

In Italy, public investment was an important part of the budget subject to drastic reductions from 1991 during the convergence process. While public investment weighed more in Italy than in the other European countries presented here in the mid 80s, it has been oscillating between 2 and 2.5 per cent of GDP for the last 5 years. This low level is considered insufficient. The need to invest more is particularly obvious in Italy.

Public investment has declined more rapidly in the Netherlands than in other European countries, notwithstanding starting from a relatively higher level. The government set up investment plans in the nineties, the low investment position reached in the late eighties being considered insufficient.

The gradual decline in public fixed capital formation seems to have come to an end. Public investment should increase in the coming years for some mechanical reasons:

- Most of the privatisation programmes have slowed down. Their contribution to the decline in public investment was indeed significant in the 80s and 90s.
- The level reached is considered to be insufficient in most countries. The sole effort to preserve the existing public services and infrastructures may require a sharp rise in expenditure.
- Many countries had delayed important projects in order to keep their budget deficit within the Maastricht guideline. These projects should rebound in 2000 or 2001.
- Public investment in Ireland, Spain, Portugal and Greece should catch up with the European infrastructure average level and should thus play a leading part in the global European public investment trend. Public investment in infrastructure is mentioned only in the 2000 Stability programmes of those four countries (public fixed capital formation is not cited as a priority in the other countries' Stability programmes). Their governments conduct multi-annual long-term plans such as the National Economic and Social Development Plan in Portugal or the National Development Plan in Ireland. They forecast a significant increase in public investment in the coming year.

Hence, we might expect a further increase in government fixed capital formation, as infrastructure expenditure were mentioned as one of the priorities in a number of stability and convergence programmes.

Several governments convey a very cautious stance and justify a gradual rise in public investment expenditure by its weakness during the last couple of years. This is typically the case for the German stability programme: a recovery in government capital formation has indeed been programmed as a counterpart to the strong reductions of the last period. In Austria, most of the infrastructure programmes were delayed until 1998. Their realisation may explain the recovery in public investment. A slight rise is also announced in Finland, in the UK and in Denmark after the drastic cuts during the 90s. The Belgian government has only mentioned the improvement in the quality of public services.

Italy has mentioned investment efforts and important expenditure in the most disadvantaged regions of the country. The Dutch programme has specified that the acceleration of public investment was mainly designed for social infrastructure (education, health).

In Ireland and in the southern European countries (Spain, Portugal), infrastructure investment is mentioned as a main priority, in order to reach a comparable level of infrastructure and public services to the other European countries. Only Greece has programmed further cuts in expenditure and restructuring in line with its convergence process.

2. The Trans-European Networks (TENs) Situation

Within the framework set by Title XV of the Treaty establishing the European Community concerning the development of infrastructure investment for Union integration, the European Growth Initiative has provided momentum in supporting infrastructure investment financing with the additional purpose of promoting economic recovery.

First-tier financing

Further impetus came from the 1993 White Paper on "Growth, Competitiveness and Employment" establishing an indicative list of 26 TEN projects in transports (for a total of 80 billion ECU) and a few other projects in the field of energy and telecommunications. At the 1994 Essen summit, 14 priority projects were selected among transport schemes aimed at replacing road transport and 10 priority projects in the energy sector. In 1995 the European Council determined the following general rules for granting financial participation of the European Commission in the field of Trans-European Networks:

- co-financing of preparatory, feasibility and evaluation studies related to projects (up to a maximum of 50 per cent of the total cost);
- subsidies (for a maximum duration of 5 years) on interests on loans granted by the EIB or other public or private financial bodies;
- contribution towards fees for loan guarantees of the European Investment Fund or other financial institutions;
- direct grants to investment in appropriately justified cases;
- when appropriate, a combination of the above mentioned forms of Community assistance.

The total amount of the Community assistance had not to exceed 10 per cent of the total investment cost and was set at 2345 billion ECU for the period 1995-1999.

In its 1996 and 1997 annual reports the European Commission noted the lack of a fixed timetable and the need for a financial plan for each of the 14 priority projects in transport as well as for an upward revision of its financial involvement in order to provide a credible financial structure. As a result, the 1998 report of the European Commission examined the

ongoing projects and, taking account of the implementation timetables and of future increase in activity, outlined future developments.

