COUNTRY STUDIES *

Number 10 March 1993

Luxembourg

Directorate-General for Economic and Financial Affairs

* Country Studies are the result of internal analysis of the economic situation of the respective member country; they are made on the responsibility of the Directorate-General for Economic and Financial Affairs of the Commission of the European Communities

II/288/92-EN This document exists also in French

Table of Contents

Table of Graphs, Tables and Boxes

PART I
THE ECONOMIC AND FINANCIAL SITUATION IN LUXEMBOURG

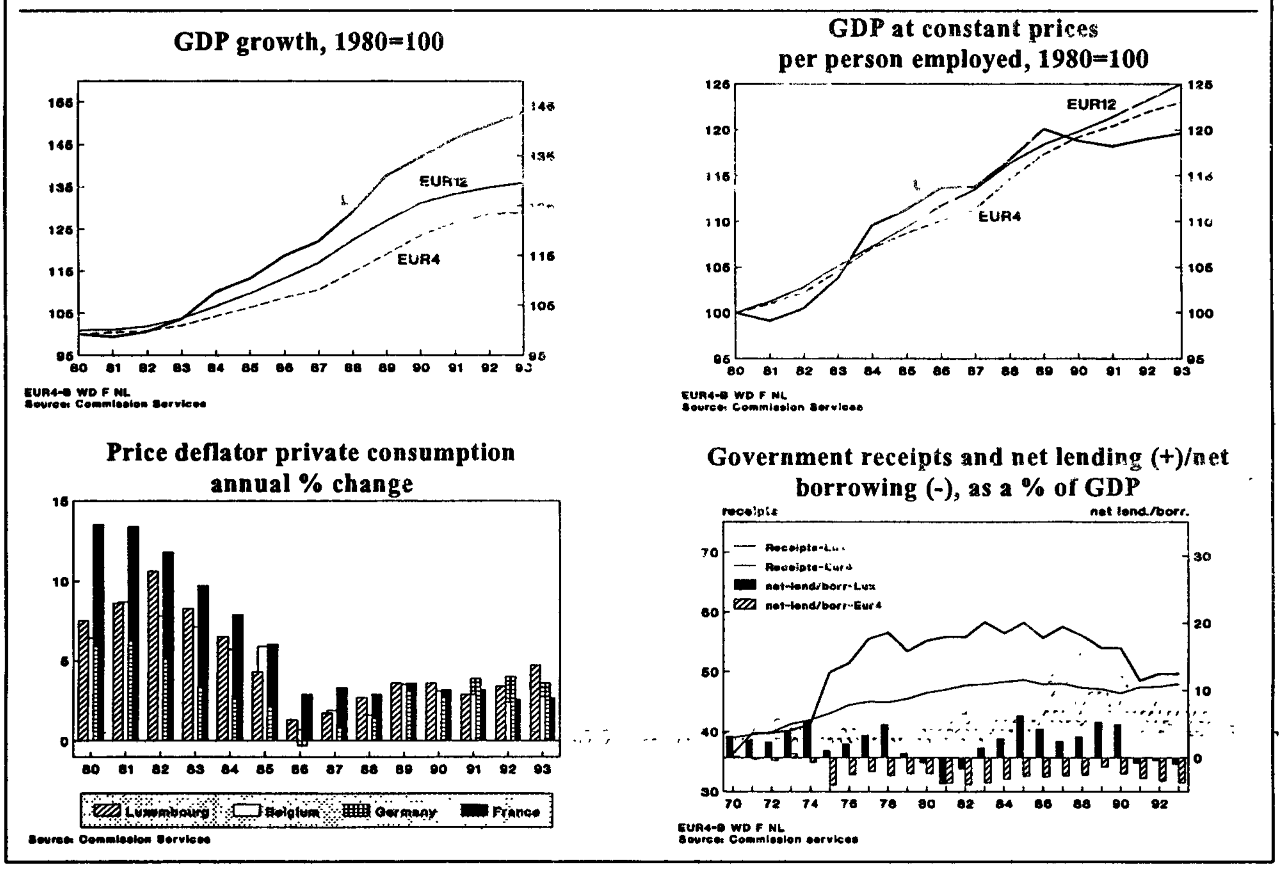
0. INTRODUCTION

Luxembourg has outperformed the economies of other Member States and in particular those of its neighbour countries for more than a decade. Good growth performance and a steady increase in employment have been accomplished with modest inflation. The rate of unemployment is 1.6% and by far the lowest in the Community. The deficit on the visible trade balance is exceeded for by an important surplus on the services balance and the current account continues in surplus. The government budget showed a modest deficit in 1991 after eight consecutive years of surplus and the gross public debt/GDP ratio is only around 3%. Luxembourg fulfills all five EMU convergence criteria and short-term prospects seem to be better than for any other Member States.

