PORTUGUESE ECONOMY IN 2000

1. INTRODUCTION

In 2000 the Portuguese economy is likely to record an economic growth similar to that estimated for 1999 (between 2¾ and 3¼ per cent in 2000, compared with 3.0 per cent in the previous year) (Table 1.1). However, the growth pattern is expected to change in qualitative terms: the contribution from domestic demand will be lower and there will be, in contrast, a less negative contribution from net external demand (see Chart 1.1). The lower contribution from domestic demand reflects the slowdown in the expansion of private consumption and, to a lesser extent, the deceleration of public consumption and a decline in changes in inventories, given that gross fixed capital formation (GFCF) is expected to accelerate slightly from 1999. Developments in the contribution from net external demand reflect an acceleration of exports and a slight reduction in the pace of import growth, determined by the deceleration of domestic demand.

With regard to the forecasts for 2000 published in the March 2000 issue of the *Economic Bulletin*, the scenario put forward regarding a recovery in the economic growth appears to be confirmed. However, in quantitative terms, current estimates show some relevant differences: private consumption and imports are likely to slow more than initially forecast, whereas it seems that public consumption, GFCF and exports will grow at a higher pace than previously anticipated.

The *Banco de Portugal* expects total employment to increase between 1 and 1½ per cent in 2000, decelerating from the 1.8 per cent growth recorded in 1999. As a result, in line with developments in the activity, the average unemployment rate in 2000 is likely to stand at around 4 per cent (4.4 per cent in

Table 1.1

PORTUGAL – MAIN ECONOMIC INDICATORS

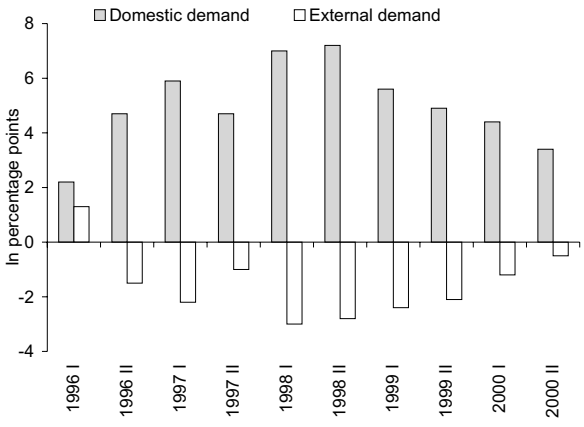
Percentage rates of change

	1999	2000	Memo item: 2000 EB March 2000
Private consumption	4.9	2¾ - 3¼	3¼ - 3¾
Public consumption	3.9	3.2	2 - 2½
GFCF	5.3	5¼ - 5¾	3¾ - 4¾
Domestic demand	4.8	3¼ - 3¾	3¼ - 3¾
Exports	4.6	8¼ - 8¾	7½ - 8½
Overall demand	4.8	4¼ - 4¾	4¼ - 4¾
Imports	9.0	8 - 8½	8 - 9
GDP	3.0	2¾ - 3¼	2¾ - 3¼
Current account + capital account balance (% GDP)	(-6.8)	(-10)-(-9)	(-9½)-(-8½)

Source: *Banco de Portugal.*

Chart 1.1

PORTUGAL – CONTRIBUTIONS TO GDP GROWTH



Source: *Banco de Portugal.*

1999), which is estimated to stand below the natural unemployment rate[1].

In 2000 as a whole, the aggregate current and capital account deficit is expected to stand between 9 and 10 per cent of gross domestic product (GDP), compared with 6.8 per cent in 1999. The strong widening of the deficit will continue to basically reflect the behaviour of the goods account, largely influenced in 2000 by a deterioration in the terms of trade (contributing 1.2 percentage points (p.p.) of GDP to the deterioration of the deficit). The present forecast for the current and capital aggregate deficit corresponds to a ½ p.p. revision from the forecast published in the March 2000 issue of the *Economic Bulletin*. This results mainly from a downward revision to the surplus of current and capital public transfers with the European Union.

With regard to inflation, the year-on-year rate of change in the Consumer Price Index (CPI), which had declined from 2.0 per cent in December 1999 to 1.5 per cent in March 2000, rose to 2.9 per cent in June and to 3.4 per cent in September. The average rate of change reversed the downward trend which had been observed since May 1999, moving from a 2.0 per cent low in April 2000 to 2.4 per cent in September.

These main developments in the Portuguese economy were strongly influenced by several factors, both external and domestic. Among these, stress should be laid on the recovery of external demand, the continued depreciation of the euro, the increase in the international price of oil, the decision by the Portuguese government to partially accommodate, in tax terms, the impact of the increase in the international price of oil on fuel consumer prices, the continued high growth pace of current public expenditure and the rise in the Eurosystem's intervention rates. Reference should also be made to the behaviour of the consumer prices of some unprocessed food, which has led to unfavourable inflation rate developments in 2000.

From the second half of 1999 onwards the growth of world demand has recovered, after the slowdown which took place between mid-1998 and 1999. This trend was broadly based across most of the advanced economies, while there was a strengthening of the emerging market economies in Asia and a recovery in Latin America. In particular, activity in the United States (US) continued to grow at a very strong pace in the first half of 2000, and it is likely to remain highly buoyant up to the end of 2000, albeit slowing down after the growth recorded in the first half of the year. Euro area economy showed a further acceleration in the first two quarters of this year and, according to the latest information available, it appears to have continued to grow at a good pace in the third quarter, although it will probably slow down from the first half-year. As a result, the external demand for the Portuguese economy accelerated strongly from 1999 to 2000, outpacing the forecast implicit in the March 2000 issue of the *Economic Bulletin*.

The positive performance of euro area exports was due to the aforementioned recovery in world demand and to the continued depreciation of the euro. Vis-à-vis the US dollar, there were depreciations of 24.9 and 13.7 per cent, comparing the monthly average of the euro exchange rate in September 2000 with the averages of January and December 1999 respectively. In effective terms, the depreciation of the euro was 18.8 and 8.1 per cent since January and December 1999 respectively. Thus, the depreciation of the euro has translated into a more competitive temporary position of euro area companies, both in third markets and in the domestic market (where euro area products compete with products from other non-euro area countries). By contrast, the depreciation of the euro has also been reflected in an increase in import prices (even excluding energy) and hence in an increase in inflationary pressures.

With regard to the rise in the international price of oil, comparing the average levels for September 2000 and December 1999, there are changes of around 30 and 50 per cent respectively in US dollars and euro (these changes reach approximately 200 and 300 per cent in US dollars and in euro respectively, if the average levels for September are compared with the troughs reached in early 1999). The rise recorded in 2000 was due to the increasing perception that the shock was of a more lasting

(1) The concept of natural rate, which is estimated with a high degree of uncertainty, is that of an equilibrium unemployment rate consistent with non-accelerating prices (NAIRU). Most estimates of the natural rate of unemployment for Portugal stand in the range between 4.5 and 5.5 per cent, already taking into account the break in the series in 1998.

nature than initially anticipated. Typically, such a shock gives rise to an increase in inflation and to moderation in activity growth. However, and as it seems to be confirmed by the current international environment, the effects on prices are expected to be seen more rapidly than on the activity.

Given the rise in the international price of oil, the Portuguese government decided to partially accommodate the effects of fuel consumer prices by reducing the Tax on Oil Products. Consumer prices of petrol and diesel were adjusted only once at end-March, by approximately 10 per cent. For comparison purposes, in the period from December 1999 to September 2000 the item energy prices of the Harmonised Index of Consumer Prices (HICP) rose on a cumulative basis by 7.3 and 13.0 per cent in Portugal and the euro area as a whole, respectively.

The direct and indirect effects of the decision to increase petrol and diesel prices at end-March occurred simultaneously with a sharp change in the prices of some foodstuffs. The year-on-year rate of change in the CPI component «Food and non-alcoholic beverages», which stood at -0.6 per cent at end-March, reached 3.8 per cent in August, subsequently declining to 2.9 per cent in September. As a result, in addition to the effects of the rises in fuel prices, the rise in the inflation rate recorded in the second and third quarters was amplified by effects of an irregular nature.

Current public expenditure in 2000 continued to contribute substantially to the expansion of domestic demand, both at the direct and indirect level. According to the estimates of the *Banco de Portugal* based on data compiled at the end of last August for the reporting of data in compliance with the excessive deficit procedure, public consumption will grow by 3.2 per cent in volume terms in 2000, compared with 3.9 per cent in 1999, which stands around 1 p.p. above the forecast of the March 2000 issue of the Economic Bulletin and above the provisions of the updated Stability and Growth Programme. In nominal terms, current primary public expenditure is expected to accelerate in 2000, as a result of both developments in compensation of employees (particularly due to the strong growth of compensation of employees, including the State's transfer to *Caixa Geral de Aposentações*), and current transfers to households and corporations. Thus, although the Ministry of Finance took some measures to cut and freeze expenditure in the course of the year, the desirable deceleration in current public expenditure does not seem to have been achieved in 2000 in comparison with 1999.

General government capital expenditure seems to have significantly decelerated in nominal terms, as a result of the cuts referred to above, the late approval of the General State Budget, and the fact that 2000 was the first year of a new Community Support Framework. It should be noted that, despite the deceleration of public investment directly made by general government, the information available points to a recovery of investment in public works in 2000, carried out by firms included in the business sector.

The various rises in the Eurosystem's intervention rates, which have been decided by the Governing Council of the European Central Bank (ECB) since November 1999, have already totalled 2.25 p.p. Since 5 October, when the latest increase occurred, the minimum bid rate on the main refinancing operations has stood at 4.75 per cent. In the several euro area countries, these increases in intervention rates have given rise to changes in the banks' deposit and lending interest rates. In Portugal, in September 2000 the rate on time deposits (181 days up to 1 year) increased by 1.1 p.p. from the troughs reached in 1999, while the main lending rates increased between 1.7 and 1.9 p.p. in the same period. Given that the feed-through to deposit and lending rates of the recent rises in intervention rates is not yet complete, a continued rise in bank interest rates is likely to occur in the months ahead, even if there are no further rises in intervention rates.

Despite the upward trend of interest rates, the growth of domestic credit to the private sector has stood at around 27 per cent since January 1999. The maintenance of the pace of credit expansion reflects different developments in loans to households on the one hand and in loans to non-financial corporations and to non-Monetary Financial Institutions (non-MFIs) on the other. While the latter have been accelerating, the former have decelerated significantly since the third quarter of 1999, although in August 2000 they still recorded a year-on-year rate of 20.7 per cent.

The rise in interest rates and the high household indebtedness levels in recent years, associ-

ated in particular with the strong growth of housing purchases, have given rise to an increase in the burden of loan redemption and the respective interest payments. This rise, allied since mid-1999 to the change in consumer expectations on interest rate developments, seems to be conditioning the pace of expansion of private consumption. Thus, although in 2000 household disposable income is likely to record a nominal growth above that for 1999, mainly as a reflection of employment growth and some acceleration of wages, higher charges with the repayment of principal (which are not considered in the calculation of disposable income) lead to an increase in saving. The rise in interest rates itself, associated with the expectations referred to above of further rises in the near future, may also foster saving. Thus, the downward trend seen in recent years of the household saving rate as a percentage of disposable income will probably be interrupted in 2000.

The acceleration of credit to non-financial and non-monetary financial corporations will correspond to a significant increase in their net borrowing requirements. In fact, the substantial deterioration of the aggregate current and capital account deficit in 2000 gives necessarily rise to an increase in the net borrowing requirements of the resident institutional sectors. Given that the data available do not point to a worsening of the situation of households and general government, Portuguese corporate borrowing requirements are therefore expected to increase, in a context of decline of current savings, sustained high rates of corporate investment and restructuring of economic groups, translated into mergers and acquisitions. As the increased borrowing requirements of the corporate sector have been chiefly met through bank credit, its acceleration is therefore understandable.

Through the analysis of the banks' consolidated balance sheet it is possible to understand the counterparts of credit expansion. The traditional counterpart of credit — deposit-taking by banks — has been losing its relative importance. Indeed, the increase in deposit-taking by banks between January and August accounted for only 6.9 per cent of the change in domestic credit to the private sector, while in the same period in 1999 this percentage had reached 30.3 per cent (87.6 and 125.0 per cent respectively, in 1995 and 1990 as a whole). The growing discrepancy between deposit-taking and credit granting has been financed by banks through increases in both capital and reserves, the issue of debt securities and chiefly the increase in banks' net liabilities to non-residents (by EUR 9.8 billion in the first eight months of the year, compared with EUR 7.5 billion in the same period in 1999).

2. INTERNATIONAL ENVIRONMENT OF THE PORTUGUESE ECONOMY

2.1 International environment of the euro area

The latest estimates of the International Monetary Fund (IMF)[2] point to a significant acceleration of the **world economy** in 2000 to 4.7 per cent (3.4 per cent in 1999), i.e. an upward revision of 0.5 p.p. from previous projections (Table 2.1). With respect to the advanced economies, reference should be made to the continued buoyancy of the US, which once again exceeded expectations, and the recovery, albeit fragile, of Japan. A consolidation of growth in the emerging markets in Asia is also expected, as well as a recovery in Latin America and significant growth in transition countries, namely Russia, where activity is much stronger than previously expected. The higher world growth in 2000 is likely to be accompanied by a significant acceleration of the volume of trade in goods and services (from 5.1 to 10.0 per cent). The IMF estimates an acceleration of consumer prices in advanced economies in 2000 (from 1.4 to 2.3 per cent), which will be more marked than previously expected and largely associated with the increase in energy prices.

The overall expansion, which according to the IMF, will continue in 2001 is not, however, free from risk. In particular, the economic and financial imbalances (external accounts, exchange rates and stock markets) which have emerged in the past years may be subject to an abrupt adjustment (see Box 1 – *Financial markets developments*). The maintenance at very high levels of the international price of oil, above those included in the IMF projections (26.5 USD per barrel for 2000 and 23.0 USD per barrel for 2001), is an additional risk to activity and inflation.

(2) World Economic Outlook, September 2000.

Table 2.1

IMF PROJECTIONS

	Gross domestic product			Consumer prices		
	1999	2000	*Revisions (p.p.)*	1999	2000	*Revisions (p.p.)*
World economy	3.4	4.7	*0.5*	—	—	—
Countries in transition	2.4	4.9	*2.3*	43.8	18.3	*-1.2*
Latin America	0.3	4.3	*0.3*	9.3	8.9	*1.2*
Developing countries in Asia	5.9	6.7	*0.5*	2.4	2.4	*-0.2*
Advanced economies	3.2	4.2	*0.6*	1.4	2.3	*0.4*
Euro area	2.4	3.5	*0.3*	1.2	2.1	*0.4*
United Kingdom [(a)]	2.1	3.1	*0.1*	2.3	2.0	*0.0*
US	4.2	5.2	*0.8*	2.2	3.2	*0.7*
Japan	0.2	1.4	*0.5*	-0.3	-0.2	*-0.3*

Source: International Monetary Fund, World Economic Outlook, September 2000 vs. May 2000.

Note:

(a) Consumer prices excluding mortgage interest payments.

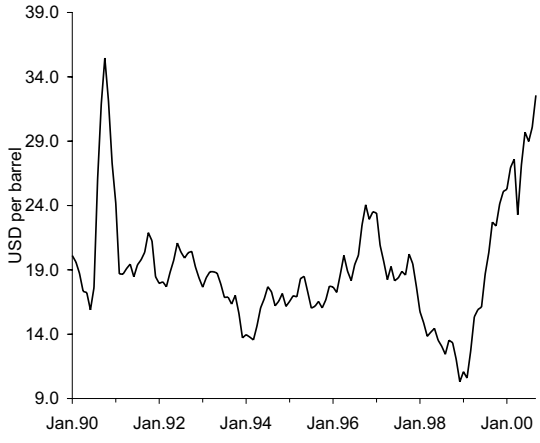
During the first nine months of 2000 the international price of **oil** continued to follow the upward path seen since early 1999 (Chart 2.1). In September the price of Brent in US dollars was approximately 30 per cent above the average level for December 1999 (50.5 per cent in euro). In this context, on 11 September the Organisation of Petroleum Exporting Countries (OPEC) announced, for the third time this year, an increase in production quotas (by 800 thousand barrels per day, i.e. approximately 1 per cent of global supply), with effect from 1 October. On 22 September the US Energy Department announced the temporary release of 30 million oil barrels of its strategic oil reserves. In the first half of October the price of Brent remained at very high levels, and in view of the implicit evolution in the futures market on 13 October the oil price is expected to remain above 30 USD per barrel up to the end of the year.

The **US** economic activity continued to show very strong growth in the first half of 2000 (Chart 2.2). The year-on-year change in GDP reached 6.1 per cent in the second quarter, up from 5.3 per cent at the beginning of the year, and 5.0 per cent in the last quarter of 1999. The higher growth recorded in the second quarter was largely due to the increase in the contribution from changes in inventories of the private sector (from -0.1 to 0.7 p.p.). Private GFCF recorded again significant growth rates in the first two quarters of this year, of around 10 per cent, despite the deceleration of the residential component (from 2.8 per cent in the fourth quarter of 1999 to 0.5 per cent in the second quarter of this year). Non-residential private GFCF accelerated in the first half-year, and very high increases in GFCF in equipment and software continued to be recorded (15.7 and 16.4 per cent in the first and second quarters respectively, up from 14.1 per cent at end-1999). Although private consumption remained rather strong, it decelerated in the second quarter (from 6.0 to 5.4 per cent); this deceleration being especially marked regarding the consumption of durables. Net exports contin-

Chart 2.1

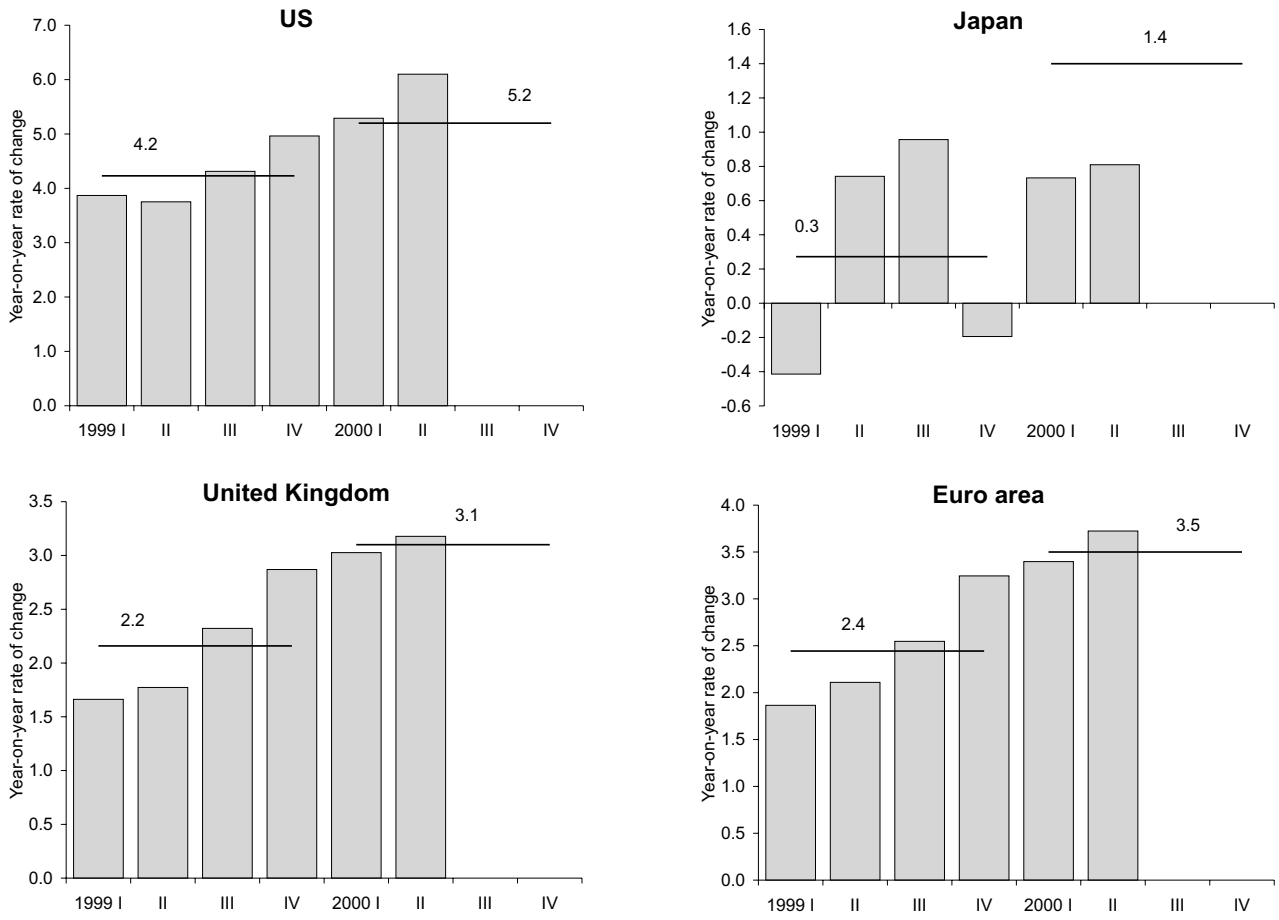
INTERNATIONAL OIL PRICE

Brent



Source: Datastream.

Chart 2.2
GROSS DOMESTIC PRODUCT



Sources: Datastream and International Monetary Fund, World Economic Outlook, September 2000 (annual estimates for 2000).

ued to make a negative contribution to growth in the first two quarters of this year, while there was further growth of both exports (from 4.3 per cent at end-1999 to 10.2 per cent in the second quarter) and imports (from 12.0 to 14.5 per cent). These developments, together with the rise in import prices, namely due to the energy price, translated into a continued widening of the trade and current deficits in the first two quarters of 2000. The current account deficit stood at 4.3 per cent of GDP in the second quarter (4.2 per cent in the first quarter and 3.6 per cent in 1999).

In general, the latest estimates point to some moderation of the growth pace of the US economy in the second half of the year, although it is expected to remain high. Industrial sector production rose by 5.9 per cent in year-on-year terms in the three months to August compared with 6.1 per cent and 5.3 per cent in the second and first quarters respectively (Chart 2.3). The acceleration of production throughout 2000 reflects, in particular, the high buoyancy of the production of computers, communication equipment and semiconductors (51.9 per cent increase in the quarter to August, from 50.9 per cent in the second quarter and 46.5 per cent at the beginning of the year), since production in the remaining manufacturing sectors has grown at relatively stable rates (1.7 and 1.8 per cent in the first two quarters and 1.4 per cent in the three months to August). Until August industrial confidence continued the downward trend seen since the beginning of the year. The residential construction sector, according to indicators of permits and housing starts up to August, appears to have continued to show little buoyancy in the third quarter.

The better than expected performance of the US economy in the first half of 2000, led to a signifi-

cant upward revision by the IMF (0.8 p.p.) of the growth estimated for the year as a whole, to 5.2 per cent (4.2 per cent in 1999) (Table 2.1).

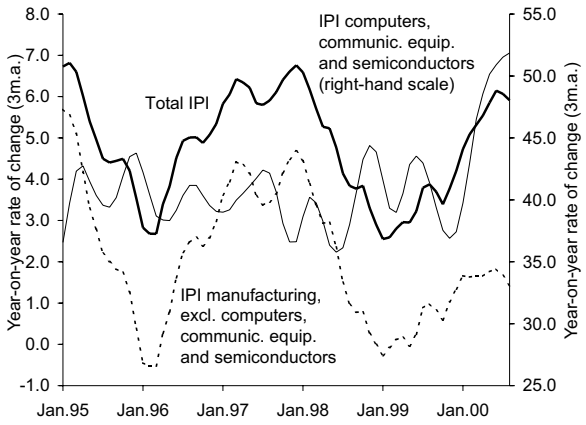
In the labour market, private non-farm payrolls continued to rise at a high pace until September, although slightly below that for 1999 (2.2 per cent against 2.4 per cent in 1999). The unemployment rate remained relatively stable, at a rather low level (4.0 per cent in the third quarter). The particularly high productivity gains recorded up to the second quarter of 2000, together with the stabilisation of wage increases (4.7 per cent year-on-year), led to a reduction in unit labour costs (-0.5 per cent in the second quarter, in year-on-year terms, down from 0.7 per cent in the two previous quarters).