Of the 14 priority transport projects, 3 are being achieved, while most should be achieved by 2005. In the energy sector the 5 priority projects for natural gas have made good progress while the 5 priority projects for electricity have encountered problems of authorisation.

The 24 priority projects represent only a small part of total investment in Trans-European Networks (110 billion ECU for the 14 transport priority projects compared to 400 billion for the total transport network cost). The 14 priority transport projects mobilised only 13 billion ECU in the period 1993-1998, 3 billion of which came from EU level finance (EU TEN budget line, European Regional Development Fund and Cohesion Fund). Although partly relying on Community resources, funding from Member States' national budgets has made up a great part of the investment. Budgetary constraints owing to a general restrictive fiscal stance have slowed the rhythm of public disbursement for infrastructure and in particular for some of the priority projects. Private sector involvement has been a marginal although increasingly feature of these projects: the approach encouraging partnership between the private and public sectors has been implemented particularly in energy and telecommunications projects, the former generally entailing higher profitability and the latter ones involving more easily final users. The TEN projects present different conditions of operation and financing. Most of them, however, concern missing links in the network often characterised by a monopoly position. Strong government influence includes loan guarantees, fixing of tolls, financing to access infrastructures and bearing unexpected additional charges for coping with possible socially negative externalities. For transport infrastructure private-public partnership has focused on the role of European Investment Bank (EIB) and of the European Investment Fund (EIF) as catalysts for private capital. The EIB has proved to be the major financier of the 24 high priority Trans-European Network projects. Two thirds of EIB financing is devoted to investment promoting convergence in the Union and in this framework the bank provided a total of €6 billion in the period 1993-1998, including additional loans covering schemes linking the Union with partner countries. In 1997 intensification of its support for TEN projects came from the Amsterdam Special Action Programme allowing the Bank to reinforce its role as TEN financier and to total €8.2 billion funding since 1993.

Second-tier financing

In 1999 the European Parliament and the Council set the framework for the financing requirements for the period 2000-2006 and doubled financial assistance of the European Commission, with regard to the previous period, reaching a total of €4.6 billion for transport only. An amendment to the regulation allows for an increase in the Community intervention rate to 20 per cent of the total investment cost. The establishment of venture funds involving substantial private-sector investment has also been envisaged, in which risk-capital participation shall not exceed 1 per cent of the budgetary resources (eventually 2 per cent as from 2003). The objective is to foster the development of such funds and gain access to the long term financial resources of pension funds and insurance companies.

Table 6. Community Financing of the Tens

Sector	Type of Assistance	Instruments	1993 –1997 Millions ECU
Transports	Loans	▪ EIB	15 302
	Guarantees	▪ EIF	519
	Subsidies	▪ ERDF	4 165
		▪ Cohesion Fund	5 984
	Subsidies, contributions towards fees, loan guarantees, co-financing of studies	▪ EU TEN Budget of which ▪ 14 TEN Priority Projects	1 257 783
Energy	Loans	▪ EIB	3852
	Guarantees	▪ EIF	493
	Subsidies	▪ ERDF	2305
	Co –financing of studies	▪ EU TEN Budget	45
Telecommunications	Loans	▪ EIB	7800
	Guarantees	▪ EIF	460
	Subsidies	▪ ERDF	467
	Co –financing of studies and financial contributions	▪ EU TEN Budget	297

Table 7. Financing Scheme for the 14 priority Transport Ten Projects

Million ECU	Total cost *	Paid pre -98	Paid 98 -99	2000 and after	Sources					
					EU TEN Budget	ECF ***	ERDF ****	EIB	EIF	Private sector
High -Speed Train/Combined Transport North - South	15102	2505	1325	11245	152			350		
High -Speed Train PBKAL	17232	3728	4118	9386	392			1047	153	Revenues from Eurostar +private sector equity and debt
High -Speed Train South	14072	240	1375	11757	20	300				
High -Speed Train East	4777	59	170	3086	67					
Betuwe Line	4094	360	870	2864	39					Private sector involvement
High -Speed Train/Combined Transport France - Italy	18260	368	943	16949	95					Private -Public Partnership (PPP) with financial institutions (project finance)
Greek motorways	9242	2175	2351	4716	75	407	860	806	127	3 PPPs
Multimodal link Portugal -Spain - Central Europe	6200				10					Private sector involvement
Conventional rail in Ireland	357	328	29	0	0	54	55	4		
Malpensa 2000 Milano	1047	473	406	168	8			208	78	PPP and S.E.A. own resources
Øresund fixed rail/road link Denmark -Sweden	4158	2505	1377	276	88			801		
Nordic Triangle Multimodal corridor	10070		1260	3320	57			969		
Ireland /United Kingdom/Benelux Road Link	3629	679	370	2580	7	153	70	27		
West Coast Main Line	3000	287	532	2180	25					Privatisation of British Rail, franchisee Virgin Rail shares costs
TOTAL**	111240	13707	15126	68527	1025	914	985	4212 +non specified =8200	358	

* Disbursement until 1999 and planned for 2000 and after does not sum up to total investment cost.