This good overall performance was accomplished in spite of a Community-wide decline, since the middle of the 70s, of the steel industry, once the country's major source of value added. The Luxembourg steel industry, however, had begun restructuring as early as 1974. Further restructuring at the beginning of the eighties was supported by effective government (and Community) intervention measures. From the sixties already, a more general policy for encouraging industrial diversification has been pursued. Private investment in sectors other than steel has been encouraged by a mixture of direct financial incentives and a policy of flexibility providing generally favourable business conditions.

Besides industrial diversification, there was also the impressive rise in financial services, particularly enhanced by liberal banking laws and tax provisions. However, the authorities have been well aware of the risk involved if the economy were again to become too dependent on one single branch of economic activity and they continue to advance investment in other industry sectors. All in all, it appears that a strong basis for further economic growth has been established.

Graph 1: Relative performance of Luxembourg



1. MACROECONOMIC PERFORMANCE AND PROSPECTS

Good economic performance

Between 1980 and 1991 output increased by an average of 3.4% per year and from 1986 to 1991 annual growth of GDP was even 4.0%. Employment grew by 2.0% per year between 1980 and 1991 (by 3.6% from 1986 to 1991). Unemployment peaked in 1983 at a level as low as 3.5% of the labour force and is currently 1.6%, by far the lowest in the Community. Prospects for 1992 and 1993 are also better than in most other Member States. After a buoyant 1989 with a 6.9% rise in domestic product, growth slowed somewhat in 1990, but in 1991 economic activity accelerated again. In spite of a considerable slowing of growth in neighbouring countries, total output is expected to increase by about 2.2% in 1992 and 2.0% in 1993.

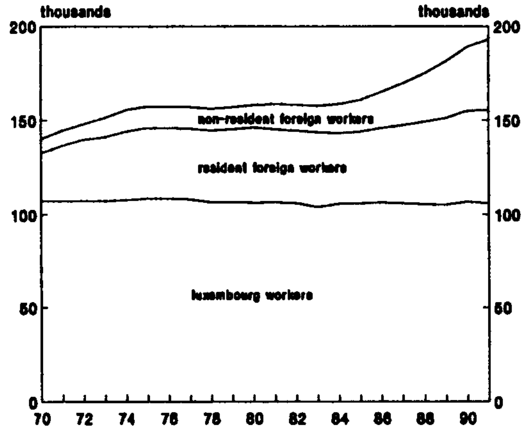
Throughout the period 1980 to 1991 private consumption has been an important source of growth in demand. In 1991 private consumption was boosted by a significant reduction of income taxes. Private investment has been showing considerable fluctuations, which is not surprising given the limited size of the economy. In the last few years buoyant private investment, both in equipment and construction, has boosted domestic demand. The ratio of total gross fixed capital formation to GDP amounts now to more than 25%, considerably more than in the surrounding countries or other Member States.

This remarkable growth performance was accomplished with relatively modest inflation. The early eighties saw price rises of up to 10% per year, and average inflation for the whole period 1980 to 1991 is 5.2%, but after 1985 the pace of price rises eased. Between 1986 and 1991 annual inflation was 1 point higher than in Germany, 0.5 point more than in Belgium and a little lower than the French inflation rate. In 1982 the system whereby wages were indexed according to inflation was suspended and pay rises were very modest for a few years. In 1984 wage indexation was reestablished, however, and in various wage rounds the "losses" which occurred in the previous years were gradually made up for. Wages have increased considerably in the last few years and further upward wage pressure is one of the few possible medium-term risk factors, particularly if shortages were to occur in the supply of labour. In the light of the modest size of the economy, Luxembourg has linked its money to the Belgian franc and has no independent monetary policy of its own.