With regard to inflation, the year-on-year CPI growth has shown an upward trend in the course of 2000, albeit somewhat uneven, which largely reflects the behaviour of the energy component. In the period from January to August the increase in CPI was 3.3 per cent, compared with 2.2 per cent in 1999. Excluding the most volatile components (energy and food), CPI has accelerated slightly since the beginning of the year (2.4 per cent increase over the same period, up from 2.1 per cent in 1999). In the year as a whole, the change in consumer prices will likely stand at 3.2 per cent according to IMF estimates (Table 2.1).

The Federal Reserve continues to consider the risks in the US economy to be mainly weighted towards conditions that may generate heightened inflation pressures in the near future, although reference rates have been kept unchanged since May (the target for the federal funds rate stands at 6.5 per cent), which was reflected in the stabilisation of three-month interest rates since the middle of the year. The yield on 10-year government bonds continued to follow a downward trend, standing at 5.8 per cent in September (6.6 per cent early this year).

In **Japan** GDP growth stood at 0.8 per cent in the second quarter of 2000 (in year-on-year terms), virtually unchanged from the beginning of the year (0.3 per cent in 1999) (Chart 2.2). In both quarters growth was chiefly based on net external demand, which made a positive contribution of approximately 0.7 p.p. Private sector domestic demand made a much more positive contribution in the first half of the year. Private consumption in the first two quarters of 2000 grew at rates around 1 per cent. The growth pace of private GFCF eased

Chart 2.3
US – INDUSTRIAL PRODUCTION INDEX



Source: Datastream.

in the second quarter (from 5.2 to 1.6 per cent), following a sharp acceleration in the previous quarter, but maintaining a more favourable trend than in 1999. This trend was offset by a lower reduction in public GFCF in the second quarter (from -17.6 to -9.0 per cent), as a result of the implementation of the measures to boost the economy approved in November 1999.

The most recent indicators seem to point to a continued buoyancy of private GFCF. Private sector domestic machinery orders continued to grow strongly in year-on-year terms up to August and corporate profitability has shown a favourable evolution. The gradual increase in consumer confidence up to the second quarter, in parallel with more positive developments in earnings, may have positive reflections on private consumption. However, some factors may continue to have a negative influence on consumption, as is the case with the maintenance of the unemployment rate at historically high levels (4.6 per cent in August) and the fact that employment up to August continued to drop vis-à-vis the same period a year earlier, albeit less than in 1998.

According to the IMF, in 2000 as a whole, GDP is expected to grow by 1.4 per cent (Table 2.1). The recovery of activity on the basis of corporate investment is nonetheless fragile, and there are still downward risks in the second half of the year, a period that will probably see a fall in public investment.

In the first eight months of 2000, CPI continued to drop vis-à-vis the same period a year earlier (-0.7 per cent, down from -0.3 per cent in 1999). Following the falls recorded up to the beginning of this year, domestic wholesale prices showed slightly positive year-on-year changes (0.1 per cent in September, up from -0.6 per cent at end-1999), partly reflecting the increase in the prices of oil products.

On 11 August, the Bank of Japan discontinued its zero interest rate policy adopted in February 1999 to counter deflationary pressures and decided to raise the overnight call rate to levels around 0.25 per cent. The Bank of Japan considered that the economy is showing clear signs of recovery, mainly led by corporate investment, and that in this context, downward pressures on prices resulting from the weak demand are abating.

In the second quarter of 2000 activity in the **United Kingdom** grew by 3.2 per cent year-on-year, compared with increases of 3.0 per cent at the beginning of the year and 2.9 per cent at end-1999 (Chart 2.1). Domestic demand accelerated in the second quarter, largely due to the increased contribution from changes in inventories (1.0 p.p., up from 0.2 p.p. in the first quarter). Private consumption continued to grow at high rates (3.9 and 3.7 per cent in the first and second quarters respectively), although below those of the previous year, while public consumption accelerated, following the adjustment recorded at the beginning of the year. GFCF grew by approximately 2 per cent in the first two quarters of the year, clearly below the pace observed throughout 1999 (5.4 per cent in the last quarter). Net exports made a strong negative contribution in the second quarter (-1.0 p.p.), as a result of an acceleration of imports (10.7 per cent, up from 8.5 per cent in the previous quarter) and of lower export growth (8.7 per cent, compared with 9.5 per cent in the previous quarter).

In terms of sectors of activity, industrial production accelerated in the second quarter (from 1.5 to 2.2 per cent year-on-year), following the slight slowdown seen at the beginning of the year, and increased by 1.7 per cent in the three months to August. Business confidence, after recovering during 1999, remained until August at a level below that of the beginning of the year. The construction sector decelerated somewhat in the second quarter (4.8 and 2.5 per cent increases in the first two quarters) and activity in the services sector increased once again, at rates above 3 per cent. According to survey data, the services sector seems to have continued to grow at a satisfactory pace in the third quarter.

IMF forecasts for the year as a whole point towards significant growth of activity, i.e. 3.1 per cent, up from 2.2 per cent in 1999, partly reflecting the fact that domestic demand growth will remain strong.

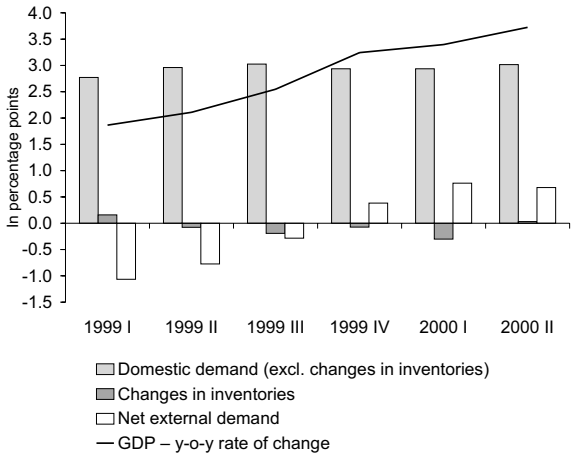
In parallel with buoyant activity, the unemployment rate continued to follow a downward path (3.6 per cent[3] in August, down from 4.2 per cent in August 1999) and there were sharp drops in the number of unemployed, compared with the same period a year earlier. Following an acceleration at end-1999/early 2000, earnings slowed down in the second quarter (from 5.7 to 4.1 per cent year-on-year) and in the three months to July (3.9 per cent). Regarding consumer price developments, in the first nine months of this year the rate of change in CPI excluding mortgage interest payments remained relatively stable at around 2.1 per cent (2.3 per cent in 1999). Although services prices continue to record year-on-year increases significantly above those in goods prices — in September they stood at 3.4 and 0.5 per cent respectively — the differential between the increase in goods and services prices, which had been widening since early 1998, narrowed somewhat in the most recent months. In 2000, according to the IMF, the growth of CPI excluding mortgage interest payments is likely to stand at 2.0 per cent (2.3 per cent in 1999) (Table 2.1).

2.2 Euro area

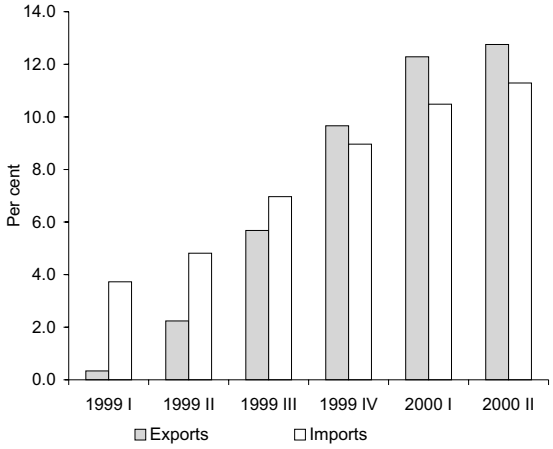
In the first half of 2000 GDP in the euro area continued the acceleration recorded since the second quarter of 1999 and rose by 3.7 per cent year-on-year in the second quarter of this year (3.4 per cent in the previous quarter and 3.2 per cent at end-1999) (Chart 2.4). The acceleration recorded in the second quarter was due to both the higher growth of private consumption (3.0 per cent, up from 2.4 per cent in the previous quarter and 2.6 per cent at the end of 1999) and the increased con-

(3) Based on the claimant count.

Chart 2.4
EURO AREA
CONTRIBUTIONS TO THE YEAR-ON-YEAR GROWTH OF GROSS DOMESTIC PRODUCT



EXPORTS AND IMPORTS OF GOODS AND SERVICES
Year-on-year rate of change



Source: Eurostat.

tribution from changes in inventories to GDP growth (nil contribution following the correction recorded since the second quarter of 1999). By contrast, GFCF decelerated, although it is still growing at a significant rate (4.8 per cent). Following the trend seen from end-1999 onwards, net external demand made a positive contribution to growth in the second quarter, similar to that of the previous quarter. Imports of goods and services[4] accelerated further (from 10.5 per cent at end-1999 to 11.3 per cent), in line with the higher growth of overall demand (5.6 per cent, up from 5.1 per cent at end-1999). The growth of exports[5] continued to be more marked in the first half of this year (12.3 and 12.8 per cent in the first and second quarters respectively), in a context of favourable developments in the world economy and an effective depreciation of the euro. These developments in external trade, combined with the strong increase in import prices (namely due to the increase in the price of oil) translated into a reduction of the goods and services account surplus (from 1.4 per cent of GDP in the first half of 1999 to 0.6 per cent of GDP in the first half of 2000). The current account deficit stood at 0.4 per cent of GDP (0.5 per cent surplus in the same period a year earlier), also reflecting the deterioration of the remaining components besides goods and services account.

Industrial production continued to accelerate up to the second quarter, following the trend seen since mid-1999 (year-on-year growth of 5.9 per cent, from 4.8 per cent in the first quarter and 4.1 per cent at end-1999), benefiting from favourable developments in the external environment of the euro area. In the three months to July there was a slightly lower growth (5.6 per cent). Following the increase recorded in the first two quarters of this year, industrial confidence stabilised somewhat in the past months. The buoyant industrial activity was accompanied by a further increase in capacity utilisation in manufacturing, from 83.7 per cent in April to 83.9 per cent in July, standing at a level slightly above that for mid-1998 (83.7 per cent). In addition, there is an increased number of entrepreneurs who consider the existing capacity to be insufficient to meet production expectations (Chart 2.5).

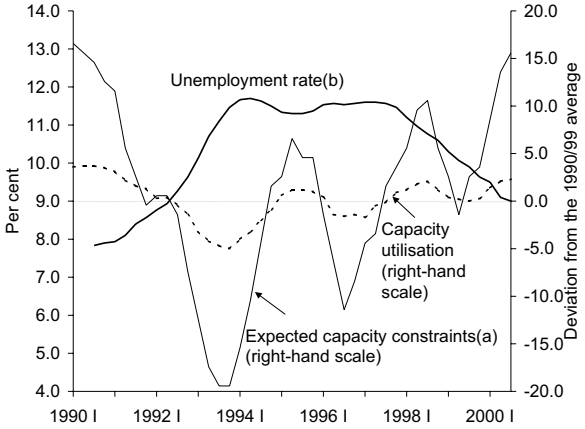
According to the latest IMF forecasts, in the second half of the year economic expansion in the euro area is likely to continue at a good pace, albeit somewhat below that of the beginning of the year, benefiting from both the international juncture and the maintenance of the confidence of economic agents at high levels. GDP growth is likely to stand at 3.5 per cent in 2000 (2.4 per cent in 1999) (Table 2.1).

In the four largest euro area economies, activity was characterised by significant buoyancy in the first half of 2000. In Germany, GDP recorded

(4) Includes trade between euro area countries.

(5) See footnote 4.

Chart 2.5
EURO AREA
UNEMPLOYMENT RATE AND CAPACITY UTILISATION IN MANUFACTURING



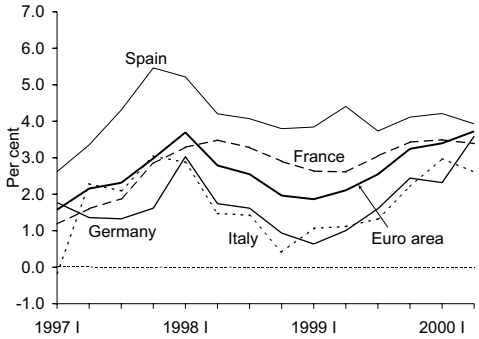
Sources: Eurostat and European Commission.
Notes:
(a) A rise in the indicator corresponds to an increase in the share of entrepreneurs who consider the capacity to be insufficient to meet production expectations.
(b) The third quarter of 2000 corresponds to the average of the three months to August.

higher growth than at the end of 1999, moving closer to the average growth in the euro area. In Italy, in the first half of the year, activity was more buoyant than at end-1999, although easing in the second quarter (more markedly than broadly expected) (Chart 2.6). In this period, the pace of growth in France and Spain continued to be similar to that recorded at end-1999, which in the case of Spain still corresponded to an increase above that of the euro area as a whole.

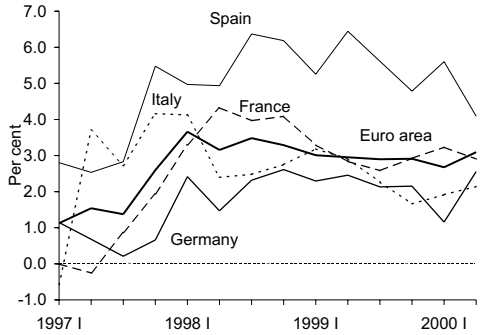
GDP in Germany accelerated from 2.3 to 3.6 per cent year-on-year in the second quarter (2.4 per cent at end-1999). This acceleration was due to the higher growth of domestic demand (2.6 per cent, up from 1.2 per cent at the beginning of the year), as a result of the increased contribution from changes in inventories and of an acceleration of private consumption, which after the weak growth shown at the beginning of the year recorded an increase similar to that at end-1999. Both exports and imports continued to grow at a pace similar to that of the previous quarter (around 14 and 10 per cent respectively), corresponding to an acceleration from the end of 1999 in exports. In Italy GDP growth was 2.6 per cent in the second quarter, af-

Chart 2.6
GROSS DOMESTIC PRODUCT AND COMPOSITION OF EXPENDITURE
Year-on-year rate of change

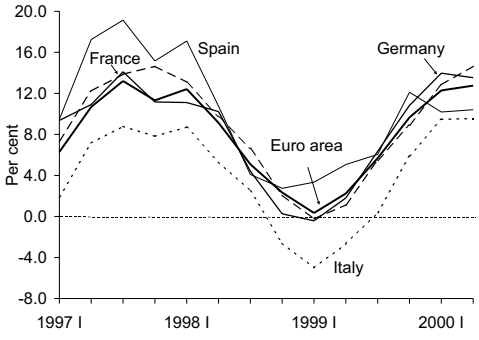
Gross domestic product



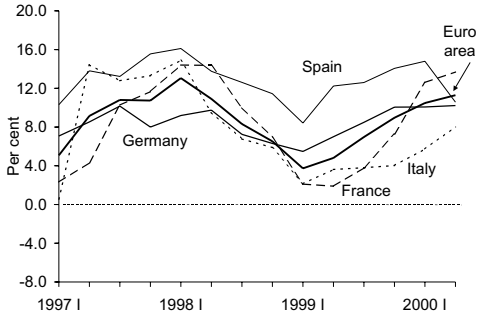
Domestic demand



Exports



Imports



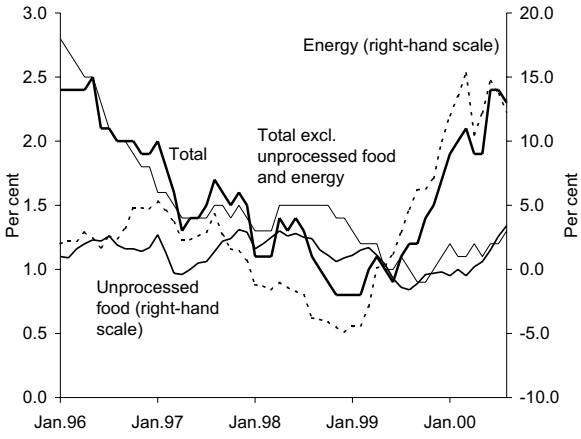
Sources: Datastream and Eurostat.

ter the strong acceleration recorded at the beginning of the year (from 2.2 per cent at end-1999 to 3.0 per cent in the first quarter). Domestic demand growth was somewhat higher in these two quarters (approximately 2 per cent) than at the end of 1999, despite the continued adjustment of inventories. Imports accelerated further (8.0 per cent in the second quarter, up from 4.0 per cent at end-1999), while exports grew at a similar pace in the first two quarters of the year (9.5 per cent, up from 5.9 per cent at end-1999). In the second quarter, growth in the French economy was similar to that in the two previous quarters (3.4 per cent). The contribution from domestic demand to growth stood at around 3 p.p., despite a slight deceleration in private consumption in the second quarter (from 2.9 to 2.5 per cent). The contribution from net exports remained slightly positive, given the continued acceleration of exports (from 8.9 per cent at end-1999 to 14.7 per cent in the second quarter) and imports (from 7.3 to 13.7 per cent). In Spain GDP continued to grow significantly in the second quarter (3.9 per cent), close to the two previous quarters (4.2 and 4.1 per cent respectively). The contribution from domestic demand to growth remained rather high (above 4 p.p.), although most domestic demand components decelerated significantly in the second quarter. At the same time, imports grew at a more moderate rate this quarter (10.6 per cent, down from around 14 per cent in the two previous quarters), while exports expanded in line with the figure recorded at the beginning of the year (around 10 per cent).

For the year as a whole, IMF estimates point to an acceleration of activity in these economies, and GDP growth will likely stand at 2.9 per cent in Germany (1.4 per cent in 1999), 3.1 per cent in Italy (1.4 per cent), 3.5 per cent in France (2.9 per cent) and 4.1 per cent in Spain (4.0 per cent).

Buoyant activity in the euro area during the first half of this year continued to be accompanied by a higher utilisation of resources in the labour market (Chart 2.5). The unemployment rate, after the downward trend shown until the middle of this year, stabilised somewhat up to August, standing at 9.0 per cent in the quarter to September (9.9 per cent in the same period of the previous year), and the number of unemployed continued to fall significantly from the same period a year earlier. Employment[6] in the first quarter rose by

Chart 2.7
EURO AREA
HARMONISED INDEX OF CONSUMER PRICES
Year-on-year rate of change



Source: Eurostat.

1.9 per cent year-on-year (1.8 per cent in the fourth quarter). In the second quarter, employment appears to have maintained a high growth pace, according to the survey data available. With regard to earnings growth, there will probably be a moderate acceleration in 2000. The year-on-year growth of compensation per employee[7] in the first quarter of this year was higher than at the end of 1999 (2.1 per cent, compared with 1.6 per cent in the fourth quarter and 1.8 per cent in 1999 as a whole), partly offset by higher productivity growth. Unit labour costs accelerated slightly in the first quarter, albeit maintaining a subdued growth (0.5 per cent, from 0.2 per cent at the end of 1998 and 1.1 per cent in 1999).

The maintenance of the international price of oil at high levels, associated with the nominal depreciation of the euro, continued to condition consumer price developments up to August (Chart 2.7). In this month HICP rose by 2.3 per cent year-on-year, in comparison with 2.4 per cent in the two previous months and 1.7 per cent in December 1999. In the most recent months, together with a slightly lower growth of the energy compo-

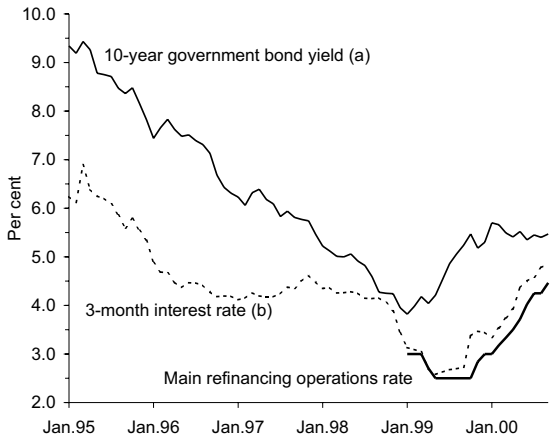
(6) ECB estimates of employment growth in the euro area were significantly revised upwards owing to a change in employment statistics in Germany so as to cover more comprehensively part-time low-income workers.
(7) ECB estimates based on national data.

nent, there was an acceleration of unprocessed food prices. Excluding these components, the increase in HICP stood at 1.3 per cent in August, from 1.2 per cent in the two previous months and 1.1 per cent in the latter part of 1999.

With the objective of countering the risks to price stability over the medium term, against a background of strong expansion of the economic activity and given developments in the price of oil and in the euro exchange rate, the Governing Council of the ECB decided to raise the minimum bid rate on the main refinancing operations in August and again in October 2000, by a total of 0.5 p.p., to 4.75 per cent.

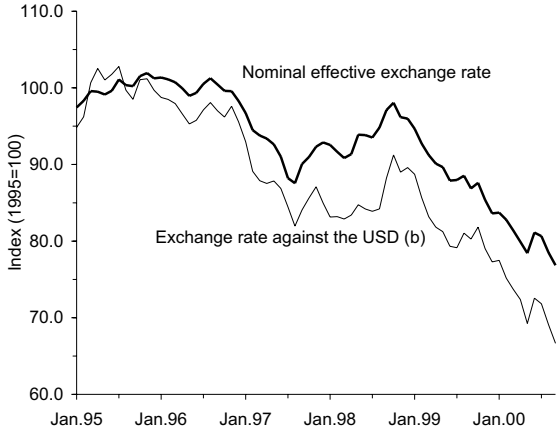
In financial markets 10-year government bond yields were relatively stable in the past months, slightly below the level at the beginning of the year (5.5 per cent on average in September, compared with 5.7 per cent in January) (Chart 2.8). The euro continued to depreciate against the US dollar, a trend that was only temporarily interrupted in June; in September, it had depreciated by 13.7 per cent vis-à-vis the average level in December 1999 (Chart 2.9). In nominal effective terms, the euro had depreciated by 8.1 per cent vis-à-vis last December. On 22 September 2000, at the ECB's initiative, the monetary authorities of the United States, Japan, the United Kingdom and Canada joined the ECB in a concerted intervention in the foreign exchange markets, owing to a shared concern about the potential implications of recent movements in the euro exchange rate for the world economy. Following this concerted intervention, the euro appreciated somewhat against the US dollar, but thereafter the euro started a new depreciation trend.

Chart 2.8
EURO AREA – INTEREST RATES



Sources: Bloomberg and European Central Bank.
Notes:
(a) To December 1998, weighted average by the GDP of 10-year national rates. From January 1999, weighted average by the nominal outstanding amounts.
(b) 3-month Libor for the ECU to December 1998 and Euribor from January 1999.

Chart 2.9
EURO EXCHANGE RATE[(a)]



Sources: *Banco de Portugal* and European Central Bank.
Notes:
(a) (+) Appreciation of the euro.
(b) ECU to December 1998.

3. DEMAND AND PRODUCTION

In 2000 the Portuguese economy is likely to record an economic growth similar to that estimated for the previous year (between 2¾ and 3¼ per cent, in comparison with 3.0 per cent in 1999) (Table 1.1). However, there will be a qualitative change: the contribution from domestic demand to economic growth will be lower and that from net external demand to growth will probably be less negative.

The lower growth of domestic demand in 2000 will chiefly reflect the slowdown of private consumption (Table 1.1). This lower growth of private consumption is mainly due to the change in consumer expectations and to the increase in households' interest payments, in the wake of the strong increase in their indebtedness in recent years. To a lesser extent, public consumption and changes in inventories also contribute to the deceleration of

domestic demand. By contrast, GFCF is likely to accelerate somewhat from 1999.