** Information on Member States funding and on the amounts of private sector financing is not available. Therefore the amounts financed by the sources presented do not add up to the total investment cost.

*** European Cohesion Fund.

**** European Regional Development Fund.

With a subscribed capital of 100 billion euro and a statutory limit of outstanding loans of 250 per cent of its capital, there is ample room for the EIB to pursue the mission of strengthening the integration of physical infrastructure in the Union. In 1998, the resources raised by the EIB increased by 30 per cent on an annual basis, which reflected the acceleration of loan disbursements as well as the bank's position as a promoter of the new currency. This proactive euro-strategy (half of the funds were raised through euro-denominated issues in 1998) aimed at creating a critical mass of debt in euro. It has contributed to the establishment of the only non-government yield curve in the Euro zone with seven liquid benchmarks totalling 24 billion euro on every point from 2003 to 2009. In many maturities EIB bonds represent the main liquid triple-A alternative to government bonds. TENs financing could then prove instrumental to the broader EIB strategy of supporting the development of a wide euro market. But EIB intervention could also serve the aim of attracting additional funds to the TENs projects by providing an instrument of portfolio diversification to investors.

In its short term implementation and in its initial rather negligible amount, the TEN initiative proved disappointing as an instrument of expansionary policy. The aim of the initiative was rather to develop the base for future growth by energy projects securing future energy supplies, transport and telecommunications projects fostering European integration and improving competitiveness by stimulating more efficient market functioning. However some medium-term effects in terms of direct job creation will appear in those sectors directly related to infrastructure building.

Public versus private financing

Since financial conditions applying to Member States do not differ from those applying to Community Institutions and the TEN initiative benefits largely state-owned companies, which could obtain the same conditions owing to the guarantees provided by national governments, what is the rationale for choosing the TENs financial scheme?

In the field of massive infrastructure investment, highly profitable projects are not the rule. However regulatory reform and increased competition have largely favoured private sector involvement in energy and telecommunications projects. Private sector participation in both the financing and operation of transport projects has also accelerated in the last fifteen years, owing to the advances in the legal and financial framework of project financing. Although the transportation network is almost complete and the more profitable central axes have been already built, private sector partial as well as total financing of missing links has unexpectedly accompanied and substituted for direct public support from budget resources. Peripheral axes are often evaluated and implemented on the basis of the socio-economic rate of return rather than simply at the financial rate of return, thus including the externalities generated by the project. If based only on future revenues financial profitability is insufficient and a complement of public financing is required in order to raise the rate of return of investment (ROI) to a level acceptable to a private investor.

In this situation, three factors can justify a partnership between private firm and governments:

- the fact that an equipment will be built or managed by a private firm may increase its profitability. For instance, the employers are not protected by costly status. Private firms can more easily establish tolls.
- to diversify their assets, private investors may prefer to hold specified bonds rather than public debts.
- governments may have some constraints on their total borrowing. In order to escape these limits, a way would be to guarantee private firm debts instead of issuing new public debts.

As previously noted governments with a sound financial situation can borrow at more advantageous conditions than the private sector. Therefore the aim of the financial package of the TENs (government budget, European Community subsidies and guarantees, EIB loans and private funds) is to call for public-private partnership by allowing private partners to benefit from lending conditions (triple-A rating of the EIB loans and EIF guarantees) which contributes to raising the profitability of their participation. Moreover EU co-financing with the private and public sector reinforces the credibility of the project funding thus improving the leverage on the public finance committed.

However, although the TEN funding framework may have substituted Community financing to projects that would have otherwise been implemented with resources from national budgets, it should rather be considered as a boost to public and private expenditure. This comprehensive approach should ensure a common effort towards infrastructure building and expansionary fiscal policy within the current targets for public sector deficit financing, by providing an access to other sources of risk capital finance so as to utilise EU financial and budgetary reserves in the most efficient manner possible.