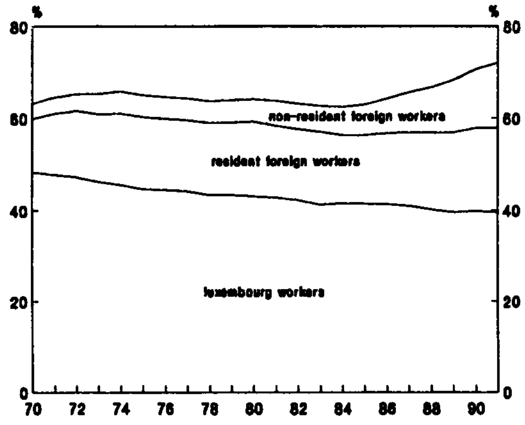
This overall picture of good performance should be understood against the background of Luxembourg's size and location. Economic output is 0.1% of total EC output. Without the sizable inflows of cross-frontier workers (relatively important, but modest in absolute numbers) this continuous strong growth of production and employment together with low unemployment and modest inflation would have been inconceivable. Resident and non-resident foreign labour represent 45% of all jobs. Non-resident workers account for two thirds of the observed rise in employment in the last few years and now represent more than 20% of total employment.

Graph 2: Employment

Total employment and foreign workers



Total employment and foreign workers as a % of population 15 to 64 years



Source: Statec

Since 1986 the level of GDP per head of the population has been the highest in the Community and it continues to increase more rapidly than in other Member States. Productivity growth, expressed as the growth of total output (GDP) per person employed, is one of the few areas where there are indications of a less favourable development. Between 1986 and 1991 productivity increased by less than 1% per year, which is, along with the Netherlands, the lowest productivity growth in the Community. At the same time GDP per person employed increased by 1.6% per year in the Community as a whole. Some qualifying remarks should be made here, however. First, the logic of the national accounts definitions implies that the contribution of the banking sector to the economy is underestimated in the case of Luxembourg. In a number of cases GNP might be a better measure for output than GDP (see box on page 10). Second, the incidence of part-time work has increased. Third, the high share of cross-frontier workers blurs the interpretation of the GDP per capita figure. While contributing to GDP, cross-frontier workers are not accounted for in the population figure, the denominator in the GDP per head ratio.

The Monetary Association with Belgium

One of the particular features of the Luxembourg economy is the monetary association with Belgium which has existed since 1922. Since the second world war, the monetary association has never been questioned except in 1982, when the Belgian franc was devalued. The fact that the Belgian franc in addition to the Luxembourg franc is legal tender in Luxembourg has some implications which are both interesting by themselves and in the wider context of European Economic and Monetary Union.

First of all, Luxembourg cannot conduct an independent monetary policy. The creation of Luxembourg francs by the Luxembourg Monetary Institute is limited by regulation in order not to jeopardize liquidity management in the monetary union by the National Bank of Belgium. The range of policy instruments at the disposal of the Luxembourg Monetary Institute is limited to direct credit control. This possibility has never been used.

Second, the Belgian and Luxembourg money markets are unified, as are the foreign exchange markets. Because of the special position of Luxembourg as an international financial centre, its banks play an important role in the money market and Luxembourg is a substantial contributor to the balance of payments of the union. The Luxembourg banks typically have a net position in the money market reflecting the reinvestment of Belgian deposits attracted by fiscal considerations. The liquid position of the Luxembourg banks does not appear to have created particular difficulties for the conduct of monetary policy in the union as a whole, which is explained by the fact that the Belgian Luxembourg Economic Union is a price-taker anyhow in credit and goods markets and that for a large part these deposits are reinvested in Belgium.

While it appears that Luxembourg's financial centre has not created particular difficulties for monetary policy in the union, this seems less so for its neighbours, to the extent that cross border holdings of deposits could obscure the relation between the national definition of the monetary supply and ultimate targets. The explanation for this differential impact can be attributed to the price-taking behaviour of the Belgian-Luxembourg Economic Union while some of Luxembourg's neighbours dispose of a certain degree of freedom to formulate an independent money supply target, whose realisation could be affected by cross-border holdings of deposits. To the extent that the latter problem exists, Luxembourg does not seem to be the cause of it (see chapter 2 of Part II).