The less negative contribution from net external demand to economic growth in 2000 will result from the acceleration of exports and from a slight reduction in the import growth rate. The acceleration of exports will be seen both at the level of goods — in line with the acceleration of activity in most major trading partners — and services, in particular tourism services. The moderation expected for import growth is determined by the deceleration of domestic demand.

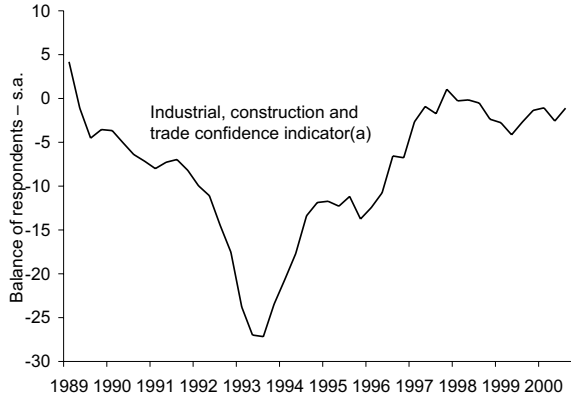
Current forecasts for economic growth are not much different from those of the March 2000 issue of the *Economic Bulletin* (Table 1.1). There are, however, some differences in composition, in particular at the level of domestic demand. Private consumption is likely to show a higher than expected deceleration, while public consumption and GFCF will probably grow at a stronger pace than forecast in March. Thus, the contribution from domestic demand to growth remains close to the March forecasts. The same holds true for the contribution from net external demand, despite a slight upward revision of the range for export growth.

According to the estimates of the *Banco de Portugal* the growth of the Portuguese economy in the first half of 2000 seems to have accelerated somewhat from the second half of 1999. There was a further deceleration of domestic demand due to the subdued growth of private consumption and to the reduction in inventories. However, GFCF appears to have recorded a broadly based acceleration across its components. Likewise, the negative contribution from net external demand to growth was again less significant in the first half of 2000, as a result of both the acceleration of exports and the moderation of import growth (Chart 1.1). The estimated economic developments in the first half of 2000 are illustrated by the behaviour of the industrial, construction and trade confidence indicators (Chart 3.1).

The forecast for the year as a whole implies that in the second half-year domestic demand growth will continue to decline, mainly as a result of a slowdown in GFCF. However, this trend may be partially offset by an acceleration of exports and some further moderation in import growth. Thus, the growth pace of activity in the second half-year will probably be slower than that for the first half-year, bringing growth for the year 2000 as a whole to levels similar to those estimated for 1999.

Chart 3.1

PORTUGAL – INDUSTRIAL, CONSTRUCTION AND TRADE CONFIDENCE INDICATOR



Sources: European Commission, *INE*, «Monthly Trade Survey» and *Banco de Portugal*.

Note:

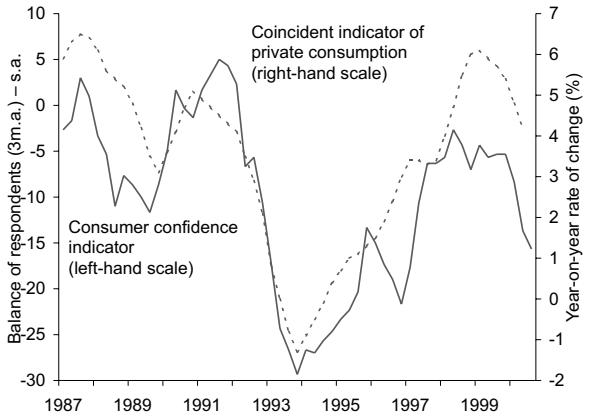
(a) Simple arithmetic mean of industrial, construction, retail trade and wholesale trade confidence indicators.

Private consumption, after having grown significantly in 1998 and 1999, is likely to slow in 2000. Growth for this aggregate is forecast to range between 2¾ and 3¼ per cent (6.1 and 4.9 per cent in 1998 and 1999 respectively), which corresponds to a sharper deceleration than forecast in the March 2000 issue of the *Economic Bulletin* (which pointed to a range between 3¼ and 3¾ per cent). Thus, private consumption growth in 2000 is likely to be similar to that forecast for output, after two years in which the growth differential between the two aggregates reached approximately 2 p.p.

The slowdown of private consumption will take place, despite the slight acceleration expected for real household disposable income, which will allow an interruption of the downward trend in the saving rate in recent years. This behaviour of private consumption is linked to the significant change in consumer expectations. The consumer confidence indicator has declined since last March, which is chiefly associated with the inversion in interest rate behaviour (Chart 3.2). The recent rise in these rates and the high indebtedness levels reached by households give rise to an increase in their interest payments and in redemption costs.

Chart 3.2

PORTUGAL – CONSUMER CONFIDENCE INDICATOR AND COINCIDENT INDICATOR OF PRIVATE CONSUMPTION



Sources: European Commission and *Banco de Portugal*.

While the increase in interest payments implies a reduction in the growth rate of disposable income, the increase in loan repayment costs calls for increased saving[8]. The recent rise in interest rates, together with expectations of further increases, can also boost saving. The context of high international oil prices, albeit only partially mirrored in consumer fuel prices, can also be adding to increased uncertainty about the future effects on inflation and activity.

The slowdown of private consumption is illustrated by the pace of the coincident indicator of private consumption, which synthesises qualitative data on this aggregate (Chart 3.2). This slowdown has been especially experienced at the level of expenditure on durable goods. Stress should be laid in particular on the contribution made by the drop in purchases of light passenger vehicles, including off-the-road vehicles. In the period from January to September 2000 the sales of this type of vehicles declined by 6.0 per cent[9], following rather sharp increases in the two previous years (Table 3.1). It should be noted that real consumption of this type of goods appears to have dropped less markedly, given that there continued to be a greater preference for top of the range cars. According to the retail trade turnover index, the consumption of other types of durable goods has been also decelerating in the course of the year, following a strong increase in the first quarter (Table 3.1). Conversely, the deceleration of the consumption of current goods and services in 2000 is likely to be relatively subdued.

The deceleration of private consumption was reflected in a reduction in the growth rate of credit to households other than for house purchase (23.2 per cent in December 1999 and 15.7 per cent in August 2000).

According to the estimates of the *Banco de Portugal*, in 2000 **public consumption** will grow by 3.2 per cent in volume — above the forecast of the March 2000 issue of the *Economic Bulletin* — following a 3.9 per cent growth in 1999 (Table 1.1). In nominal terms, in 2000 public consumption will probably continue to record a high growth rate, of around 9 per cent. This increase in public consumption is largely explained by the pattern of compensation of employees, as a result of the growth of the number of government employees and of the strong growth of earnings in the public sector (see section 8. *Public Finances*).

Gross capital formation (which includes GFCF and changes in inventories) will probably slow down slightly in 2000. This reflects the behaviour expected for the changes in inventories component. GFCF will probably accelerate marginally from 1999 (between 5¼ and 5¾ per cent, after 5.3 per cent in 1999). This estimate represents an upward revision of the range forecast in the March 2000 issue of the *Economic Bulletin* (Table 1.1).

The contribution from changes in inventories to output is expected to be negative in 2000. The evidence of a reduction in inventories is supplied by industry and trade surveys (Charts 3.3 and 3.4). In industry, this reduction in inventories may partly explain the mixed indications supplied by the industrial production index and by the turnover index of industry (Table 3.2). Part of the acceleration

(8) It should be noted that interest payments by households are deducted from the calculation of household disposable income (and interest received is added up), but not loan repayments. In principle, repayments are financed through saving (i.e. through the difference between disposable income and private consumption). The alternative would be to finance repayments through a further increase in indebtedness. However, this is not likely the case in the current juncture.

(9) Unless otherwise indicated, the rates of change referred to in the text correspond to year-on-year rates of change.

Table 3.1

PORTUGAL – DEMAND INDICATORS

Year-on-year rates of change

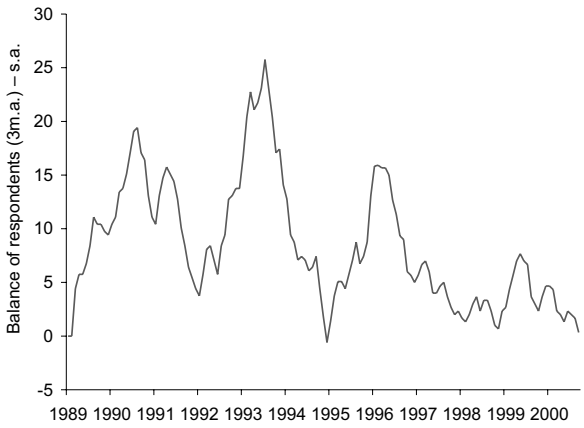
	1998	1999	2000[a]	Last month	1998		1999		2000	1998				1999				2000		
					1st H	2nd H	1st H	2nd H	1st H	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3
Private consumption																				
Retail trade turnover index	11.1	6.7	6.3	July	12.3	10.2	6.1	7.2	6.9	11.3	13.1	9.5	10.7	7.6	4.7	6.6	7.8	7.2	6.6	
Retail trade turnover index - durable goods	10.9	6.8	6.6	July	13.4	8.8	5.2	8.3	7.9	12.2	14.6	7.4	10.1	6.3	4.1	9.5	7.3	11.7	4.5	
Sales of light passenger vehicles, including off-the-road vehicles	17.9	11.4	-6.0	Sep.	13.7	22.4	24.7	-1.9	-4.5	5.5	21.9	23.1	21.9	34.9	15.9	12.0	-14.5	-1.2	-7.9	-9.5
Bank credit to households (excluding for house purchase)	23.1	23.2	15.7	Aug.	18.0	23.1	29.6	23.2	15.9	17.9	18.0	19.0	23.1	18.3	29.6	27.6	23.2	29.8	15.9	
Investment																				
Cement sales	4.7	3.1	5.8	Aug.	4.6	4.7	2.1	4.0	7.1	10.0	-0.2	0.2	9.9	-0.6	4.8	5.6	2.3	13.4	1.2	
Public works contracted	-27.1	9.3	50.3	Sep.	-26.2	-28.2	-14.6	41.8	72.1	-14.8	-36.9	-14.5	-40.5	-26.5	0.3	14.3	77.6	92.7	53.1	10.9
Public works promoted	-27.1	75.6	-5.5	Sep.	-31.2	-23.0	95.8	58.0	-9.8	-22.6	-40.2	-12.9	-34.3	38.8	172.0	45.3	76.8	-5.0	-13.0	2.9
Housing permits - new buildings - number of dwellings	14.4	10.1	-1.2	July	14.6	14.3	14.0	6.5	0.2	13.2	15.8	16.8	11.9	17.4	11.0	6.6	6.5	8.4	-7.6	
Bank credit to households for house purchase	34.8	29.7	22.4	Aug.	31.4	34.8	36.9	29.7	22.6	29.5	31.4	32.6	34.8	36.5	36.9	32.5	29.7	26.3	22.6	
IPI of capital goods, excluding the manufacture of motor vehicles and vehicle bodies	8.8	-2.6	-3.3	July	9.5	8.1	-1.9	-3.3	-3.9	8.5	10.6	8.4	7.8	0.4	-4.2	-3.7	-2.9	-5.7	-2.1	
Imports of capital goods, excluding transport material [b]	22.3	8.8	13.3	June																
Exports of capital goods, excluding transport material [b]	20.3	19.2	7.3	June																
Sales of light commercial vehicles	12.0	1.3	9.3	Sep.	8.9	14.8	5.2	-2.2	14.3	14.7	2.9	6.9	21.0	-0.5	11.7	12.7	-12.5	17.2	11.5	-1.2
Sales of heavy commercial vehicles	14.6	19.4	7.2	Sep.	28.2	2.5	21.8	16.8	10.2	62.1	2.0	4.0	1.3	10.8	35.2	34.0	3.2	17.6	2.8	0.2
Registrations of heavy commercial vehicles	22.4	17.5	3.4	Aug.	32.2	13.2	17.9	17.0	6.0	48.5	18.1	0.9	26.9	13.2	23.1	25.8	9.2	7.9	4.1	
External trade [b]																				
Total exports	6.3	3.3	10.7	June	11.0	1.9	0.8	6.0	10.7	12.5	9.5	5.6	-1.3	1.5	0.1	4.2	7.8	11.2	10.1	
Total exports, excluding fuel	7.1	3.2	10.6	June																
Exports of consumer goods	4.1	2.1	4.1	June																
Exports of capital goods	14.0	7.0	2.6	June																
Exports of intermediate goods	5.1	1.2	27.5	June																
Exports of fuel	-27.9	11.1	15.1	June																
Total imports	12.6	9.2	15.3	June	16.3	9.1	4.9	13.8	15.3	16.0	16.6	11.3	7.3	5.2	4.6	11.8	15.6	20.0	10.6	
Total imports, excluding fuel	15.6	7.6	11.7	June																
Imports of consumer goods	17.8	12.9	7.2	June																
Imports of capital goods	21.9	12.1	11.4	June																
Imports of intermediate goods	8.0	-0.9	15.2	June																
Imports of fuel	-23.3	38.3	75.0	June																

Sources: *INE, Direcção-Geral de Viação, ACAP, Cimpor, Secil* and *ANEOP.*
Notes:

(a) Cumulative figures up to the last month available.

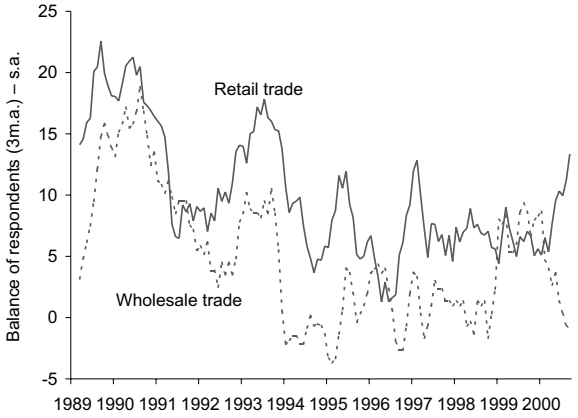
(b) The rates of change of exports and imports result from comparing final versions in 1998, preliminary figures for the period from January to December 1999, and preliminary figures for the period from January to June 2000.

Chart 3.3
PORTUGAL – ASSESSMENT OF THE LEVEL OF INVENTORIES IN INDUSTRY[a]



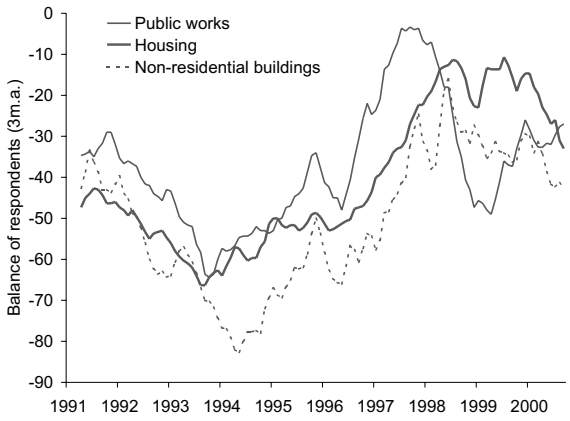
Source: *INE*, «Monthly Manufacturing Industry Survey».

Chart 3.4
PORTUGAL – ASSESSMENT OF THE LEVEL OF INVENTORIES IN WHOLESALE AND RETAIL TRADE[a]



Source: *INE*, «Monthly Trade Survey».
Note:
(a) The balance of respondents will be positive when the percentage of respondents indicating that inventories are above normal exceeds that indicating otherwise.

Chart 3.5
PORTUGAL – ORDER BOOK OF THE CONSTRUCTION AND PUBLIC WORKS SECTOR
Main sub-sectors



Source: *INE*, «Construction and Public Works Monthly Survey».

of exports of goods recorded in the first half of 2000, was possible not only through an increase in production, but also through the reduction in the level of inventories. In wholesale trade qualitative data also suggest a reduction in inventories, while in retail trade the increase in the balances of respondents regarding the level of inventories suggests that the slowdown of private consumption may have been higher than expected (Chart 3.4).

GFCF is likely to maintain a high growth pace in 2000. Both GFCF in equipment and GFCF in construction are expected to grow at a similar pace to that seen in the previous year. In intra-annual terms, after a rather strong growth of GFCF in the first half of the year, all components are likely to decelerate in the second half-year, in particular transport material.

With regard to GFCF in construction, reference should be made to the different behaviour of public works and construction of buildings in 2000: the former will recover, while the latter will decelerate. The differences are illustrated by the results of the construction and public works monthly survey (Chart 3.5). The acceleration of GFCF in public works in 2000 is, to a large extent, due to the rather significant growth of works promoted in 1999 (75.6 per cent in value) (Table 3.1)[10]. Turning to GFCF in residential construction, the slowdown is also suggested by developments in residential

(10) By contrast, in the course of this year there has been a reduction in the works promoted (-5.5 per cent up to September), whose impact is likely to occur especially in the next year, given the time lags seen between promotion, award and start of the works. It should however be noted that, conversely to promotions of works by the government (135.4 per cent increase in 1999, 34.1 per cent reduction up to September 2000), promotions by municipalities maintain a high nominal growth rate (52.8 and 40 per cent respectively, in 1999 and up to September 2000).

Table 3.2

PORTUGAL – SUPPLY INDICATORS

		1998	1999	2000[a]	Last month	1998		1999		2000	1998				1999				2000	
						1st H	2nd H	1st H	2nd H	1st H	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
Industry																				
Industrial production indices (95 basis)																				
Manufacturing	y-o-yrc	3.7	1.1	-1.4	July	4.2	3.3	0.0	2.3	-2.0	4.4	3.9	4.1	2.6	0.8	-0.7	1.2	3.4	-2.1	-1.8
Consumer goods	y-o-yrc	5.6	-0.8	-2.6	July	5.2	5.9	-2.2	0.7	-2.5	4.1	6.2	6.9	5.0	-1.3	-3.1	0.0	1.3	-4.4	-0.7
Capital goods	y-o-yrc	5.5	-4.4	-13.3	July	8.0	2.9	-2.4	-6.6	-14.7	8.1	7.9	10.2	-2.9	2.6	-7.0	-7.8	-5.6	-13.1	-16.4
Intermediate goods	y-o-yrc	5.9	6.7	1.9	July	6.0	5.9	6.5	6.9	1.6	6.0	5.9	6.4	5.4	5.4	7.6	6.4	7.3	3.3	-0.1
Turnover index (95 basis)																				
Manufacturing	y-o-yrc	6.2	-0.1	7.2	July	8.9	3.6	-1.8	1.6	7.3	11.1	6.9	5.4	1.8	-1.8	-1.8	-0.9	3.9	8.1	6.6
Consumer goods	y-o-yrc	6.0	-1.1	3.3	July	8.5	3.6	-2.1	-0.1	4.1	10.6	6.6	5.7	1.5	-2.7	-1.6	-1.4	1.4	4.4	3.8
Capital goods	y-o-yrc	12.2	-2.5	-2.9	July	17.7	7.2	-0.9	-4.1	-3.8	19.4	16.3	16.6	-0.1	5.5	-6.5	-7.9	-0.6	-5.7	-1.9
Intermediate goods	y-o-yrc	4.8	2.3	12.0	July	6.5	3.2	0.2	4.5	12.1	8.9	4.4	3.0	3.3	-1.0	1.2	2.6	6.4	14.2	10.0
Capacity utilisation rate																				
Manufacturing	%	82	81	81	Q 2	82	81	80	81	81	83	81	81	82	80	81	81	82	80	82
Consumer goods	%	80	79	80	Q 2	79	80	79	79	80	80	78	80	80	79	78	80	78	79	81
Capital goods, excluding manufacture of motor vehicles	%	87	88	89	Q 2	88	87	87	89	89	85	90	89	85	85	89	90	88	89	89
Manufacture of motor vehicles	%	82	81	76	Q 2	83	80	82	80	76	85	82	79	82	81	82	80	80	78	75
Intermediate goods	%	83	82	83	Q 2	84	83	81	82	83	84	83	83	82	80	82	81	84	81	84
Construction																				
Capacity utilisation rate	%	79	76	77	Q 2	81	77	75	77	77	82	79	77	76	73	76	77	76	76	78

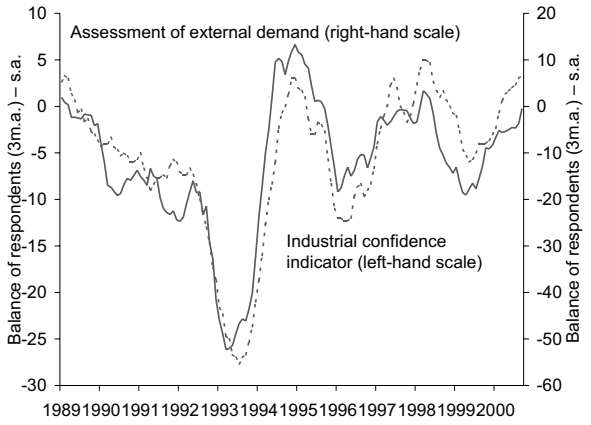
Source: *INE*.

y-o-yrc = year-on-year rate of change.

Note:

(a) Cumulative figures up to the last month available.

Chart 3.6
PORTUGAL – INDUSTRIAL CONFIDENCE INDICATOR AND ASSESSMENT OF EXTERNAL DEMAND



Source: European Commission.

building permits, whose growth rate has been gradually declining since the beginning of 1999, having already reached negative values in the second quarter of 2000. Likewise, credit to households for house purchase is decelerating (22.4 per cent in August 2000, compared with 29.7 per cent in December 1999) (Table 3.1). These developments reflect the high levels already reached by household indebtedness, the strong increase in house purchases in the recent past, the change in the behaviour of interest rates (average values of 4.9, 5.0, 6.2 and 6.6 per cent respectively, in June and December 1999 and in June and September 2000, in credit operations over 5 years to households and emigrants), and changes in the subsidised loan system for house purchase.

The maintenance in 2000 of a high growth rate of GFCF in equipment can be associated with higher industrial confidence — largely reflecting the more positive appreciation of the external order book (Chart 3.6) — and with the relatively high level of capacity utilisation in the sector (Table 3.2). The strong nominal growth of imports of investment goods, excluding transport material, seen up to June illustrates a buoyant GFCF in machinery (Table 3.1). Regarding indicators of investment in transport material, it should be noted that sales of light commercial vehicles, after having grown significantly in the first half-year, declined in the third quarter (14.3 and -1.2 per cent respectively). On the other hand, sales of heavy commercial vehicles increased by 10.2 per cent in the first half-year, decelerating to 0.2 per cent in the third quarter.

Exports of goods and services are likely to grow between 8¼ and 8¾ per cent in 2000 (4.6 per cent in 1999). This acceleration will, to a large extent, reflect the higher growth of external demand directed to Portuguese producers, in the wake of the acceleration of the economic activity in the euro area (see *International environment*), as well as the increased efforts of resident companies to place their products in external markets, against a background of deceleration of domestic demand. In addition, exports of services will recover in 2000, which will be reflected in the good performance of tourism revenue.

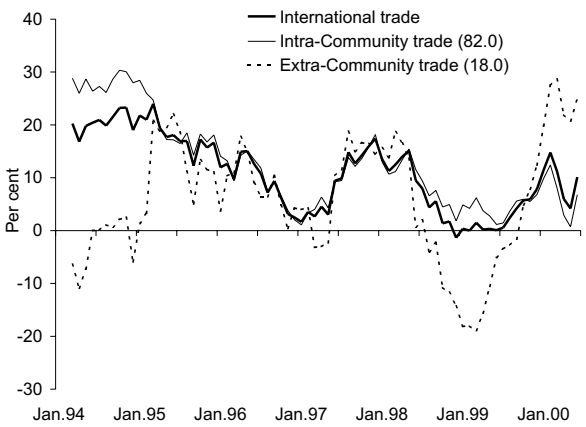
The forecast range for the growth rate of exports of goods and services is now ½ p.p. above the figure forecast in the March 2000 issue of the *Economic Bulletin*. This revision is related to the performance of exports of both goods and services, which showed remarkable buoyancy in the first half of the year. It should be noted that economic growth in the major trading partners in 2000 was revised upwards from the forecasts made at the time of release of the March 2000 issue of the *Economic Bulletin.*

In the first half of the year, exports of goods seem to have recorded a real growth of around 8.0 per cent[(11)] (6.1 per cent in 1999). An acceleration is expected for the second half-year, as a result of a more dynamic performance of exports of transport material, which in the first half of the year were conditioned by the temporary interruption of production in one of the major plants of the sector.