Environmental issues

As a follow up to the Kyoto Protocol, the European Commission Agenda 2000 fully integrates the environmental issue in its policies. As far as project funding is concerned a scrutiny of the environmental impact is systematically introduced for projects over 50 million ECU. In cases where a project might have a significant environmental impact the promoter applying for EIB aid is also required to carry out an assessment in accordance with Community and national laws. The EIB internalises environmental costs and benefits and projects are expected to yield a satisfactory economic rate of return in order to generate sufficient real resources to replace those consumed, including environmental effects. The EIB promotes thus the use of tariffs based on the internalisation of costs and full costs recovery and, since service of loans is on non-concessionary terms, there is an incentive to pass on the costs of the environment related expenditure. Since any project with environmental content has “public good” characteristics the difference between the economic and the financial rate of return on investment is generally covered by the aid from the European Community through the Structural Funds and Cohesion Fund. Where environmental protection measures exceed those required by existing standards, the upper limit of EIB financing of the project is raised from 50 per cent to 60 per cent. EIB loans provided within the European Union for projects concerning the natural and urban environment amounted to €24 282 million in the period from 1994 to 1998.

Interest Rates on EU Bonds

Before the launch of the euro on January 1st 1999, many economists feared that there could be large spreads between national interest rates on public debts within Europe. The level of public debt in terms of GDP is high in some countries: 118 per cent in Italy and 116 per cent in Belgium whereas the average level stands around 60 per cent (like in France and Germany). So, there may be three arguments. Investors may favour public debt instruments whose market is more liquid, broader and deeper. With the liberalisation of capital markets, some investors may prefer to diversify their assets so as to own less public bonds of their own country; this effect may increase the interest rate on public debt in the highly indebted countries. The main argument is that these countries may have to pay higher interest rates because of some risk premium, which is not a depreciation risk, but a default risk: investors may think the probability exists, although it is very small, that after a shock the country would be unable to service its debt.

In case of a wide spread emerging between euro-labelled national public debts, we should look at the opportunity that a European organisation issues some euro debt to unify the market. Italy, for instance, would have to pay less interest rates for a loan by this organisation than by issuing public bonds. Thorny questions would be raised as this organisation would bear the debt crisis risk ; this would run against the no-bail – out Maastricht Treaty rule. Through this organisation, each EU country will be responsible for some parts of the public debt of all other EU countries.

In fact, since the beginning of 1999, spreads between the euro-area countries' long-term interest rates are very low: 0.2 or 0.3 point of percentage between Germany and Belgium or Italy (table 8, figure 3). It seems that in a large unified market, arbitragists prevent any unjustified discrepancies between national interest rates, which makes the asset diversification argument vanish. Furthermore, public finance trends in Belgium and Italy make incredible a debt crisis. These two countries have huge primary public surpluses (in 1999, 6.5 per cent of GDP in Belgium ; 5.7 in Italy) and their public debt is decreasing in terms of GDP. So, we can predict that, in the future, these spreads will continue to be very small. There will be no great advantage to issuing EU bonds.

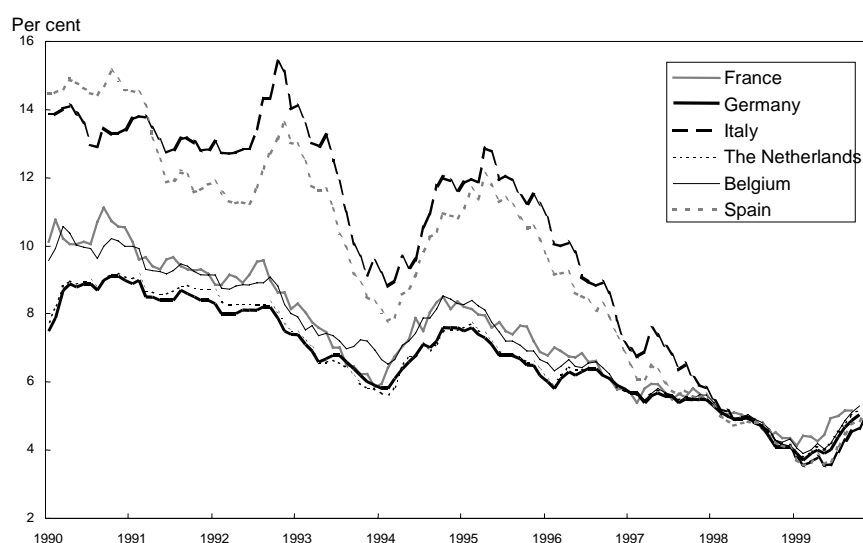
Table 8. Long run interest rates in 1999 Q3

Per cent

Austria	5.08
Belgium	5.10
France	5.20
Germany	4.90
Italy	5.12
Netherlands	5.02
Spain	4.71

Source: OECD – MEI.