Finally, to the extent that separate monetary indicators exist for Luxembourg (for example : the money supply or long-term interest rates), they are not relevant for the monetary stance of Luxembourg, which largely imports its monetary conditions. They seem to be more relevant for the situation of the association as a whole or of the larger partner. LFR long-term interest rates, for example, cannot be used to construct a yield curve in order to say something on inflationary expectations in Luxembourg. They appear in conjunction with the evolution of long-term BFR rates more informative on the evaluation by markets of the Belgian economic situation (see chapter 2 of Part II) although attention should be paid to the relative absence of the Luxembourg Government in domestic capital market when comparing interest rates.

Can the experience with the monetary association between Belgium and Luxembourg, which can be judged positive based on its survival for so many years, be extrapolated to the project of monetary union at the European level? A transposition is difficult, especially because of the big difference in size between the two countries involved, making the Luxembourg economy heavily dependent on factor mobility and an obvious candidate for forming a monetary union, according to the Optimum Currency Area Theory. Hence, the cost for Luxembourg of losing the monetary policy instruments is minimal. This can be illustrated by the low degree of real exchange rate variability which exists between Belgium and Luxembourg, suggesting that shocks affect both economies in a similar way. The standard deviation of the real exchange rate (based on yearly data on unit labour costs between 1971 and 1991) is 5 between Belgium and Luxembourg while it is 6.1 between Luxembourg and the Netherlands, 6.9 between Luxembourg and France and 7.2 between Luxembourg and Germany.

Nevertheless, some conclusions can be drawn from the Belgian-Luxembourg experience. The advantage of the association in terms of transactions costs and in the stability of the rate are clear. Its existence over such a long period suggests that the monetary association has not impeded the economic development of both partners and in particular that the impossibility of conducting an independent monetary policy by Luxembourg was not a drawback. Furthermore, it illustrates that asymmetric shocks are a threat to a monetary union, even if, as in the case of the Belgian Luxembourg Economic Union, the smaller region is extremely open to the larger. The deterioration of the competitive position of the union during the seventies affected Belgium much more than Luxembourg also because of divergent policy responses : a fiscal expansion to compensate for increased unemployment in Belgium and structural measures to encourage the development of the international banking sector in Luxembourg. Hence, Luxembourg seemed to have needed less the devaluation of 1982 for budgetary or economic reasons. Indeed, breaking the monetary assocation between the two countries would have had significant costs, because of the openess of the smaller region to the larger. In addition, the Luxembourg banks, having a large net position in Belgian francs, would have incurred severe losses in case of a revaluation of the LFR vis-à-vis the BFR with possibly important consequences for the economy given the relative size of the banking sector.

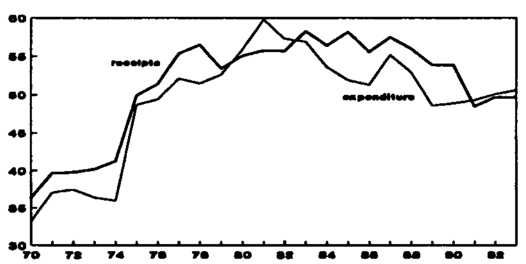
Since the decline in the steel industry in the seventies, the trade balance has been in deficit. The internal dynamism of the last few years spurred imports and a cyclical fall in prices and demand on the steel market depressed exports. The deficit in visibles has been rising and was LFR 60 billion in 1991. Given the current weakness of the international steel market and the continuing strength of domestic demand the trade deficit may increase further. The surplus on the services balance, an important part of which is from capital earnings from abroad, is about twice the size of the goods deficit, and the current account surplus is some 20% of GDP. In addition, exports of services - air transport, telecommunications and audiovisual services are growing.

A healthy public finance situation

With the exception of the years 1980 and 1981 the government budget was in surplus for more than two decades. The public debt/GDP ratio is around 3%, the lowest in the Community. Taking into account the various investment funds that exist, the net debt of the central government is actually negative. Although the total burden of taxation has gradually been decreased from 58% in 1985 to its current 52%, it is still among the highest in the Community. In January 1991 direct taxes were substantially reduced and the tax system simplified. The top income-tax rate was brought down from 56% to 50% and other tax rates reduced accordingly and tax progressivity was mitigated. The tax decreases led to a central government deficit of LFR 8.0 billion (2.0% of GDP) in 1991 which could rise to LFR 15 billion in 1992. The existence of accumulated reserves allows, however, for a continuous negative borrowing requirement.