In nominal terms, exports of goods to extra-Community markets picked up sharply in the first half of the year (28.2 per cent increase, compared with a 3.7 per cent drop in the previous year) (Chart 3.7). However, there was also an acceleration of nominal sales to European Union countries (6.5 per cent increase in the first half of 2000, up from 4.0 per cent in 1999). By type of goods, refer-

(11) According to the estimates of the *Banco de Portugal*, the prices of exports of goods rose by 2.7 per cent in the first half of 2000. According to data from the *Direcção-Geral de Relações Económicas Internacionais*, these prices rose by 1.6 per cent in the first quarter of the year.

Chart 3.7
PORTUGAL – EXPORTS OF GOODS
Non-accumulated year-on-year rate of change in the quarter to this month
In nominal terms



Source: *INE*.
Note: The non-accumulated nominal change was calculated by the *Banco de Portugal* on the basis of final figures up to 1998. In 1999 and 2000 the change was calculated from the latest data available for the current year, against the figures for the corresponding period a year earlier. The weight of each market of destination in total Portuguese exports in 1998 is shown in brackets.

ence should be made to the strong nominal increase in exports of intermediate goods in the first half of 2000, which may be partly associated with price increases (Table 3.1). By contrast, exports of transport material showed a negative rate of change in the same period for the reasons stated above. Exports of consumer goods, which include, inter alia, clothing and footwear, also showed a nominal change far below that in the total. This different behaviour is consistent, in qualitative terms, with the indications supplied by the turnover index of industry in the external market.

Real growth of **imports of goods and services** is estimated to range between 8 and 8½ per cent in 2000, compared with 9.0 per cent in 1999. The slight deceleration mirrors the weaker buoyancy forecast for overall demand and will result from the behaviour of purchases of goods abroad. Conversely, imports of services are expected to accelerate, in line with the developments recorded in the first half of the year (see the *Balance of Payments* section).

According to the estimates of the *Banco de Portugal*, in the first half of 2000 imports of goods recorded a real growth of approximately 8.5 per cent (10.3 per cent in 1999) and a price increase of 7.6 per cent[12]. This increase in import prices reflects the sharp increase in the price of oil in international markets and the depreciation of the euro (see Box 2 – *The increase in oil prices: some effects on the Portuguese economy*).

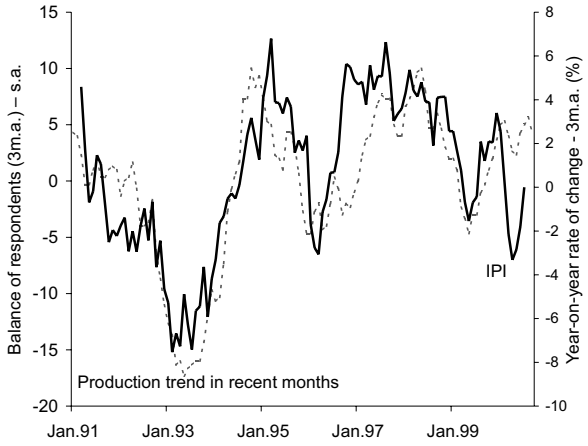
In nominal terms, imports of intermediate goods recorded a very high growth rate in the first half-year, accelerating strongly from the previous year, which is partly due to price increases, although it also points to positive developments in industrial activity (Table 3.1). By contrast, imports of consumer goods have been recording rates of change below those seen in the previous year as a whole, which is consistent with the deceleration estimated for private consumption. Finally, it should be noted that imports of investment goods have been decelerating, after a very high growth at the beginning of the year.

In sectoral terms, developments in activity in the first half of 2000 were characterised by an acceleration of construction and, to a lesser extent, of industry, whereas services remained one of the most buoyant sectors. Reference should be made to the fact that activity in the agriculture, forestry and fishing sector seems to have declined after the strong growth seen in 1999, therefore making a negative contribution to output growth in the first half of the year.

Activity in the **industrial sector** in the first half of 2000 appears to have grown at a somewhat higher pace than in the previous year. This trend is suggested by the industrial confidence indicator, which continued to improve — thereby expanding the trend seen since mid-1999 —, largely due to the behaviour of external demand (Chart 3.6). It should be noted that the industrial production index points to a decline in the sector's production — by 2.0 per cent in the first half of 2000, by contrast with a 2.3 per cent increase in the second half of 1999 — which is difficult to bring into line with developments in confidence and in balances of respondents concerning the production trend seen

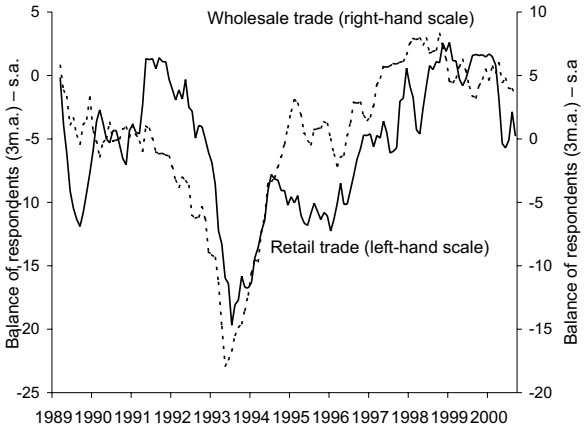
(12) According to the *Direcção-Geral de Relações Económicas Internacionais*, in the first quarter of 2000 goods import prices rose by 7.0 per cent.

Chart 3.8
PORTUGAL – PRODUCTION TREND IN RECENT MONTHS AND INDUSTRIAL PRODUCTION INDEX



Sources: European Commission and *INE*.

Chart 3.9
PORTUGAL – TRADE CONFIDENCE INDICATOR



Source: *INE*, «Monthly Trade Survey».

in the first half of 2000 (Chart 3.8). Conversely, the turnover index of manufacturing rose by 7.3 per cent in the first half of the year, compared with a 1.6 per cent rise in the second half of 1999. Even taking into account the acceleration of producer prices and the reduction in inventories, this indicator suggests a positive change in the sector's production in the first half of the year. The acceleration of goods exports, as well as of intermediate goods imports in the same period also suggests higher buoyancy in this sector. This idea is strengthened by the high level of the rate of capacity utilisation (Table 3.2).

Activity in **construction** showed a high growth level in the first half of the year, albeit decelerating in the most recent period. Cement sales, following a 7.1 per cent increase in the first half-year, rose by 2.7 per cent in the quarter ending in August. The level of the sector's capacity utilisation rose to 77 per cent in the first half of 2000 (75 per cent in the same period a year earlier).

The scarce data available suggest that the **services** sector may have continued to grow considerably in the first half of the year. However, qualitative data suggest a deceleration of activity in the trade sector, more marked for retail trade, probably due to developments in private consumption in the same period (Chart 3.9). In the restaurants and hotels subsector, activity seems to have recovered as a result of the tourism expenditure pattern by non-residents. Preliminary data on nights spent in hotels point to a 2.0 per cent growth in the first half of this year (1.0 per cent in 1999 as a whole). Although this sector is expected to slow down slightly in the second half of the year, it will probably reach in 2000 as a whole, a growth rate clearly above that for 1999.

4. LABOUR MARKET

In 2000 the main labour market indicators continued to show a strong link to cyclical developments in the economy. Thus, forecasts point to a rise in the activity rate, as well as to an increase in total employment and in the number of dependent workers, a reduction in the unemployment rate and some acceleration of nominal wages.

According to the estimates of the *Banco de Portugal*, the **unemployment rate** is likely to stand at around 4 per cent in the year as a whole (4.4 per cent in 1999), thus remaining below the estimate for the natural unemployment rate[13]. In the first half of 2000, the unemployment rate stood at 4.1 per cent, declining by 0.5 p.p. from the same period a year earlier. The number of unemployed people declined by 10.8 per cent from the first half of 1999, and there was a reduction in both the number of unemployed people seeking a new job (8.1 per cent) and in the number of first-job seekers (25.7 per cent).

(13) See footnote 1.

The *Banco de Portugal* expects total **employment** to increase between 1 and 1½ per cent in 2000 (1.8 per cent in 1999). In the first half-year, the change in total employment stood at 1.6 per cent, which was accounted for by the growth of dependent workers (2.4 per cent), given that self-employment[14] declined by 0.7 per cent. The analysis by type of contract leads to the conclusion that the growth of the number of dependent workers in the first half-year was due to an increase in both workers with fixed-term contracts (9.1 per cent) and workers on permanent contracts (0.4 per cent).

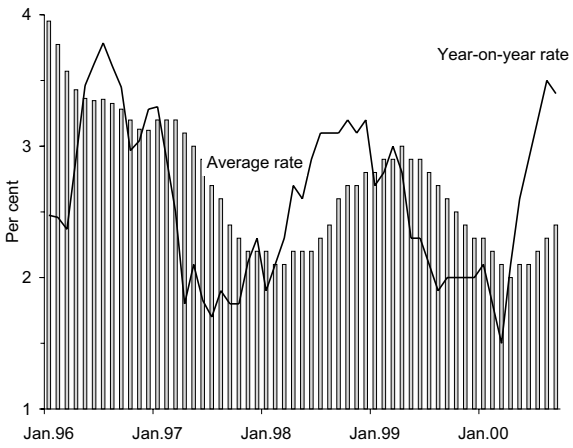
Nominal **compensation** per employee in the private sector is estimated to grow at a 5.6 per cent rate in 2000 (5.1 per cent in the previous year). Given that the level of the unemployment rate stands below the estimate of the natural unemployment rate, the differential between nominal wages actually paid and negotiated wages is thus expected to remain positive, close to that seen in 1999 (approximately 2 p.p.). In the period from January to August 2000, the change in negotiated wages for the private sector stood at 3.6 per cent[15], compared with 3.3 per cent in 1999 as a whole.

5. INFLATION

In the third quarter of 2000 the inflation rate in Portugal continued to follow the upward trend recorded since the end of the first quarter. The year-on-year rate of change of the CPI, which had declined from 2.0 per cent in December to 1.5 in March, rose to 2.9 per cent in June and to 3.4 per cent in September (Chart 5.1). The average rate of change reversed the downward trend recorded since May 1999, moving from a 2.0 per cent low in April 2000 to 2.4 per cent in September[16].

The acceleration of consumer prices in 2000, although broadly based across various CPI goods and services, appears to have been amplified by the rise in fuel prices at end-March and also by some irregular effects.

Chart 5.1
PORTUGAL – CONSUMER PRICE INDEX
Year-on-year and average rates of change



Source: *INE*.

The rise in fuel prices at end-March may have had a direct impact of around 0.45 p.p. on the increase of the year-on-year rate of change of the CPI, giving rise to further price increases in sectors which are particularly sensitive to fuel prices (gas and transport services) (Table 5.1). The year-on-year rate of change of the CPI item «transports» rose from 3.2 per cent in March, to 5.4 per cent in June and to 5.7 per cent in September. Likewise, the year-on-year rate of change of the item «housing, water, electricity, gas and other fuels» rose from 2.9 per cent in March, to 3.9 per cent in June and to 4.0 per cent in September[17].

In addition, there was a significant acceleration of some food prices which are usually highly volatile. The year-on-year rate of change of the item «food and non-alcoholic beverages» moved from -0.6 per cent in March to 1.8 per cent in June and to 2.9 per cent in September[18]. The acceleration of these prices throughout the second quarter was mainly due to the dampening of base effects, asso-

(14) Includes self-employed, unpaid family workers and other.

(15) It should however be noted that the growth calculated for 2000 was affected by a contract of the clothing, footwear and tanning sector covering 114.1 thousand workers, which envisages a 5.8 per cent increase in earnings, i.e. quite above the average for the private sector.

(16) As referred to in the June 2000 issue of the *Economic Bulletin*, the behaviour of the year-on-year rates of change of the HICP in 2000 is influenced by the methodological changes introduced in this index at the beginning of the year. Thus, the analysis of price developments in 2000 is mainly based on the CPI.

(17) These developments may have been particularly influenced by the price index of the gas component, whose year-on-year rate of change moved from 6.5 per cent in March to 15.8 per cent in June and to 20.2 per cent in September.

(18) It should be noted that this food prices acceleration from the first quarter onwards has occurred in the remaining euro area countries (see Box 3 - *Food prices in the euro area*).

Table 5.1

PORTUGAL – CONSUMER PRICE INDEX

Year-on-year percentage rates of change

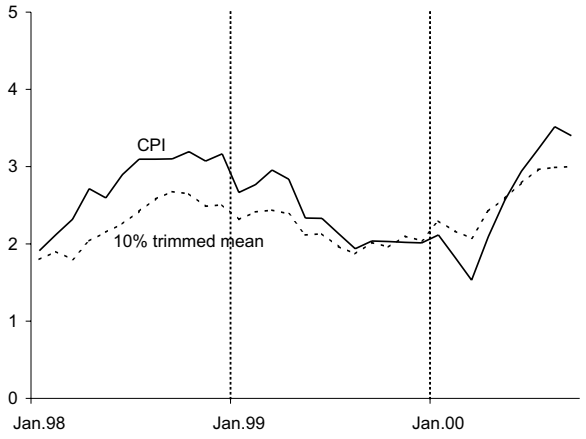
	1999	2000		
	Dec.	Mar.	June	Sep.
Food and non-alcoholic beverages	0.7	-0.6	1.8	2.9
Alcoholic beverages and tobacco	2.9	0.9	0.4	0.9
Clothing and footwear	1.1	-1.2	1.3	1.5
Housing, water, electricity, gas and other fuels	1.5	2.9	3.9	4.0
Accessories, housing equipment and current housing maintenance expenses	1.7	1.6	1.7	2.1
Health	3.7	3.4	2.9	2.9
Transport	3.3	3.2	5.4	5.7
Communications	-2.8	-4.8	-5.0	-4.1
Leisure, recreation and culture	-1.0	-0.5	0.6	1.2
Education	4.9	5.0	5.0	5.1
Hotels, bars and restaurants	3.3	3.0	4.2	3.9
Miscellaneous goods and services	3.8	4.1	3.9	4.5
Total	2.0	1.5	2.9	3.4

Source: *INE*.

Chart 5.2

PORTUGAL – TREND MEASURES

Year-on-year rates of change



Sources: *INE* and *Banco de Portugal*.

ciated with the fact that the prices of some foodstuffs, like potatoes (included in the starches item), showed a particularly favourable behaviour in the same period last year. In the third quarter there was a further acceleration of prices of some foodstuffs, stress being again laid on the starches item. In fact, around 0.6 p.p. of the 1.9 p.p. increase recorded by the year-on-year rate of change of the CPI between March and September 2000 was a direct consequence of developments in the prices of the starches item.

The year-on-year inflation trend indicator, the trimmed mean at 10 per cent[19], which excluded the direct effects associated with the rise in fuel prices[20] and the irregular behaviour of the prices of some goods, namely food, supports the previously described analysis of the CPI behaviour (Chart 5.2). In the first quarter this indicator remained above the year-on-year rate of change in the CPI (2.2 and 1.8 per cent respectively), suggesting that the growth of prices during this period was being negatively influenced by irregular effects; in the second quarter the trimmed mean increased less markedly, moving closer to the figures recorded by the CPI (2.6 and 2.5 per cent), as a reflection of the dampening of these irregular effects; in the third quarter the trimmed mean recorded again a smaller increase, to levels below those of the year-on-year rate of change in the CPI (3.0 and 3.4 per cent). This suggests that part of the acceleration of consumer prices may have been influenced by the occurrence of abnormally high increases in some prices[21]. Anyway, the increase in the trimmed mean and the stronger growth pace of the majority of the CPI items point to a more pronounced upward trend of the CPI, which is accounted for by the deterioration in the main factors behind inflation.

(19) The trimmed mean at 10 per cent is calculated from year-on-year rates of change of the CPI items. On the calculation methodology of the inflation trend indicators normally used by the *Banco de Portugal*, see C. Coimbra and P. D. Neves (1997), "*Trend inflation indicators*", *Economic Bulletin* of the *Banco de Portugal*, Volume 3, no. 1, March 1997.

(20) As from April, fuel is included in the group of items with a total weight of 10 per cent on the CPI, whose prices recorded the highest year-on-year rates of change.

(21) Likewise, from the third quarter onwards, the sectoral breakdown of the price changes of the CPI items has been showing a positive and successively higher asymmetry coefficient, following the negative figures recorded in the first quarter. These developments indicate that in the calculation of the trimmed mean the exclusion of the items with higher negative changes has been having a successively less significant effect and that symmetrically, price changes above average have become increasingly dominant.

The available data for the first quarter confirm the expected upward trend of the import deflators, accounted for by the acceleration of international prices in general and by the depreciation of the euro exchange rate. According to the *Direcção-Geral das Relações Económicas Internacionais* the year-on-year rate of change of import prices stood at 7.0 per cent in the first quarter of 2000 (in comparison with a 1.1 per cent reduction in 1999). Underlying these developments was, in particular, the behaviour of fuel prices, whose deflator grew by 130.9 per cent year-on-year (26.7 per cent in 1999) and, to a lesser extent, the intermediate goods deflator, which recorded a year-on-year change of 4.6 per cent (4.8 per cent decline in 1999). The import deflator of consumer goods declined by 0.3 per cent, after having risen by 0.4 per cent in 1999[22]. The latest developments in oil prices and in the exchange rate of the euro against the US dollar (see section 2. *International environment of the Portuguese economy*) has not only increased the likelihood of a new increase in fuel consumer prices in Portugal, but also point to the persistence of pressures towards more unfavourable developments in import prices.

With regard to the domestic factors behind inflation, despite some deceleration in private consumption in the course of the year (see section 3. *Demand and production)*, some tensions persist in the labour market, which have been translated into the maintenance of a strong wage increase (see section 4. *Labour market*), whose effects are already apparent in developments in some services prices. A subsequent acceleration of nominal wages in response to the increase in inflation can prevent a faster return of inflation to the levels recorded in the two previous years. There are therefore some risks that the rise in the inflation rate in 2000 develops a more lasting influence as it feeds into domestic production costs.

The rise in the inflation rate in Portugal partly reflects the acceleration of consumer prices in the remaining euro area countries. Thus, the inflation differential between Portugal and the euro area rose less markedly than the acceleration of prices in Portugal (Chart 5.3).

The differential between the year-on-year rates of change of the HICP in Portugal and in the euro area, which stood, on average, at 0.3 p.p. in the fourth quarter of 1999, declined at first to -0.4 p.p. in the first quarter, subsequently rising to 0.3 and 1.0 p.p. in the second and third quarters respectively[23]. These figures are significantly influenced by the different patterns of consumer fuel prices in Portugal and in the remaining euro area countries. From early 1999 onwards fuel prices have increased significantly in the other euro area countries, while in Portugal they were only raised in March 2000, remaining unchanged from that date onwards.

Thus, excluding energy, the inflation differential is more stable, narrowing from 1.2 p.p. in the fourth quarter of 1999 to 0.8 p.p. in the first quarter of 2000 and subsequently increasing to 0.9 and 1.6 p.p. in the second and third quarters respectively. It should be noted that the widening of this differential in the third quarter was mainly due to developments in services and unprocessed food prices. With respect to the latter, the differential between the year-on-year rates of change widened from -0.4 p.p. in the second quarter to 1.2 p.p. in the third quarter, which emphasises the fact that the irregular effects behind developments in these prices appear to have made a higher contribution to developments in inflation in Portugal (see Box 3 – *Food prices in the euro area*). For services, the year-on-year growth rate differential of these prices widened from 2.0 p.p. in the second quarter, to an average figure of 2.9 p.p. in the three following months, of which 0.4 p.p. are attributable to methodological changes in the HICP related to the inclusion of tourism expenditure by non-residents[24].

Thus, considering the different HICP components, the main contributions to the change in the inflation differential since early 2000 have been

(22) The quarterly performance of the imports of consumer goods deflator is highly erratic in statistical terms; in addition these data are frequently subject to revisions. Taking into account the moving average of the year-on-year rates of change in the last four quarters (implied in the successive cumulative figures made available in the course of 1999), there is an acceleration of the import deflator from 0.4 per cent in the fourth quarter of 1999, to 0.8 per cent in the first quarter of 2000.

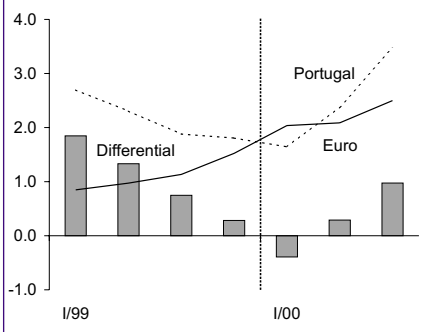
(23) Despite the analysis constraints in 2000, the Portuguese overall HICP remains the most adequate indicator to analyse the inflation differential vis-à-vis the euro area. Anyway, in order to minimise the biases resulting from the statistical changes introduced in January 2000, it is preferable to analyse developments in these differentials in terms of quarterly averages.

Chart 5.3

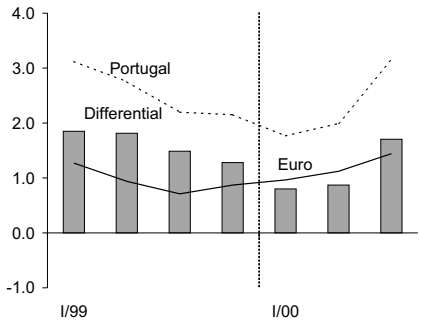
HARMONISED INDEX OF CONSUMER PRICES - TOTAL AND AGGREGATES

Year-on-year rates of change and differentials

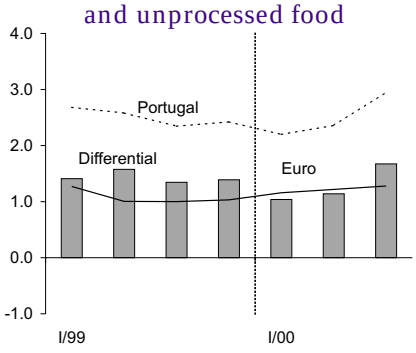
Total



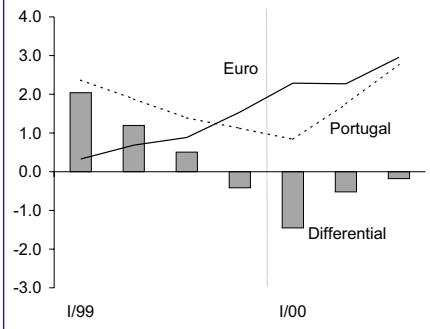
Total, excluding energy



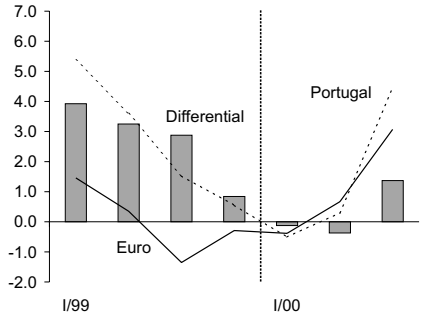
Total, excluding energy and unprocessed food



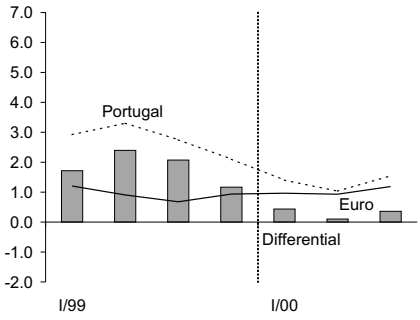
Goods



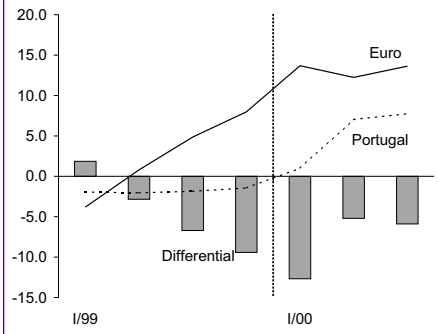
Unprocessed food



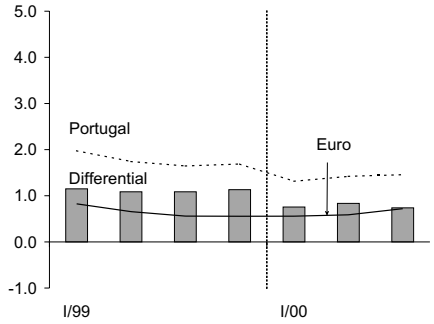
Processed food



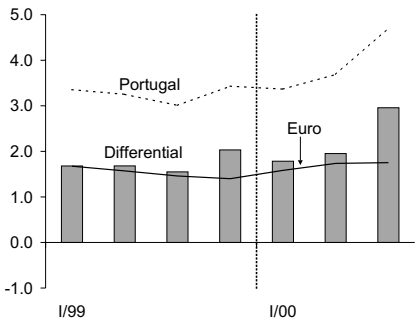
Energy



Non-energy industrial goods



Services



Source: Eurostat.

given by (i) the different fuel consumer pricing policy in Portugal, (ii) the irregular growth of prices of some foodstuffs, more marked in Portugal than in the euro area as a whole, and (iii) the skewness caused by the methodological changes in the Portuguese HICP. Indeed, excluding energy and unprocessed food prices and eliminating the impact of the methodological changes in the HICP related to the inclusion of expenditure by non-residents, the widening of the inflation differential during the first three quarters is estimated to have been significantly less marked. The adjusted level of the differential, which stood at 1.4 p.p. in 1999 (both in annual average terms and in the last quarter), may have declined to 1.1 p.p. in the first quarter of 2000, subsequently increasing to 1.2 p.p. in the second quarter and to 1.5 p.p. in the third quarter.