Graph 3. Long-term nominal interest rates in Europe



Source: OECD

In recent years, we have seen that private firms were able and willing to undertake the implementation of huge telecommunication networks; so the need for public investment in this domain becomes doubtful. With both privatisation and liberalisation of energy markets, the same argument can be raised in this sector. So, we may think of three types of projects.

First, there will be finance for transnational transport projects: e.g. railways and motorways. These projects can be profitable and cost-effective in the long-term.

Secondly, we can also envisage the financing of non-profitable transnational projects like, for instance, projects to induce freight rail transportation for ecological purposes. These projects may become profitable if taxes are introduced to reduce pollution effects or traffic congestion.

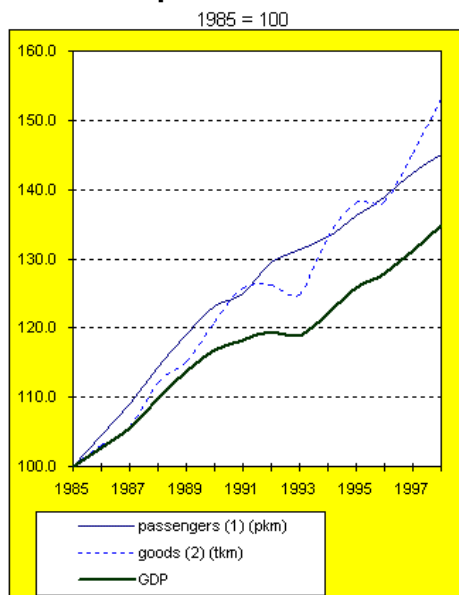
Thirdly, there might also be finance for some purely national public investments. For instance, Drèze, Malinvaud *et al* suggested financing accommodation for low-income families, urban renewal and urban public transport. These three areas have no transnational content. European financing would thus be first a way to undertake a co-ordinated fiscal policy, second a signal that European policy involves social targets.

To be effective, such a programme must finance projects which would not be otherwise be funded by normal financial institutions. To reduce the impact on long-term interest rates, the programme must also finance projects that induce, in the long run, a positive effect on supply. These two prerequisites may be inconsistent.

Transport investment.

The rapid increase in freight transport (+ 2.4 per cent annual growth rate during the period 1990–1996) and its recent acceleration (+ 4.5 per cent 1997-1998) was accompanied by an even more rapid increase in real terms in transport infrastructure investment from 1990 to 1992 (+ 8 per cent). However the trend reversed in 1993 (+ 1.2 per cent until 1996) and investment has since then lagged behind demand. In 1996 transport investment amounted to 1.2 point of gross domestic product. The increasing gap between transport infrastructure demand and supply has raised the issue of strengthening efforts in infrastructure building at the Community level in order to support future economic growth and competitiveness.

Transport Growth EU 15 1.1

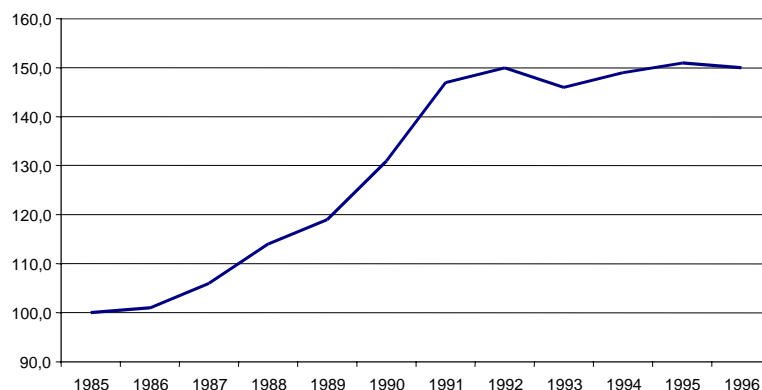


Notes :
 (1) : passenger cars, buses+coaches, tram+metro, railways, air
 (2) : road, rail, inland waterways, pipelines, sea (intra-EU)