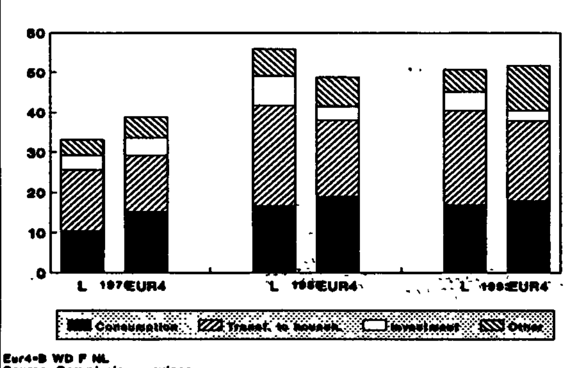
Graph 3: Public finance

General government receipts and expenditure, as a % of GDP



Source: Commission services

Total government expenditure as a % of GDP



Eur4-B WD F NL
Source: Commission services

With a view to harmonizing taxes in the integrated market, VAT rates and excise duties are being increased in a two step exercise. On 1st January 1992 the higher VAT rate was raised to 15% (from the previous 12%). The overall increase in indirect taxation (and prices) is more modest, however, than this rise would suggest. For a number of items VAT rates were actually reduced as they were shifted to lower rate categories. In order to limit the effect of tax harmonization on cross-border shopping the same approach is taken for excise duties, which are adapted progressively since 1.1.1992 and in 1993 will attain the minimum levels agreed on the European level. Some easing of the underlying inflation rate seems apparent which should facilitate the accommodation of these measures by the economy. Total annual tax revenue should increase by about LFR 4 billion; the cumulated upward pressure on inflation in this two-year period should not be more than 0.8 percentage points.

The contribution from the government budget to social security provisions is as high as 40% and this "fiscalization" shows a tendency to increase. Legislation has been voted which envisages curbing the gradual "fiscalization" of health care financing. The share in GDP of transfers to households declined for a number of years after it peaked at 26.3% in 1981. It is now rising again and at 23.2% of GDP in 1991 it is second only to the Netherlands and several points higher than in, for instance, France and Belgium. Outlays related to pensions are particularly generous and becoming increasingly costly. Given the ageing of the population the pension system appears to need revision in the longer term; either contributions need to be raised or payments lowered.

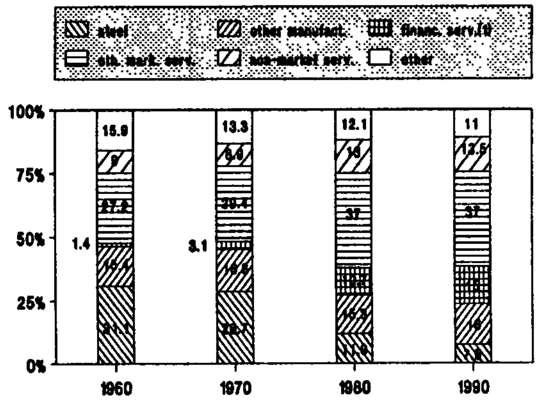
2. INDUSTRIAL DIVERSIFICATION AND REGIONAL INFLUENCE

Before the EC wide crisis in the steel industry, the Luxembourg authorities had recognized the risks involved with the economy's over-dependence on the steel industry. Firstly, the cyclical movements in the world steel market implied major fluctuations in an economy with over 30% of its GDP coming from this branch of industry; secondly, it was felt that both a slowing of long-term demand for steel on world markets and increased competition from newly industrializing countries were to put constraints on the sector's long-term growth potential. With a view to steering and accommodating the structural changes that were considered necessary, the government embarked, therefore, on a policy for industrial diversification. This policy approach is pursued at present within a context of regional cooperation.