6. BALANCE OF PAYMENTS

The aggregate deficit of the Current Account and Capital Accounts for 2000 as a whole is expected to post a value between 9 and 10 per cent of GDP, compared with 6.8 per cent of GDP in 1999. This forecast for 2000 corresponds to a revision of a 0.5 percentage point widening of the deficit vis-à-vis that published in the March issue of the *Economic Bulletin*. This is chiefly the result of a downward revision of the balance of current and capital official transfers with the European Union. Nevertheless, the widening of the aggregate deficit of the current and capital accounts in 2000 will continue to reflect mainly the behaviour of the balance of goods, deeply influenced this year by the evolution of terms of trade. Indeed, in 2000, the significant loss in terms of trade should contribute to the deterioration of the trade deficit, as a percentage of GDP, with approximately 1.2 p.p. Exports of goods will likely show a real growth above that recorded by imports, wherefore the volume effect is expected to be less negative than in previous year, albeit still rather significant.

The deficit resulting from the joint balance of the Current and Capital Accounts attained 10.7 per cent of GDP in the first half of 2000[25], vis-à-vis 6.5 per cent of GDP in the first half of 1999 (Table 6.1). This was the result of a deterioration of the Current Account, which posted a deficit of 11.5 per cent of GDP in the first half of 2000 (8.2 per cent of GDP in the same period of the previous year). In addition, the surplus of the Capital Account narrowed from 1.7 per cent to 0.8 per cent of GDP, when compared with the first half-years of 1999 and 2000.

In the first half of the present year, as in 1999, the widening of the deficit of the **Current Account** was chiefly the result of a higher deficit in trade of goods[26]. This deficit posted a strong deterioration, widening by 2.6 p.p. of GDP vis-à-vis the first half of the previous year, from 11.3 per cent to 13.9 per cent of GDP. Exports of goods continued to accelerate over the first six months of the year, in line with the behaviour of external demand for Portuguese producers. However, the nominal growth of imports continued to exceed that of exports, partly reflecting the strong loss in terms of trade observed in this period, associated with the behaviour of the international prices of commodities, in particular oil (see Box 2 – *The increase in oil prices: some effects on the Portuguese economy*). According to *Banco de Portugal's* estimates, the prices of exports of goods are likely to have increased by 2.7 per cent, in year-on-year terms, while prices of imports have probably grown by 7.6 per cent in the first half of 2000.

The surplus of the **Services Account** narrowed to 0.7 per cent of GDP in the first six months of 2000, vis-à-vis 1.0 per cent of GDP in the same pe-

(24) As referred to in the June 2000 issue of the *Economic Bulletin*, one of the methodological changes introduced in the HICP in January 2000 was the inclusion of consumption by non-residents, which was reflected, inter alia, on an increase in the weight of the accommodation services item. Considering that the new index has been linked to the former one with chain rates of change since December 1999, and given the strong seasonality of accommodation services prices, the trend of the year-on-year rate of change in the HICP in 2000 will be upwards (downwards) skewed in the periods of the year which traditionally see an increase (decrease) in the number of tourists.

(25) The calculation of the ratios of the different items of the Balance of Payment as a percentage of GDP in the first half-years of 1999 and 2000 was based on half-yearly estimates of nominal GDP calculated by the *Banco de Portugal*.

(26) Note that exports and imports of goods used in the assessment of this trade balance correspond to estimates by the *Banco de Portugal*, that include adjustment to external trade data for the first half-year, published by the *INE* in order to anticipate future revisions.

Table 6.1

PORTUGAL – BALANCE OF PAYMENTS

EUR million

	January-December 1999		January-June 1999			January-June 2000			Balance as a of % GDP	
	as a % GDP		Debit	Credit	Balance	Debit	Credit	Balance	Jan-Jun 1999	Jan-Jun 2000
Current Account	**-9 568.1**	**-9.0**	**24 545.6**	**20 195.2**	**-4 350.4**	**28 510.9**	**22 155.4**	**-6 355.5**	**-8.2**	**-11.5**
Goods	-13 324.8	-12.5	17 981.9	11 965.8	-6 016.1	20 988.0	13 274.8	-7 713.1	-11.3	-13.9
Services	1 510.3	1.4	2 965.4	3 471.3	505.9	3 380.2	3 771.4	391.2	1.0	0.7
Transport	-557.7	-0.5	906.9	624.7	-282.2	1 054.4	636.4	-418.0	-0.5	-0.8
Travel	2 688.1	2.5	957.2	2 050.1	1 092.9	1 078.9	2 308.9	1 230.0	2.1	2.2
Insurance services	-31.7	0.0	50.0	31.0	-19.1	50.8	27.4	-23.5	0.0	0.0
Royalties and licence fees	-247.9	-0.2	137.2	14.0	-123.2	146.5	10.9	-135.7	-0.2	-0.2
Other services	-180.6	-0.2	792.5	716.3	-76.2	920.9	743.9	-177.0	-0.1	-0.3
Government services	-159.9	-0.1	121.5	35.2	-86.4	128.7	44.0	-84.7	-0.2	-0.2
Income	-1 453.8	-1.4	2 631.0	1 965.7	-665.4	3 130.9	2 392.3	-738.5	-1.3	-1.3
Compensation of employees	11.0	0.0	56.3	64.6	8.3	51.3	65.1	13.8	0.0	0.0
Investment income	-1 464.8	-1.4	2 574.7	1 901.1	-673.6	3 079.6	2 327.2	-752.4	-1.3	-1.4
Current transfers	3 700.2	3.5	967.3	2 792.4	1 825.1	1 011.8	2 716.8	1 705.0	3.4	3.1
Official transfers	527.2	0.5	680.8	1 132.2	451.4	722.0	891.6	169.6	0.9	0.3
Private transfer	3 173.0	3.0	286.5	1 660.3	1 373.8	289.8	1 825.2	1 535.4	2.6	2.8
Capital Account	**2 303.1**	**2.2**	**74.7**	**999.1**	**924.5**	**69.4**	**495.4**	**426.0**	**1.7**	**0.8**
Capital transfers	2 311.8	2.2	57.6	989.9	932.3	59.0	474.4	415.4	1.8	0.7
Official transfers	2 297.2	2.1	3.4	935.8	932.4	2.1	410.7	408.5	1.8	0.7
Private transfers	14.6	0.0	54.2	54.1	-0.1	56.8	63.7	6.9	0.0	0.0
Acquisition / disposal of non-produced non-financial assets	-8.7	0.0	17.1	9.3	-7.8	10.4	21.0	10.6	0.0	0.0
Financial Account	**9 647.4**	**9.0**	**405 707.6**	**410 262.7**	**4 555.1**	**434 315.4**	**439 424.1**	**5 108.7**	**8.6**	**9.2**
Direct investment	-1 872.5	-1.8	9 766.4	9 828.9	62.5	11 113.3	10 354.2	-759.1	0.1	-1.4
Portuguese investment abroad	-2 912.3	-2.7	4 260.1	4 207.3	-52.8	3 759.5	1 892.9	-1 866.6	-0.1	-3.4
Foreign investment in Portugal	1 039.8	1.0	5 506.3	5 621.6	115.3	7 353.8	8 461.3	1 107.5	0.2	2.0
Portfolio investment	7 305.3	6.8	98 071.5	97 775.5	-295.9	97 821.0	92 819.2	-5 001.8	-0.6	-9.0
Assets	-4 222.5	-4.0	60 318.1	56 015.8	-4 302.3	42 747.2	39 704.9	-3 042.3	-8.1	-5.5
Liabilities	11 527.8	10.8	37 753.4	41 759.7	4 006.3	55 073.8	53 114.3	-1 959.5	7.5	-3.5
Financial derivatives	189.1	0.2	714.8	771.0	56.2	2 010.6	2 078.2	67.6	0.1	0.1
Other investment	4 313.0	4.0	279 208.7	284 064.2	4 855.5	292 079.9	302 710.1	10 630.2	9.1	19.2
Assets	-2 056.7	-1.9	208 211.7	210 653.9	2 442.2	232 807.9	232 801.7	-6.2	4.6	0.0
Liabilities	6 369.7	6.0	70 997.0	73 410.2	2 413.2	59 272.0	69 908.3	10 636.4	4.5	19.2
Reserve assets	-287.5	-0.3	17 946.2	17 823.0	-123.2	31 290.6	31 462.4	171.8	-0.2	0.3
Errors and omissions	**-2382.4**	**-2.2**			**-1 129.2**			**820.8**	**-2.1**	**1.5**
Memo:										
Current Account + Capital Account	**-7 265.0**	**-6.8**	**24 620.3**	**21 194.4**	**-3 425.9**	**28 580.2**	**22 650.7**	**-5 929.5**	**-6.5**	**-10.7**

Source: *Banco de Portugal*.

riod of 1999. In this period, there was a widening in the deficit of transport services (as a result of the behaviour of the balance of merchandise freights and of air passenger transport services) and in the deficit of other services supplied by corporations. In turn, the balance of travel and tourism improved in the first half of 2000 from 2.1 to 2.2 per cent of GDP. Nominal tourism receipts increased by 12.6 per cent, vis-à-vis the same period of the previous year, while travel and tourism expenditure abroad by residents rose by 12.7 per cent.

In the first half of 2000, the **Income Account** posted a deficit of 1.3 per cent of GDP, a level identical to that recorded in the same period of 1999. The deficit of the income of «Other investment» widened, in line with the growing recourse by resident monetary financial institutions to external financing sources. In turn, the deficit of income from direct investment narrowed in the first half of the year.

The surplus of **Current Transfers** narrowed from 3.4 per cent of GDP in the first half of 1999 to 3.1 per cent of GDP in the first half of 2000. This narrowing was the result of the behaviour of official transfers, in particular of lower inflows from structural funds of the European Union. The decrease in net capital inflows from the European Union in the first half of 2000 is, to a large extent, explained by the fact that 2000 is the starting year of the third Community Support Framework, and is expected to be reversed in 2001. On the other hand, the surplus of private transfers, chiefly composed of emigrants' remittances, posted a value slightly above that recorded in the first half of 1999 (2.8 and 2.6 per cent of GDP, respectively).

In the first six months of 2000, the **Capital Account** surplus narrowed to 0.8 per cent of GDP, compared with 1.7 per cent of GDP one year earlier. The lower surplus reflects the decrease in official transfers received by Portugal. As mentioned with regard to current transfers, this reduction is chiefly explained by the fact that 2000 is the starting year of the new Community Support Framework.

The **Financial Account** posted inflows equivalent to 9.2 per cent of GDP in the first half-year of 2000, vis-à-vis 8.6 per cent of GDP in the same period of 1999, reflecting the increase in borrowing requirements of Portuguese economy (Table 6.2 and Chart 6.1). These financial inflows into the Portuguese economy were the result of financial operations with abroad on assets and liabilities of monetary financial institutions, Monetary Authorities (chiefly through operations carried out within the TARGET system) and the general government. Resident non-financial corporations and private individuals and non-monetary financial institutions were behind net financial outflows.

In the first six months of 2000, operations of foreign **direct investment** in Portugal and Portuguese investment abroad resulted in a deficit equivalent to 1.4 per cent of GDP (balance of 0.1 per cent in the first half of 1999). Over this period, foreign direct investment in Portugal increased from 0.2 per cent to 2.0 per cent of GDP. However, Portuguese direct investment abroad increased also sharply in this period from 0.1 per cent to 3.4 per cent of GDP. Turning to foreign direct investment in Portugal, stress should be laid on the «wholesale and retail trade, repairs, hotels and restaurants» and «financial intermediation» sectors, due to the amounts of direct investment received in the first half of 2000. In turn, Portuguese direct investment abroad in the first half of 2000 were chiefly carried out by holdings of different national economic groups.

In the first half of the year, there was a net outflow of the Portuguese economy associated with **portfolio investment** operations equivalent to 9.0 per cent of GDP (outflows of 0.6 per cent of GDP in the first half of 1999). The non-resident sector showed a net disinvestment in national assets equivalent to 3.5 per cent of GDP (net investment of 7.5 per cent of GDP in the first half of 1999). These financial outflows were mainly the result of significant net disinvestment in the segment of equities securities of resident corporations, equivalent to 8.9 per cent of GDP (disinvestment of 1.6 per cent of GDP in the same period of the previous year). Non-resident investors continued to direct their investments to government bonds (6.3 per cent of GDP), albeit to an amount below that recorded in the same period of 1999 (9.3 per cent of GDP). In turn, Portuguese portfolio investment abroad declined from 8.1 per cent to 5.5 per cent of GDP. This investment continued to be chiefly directed to bonds and other long-term debt securities, with a net disinvestment in equity securities. Portfolio investment abroad continued to be

Table 6.2

PORTUGAL – FINANCIAL ACCOUNT[(a)]

As a percentage of GDP

	Jan.-Dec. 1999	January-June 1999			January-June 2000		
	Net change	Change in liabilities	Change in assets	Net change	Change in liabilities	Change in assets	Net change
Financial Account	**9.0**	**11.0**	**-2.4**	**8.6**	**14.0**	**-4.8**	**9.2**
Direct investment	-1.8	0.2	-0.1	0.1	2.0	-3.4	-1.4
Portfolio investment	6.8	7.5	-8.1	-0.6	-3.5	-5.5	-9.0
Financial derivatives	0.2	-1.3	1.5	0.1	-3.6	3.7	0.1
Other investment	4.0	4.5	4.6	9.1	19.2	0.0	19.2
Reserve assets	-0.3	-	-0.2	-0.2	-	0.3	0.3
By resident institutional sector:							
Monetary Authorities	**-1.0**	**0.7**	**1.3**	**2.0**	**0.1**	**7.8**	**8.0**
Portfolio investment	0.3	-	0.4	0.4	-	-1.4	-1.4
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	-1.1	0.7	1.1	1.8	0.1	9.0	9.1
Reserve assets	-0.3	-	-0.2	-0.2	-	0.3	0.3
General Government	**8.4**	**9.2**	**0.0**	**9.2**	**5.7**	**-0.8**	**4.8**
Portfolio investment	8.5	9.3	0.0	9.3	5.6	-0.8	4.8
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	0.0	-0.1	0.0	-0.1	0.1	0.0	0.1
Monetary Financial Institutions	**7.5**	**3.8**	**5.8**	**9.6**	**12.3**	**0.6**	**12.9**
Direct investment	-0.7	0.2	-0.2	-0.1	-1.2	-0.3	-1.5
Portfolio investment	1.0	-0.5	-0.9	-1.3	-2.0	2.8	0.8
Financial derivatives	0.2	-1.2	1.4	0.2	-3.3	3.5	0.2
Other investment	6.9	5.3	5.5	10.7	18.7	-5.4	13.3
Non-Monetary Financial Institutions	**-4.7**	**0.1**	**-7.3**	**-7.3**	**-2.2**	**-5.2**	**-7.4**
Direct investment	-0.1	0.3	-0.1	0.2	-0.1	-0.1	-0.2
Portfolio investment	-4.6	-0.2	-7.3	-7.5	-2.0	-5.5	-7.5
Financial derivatives	0.0	0.0	0.0	0.0	-0.3	0.2	0.0
Other investment	-0.1	0.0	0.0	0.0	0.2	0.2	0.4
Non-Financial Corporations and Private Individuals	**-1.1**	**-2.8**	**-2.1**	**-4.9**	**-1.9**	**-7.2**	**-9.1**
Direct investment	-1.0	-0.2	0.2	0.0	3.3	-3.0	0.3
Portfolio investment	1.6	-1.1	-0.3	-1.5	-5.1	-0.6	-5.6
Financial derivatives	-0.1	-0.2	0.0	-0.1	-0.1	0.0	-0.1
Other investment	-1.7	-1.3	-2.0	-3.3	0.0	-3.7	-3.7

Source: *Banco de Portugal*.

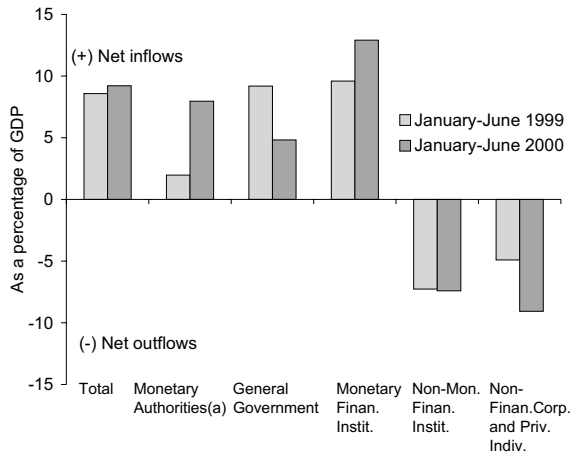
Note:

(a) A positive sign (+) indicates an inflow, i.e., an increase in foreign liabilities or a decrease in foreign assets. A negative sign (-) indicates an outflow, i.e., a decrease in foreign liabilities or an increase in foreign assets.

mostly carried out by resident non-monetary financial institutions, mainly by investment trusts.

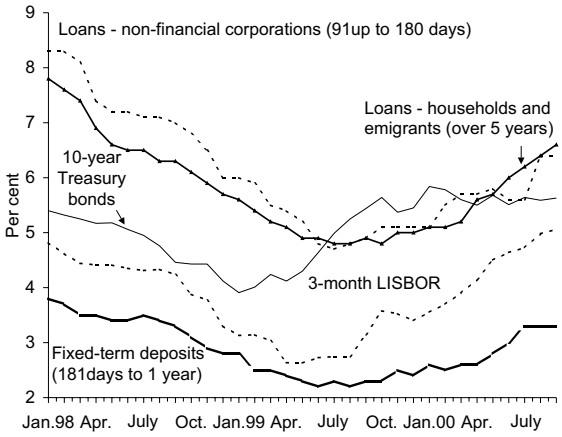
The operations included in the item «**Other investment**» continued to give rise to significant net financial inflows into the Portuguese economy during the first half of the year, to an amount highly above that recorded in the same period of the previous year, i.e., 19.2 per cent vis-à-vis 9.1 per cent of GDP in 1999. In particular, «Other investment» operations carried out by institutions of

Chart 6.1
PORTUGAL – FINANCIAL ACCOUNT
Balances



Source: *Banco de Portugal.*
Note: Includes international payments made by resident monetary financial institutions through the TARGET system, as of January 1999.

Chart 7.1
PORTUGAL – MONEY MARKET, CAPITAL MARKET AND BANK CREDIT INTEREST RATES



Source: *Banco de Portugal.*

the monetary sector (including the *Banco de Portugal*) posted net financial inflows equivalent to 22.4 per cent of GDP in the first half of 2000 (12.5 per cent in the first half of 1999).

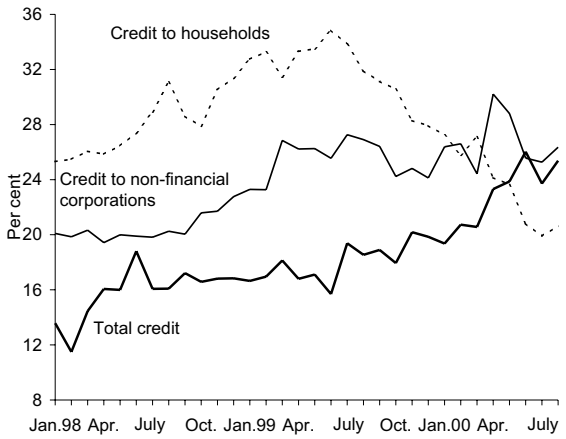
Most «Other investment» operations were directly carried out by monetary financial institutions, whose external indebtedness continued to rise sharply during the first half of the present year. The external resources directly raised by monetary financial institutions through loans and deposit operations were equivalent to 13.3 per cent of GDP in the first half of 2000 (10.7 per cent of GDP in the same period of the previous year). In the first half of 2000, the balance of loans and deposit operations of monetary financial institutions within the TARGET system, registered as changes in external assets of Monetary Authorities, attained 9.1 per cent of GDP, compared with 2.9 per cent of GDP in the first half of 1999. In turn, the operations included in the item «Other investment» carried out by non-financial corporations and private individuals (chiefly loans and deposits) had as a result net outflows equivalent to 3.7 per cent of GDP (3.3 per cent of GDP in the first half of 1999). In particular, deposits of non-financial corporations and private individuals with non-resident banks rose by 3.6 per cent of GDP (1.9 per cent of GDP in the same period of 1999).

7. INTEREST RATES AND CREDIT

In the third quarter of 2000, bank lending and deposit rates continued to evince an upward trend, standing at levels similar to those observed in the second half of 1998. This development was a direct result of monetary policy decisions taken by the ECB. From November 1999 to mid-October 2000, ECB intervention rates were raised by 2.25 percentage points. This rise passed through to money market rates and, consequently, to bank interest rates. In turn, 10-year Treasury bond yields remained relatively stable since the last quarter of 1999. Therefore, the slope of the yield curve in Portugal decreased significantly in the course of 2000.

In September 2000, the interest rates on fixed-term deposits (181 days to 1 year) stood at 3.3 per cent, compared with the 2.2 per cent minimum observed in June and August of 1999 (Chart 7.1). This increase was below that recorded in bank lending rates. In September, the interest rate on new loans to non-financial corporations (91 to 180 days) stood at 6.4 per cent (a minimum of 4.7 per cent in July 1999). At the maturity from 181 days to 1 year, the interest rate to non-financial corporations was set at 6.2 per cent, compared with a minimum of 4.3 per cent in August 1999. In

Chart 7.2
PORTUGAL – DOMESTIC CREDIT
Year-on-year rate of change



Source: *Banco de Portugal.*

turn, the rate on loans to households (operations with maturity of over 5 years) stood at 6.6 per cent, i.e., 1.8 percentage points above the minimum observed in July, August and October 1999.