Annual Growth Rates EU 15

	% change			
	1980-90	1990-96	1997	1998
GDP	2.4	1.8	2.5	2.7
Industrial production	1.8	0.2	3.8	3.4
Passenger transport pkm (5 modes)	3.2	2.0	2.5	2.0
Freight transport tkm (5 modes)	1.9	2.4	5.0	4.0

Transport infrastructure investment EU 15
 million ecu 1994 prices



Source : Eurostat

3. The Macroeconomic Impact

The public finance “golden rule” allows net public investment to be financed by public deficit. Thus net public investment could be taken into account when assessing the public finance situation. The medium-term target could be a public deficit equal to net public investment rather than a balanced budget. The difference is not very large (in France, 0.5 per cent of GDP), but it would presently favour this kind of expense.

The Stability pact tried to prepare the future policy mix in the EU. However, we may think that it is not explicit enough as regards the reaction of fiscal and monetary policies to specific shocks. For instance, were all EU countries to be hit by a negative demand shock (for instance, a cyclical downturn in the United States with a fall in the dollar value), the natural response would be a decrease in the ECB interest rate. This decrease might be insufficient either because there is a floor to a fall in interest rates or because the long-term interest rate would not decrease as much as the short one. In that case, a co-ordinated expansionary fiscal policy in help and European infrastructure spending is a way to implement it.

However, a Plan to finance large-scale investment cannot be seen as an instrument for stabilisation purposes. From this point of view, it has four shortcomings. Launching such projects takes a long time, as it requires a lot of preliminary studies; these delays are often unpredictable because of legal or environmental issues; these projects cannot be stopped without being achieved. So their timing is hardly compatible with stabilisation needs. The amounts involved are rather small. Their magnitude is about 10 billions euro per year, i.e. only 0.2 per cent of EU GDP. Most projects concern directly the construction sector, which is embarrassing if a global recovery is looked for or if this sector is in a particularly good situation.

So the best tools for short-term stabilisation purpose are first monetary policy, then a co-ordinated fiscal policy. Tax cuts, like for instance employees’ social contributions, can give a faster impulse, more equally industry-wide distributed, easier to reverse. Large-scale public investment must be considered as a tool for structural purposes, to correct a general and durable shortage of investment or a specific shortage of investment in some sectors.

Three effects have to be taken into account. In the short run, the Plan will increase GDP and the output gap. We assume that the ECB fixes the short –term interest rate, r , according to the rule:

$$r = \pi + 0.5 (\pi - 1.5) + 0.5 ygap + re$$

where π is the inflation rate ; 1.5 is the ECB implicit target ; $ygap$: the output gap and re : the equilibrium real interest rate.

The expansionary effect will induce a rise in the short-term interest rate ; this rise will reduce the expansionary effect ; it will also induce a rise in the euro exchange rate which will lower its inflationary impact. But this rise is harmful because it will induce a decrease of private investment, which is not desirable. Can we avoid this interest rate rise? The Plan may also be financed through tax increases or cuts in other expenses. But, in these cases, it will not have any short-term effect, its only advantage may be some potential increase of supply in the long term.

Another development is conceivable if the Plan is implemented in a situation of falling private demand (for instance, after a bubble burst of high-tech stocks). In this case, it will only help to stabilise GDP, preventing its fall. As a result interest rates will not rise.

If we view the long-term interest rate as being the average of future expected short-term rates, the long-term interest rate will increase simultaneously with the short-term interest rate. If the Plan succeeds in increasing EU supply, the short run impact can be partly offset by the long-term one. The output gap will increase in the short-term (because demand is higher) and decrease in the long-term (because supply will be higher). So we may expect that such an induced recovery will have a smaller impact on the long-term interest rate. But it must be recalled that the effect depends more on how financial markets think the economy works than on how it actually works. It may well be hard to convince markets of the productive impact of such an increase in public deficits (as it goes a long way from the European Commission and the ECB's usual sayings).