Strong growth in spite of a decline in the steel industry

The good overall performance in the eighties is, remarkable since it was accomplished during a period of a Community-wide decline and important restructuring of the steel industry, once the country's major source of value added. Restructuring began as early as 1974, however, when other producers in Europe were still expanding their production capacities. In 1974, employment in the Luxembourg steel sector peaked at 28 000, but in 1980 it had already fallen to 18 000. Further restructuring and capacity cuts were required at the beginning of the eighties. Between 1981 and 1990 the steel sector's share in GDP, which was still 29% in 1970, fell further from 12% to 7.5% and its share in total employment decreased from 11% to under 5%.

Graph 4: Industrial structure % shares in value added (1)



(1) Value added reflects GDP.
The contribution of the financial sector to GNP is considerably more important (see also box on page 10 of this report)
Source: STATEC

Rationalization and capacity cuts at the beginning of the eighties were supported by an overall government "Steel Plan" and subsequently by Community-wide measures within the European Coal and Steel Community framework. Significant state aids were given and the government took a 32% participation in the capital of the major steel company. With the support of labour representatives redundant steel-workers were used in the realization of public works instead of being laid off. With a view to balance the budget, the costs concerned were not to be financed from borrowing and a "solidarity tax" was imposed involving a 10% rise in direct and indirect taxes[1], which was later reduced to 5% and then to its actual 2.5%.

Policy of industrial diversification

Investment is encouraged by providing direct financial incentives and, on the other hand, by a strengthening of supply-side factors.

Since 1962, the financial incentives system has been progressively evolving in time. Its main elements involve capital grants towards investment costs (including investment in non-tangibles), interest rebates, loans and the provision of industrial sites and buildings. Partial tax exemptions for projects during the development phase may be granted for new companies and new products. For the audiovisual industry "investment certificates" were created, which entitle investors to tax deductions. The situation as regards industrial policy provisions is relatively open and transparent. Subsidies to the manufacturing industry are lower than in the EC on average. Nevertheless, specific factors like the disproportionally high cost of the public transport system, because of the small size of the country, account for somewhat distorted overall high subsidy figures.

A draft is now pending which is to adapt national industrial policy provisions in line to new EC regulation. This implies that investment activities, in order to be eligible for state aids, should serve regional policy aims, environmental purposes, the enhancement of research and development activities. In addition, investment incentives will continue to be available for the SME's. The Luxembourg authorities stress their traditionally highly selective approach to new investment projects and related requests for financial support. They do not, therefore, expect this regulatory change to have much effect on their industrial policy practice.

Generally favourable supply factors and the flexible and responsive regulation by the Luxembourg authorities may have been of as much importance as the specific set of measures more commonly labelled "industrial policy". Luxembourg's greater autonomy compared with other "regions" of its size may have given it a comparative advantage in this respect.

Among the more general supply side factors accounting for the appeal Luxembourg has for investors, the authorities stress the high level of education, the linguistic skills of the population and, furthermore, the reliability and quality of the labour force. Another factor that needs mention in this context is the climate of social peace and stability that has been achieved by a continuous effort of consensus building between government, employers and labour. Another point particularly stressed by the Luxembourg authorities in connection with the general business climate relates to their cautious public finance policy. This policy stems from the view that an economy this size cannot afford to run deficits or to have a debt problem without risking the loss of investors' confidence. A particular "scale advantage" concerns the accessibility of high officials up to minister level and the possibility that licences and permissions can be delivered rapidly.

The chemical industry (mainly rubber and plastics processing) is the most noticeable among the "new" manufacturing activities. Today this sector accounts for 5000 jobs, about 14% of total industrial employment. Other "new" manufacturing activities concern, for instance, non ferrous metal products, machinery construction and glass. In a period of barely two decades the Luxembourg economy has gone through a process of very rapid "tertiarization". Between 1970 and 1991 the total share of manufacturing in GDP (including the steel sector) fell from 45% to 24%; that of the

1 In the aftermath of the 1973 oil shock many governments raised both their spending and, as taxes were not increased accordingly, their borrowing. The Luxembourg government also expanded its spending exceptionally rapidly, but adapted taxes accordingly and the budget continued in surplus until 1980.

services sector expanded from 41% to 65%. The industrial policy has aimed at preventing the scissor effect by developing new manufacturing industries.