The change in the interest rates on loans was associated, on the one hand, with the lagged effects of monetary policy decisions taken in the past, and, on the other hand, with expectations regarding future changes in monetary authorities intervention rates. It is thus expected that the rise in bank interest rates observed since mid-1999 shall continue in the course of the coming months, even without additional increases in ECB intervention rates.

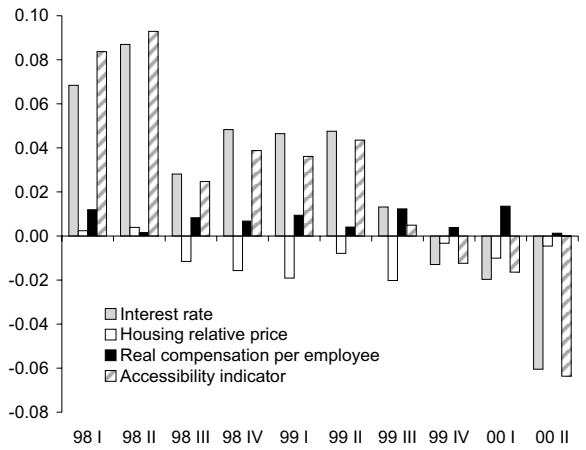
Despite the upward trend in the cost of credit, credit aggregates continued to record high growth rates in the course of 2000. The rate of change of total domestic credit continued to evince an upward trend, standing at 25.4 per cent in August, compared with 19.9 per cent in December 1999 (Chart 7.2). This trend was associated with the trend profile of net credit to the general government. In turn, the growth of domestic credit to the private sector has been standing at around 27 per cent since January 1999. This stability reflects different developments of credit to households, on the one hand, and credit to non-financial corporations and non-monetary financial institutions, on the other hand. While the former recorded a significant deceleration since the third quarter of 1999, the latter (which, in addition to bank credit, includes commercial paper and other securities issued by those sectors and held by banks) maintained historically high growth rates, having accelerated since January 1999.

Net credit to the general government recorded gradually lower rates of decrease since the trough observed in January 2000 (-85.5 per cent). In that month, general government deposits with monetary financial institutions reached the peak of the decade (EUR 11.3 billion), to decrease markedly to EUR 7.5 billion in August. In particular, deposits with the *Banco de Portugal* decreased by EUR 3.0 billion in January 2000 to values close to zero as of March. In turn, credit to the general government continued to decrease gradually, in line with developments in the course of 1999 (from EUR 11.8 billion in January 1999 to EUR 10.8 billion in August 1999 and to EUR 9.0 billion in August 2000). In August 2000, reflecting these developments, the year-on-year rate of change of net credit to the general government reached at 13.4 per cent (the first positive year-on-year change since late 1995).

As mentioned above, over the first eight months of 2000, credit to the resident non-monetary sector maintained high growth rates between 25.7 and 28.0 per cent (recorded in February and April, respectively).

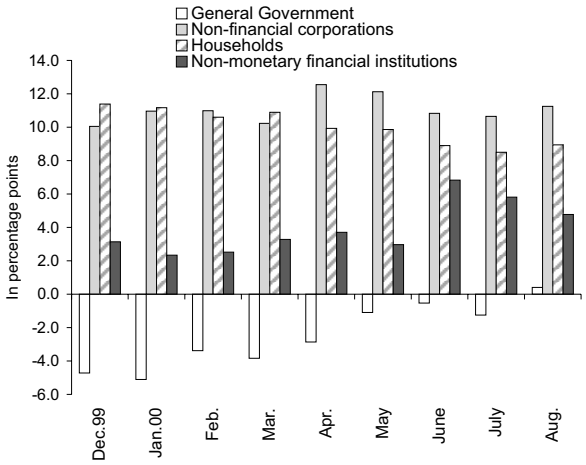
In August, the year-on-year rate of change of credit to households stood at 20.6 per cent (27.9 per cent in December 1999). By purposes, this deceleration occurred simultaneously in housing credit and in credit to consumption and other purposes. The former, which accounted for approximately 75 per cent of total credit to households, recorded a deceleration from 29.7 per cent in December 1999 to 22.4 per cent in August 2000. Credit to consumption and other purposes, revealing a more volatile performance than housing credit, decelerated also from 23.2 per cent in December 1999 to 15.7 per cent in August 2000. As indicated in previous issues of the *Economic Bulletin*, the deceleration of credit to households is chiefly related with the indebtedness levels already achieved, with the upward trend of bank interest rates and with the changes introduced in 1999 in the subsidised credit system. This trend was also reflected in the reduction of accessibility to the housing market observed since the last quarter of 1999 (Chart 7.3).

Chart 7.3
PORTUGAL – ACCESSIBILITY INDICATOR AND COMPONENTS



Source: *Banco de Portugal.*

Chart 7.4
PORTUGAL – CONTRIBUTIONS FOR THE YEAR-ON-YEAR RATE OF CHANGE OF TOTAL DOMESTIC CREDIT



Source: *Banco de Portugal.*

Over the latest quarters, credit to non-financial corporations has recorded high growth rates. In August, the year-on-year rate of change stood at 26.4 per cent, compared with 25.6 per cent at the end of the first half-year and with 24.1 per cent in December 1999. The breakdown by sector of activity shows that the major components of bank credit to non-financial corporations recorded high growth rates. In August 2000, credit aggregates for the services, construction and manufacturing industry sectors recorded rates of change of 28.6, 37.6 and 20.4 per cent, respectively.

Turning to the contributions for the growth of credit to non-financial corporations, stress should be laid on construction (with 6.5 percentage points in August, against 5.3 p.p. in December 1999), real-estate activities (3.6 p.p. in August and 3.5 p.p. in December), services supplied chiefly to corporations (3.5 p.p. in August and 4.5 p.p. in December) and wholesale trade except motor vehicles (2.0 p.p. in August and 1.7 p.p. in December). Within the current scope of increasing interest rates, the development of credit to non-financial corporations is probably associated with several factors: the buoyancy of corporate investment (with growth rates clearly above those of GDP), the decrease of savings in this sector (resulting, in particular, of an increase in input costs) and the restructuring of economic groups, reflected in mergers and acquisitions. These combined effects have given rise to an increase in borrowing requirements of non-financial corporations, with the consequent effects on credit granted to this sector.

Credit to non-monetary financial institutions accelerated significantly between December 1999 and August 2000, and the year-on-year rate of change rose from 27.2 to 43.7 per cent. The year-on-year rate of change recorded a maximum of 65.8 per cent in June, when a statistical reclassification of credit operations carried out in April and initially classified as credit to non-financial corporations[27], took place. This can be observed in Chart 7.4, which presents the contributions of the different components of total domestic credit.

Regarding credit granted by non-monetary financial institutions, the information available for the first half of 2000 suggests an acceleration of this aggregate. In June, the year-on-year rates of change of credit granted by financial leasing companies, credit purchase financing companies and factoring companies (that represent more than 85 per cent of total non-secured credit granted by non-monetary financial institutions) attained 23.2, 30.6 and 29.7 per cent, respectively (compared with 20.8, 24.8 and 17.7 per cent in December 1999).

(27) This partly explains the strong acceleration in credit to non-financial corporations observed in April, subsequently reversed in June, as a result of the above-mentioned reclassification.

Table 7.1

PORTUGAL – CREDIT GROWTH

Per cent

	2000							
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total domestic credit								
Year-on-year rate of change	19.4	20.7	20.6	23.3	23.9	26.0	23.7	25.4
Annualised quarterly rate	23.6	23.1	23.7	26.8	28.2	29.9	26.6	25.4
Credit to the private sector								
Year-on-year rate of change	26.0	25.7	26.2	28.0	26.3	27.8	26.2	25.8
Annualised quarterly rate	23.3	23.9	26.7	29.0	29.8	30.0	27.3	27.0
Credit to households								
Year-on-year rate of change	27.2	25.8	27.1	24.1	23.6	20.8	19.9	20.6
Annualised quarterly rate	21.2	23.8	23.9	22.4	21.5	19.2	18.7	18.2
Credit to non-financial corporations								
Year-on-year rate of change	26.4	26.6	24.4	30.2	28.8	25.6	25.3	26.4
Annualised quarterly rate	24.8	26.1	29.2	31.7	33.5	31.7	24.7	20.9
Credit to non-monetary financial institutions								
Year-on-year rate of change	20.3	22.0	29.3	34.1	26.7	65.8	56.3	43.7
Annualised quarterly rate	25.8	16.4	27.6	44.5	48.8	68.5	72.8	91.4

Source: *Banco de Portugal*.

Note: Annualised quarterly rates ware calculated from seasonally-adjusted data with TRAMO-SEATS.

The analysis of the trend of domestic credit to the private sector (obtained by excluding credit to the general government from total domestic credit) may be complemented, in an interesting manner, with the observation of the behaviour of annualised quarter-on-quarter rates of change. This measure permits to obtain a more accurate assessment of the growth rates in every period, thus overcoming the inertia associated with the utilisation of year-on-year rates of change. Table 7.1 presents, in parallel with year-on-year rates of change, the annualised quarterly rates of change calculated from seasonally-adjusted data. The table suggests that both credit to households and credit to non-financial corporations have evinced decelerating trends over recent months. Despite the marked deceleration of these components, credit to the private sector continues to record changes that are consistent with annualised growth rates above 25 per cent.

The analysis of the consolidated balance sheet of banks (Table 7.2) confirms the buoyancy of credit to the private sector of the economy. It also reveals a growing inconsistency between the raising of resources and the granting of credit by monetary financial institutions to the resident private sector. From December 1999 to August 2000, domestic credit increased by EUR 19 828 million (EUR 16 095 million in the same period of the previous year). The major counterparts of this trend were a decrease of EUR 12 861 million in net foreign assets (a decline of EUR 7 577 million in the same period of the previous year), an increase of EUR 5 621 million in capital and reserves (a decrease of EUR 301 million in the same period of the previous year) and a rise of EUR 2 207 million in issues of debt securities (an increase of EUR 662 million in the same period of the previous year). Stress should be laid on the reduced significance of deposits raised during the first eight months of 2000, which corresponded to only 6.9 per cent of the change in domestic credit to the private sector, compared with 30.3 per cent in the same period of 1999 (87.6 and 125.0 per cent, respectively, in 1995 and 1990 as a whole). In this context, the raising of resources abroad has clearly exceeded investments

Table 7.2

PORTUGAL – CONSOLIDATED BALANCE-SHEET OF MONETARY FINANCIAL INSTITUTIONS

EUR million

	Balance	Changes	
	Aug.2000	Aug.2000 / / Dec. 1999	Aug.1999 / / Dec. 1998
Net foreign assets	-3 712	-12 861	-7 577
Banco de Portugal	15 534	-3 089	-95
Other monetary financial institutions	-19 246	-9 772	-7 482
of which: denominated in euro	-18 506	-7 947	-9 563
Loans to general government	8 959	195	-1 757
Domestic credit (except loans to general government)	149 433	19 828	16 095
Households	64 095	7 055	8 541
Non-financial corporations	66 093	9 567	6 770
Non-monetary financial institutions	19 244	3 207	784
Currency in circulation	5 214	-407	219
Deposits and deposit-like instruments - Total	115 904	1 370	4 870
Securities other than capital	15 523	2 207	662
Money market fund units	111	111	0
Capital and reserves	26 468	5 621	-301
Sundry items (net)	-8 540	-1 740	1 311

Source: *Banco de Portugal*.

abroad, with a sharpening of the foreign debtor position of monetary financial institutions.

8. PUBLIC FINANCES

According to the data sent to the European Commission by the *INE* in late August, in the framework of the excessive deficit procedure, the general government deficit[28] is expected to stand at 1.5 per cent of GDP in 2000 (Table 8.1). This figure is coincident with that presented in the State Budget for 2000, in the updating of the Stability Programme and in last February excessive deficit procedure notification, and represents a decrease of 0.5 p.p. of GDP from the value observed in 1999. The primary balance is expected to rise from 1.2 per cent of GDP in 1999 to 1.7 per cent of GDP in 2000. It should be noted, however, that the value of the deficit in 2000 is influenced by the proceeds from the sale of UMTS (*Universal Mobile Telecommunications System*), to an amount equivalent to 0.4 p.p. of GDP[29].

The general government accounts for 1999 and 2000 used in the August notification, published in September by the Ministry of Finance, show a sharp growth of receipts and expenditure in 2000 (Table 8.2). Total receipts as a percentage of GDP are expected to increase by 1.7 p.p. in 2000, with a significant contribution from all items, except receipts from taxes on output and imports. The latter are expected to maintain their ratio to GDP, despite the strong expansion of VAT receipts, due to a decrease in the collection of the tax on oil products. The fall in these receipts is the result of the policy of administratively-fixed fuel prices.

On the expenditure side, primary current expenditure recorded an increase of 1.7 p.p. as a percentage of GDP. Compensation of employees is expected to rise by 9.8 per cent, highly above the updating of the wage scale, which stood at 2.5 per cent. In fact, the growth in the number of govern-

(28) Compiled according to the National Accounts - ESA95 methodology.

(29) According to a decision taken by the Eurostat, the proceeds from the sale of UMTS licences should be entered in the National Accounts with a negative sign, under net acquisition of non-produced, non-financial assets, which are included in capital expenditure.

Table 8.1

PORTUGAL – EXCESSIVE DEFICIT PROCEDURE

Reporting in 2000

	Reporting in February 2000					Reporting in August 2000				
	GDP	Deficit		Debt		GDP	Deficit		Debt	
	Euro million	Euro million	Percentage of GDP	Euro million	Percentage of GDP	Euro million	Euro million	Percentage of GDP	Euro million	Percentage of GDP
1996	85287.5	3256.2	3.8	54238.8	63.6	86580.3	3446.7	4.0	54258.7	62.7
1997	91162.3	2344.8	2.6	54942.1	60.3	94020.4	2424.2	2.6	54964.0	59.4
1998	98227.8	2074.5	2.1	55493.3	56.5	99603.0	2277.5	2.3	55479.3	55.7
1999	103924.0	2049.1	2.0	59056.7	56.8	105629.4	2128.9	2.0	58923.5	55.8
2000	109912.6	1702.4	1.5	62798.7	57.1	111716.3	1715.9	1.5	62114.3	55.6

Source: Excessive deficit procedure: February and August 2000.

Table 8.2

PORTUGAL – GENERAL GOVERNMENT ACCOUNTS

	1999	2000	1999[a]	2000
	As a percentage of GDP		Growth rates	
Total receipts	43.5	45.2	9.4	10.1
Current receipts	41.3	42.7	9.1	9.3
Taxes on income and wealth	10.5	10.7	11.6	7.8
Taxes on production and imports	15.2	15.2	10.6	5.7
Social contributions	11.7	12.1	6.8	9.7
Other current receipts	1.8	2.4	0.2	40.9
Sales	2.1	2.3	7.5	13.5
Capital receipts	2.2	2.6	16.7	24.3
Total expenditure	45.5	46.8	8.6	8.8
(Total expenditure excluding UMTS)	(45.5)	(47.1)	(8.6)	(9.6)
Current expenditure	39.0	40.7	8.2	10.4
Current transfers	17.1	18.2	10.1	12.3
Social security payments	13.7	14.3	8.7	10.6
Subsidies	1.0	1.2	11.7	21.0
Other current transfers	2.3	2.6	18.5	18.3
Interest	3.2	3.2	-1.4	5.4
Compensation of employees	14.6	15.1	9.0	9.8
Intermediate consumption	4.1	4.2	5.2	8.4
Capital expenditure	6.5	6.1	11.4	-0.9
(Capital expenditure excluding UMTS)	(6.5)	(6.4)	(11.4)	(5.0)
Total balance	-2.0	-1.5		
(Total balance excluding UMTS)	(-2.0)	(-1.9)		
Primary balance	1.2	1.7		

Sources: *Ministério das Finanças, Direcção-Geral do Orçamento* and *Banco de Portugal*.

Note:

(a) Estimates of the *Banco de Portugal*, not fully comparable with the rates of change assessed for 2000 from information made available by the *Ministério das Finanças*.

ment employees, the effects of the different revisions of professional careers and the sharp increase in the Government subsidy to the government employees pension system contributed to an expansion of this item highly above the growth rate of GDP. According to information made available by the Ministry of Finance, intermediary consumption expenditure is expected to increase by 8.4 per cent, while social payments will likely record a rise of 10.6 per cent, thus confirming the strong growth trend observed over recent years. It should be noted that social payments in the government employees system are increasing at a rate above that of the general social security system.

Between the February and the August notification, interest expenditure was revised upwards by 13.1 billion escudos, reflecting the interest rate increase in the course of the year.

Capital expenditure decreased by 0.9 per cent, as a result of the recording, with a negative sign, of proceeds from the sale of UMTS licences. Excluding this effect, capital expenditure would increase by 5.0 per cent, which represents a deceleration vis-à-vis 1999. This trend is a result of the belated entry into force of the State budget and of the fact that 2000 is the starting year of a new Community Support Framework.

The estimates for the debt ratio at the end of 1999 and 2000 stood at 55.8 and 55.6 per cent, showing a reduction of 1.0 and 1.5 p.p., respectively, vis-à-vis the figures presented in February, which was due to the revision of the nominal GDP series and of the debt levels (Table 8.1). In 2000, the debt ratio foreseen for the end of the year decreases by 0.9 p.p. in the wake of the GDP revision, and by 0.6 p.p. due to the debt level reduction, partly explained by the decrease in the figure assumed for the debt settlements by the Treasury.

9. CONCLUSION

The continued and substantial reduction of nominal and real interest rates observed up to mid-1999 was, to a great extent, considered irreversible, given that it was associated with a new macro-economic system characterised by price stability. This led to an increase in wealth and to a significant slowdown in liquidity restrictions felt by households and companies, with the ensuing expansionary effects on domestic demand and an increase in private-sector indebtedness. These expansionary effects were intensified by a procyclical budgetary policy, revealing very sharp increases in public consumption.

A large part of the expansion of demand was met by external supply, with a more limited impact on economic growth, thus contributing to a considerable widening of the joint deficit of the current and capital accounts. This had as a counterpart a strong recourse to external indebtedness. In turn, some signs became more apparent of both a loss of export market shares and a lower attractiveness of Portuguese economy as destination for foreign direct investment. In this period, wages grew clearly above productivity, which in turn presented insufficient growth rates.

As mentioned in previous *Economic Bulletins*, it would not be favourable that Portuguese economy would continue to reveal such a strong expansion of domestic demand, as it would lead to unsustainable indebtedness levels that would imply an excessive vulnerability to internal or external shocks. Therefore, the foreseen deceleration of domestic demand and the reversal of the downward trend of the household savings rate in 2000 are part of a process of desirable adjustment of the economy. A higher growth of domestic demand in the short run would have as a result, in the medium term, more pronounced and sustained adjustments. This is particularly relevant within a context in which the instruments at the disposal of the authorities to manage this type if situation are rather limited.

In these circumstances, the key issue is related with the need to promote competitiveness in Portuguese economy within a context of accrued international competition, as a result of a process of growing economic and financial integration and, in particular, of participation in the euro area. Only with an improvement in competitive conditions will it be possible to increase potential growth and to pursue the real convergence process. A number of factors contribute to this: on the one hand, it is important to ensure that wages will not continue to grow above productivity; on the other hand, it should be borne in mind that the unfavourable effects on Portuguese economy of the increase in oil prices, that seem to be more persistent than anticipated, will depend, to a large ex-

tent, on how it will spill over into wages. Given that this spill over is not apparent in most euro area countries, although the spill-over effects on consumer prices of the international oil price increase were more marked in those countries than in Portugal, an increase in wages in Portugal as a result of the rise in energy prices would necessarily be reflected in a deterioration of competitiveness of Portuguese economy vis-à-vis its trading partners. Finally, from a medium-term perspective, an improvement of the quality of factor inputs and of productive efficiency is crucial for an increase in the pace of growth of the potential output of the economy. The Government might play an important role at this level through supply policies, such as education policies. For such purpose, it is important, however, to ensure the recourse to efficiency criteria in the implementation of these policies. It is also important to ensure labour market flexibility in Portugal and to avoid situations of disincentives to labour supply.

Completed with information available as at 16 October 2000.

Box 1 – FINANCIAL MARKETS DEVELOPMENTS

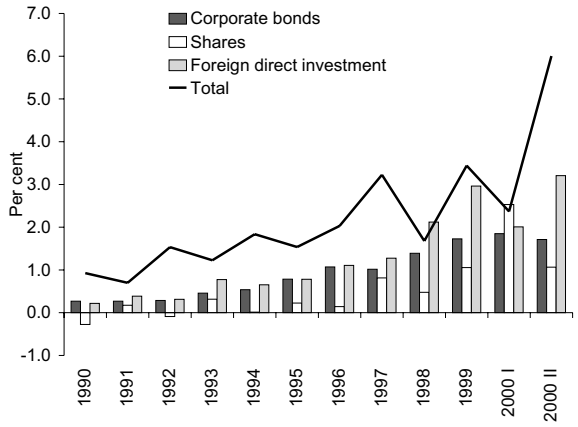
In the past three years international financial markets developments were marked, on the one hand, by strong capital inflows to the United States, resulting from the long-lasting economic expansion, and, on the other hand, by a high sensitivity of investors to non-anticipated changes in economic and monetary policy conditions. This latter aspect has characterised international financial markets, at least since the eve of the Asian crisis in 1997/1998 and has led, from that moment onwards, to swings in the volatility of a number of markets, namely in global stock and private debt markets. With regard to private debt markets, there has been a significant cyclical widening of the differentials, when taking government debt interest rates as a reference.

One of the major uncertainty factors conditioning financial market developments at present is associated with the dynamics of the adjustment process of the imbalances in the US economy, in which the growth of domestic demand, namely private consumption and investment, has largely exceeded GDP developments, with corresponding massive foreign capital inflows (Chart 1). In recent years, and in particular since 1999, capital inflows have largely financed investment in sectors whose income is expected to grow at rather promising rates, namely the information technology and telecommunication sectors. Stock price indices for these sectors have shown a very strong growth since 1999. In parallel, the indebtedness levels of the non-financial private sector reached in 1999 the highest levels of the past 20 years, i.e. they were even higher than in 1989 (Chart 2).

Chart 1

INCREASE IN US FINANCIAL LIABILITIES TO THE REST OF THE WORLD

Total and breakdown by some instruments as a percentage of GDP

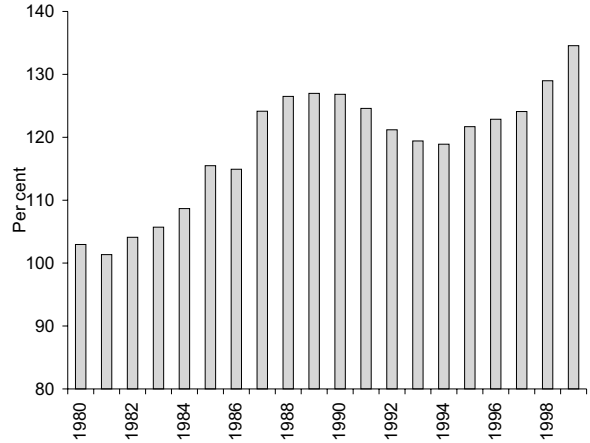


Source: Federal Reserve Board of Governors.

Chart 2

INDEBTEDNESS OF THE NON-FINANCIAL PRIVATE SECTOR

As a percentage of GDP



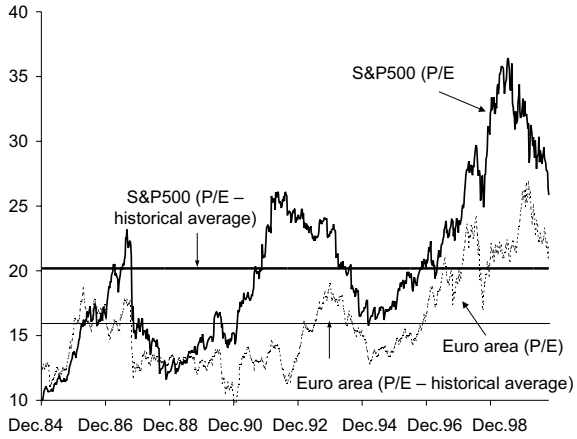
Source: Federal Reserve Board of Governors.