A macroeconomic simulation

To assess the macroeconomic impact of the Plan, we use Mimoso, a macroeconomic model of the world economy, based on a neo-keynesian framework. The model incorporates an ECB reaction function, which is in fact a Taylor rule, for the short-term interest rate; the long-run interest rate is derived from the average of future short-run interest rates; the exchange rate results from the uncovered interest rates parity conditions.

We will study the effects of an increase in public investment of 1 per cent of GDP, which is more than the amounts currently advocated. In this first simulation, we make two crucial assumptions. First, half of the investment is financed by a public deficit increase (with no increase in taxes or decrease in other expenses), the other half is financed by private firms. For instance, investment in railway infrastructure can be financed by the railway firms. Second, this additional investment has no direct effect on supply.

The Plan induces a significant upsurge of activity (table 9). It improves public accounts because the GDP increase brings fiscal resources. So it is not useful to finance it by *ex ante* tax increases. But it has some inflationary effect, which induces a rise in interest rates, both short and long. In the long run, the euro depreciates because EU countries have more inflation; in the short run, it appreciates due to the rise of interest rates. The external balance deterioration, due to the activity rise, and the loss of competitiveness are reduced because the import content of public investment goods is less than the private one. In the short run (the first three years), GDP increases by 2.4 per cent and the inflation rate by 0,4 point. In the medium run (years 6 to10), the GDP increases by 1 point and the inflation rate by 0,65 point.

Table 9. A rise of 1 per cent of GDP in public investment in the EU
With no direct increase of supply

Year	1	3	5	10
GDP*	2.6	2.2	0.7	1.1
Unemployment rate**	- 0.8	- 1.3	- 0.6	- 0.8
Consumption price*	0.0	1.2	2.7	5.9
Public balance***	0.4	0.5	- 0.3	- 0.1
External balance***	- 0.4	- 0.5	- 0.2	- 0.3
Short - term interest rate**	0.3	1.7	1.1	1.7
Long - term interest rate**	1.0	1.5	1.4	1.8
Euro exchange rate****	- 1.0	- 1.6	0.5	2.3

*Difference from baseline in per cent; ** Difference from baseline in percentage point; *** Difference from baseline in percent of GDP. **** A sign + means a depreciation of the euro vis-à-vis the dollar. Source: Mimoso - OFCE.*

Table 10. A rise of 1 per cent of GDP in public investment in the EU**With direct increase of supply**

Year	1	3	5	10
GDP*	2.6	2.6	1,6	3,0
Unemployment rate**	- 0.8	- 1.5	- 1.4	- 2.1
Consumption price*	0.0	1.4	3.5	9.4
Public balance***	0.4	0.6	0.1	0.8
External balance***	- 0.4	- 0.7	- 0.5	- 0.9
Short – term interest rate**	0.3	1.9	1.8	2.7
Long – term interest rate**	1.3	2.1	2.2	2.7
Euro exchange rate****	- 2.1	- 2.4	0.2	2.4

* Difference from baseline in per cent; ** Difference from baseline in percentage point ; *** Difference from baseline in percent of GDP ; **** A sign + means a depreciation of the euro vis-à-vis the dollar Source: Mimoso – OFCE.

If we assume that public investment has some impact on the capacity of production (in fact, we postulate that it has half the impact of private investment), the impact on GDP is more lasting (table 10). But, due to the decrease of the unemployment rate, the inflation rate is also higher. In the medium run (years 6 to 10), the GDP increases by 2,2 points and the inflation rate by 1,2 point. So the EU economy cannot avoid some increase of its interest rates.

Conclusion.

In the present state of EU economic situation, a boost of infrastructure projects is not really needed. It is hard to suggest preparing a list of projects, which could be set in application if the economic situation deteriorates, according to the delay in this type of expenses. But the EU strategy in the transport field requires some co-ordinated projects, which must take into consideration ecological preoccupations.