The emergence of the financial sector forms a very visible success of the approach taken since the early 1960's, but various other service industries rapidly expanded as well. Examples are the air transport industry and, more recently, telecommunications and medias. Notwithstanding this strong growth in the tertiary sector, output in non-steel manufacturing has also developed favourably with growth rates of 4 to 5% a year throughout the eighties; therefore, its share in (the strongly growing) GDP has remained a steady 16%. Total employment in non-steel manufacturing has been rising again from 1984 and employment growth has been particularly fast in the last few years.

A specific labour market situation

Resident and non-resident foreign labour represents about 45% of total employment (50% of employees) and 70% of new jobs are accounted for by non-resident foreign workers. These high percentage figures represent modest numbers in absolute terms, however. The daily inflow of cross-frontier workers involves about 42 000 jobs in all. The surrounding regions have, so far, had little difficulty in coping with this situation and wage levels there are still some 30% to 50% lower than in Luxembourg. Travelling distances for the increasing numbers of daily commuters from Belgium, Germany and France are probably no greater than the distances usually travelled by workers to any other major city or regional centre in Europe. These flows of workers, although strictly speaking an international phenomenon, should rather be interpreted as the progressive integration of regional labour markets. European integration will further emphasize this (inter-) regional perspective. Certain international aspects are, nevertheless, involved relating to taxation and the provision of public goods, e.g. education and training, and the financing of social security. According to calculations by the Luxembourg authorities, tax revenue might fall by approximately 5% of budget receipts were the principle applied that tax is paid in the country of residence, as proposed by the Commission.

After several years of strongly rising employment, shortages are now becoming apparent for certain categories of labour. Constraints may occur even on supply in this "extended" labour market in the long term and this could lead to upward pressure on wages. A continuation of the current situation might also involve greater political frictions. Furthermore, land prices have gone up considerably and the physical availability of land - a negative scale factor - is another potential constraint on future development.

Policy issues and prospects

In spite of the possible future constraints referred to, the policies for encouraging a diversified pattern of investment are being further pursued. Taking account of the current labour market situation and the age structure of the population, these are aimed at activities with high value-added per person. With a view to improving the infrastructure, the share of public investment in GDP has gradually been increased to 4%. Priority is given to the further development of highways, telecommunications facilities and health and old age infrastructures. The authorities have also offered to co-finance a high speed train track in France from which the country would benefit. The authorities also continue to lay stress on education and training. Recently a training institute, at university level, for the banking sector has been established. A cooperation arrangement has been established with the surrounding regions with a view to joint activities in the area of industrial development and promotion and to provide a framework for avoiding bottle-necks.

The approach taken by the Luxembourg government has so far been effective and successful in ensuring a strong basis for economic growth. Several questions can be raised, nevertheless. They concern 1) the extent to which government measures may have distorted the working of market forces; 2) whether the policy of subsidies represents an optimal use of Luxembourg tax revenues and 3) the policy approach to be taken in future. The two latter points are accentuated by the increasingly strained situation in the labour market and by the high level of taxation in Luxembourg. In this context, it has been suggested that tax resources now used for subsidizing industries might find higher returns in portfolio investment abroad.

The following points deserve consideration in this context. Firstly, the rationalization and capacity cuts in the steel industry in the early eighties clearly required significant government intervention measures. During that period, given the predominance of the steel industry, state aids as a percentage of GDP to the manufacturing sector were higher than the EC average. From 1986, however, they have been lower. Therefore, in spite of the emphasis the authorities put on industrial policy, actual policy measures are possibly not much at variance with the approach taken by other governments. Secondly, the policies pursued (and the results accomplished) should be seen in a regional context. Although they may seem unusual in comparison with other Member States (especially the explicit emphasis they receive), they are less striking if compared with the approach taken by other regional authorities. The growth performance, which also appears exceptional in a nation-by-nation comparison is less uncommon if compared with developments in other regions performing well. In addition, it could be argued that without these policies - and given the size of the economy and the decline of the steel industry Luxembourg might now not have been a boom area.

Considerations of competition policy and possible supply constraints lead to questions about the future policy approach. For the time being, one has to conclude that the current policy has been successful. The effort to strengthen cross-frontier regional coordination and cooperation may provide an opportunity for avoiding possible future bottlenecks and frictions and enhancing the efficient use of resources. Furthermore, the adaptation of national law while maintaining the principal policy instruments particularly for regional development will emphasize investment of SME's.