In April and May 2000, news suggested that the initial projections for earnings in a number of companies in the new technology sectors were likely to be subject to a significant downward revision. This new information, in addition to the uncertainty about the magnitude that the tightening of the US monetary policy might have until the end of 2000, gave rise to a strong correction of the stock price indices in these sectors. Despite this fall, the US stock market levels were reported as remaining historically high, in particular in the new technology sectors mentioned above.

In fact, for the S&P500 index, the ratio of the price levels in relation to earnings of the companies included in this index (Price/Earnings or P/E ratio), which is an indicator of the number of years necessary for the accumulated earnings flow, assessed in the current period, to reach the corporate value implied in the stock

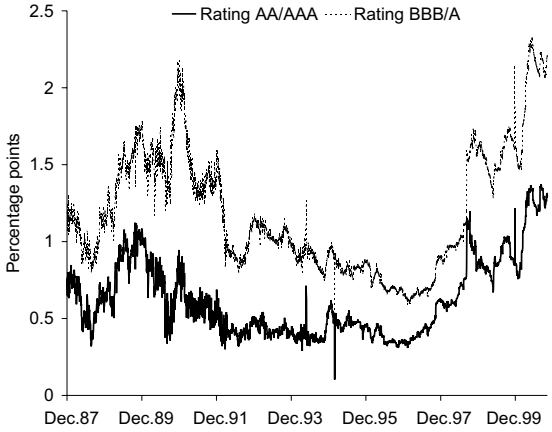
prices, stands substantially above its historical level in the period under review (Chart 3). This signals either the overvaluation of the index or prospects of strong growth of US corporate earnings. The same indicator calculated for the NASDAQ index, which includes companies from the new technology sectors, shows even higher values than the S&P500, suggesting that the current stock prices in this market are probably supported by expectations of very strong corporate earnings growth in the new technology sector[(1)]. In the euro area P/E ratios also stand at levels significantly higher than their historical average.

Chart 3
US AND EURO AREA P/E RATIO



Source: Datastream.

Chart 4
SPREADS BETWEEN (5-10 YEAR) CORPORATE AND (10 YEAR) GOVERNMENT BOND YIELDS IN THE US



Sources: Bloomberg and Merril Lynch.

At the same time, differentials between long-term corporate bond yields and the corresponding US 10-year government bond yields stood at the highest levels of the past decade, even higher than those recorded during the recession in the early 1990s and during the most turbulent period following the Asian crisis in 1997/1998 (Chart 4). This situation suggests less favourable borrowing conditions for US companies, which may be associated with a reassessment by the markets of the US credit quality. It should thus be noted that the default rate for bank credit to companies, after having continuously declined since 1991, rose by around 0.5 percentage points between June 1998 and June 2000 (Chart 5). In the euro area the differentials between the rates of return of corporate and government bonds also widened in the recent period, although to a lesser extent than in the US (Chart 6).

In parallel with this trend, household consumption expenditure in the US stands at very high levels, translating into the lowest post-war saving rates for this sector (Chart 7). This behaviour of households is thought to be linked with an anticipation of future increases in disposable income, supported by a permanent significant increase expected for the productivity of the US economy, already mirrored in the stock market gains observed in recent years.

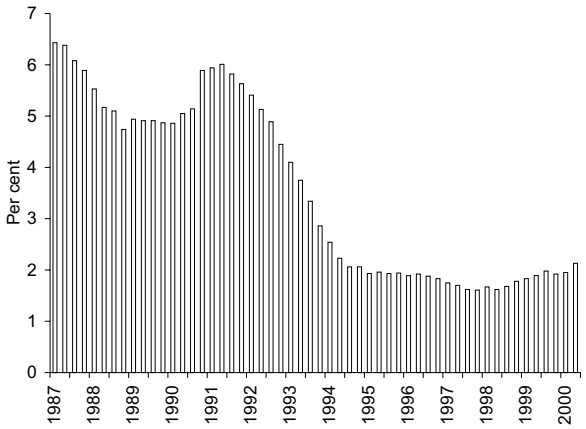
It should be noted that given the high levels (according to international standards) of the direct and indirect holding of shares by US households (approximately 210 per cent of disposable income in 1999, compared with 87.2 per cent in 1994), the strong valuation of the US stock market in recent years had a rather significant positive impact on the wealth of this sector. This indicates, at the same time, an increased vulnerability of households to movements in the stock market and suggests that the saving levels reached by this sector may not be sustainable in the medium term.

(1) The P/E ratio of the NASDAQ index stood at around 120 in June 1999, subsequently rising until mid-March 2000, when it peaked at 400. Due to the downward adjustment of NASDAQ prices as from April 2000, the P/E ratio in this market returned in October 2000 to the levels recorded in June 1999.

Chart 5

DELINQUENCY RATES OF US BANKS' COMMERCIAL AND INDUSTRIAL LOANS

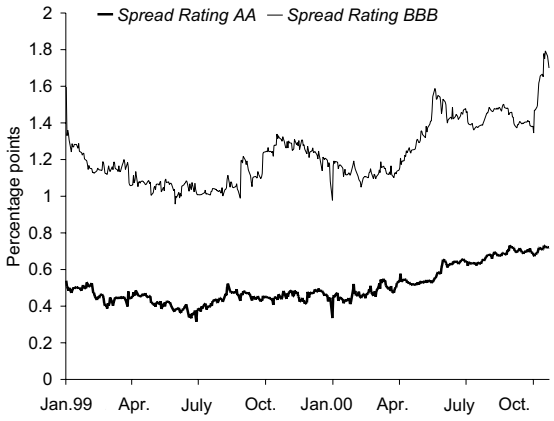
Seasonally adjusted figures



Source: Federal Reserve Board of Governors.

Chart 6

SPREAD BETWEEN (7-10 YEAR) CORPORATE AND (7-10 YEAR) GOVERNMENT BOND YIELDS IN THE EURO AREA

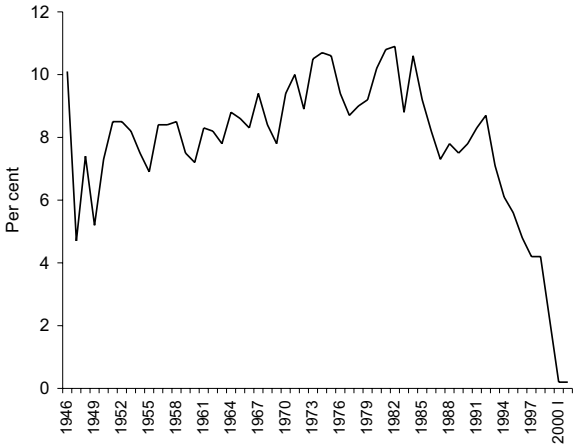


Sources: Bloomberg, Merril Lynch and *Banco de Portugal.*

Chart 7

US HOUSEHOLDS' SAVING RATE

As a percentage of disposable income



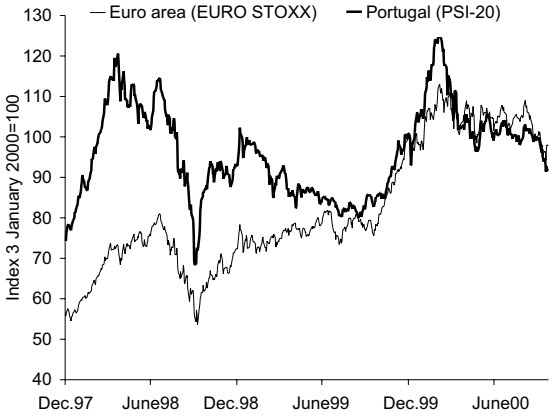
Source: Federal Reserve Board of Governors.

In this context, possible changes in market confidence regarding the future maintenance of US productivity gains become particularly important, since they might be responsible for a sharp drop in US stock market prices. Against this background, a significant restraint of household expenditure and corporate investment is likely to occur, translating into an abrupt slowdown of the US economy, affecting the financial market stability, and into the deterioration of overall economic conditions. Within this framework, progress made in financial integration and in the technologies which support the carrying out of transactions have led in recent years to a growing globalisation of financial investments, strenghtening at the same time the contagion mechanisms across markets. Thus, the transmission of such a shock to the stock markets of the remaining economies would plausibly be quite fast.

Although at a more modest scale, Portugal has accompanied the transformations in the major international financial markets. On 6 March the PSI-20 index reached an historical high, having declined by 17 per cent two months later. This adjustment was in line with the fall in the US stock market in April 2000 and its effects were more adverse to companies with a higher involvement in the telecommunication and information technology sectors. Subsequently, Portuguese indices moved closely in line with the developments in the euro area stock market indices, and on 23 October 2000 they stood more than 26 per cent below the peak reached in March (Chart 8).

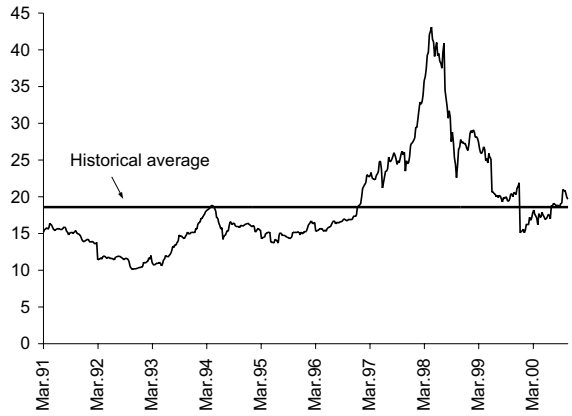
The volume of trading in the Portuguese stock market in 2000 recovered significantly from the fall observed in 1999. In fact, up to the end of August 2000 the amount of shares traded in the stock market had already exceeded by 12 per cent the amounts for 1999 as a whole. These developments reflected, on the one hand, the strong activity in January and February 2000, which was associated with the international interest on

Chart 8
STOCK PRICE INDICES IN PORTUGAL AND IN THE EURO AREA



Source: Datastream.

Chart 9
P/E RATIO IN THE STOCK MARKET IN PORTUGAL



Source: Datastream.

companies from the telecommunication and information technology sectors and, on the other hand, with banking sector acquisitions which were reflected in stock market transactions at end-June.

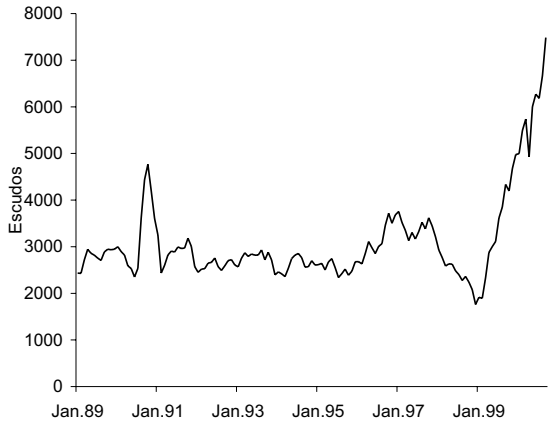
Reference should also be made to the P/E ratio in Portugal, which after having recorded historically high levels in mid-1998 (around 40), declined substantially in the second half of 1998 and in the first three quarters of 1999. In October 2000 this ratio stood at around 20, i.e. only marginally above its historical average, calculated for the period between March 1991 and October 2000 (Chart 9).

Box 2 – THE INCREASE IN OIL PRICES: SOME EFFECTS ON THE PORTUGUESE ECONOMY

The increase in oil prices in the international market translated into a significant unfavourable shock on the Portuguese economy in 2000.

Oil prices in US dollars have been increasing since early 1999. This price rise has been aggravated by the depreciation of the euro against the US dollar, which has also been increasing during the current year. In fact, comparing the average levels of oil prices in euro in September 2000 and in December 1999, there was an increase of 50.5 per cent. This rise is even more marked when comparing average levels of oil prices in euro in September 2000 and in January 1999. In this case, the price rise amounted to 291.1 per cent. In historical terms, the oil price per barrel in escudos currently presents much higher levels than those observed in 1991 during the Gulf War (Chart 1).

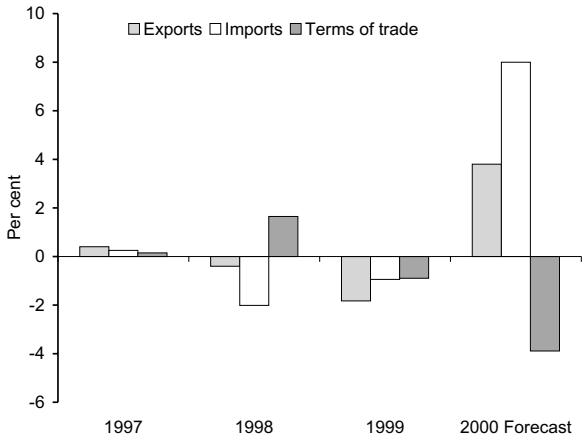
Chart 1
OIL PRICE IN ESCUDOS



Source: Datastream.

Developments in oil prices are immediately reflected in the Portuguese economy through the widening of the deficit of the goods account. First, this increase in prices contributes to a strong rise in the deflator of goods imports. This deflator is strongly influenced by developments in oil prices, as it constitutes an important share of the purchases abroad of the economy (imports of energy goods accounted for 6.8 per cent of the total value of goods imports in 1999). According to estimates of the Banco de Portugal, the deflator of goods imports is likely to record in 2000 a rate of growth of 8.0 per cent, which compares with rates of growth of -2.0 per cent and -0.9 per cent in 1998 and in 1999 respectively. On the other hand, the deflator of goods exports will probably record in 2000 a rate of growth of 3.8 per cent, which compares with rates of growth of -0.4 per cent and -1.8 per cent in 1998 and 1999, respectively (Chart 2). These developments are reflected in a negative change in terms of trade of 3.9 per cent in the current year. Assuming, for instance, that there had been no rises in the international price of oil during 2000, the Banco de Portugal estimates that, other things being equal, the rate of growth of the deflator of goods imports would have been of only 1.1 per cent, while the rate of growth of the deflator of goods exports would have been of 2.4 per cent, other things being equal. Such circumstances would have brought about a gain in terms of trade of 1.2 per cent.

Chart 2
PORTUGAL – GROWTH RATE OF THE DEFLATORS OF GOODS IMPORTS AND EXPORTS AND DEVELOPMENTS IN THE TERMS OF TRADE



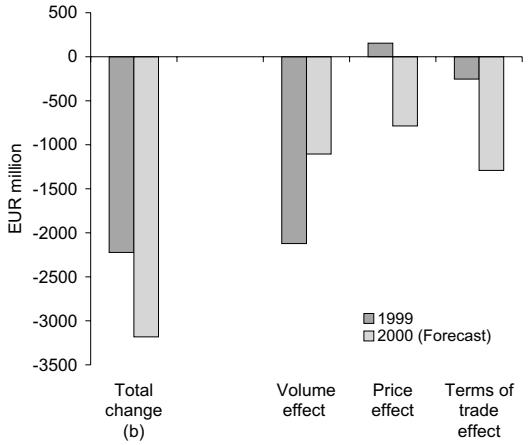
Source: DGREI and *Banco de Portugal*.

The effects of the changes occurred in the deflators of imports and exports on the external accounts deficit may also be quantified. In this context, developments in the goods account may be broken down by three different effects, namely the effect of the change in the volume of exports and imports (volume effect), the effect of

the average growth of prices of external trade (price effect) and the effect of the relative change in export and import prices (terms of change effect) (Chart 3). The latter will be negative in 2000, reflecting the loss associated with the reduction in the purchasing power abroad by unit of export revenue. According to estimates of the Banco de Portugal, this loss will amount to 1.2 per cent of real output in 2000. By contrast, in a hypothetical context of stabilisation of oil prices at the average level of 1999 during 2000, the terms of trade effect would have been equivalent to a gain of around 0.4 per cent of real output. From this exercise, based only on the analysis of direct effects, i.e. it does not assess the effects of the changes in relative prices on import and export volumes (the so-called substitution effect), it can be concluded that the loss in revenue imputable to the rise in oil prices amounted to approximately 1.6 per cent of real output in 2000.

Chart 3

PORTUGAL – BREAKDOWN OF THE CHANGE IN THE GOODS ACCOUNT BALANCE



Source: *Banco de Portugal.*

Against a background of oil price increases there are two policy action alternatives. They consist in not accommodating the price rise, transmitting its effects to final consumers or, as an alternative, making a partial accommodation, which results in a lower rise in final selling prices through a reduction in the tax burden. In Portugal the second alternative was adopted, i.e., the Portuguese government decided to accommodate part of the rise in oil prices through a reduction in the effective rate of the tax on oil products. This decision had consequences in tax revenue and in the path of domestic inflation.

The consequences of the adoption of such partial accommodation policy depend on the nature of the shock in the international prices of oil. If the increase in prices is temporary, the loss in the tax revenue and the consequent increase in the budget deficit are naturally more limited than when the new oil prices have a permanent nature. In this case, the impact on the budget deficit is significant, and the adoption of also permanent offsetting measures is necessary. Such measures will have to be translated into an increase in tax revenue and/or a reduction in public expenditure in order to fulfil the commitments undertaken within the scope of the Stability and Growth Pact.

Finally, the reduction in the effective rate of the tax on oil products has made it possible to avoid further increases in final prices of fuels, minimising the effect of the rise in oil prices on the domestic inflation rate. As a comparative measure, it should be noted that the partial adjustment of fuel prices, at end-March 2000, implied a one-off increase of 9.7 per cent in the price index of the fuels and lubricants category in April. This increase implied a one-off increase of 0.45 per cent in the consumer price index of April, which corresponds to a 0.34 per cent rise in the average inflation rate in 2000. However, the fact that there was not a total adjustment of fuel prices has prevented the functioning of the market response mechanism, which would lead to a reduction in consumption as a result of the price increase. Thus, when there are increases in oil prices, the adverse effects on the external account deficit and on the budget deficit are magnified.

Box 3 – FOOD PRICES IN THE EURO AREA

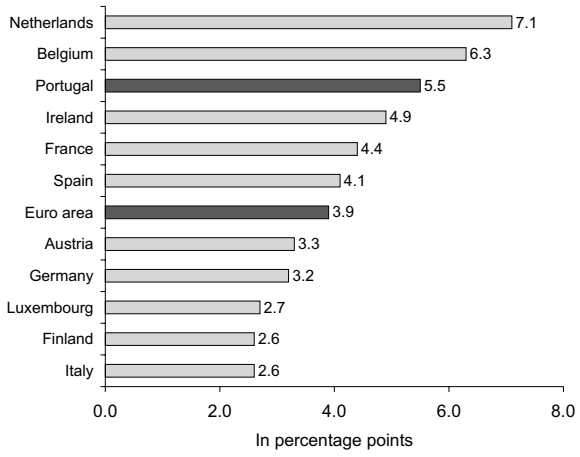
Since the end of the first quarter of 2000 unprocessed food prices accelerated in all euro area countries. This acceleration was sharper in the Netherlands, Belgium and Portugal (Chart 1). HICP unprocessed food include meat, vegetables (including potato), fish and fruit.

Taking into account the growth of these prices during the same period in recent years, the figure recorded in 2000 for the euro area as a whole does not differ significantly from those for 1997-98 (Chart 2). Thus, the increase in the year-on-year rate of change of these prices in 2000 may be essentially linked to a base effect caused by a rather favourable behaviour of prices in the same period of the previous year. In 1999 the prices of some agricultural products seem to have been affected by extremely favourable weather conditions.

Portugal also experienced this base effect. In addition, however, the growth of food prices as from the end of the first quarter of 2000 appears also to have been excessive vis-à-vis the figures recorded in 1997-98. Taking this latter period as a reference, the rise in the year-on-year rate of change can be broken down, since March 2000, into the 1999 base effect and the new irregular component for 2000 (Chart 3).

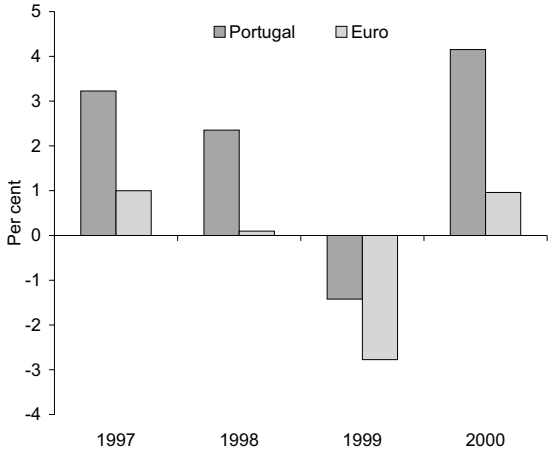
It should be noted that in Portugal the effects of these irregular patterns in HICP developments are more significant due to the higher weight of unprocessed food in the total index (12.7 per cent in Portugal, against 8.2 per cent in the euro area).

Chart 1
UNPROCESSED FOOD PRICES
Rise in the year-on-year rate of change between March and September



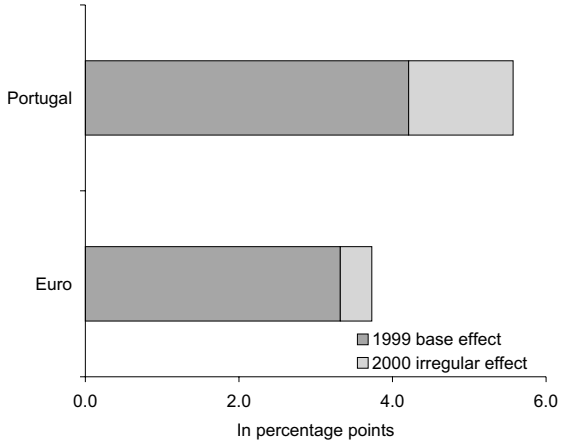
Source: Eurostat.

Chart 2
UNPROCESSED FOOD PRICES
Price growth between March and September



Source: Eurostat.

Chart 3
UNPROCESSED FOOD PRICES
Breakdown of the rise in the year-on-year rate of change between March and September



Sources: Eurostat and *Banco de Portugal*.

MAIN CHANGES IN THE STRUCTURE OF THE FOREIGN EXCHANGE AND DERIVATIVES MARKETS IN PORTUGAL IN 1999

1. INTRODUCTION

In 1999, two half-yearly surveys on the activity of foreign exchange and derivatives markets took place. Compared to surveys in 1998, the framework of the collected data remained unchanged (covering spot foreign exchange transactions and foreign exchange and interest rate derivatives transactions traded in the OTC market and also exchange-traded derivatives, as well as notional amounts and market gross values of the amounts outstanding in exchange rate and interest rate derivatives).

The results of the 1999 surveys are particularly important, since they are the first surveys conducted after the introduction of the euro. This text attempts at tracing the most significant changes in the turnover and amounts outstanding structure in the Portuguese foreign exchange and derivatives market.

The inter-temporal analysis is hampered by the structural break that took place due to the introduction of the single currency. This difficulty is especially relevant in the breakdown by currency and with regard to the operations denominated in euro. Eliminating and disregarding the transactions carried out among EU11 currencies in the series prior to 1999 was a simplifying option.

On the one hand, it is minimalist, as it only takes into account the direct impact of eliminating the operations between the currencies currently composing the euro (not taking into account, for example, all transactions which were to be conducted between two currencies of the EU11, but in which, for liquidity reasons, there was recourse to the US dollar as vehicle currency).

On the other hand, it might be excessive, since, as long as there were different currencies, these were indeed alternative investments for market participants (the simple elimination of operations intra-EU11 currencies in the data prior to 1999 would tend to over-estimate the relative weight of other currencies). The analysis carried out within this framework should, therefore, be considered with some caution.

Analysing overall data collected, the main developments to be stressed are:

- A strong reduction both in foreign exchange and interest rate derivatives turnover;
- A relative stability of the levels of the amounts outstanding, despite some reduction in the foreign exchange derivatives amounts outstanding;
- The clear predominance of the euro in the majority of the instruments, both in terms of turnover and of amounts outstanding ;
- The maintenance of the role of non-resident financial institutions as the main counterparties (in particular in the segment of interest rate instruments);
- Some strengthening of the share held by non-financial resident customers;
- Increase of the turnover in the organised market (only in foreign exchanges), relating almost exclusively to interest rate products;
- Increase of the degree of concentration in the foreign exchange market and relative stabilisation in the interest rate derivatives market.