Annex: Some Remarks on the European Commission's Report: "European Economy: 1999 Review"

1. **The chapter on "Current budgetary developments and prospects"** begins by recalling the *credo* on fiscal policy. Some issues may however be raised:
 - a) A medium-term budget close to balance means in the long-term that public debt is equal to zero. Is it a realistic target if individuals wish to own public debt, for instance to have safe savings in view of old age retirement? If a net public debt of 50 percent of GDP is needed for this purpose, the medium-term deficit target can be 2 per cent of GDP (with a growth rate of nominal GDP of 4 per cent).
 - b) If the ECB fixes the interest rate at a low level and if a country has a low inflation rate together with an large negative output gap, does the country have to implement a restrictive fiscal policy?
 - c) Is it appropriate to split the future in two periods: until 2002, fiscal policy is entirely devoted to public finance adjustment; afterwards, it could be used for stabilisation purposes?
 - d) Can we call for a general rule for "expenditure restraint to finance reductions in tax burdens" without accounting for the utility of public expenditure and the redistributive target of our tax systems? From 1990 to 1993 swelling ratios of government spending to in GDP mostly resulted from shrinking activity, not from deliberate increases. So if the EU enjoys in the future a growth of 3 per cent per year, we will get automatically a relative reduction in the share of public expenditure.
 - e) Can we call for a general rule for "reductions in current expenditures to finance physical and human capital investments"? Can we build schools without teachers, hospitals without drugs, nurses and doctors?
 - f) How can the authors be sure that the reform of "pension and health care systems" is a real priority? Where is the evidence that there is some waste in these domains?
 - g) The authors ask national governments to be more ambitious in budget targets. But if we are in a period where the output gap is negative, with low inflation, and with the need to end a long mass unemployment period, there is no reason why fiscal policy should be too restrictive. It is for growth targets that the ECB and governments have to be more ambitious. Indeed, according to the Commission projections, the primary structural budget balance will stay at 3 per cent of GDP for the euro area from 1997 to 2001, which means that fiscal policy will be neutral.

2. Study 2 recalls the **structure of taxation in EU countries**. We regret that the counterpart of this taxation is not discussed. Continental European workers pay certainly more taxes and more social contributions than American or British. But they benefit from public retirement pensions, free education for their children, social security, family and unemployment benefits and so on. These elements must be taken into account when comparing the relationship in each country between the labour costs of workers and their standards of living.

The French experience seems to show that in a context of mass unemployment "inactivity traps" are not as huge as may be feared: private firms and public services have no difficulty in finding people ready to work part-time with the minimum wage, which does not give them an income much higher than the Minimum income allowance (the *RMI*). French governments have introduced a system of low social contribution rates for low wages which reduces their

level of social contributions but increases their marginal tax rate. This measure triggers low wage job creation, but makes wage increases costly (table 3 of Study 2). It is impossible to have a system with low social contribution rates for low wages, without having a high marginal tax rate in some places of the wages hierarchy.

We do not think it is advisable to cut unemployment benefits when there are not enough jobs for every one who wants to work. Europeans want the European social model to be preserved, namely the minimum income system, universal social security, and unemployment benefits. Any project for reform must take this choice into consideration. We do not think that the Commission can only advocate cuts in unemployment benefits, public expenses and taxation.

3. Study 3 about “**budgetary implication of ageing population**” is rather confusing. There is no relationship between the Stability Pact, monetary policy and the choice each country will make for its retirement pension system. Everyone knows that if a country wants to maintain its system, it will have to finance it by an increase in wage social contributions ; no one wants to finance it by an increase in public deficits; so the Stability Pact is not affected. Everyone knows that we have a trade-off between contribution rates and retirement pensions; it is only in a full-employment situation than we have also the opportunity to postpone the retirement age.

The simulations with the Quest model are highly questionable. Where is the empirical evidence showing that a decrease in retirement pensions will induce an increase in growth rate? It is a purely arbitrary assumption. Which labour market reforms would increase by 10 percentage points the rate of labour market participation? Where is the evidence that structural reforms would boost productivity growth rates? What is the link between the ageing of population and these two alleged reforms? In this study, the use of the Quest model does not appear very professional or ethical.

4. Study 5 points out the risks induced by **the overvaluation of equity markets**. It may be feared that the decrease in nominal interest rates, the upsurge of economic growth and the prospects of a *New economy* have induced a financial bubble where the increase in stock valuation gives rise to too optimistic a view on equity returns. If the bubble bursts in the United States, the consequences will be a fall in the United States private demand and a fall in the dollar exchange rate. The EU will have to face a fall in its exports, a deterioration of its competitiveness and probably a fall in its equity market. However, this situation will bring a decrease in long-term interest rates. The Fed and the ECB will cut their interest rates. But it may prove insufficient. A more expansionary fiscal policy may be useful. It could be undertaken at a national level; but there are some advantages to a European “package”, which could be better understood by the ECB and by the financial markets. In that context, European infrastructure investments could be useful.