2. MAIN CHANGES

2.1 OTC market

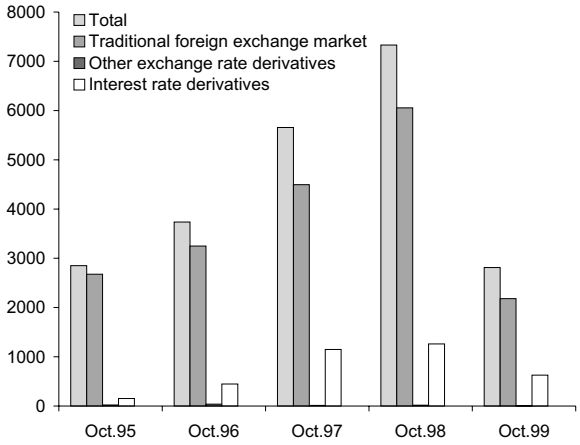
Turnover [1]

The results of the first surveys conducted after the introduction of the euro reveal a reduction greater than 50%[2] in the average daily volume of the over-the-counter market.

The turnover has contracted both in the traditional foreign exchange[3] (-64%) and foreign exchange derivatives market (-70%) and in the OTC interest rate derivatives market (-50%). With the exception of interest rate swaps (IRS), all the instruments recorded turnover reductions. Foreign exchange swaps, in the foreign exchange market, and FRA, in the interest rate derivatives market, recorded the most significant turnover declines by around 70% (see Chart 2.1).

Therefore, the decline was more marked than that resulting from the simple elimination of the transactions between the currencies composing the euro, since the weight of these operations accounted for around 15% of the total, in April 1998. The reduction in turnover occurred mainly in the first half of 1999, as in the second half there has

Chart 2.1
OTC MARKET
Average daily turnover



(1) Data on transactions will always be referred to in terms of average daily volumes, adjusted for double-counting due to transactions carried out in the domestic interbank market.
(2) Except where otherwise stated, percentages relate to October 1999 and time comparisons to the period from October 1998 to October 1999.
(3) The traditional foreign exchange market comprises spot operations, outright forwards and foreign exchange swaps.

Table 2.1

OTC FOREIGN EXCHANGE AND INTEREST RATE DERIVATIVES
Average daily turnover

USD million

	Total	Traditional foreign exchange market	%	Other exchange rate derivatives	%	Interest rate derivatives	%
1995							
Apr.	2457	2382	*97*	14	*1*	61	*2*
Oct.	2851	2677	*94*	21	*1*	153	*5*
1996							
Apr.	3028	2715	*90*	22	*1*	291	*10*
Oct.	3736	3249	*87*	39	*1*	448	*12*
1997							
Apr.	5006	3484	*70*	21	*0*	1501	*30*
Oct.	5657	4495	*79*	13	*0*	1149	*20*
1998							
Apr.	5434	4398	*81*	38	*1*	998	*18*
Oct.	7330	6054	*83*	16	*0*	1260	*17*
1999							
Apr.	2635	2099	*80*	3	*0*	533	*20*
Oct.	2812	2180	*78*	5	*0*	627	*22*
Change(%):							
Oct. 1998 / Oct. 1999	-61.6	-64.0		-68.8		-50.2	
Apr. 1999 / Oct. 1999	6.7	3.9		66.7		17.6	

been a relative stabilisation of the amounts and the turnover has even increased in most instruments.

In terms of structure, however, there were no relevant changes between risk market categories. Traditional foreign exchange transactions continued to prevail, while interest rate derivatives transactions maintained a weight of around 20 per cent. In turn, more relevant developments occurred with regard to the importance of the different instruments in each market-risk category.

In the **traditional foreign exchange market**, the most relevant change was the reduction by around 70% in the foreign exchange swaps turnover, almost exclusively due to the fall in the transactions with maturities up to 7 days. Since this is a type of instrument traditionally used in very short maturities, as a means of buying and selling funds on the interbank market, its decrease seems to reflect to a large extent the replacement of the funding via the foreign exchange market by the direct access to the money market, in a context in which the extinction of the universe of currencies currently composing the euro led to the widening of the basis of the counterparties with credit lines in local currency. This replacement was not uniform in all banks and there are institutions that, with the introduction of the euro, started to resort more to other money market segments, in particular to the traditional deposit market for short-term financing and other institutions that did not change their strategy significantly (see Table 2.2).

With the implementation of the euro, the US dollar ceased to be necessary as a vehicle currency in transactions between the currencies composing the euro. This has also contributed to the decline, from 55% to 40%, of forex swaps in the traditional foreign exchange market (see Chart 2.2).

The fall in the weight of forex swaps led to relative gains in importance of the remaining instruments of the traditional foreign exchange market, although they have also recorded turnover declines. In this context, spot operations became the most traded instrument, which had last occurred in October 1997. It should be reminded that the considerable expansion of foreign exchange operations, which occurred in the Portuguese market as from that date, was associated with the development of financing operations in the interbank market through foreign exchange swaps, while spot operations have gradually lost importance. It is not surprising, therefore, that a reduction in the volume of transactions is currently reflecting an inverse movement.

In the ***breakdown by currency***, and taking into account the above-mentioned limitations, the 1999 turnover deducted from intra-EU11 currency transactions does not seem to have registered any important structural changes. At the same time

Table 2.2

TRADITIONAL FOREIGN EXCHANGE MARKET

Average daily turnover

USD million

	Total	Spot	Outright forwards	Fx swaps
1995				
Apr.	2382	1379	126	877
Oct.	2677	1496	108	1073
1996				
Apr.	2715	1465	184	1066
Oct.	3249	1690	319	1240
1997				
Apr.	3484	1957	223	1304
Oct.	4495	1699	246	2550
1998				
Apr.	4398	1834	337	2227
Oct.	6054	2271	446	3337
1999				
Apr.	2099	1151	255	693
Oct.	2180	1054	246	880
Change (%):				
Oct. 1998 / Oct. 1999	-64.0	-53.6	-44.8	-73.6
Apr. 1999 / Oct. 1999	3.9	-8.4	-3.5	27.0

Chart 2.2

TRADITIONAL FOREIGN EXCHANGE MARKET

Breakdown by instrument

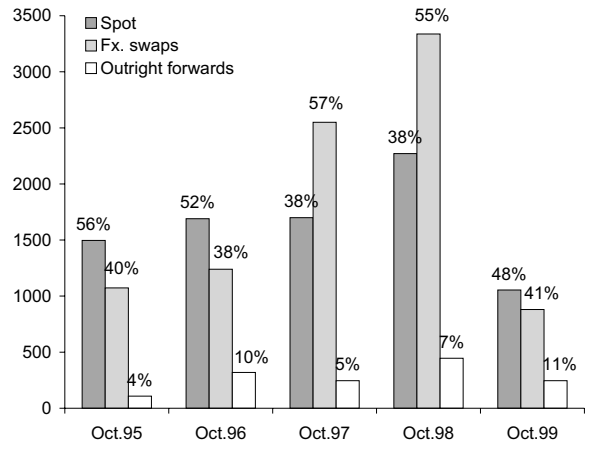
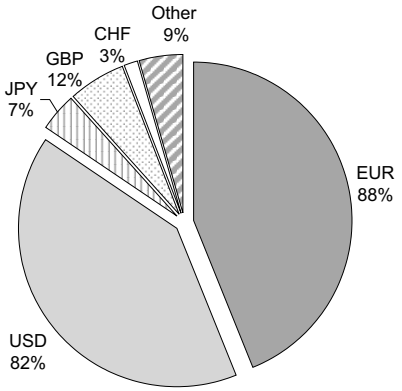
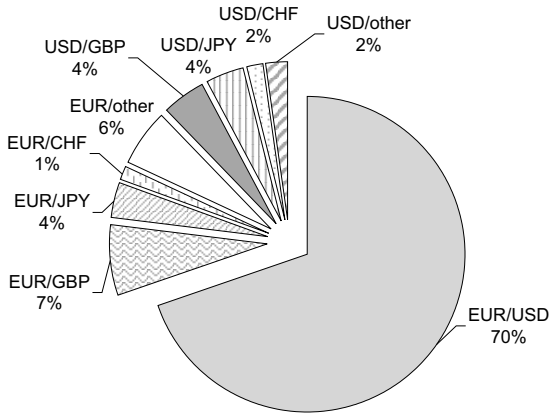


Chart 2.3
TRADITIONAL FOREIGN EXCHANGE MARKET
Breakdown by currency (Oct. 99) (a)



Note:
(a) In exchange rate derivatives the breakdown by currency totals 200% of total transactions, since both sides of each operation are taken into account.

Chart 2.4
TRADITIONAL FOREIGN EXCHANGE MARKET
Breakdown by currency pairs (Oct. 99)



most of the currencies recorded turnover decreases. In fact, the fall in transactions with euro currencies was also associated with a decline in operations with the US dollar, given its above-mentioned role as vehicle currency in the transactions. Therefore, the US dollar and the euro are the two most important currencies and they take part in more than 80% of the transactions carried out in the traditional foreign exchange market. Despite the initial preference for the US dollar in the period after the introduction of the euro, this trend was subsequently reversed in favour of the European currency and the latter ranked first in transactions in October 1999 (see Chart 2.3).

Among the remaining currencies, it should only be stressed that the extraordinary gain in weight recorded by the pound sterling in April 1999 was mainly induced by the transitory fall of the euro in the period immediately following its implementation and does not reflect a preference for operations with the pound sterling, which kept its downward trend in terms of turnover. Within this context, the fact that the traded volumes in euro have also recovered somewhat allowed for a return of the shares by currency to a pattern identical to that prevailing before the introduction of the euro.

The euro/US dollar was the most traded currency pair replacing the role previously played by the different EU11 currencies against the US dollar. Along with this, the available data suggests a trend towards growing activity in currency pairs involving other non-euro European currencies, such as the Greek drachma, the Norwegian and Danish kroner and the Swedish krona (see Chart 2.4).

Table 2.3
TRADITIONAL FOREIGN EXCHANGE MARKET
Breakdown by type of counterparty

As a percentage of the total

	1998	1999
	Oct.	Oct.
Financial institutions	85	85
Residents	13	10
Non-residents	72	75
Non-financial customers	15	15
Residents	12	14
Non-residents	3	1
	100	100
	100	100
Total residents	25	24
Total non-residents	75	76

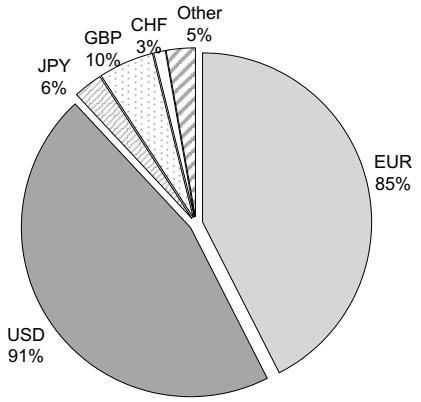
With regard to the ***type of counterparty*** involved in the transactions, there were no relevant movements and 85% of total turnover continued to be traded with financial institutions and 75% with non-resident entities (see Table 2.3).

Traded volumes in the **OTC derivatives market**, after the remarkable development between 1995 and 1998, contracted by around 60% in 1999.

Chart 2.5

OTC EXCHANGE RATE DERIVATIVES

Breakdown by currency (Oct. 99) (a)



Note:

(a) In exchange rate derivatives the breakdown by currency totals 200% of total transactions, since both sides of each operation are taken into account.

Table 2.4

OTC EXCHANGE RATE DERIVATIVES

Breakdown by type of counterparty

As a percentage of the total

	1998	1999	1999
	Oct.	Apr.	Oct.
Financial institutions	91	80	87
Residents	12	7	9
Non-residents	79	73	78
Non-financial customers	9	20	13
Residents	7	16	12
Non-residents	2	4	1
	100	100	100
	100	100	100
Total residents	19	23	21
Total non-residents	81	77	79

In October 1999, the average daily turnover in foreign exchange derivatives decreased to 1.1 billion US dollars, an amount identical to that of the 1995 surveys, and the average daily turnover of interest rate derivatives declined, albeit to a lesser extent, to 0.6 billion US dollars, in a dimension comparable to the results of the 1996 surveys.

Since **foreign exchange derivatives** transactions continued to relate almost exclusively to forwards (outright forwards and foreign exchange swaps), the main developments coincide in general with those mentioned in the analysis of the traditional foreign exchange market. However, reference should be made to the maintenance of the preponderant position of the US dollar, in the ***breakdown by currency***, followed by the euro (inversely to the traditional market), and to the loss of relative importance of the yen mainly in favour of the pound sterling, which currently holds the position of third most important currency (see Chart 2.5).

In turn, the structure by ***type of counterparty*** was less stable than that observed for the total traditional foreign exchange market and data suggest a downward trend of transactions with financial institutions in favour of those conducted with non-financial customers. This change did not correspond, however, to an actual increase in terms of turnover with non-financial counterparties, which has been declining since October 1998. In fact, it resulted from the significant decline in the turnover with financial institutions, the main counterparty in the type of transactions that contracted the most after the implementation of the euro (fxswaps). It should be recalled that, in memo items, financial institutions were counterparties in around 85% of the foreign exchange swaps transactions in October 1998, a percentage that rose to 93% in October 1999 (see Table 2.4).

In the **OTC interest rate derivatives market**, FRA, the turnover of which declined by 67%, recorded the most relevant movement. This decrease, more apparent in the operations contracted for maturities from 1 month to 1 year, in which they were usually more traded, was probably associated with the elimination of the arbitrage between the interest rates of the currencies composing the euro. In October 1999, however, there was a reduction in the average maturity of FRA, which were thereafter more traded in the maturity from 7 days to 1 month (see Table 2.5 and Chart 2.6).

Over and against this, IRS increased markedly (by 35%), mainly as a result of the increase in transactions with maturities over 1 month, in which they are traditionally more traded, in particular in the maturities from 1 month to 1 year. This is likely to reflect, to some extent, the development in investments in swaps involving the overnight rate of the euro – the so-called EONIA swaps (see Chart 2.7).

Table 2.5

OTC INTEREST RATE DERIVATIVES

Average daily turnover

USD million

	Total	FRA	IRS	OTC Options
1995				
Apr.	61	55	6	0
Oct.	153	122	31	0
1996				
Apr.	291	260	31	0
Oct.	448	384	64	0
1997				
Apr.	1501	1331	170	0
Oct.	1149	902	244	3
1998				
Apr.	998	801	157	40
Oct.	1260	1054	206	0
1999				
Apr.	533	345	186	2
Oct.	627	346	277	4
Change (%):				
Oct. 1998 / Oct. 1999	-50.2	-67.2	34.5	-
Apr. 1999 / Oct. 1999	17.6	0.3	48.9	100.0

Chart 2.6

OTC INTEREST RATE DERIVATIVES

Average daily turnover

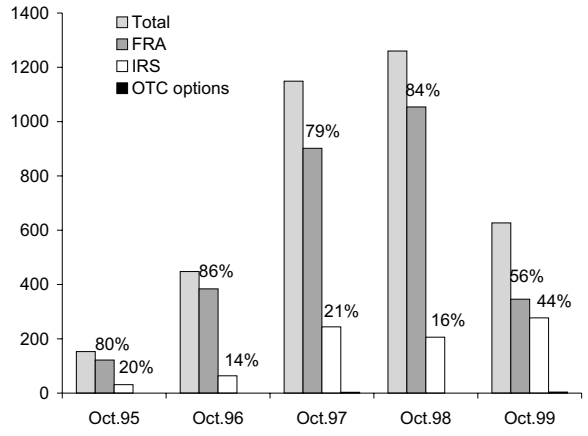


Chart 2.7

IRS

Breakdown by maturity (Oct. 99)

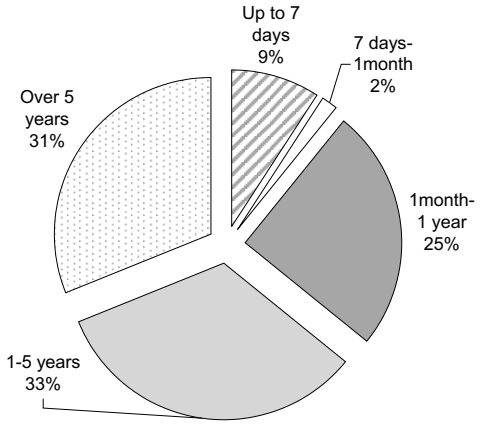
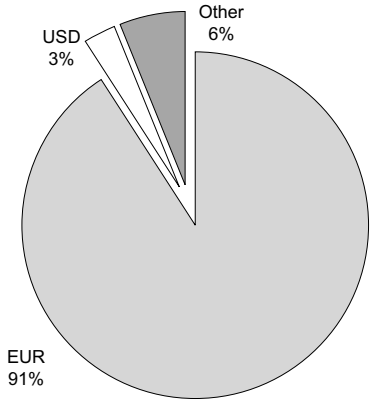


Chart 2.8

OTC INTEREST RATE DERIVATIVES

Breakdown by interest rate (Oct. 99)



These movements corresponded to a decline in importance of FRA (to 55%), which maintained, however, their dominant position. At the same time IRS share rose (to 44%), which resulted in a convergence of the weights of the two instruments.

The interest rate derivatives market continued to be characterised by investments in interest rates of ***currencies*** composing the euro and by the transitory utilisation of market "niches", of very volatile size. In October 1999, the importance of the latter attained 5% (in April it had reached 15%) and involved interest rates on the Canadian dollar, the Swedish krona, the Danish krone and the Greek drachma (see Chart 2.8).

Around 90% of total interest rate derivatives turnover had non-resident entities as counterparty, which represents a considerable increase in importance of this ***type of counterparty*** (in memo items, their weight was 56% in October 1998). This movement was mainly due to the decline in the activity of resident financial institutions, in particular in FRA. In turn, the operations with non-

Chart 2.9
OTC INTEREST RATE DERIVATIVES
Breakdown by type of counterparty

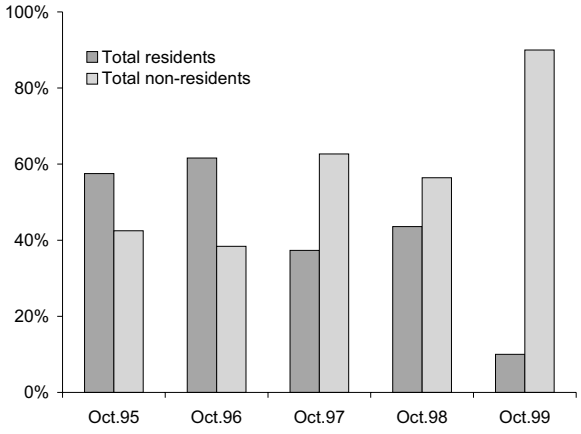


Chart 2.10
AMOUNTS OUTSTANDING OF OTC DERIVATIVES

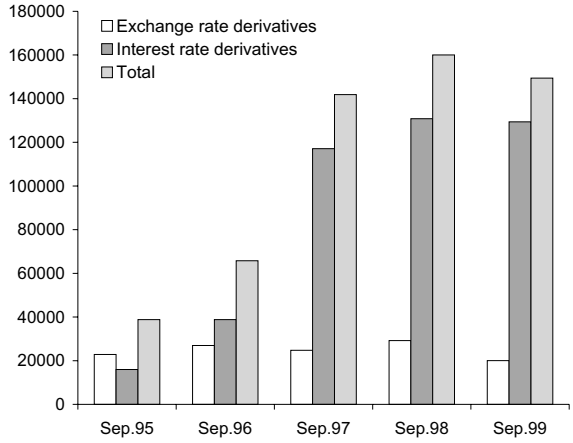


Table 2.6
OTC INTEREST RATE DERIVATES
Breakdown by type of counterparty

As a percentage of the total

	1995	1996	1997	1998	1999
	Oct.	Oct.	Oct.	Oct.	Oct.
Financial institutions	95	96	99	99	87
Residents	53	58	37	44	4
Non- residents.....	42	38	62	55	83
Non-financial customers ..	5	4	1	1	13
Residents	5	4	0	0	6
Non-residents	0	0	1	1	7
	100	100	100	100	100

Table 2.7
OTC EXCHANGE RATE DERIVATIVES
Amounts outstanding

USD million

	Total	Forwards	Currency Swaps	OTC Options
1995				
Mar.	26955	20009	3595	3351
Sep.....	22865	16987	3854	2024
1996				
Mar.	25238	19656	3507	2075
Sep.....	26977	19445	5247	2285
1997				
Mar.	21910	16645	3430	1835
Sep.....	24742	18256	5405	1081
1998				
Mar.	25336	18558	5049	1729
Sep.....	29180	23611	4315	1254
1999				
Mar.	19549	14903	3012	1634
Sep.....	20029	14073	5073	883
Change (%):				
Sep. 1998 / Sep.1999 ...	-31.4	-40.4	17.6	-29.6
Mar. 1999 / Sep. 1999 ..	2.5	-5.6	68.4	-46.0

financial customers, which previously had a negligible insignificant weight, increased their share, to account for around 13% of the total (see Chart 2.9 and Table 2.6).

Amounts outstanding

According to the results of the semi-annual surveys of the Banco de Portugal conducted in 1999, the notional amounts outstanding of OTC derivatives declined slightly compared to the previous year. To this trend contributed mainly the significant reduction in the foreign exchange derivatives, which was determined, to a large extent, by the introduction of the euro, since the amounts outstanding of interest rate derivatives remained broadly unchanged. In this context, the weight of interest rate instruments in total portfolios increased further (as in transactions), standing at around 87% in September 1999 (see Chart 2.10).

Foreign exchange derivatives, which had not recorded significant changes between 1995 and 1998, declined considerably in 1999 (albeit less than in terms of turnover) and the notional amounts recorded the lowest values since these data are collected (see Table 2.7).

The decrease in the exchange rate instruments was due almost exclusively to the contraction of the amounts outstanding of forwards, which more

Chart 2.11
AMOUNTS OUTSTANDING OF OTC EXCHANGE RATE DERIVATIVES
Breakdown by instrument

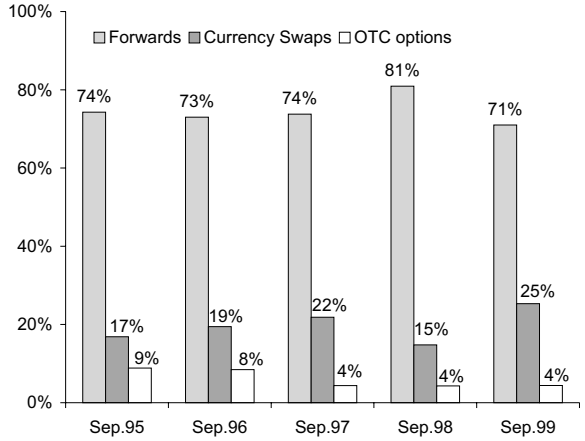
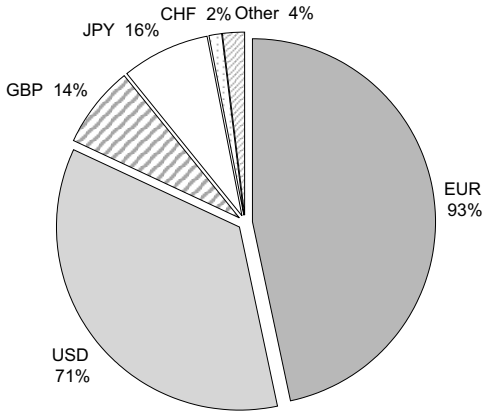


Chart 2.12
AMOUNTS OUTSTANDING OF OTC EXCHANGE RATE DERIVATIVES
Breakdown by currency (Sep. 99) (a)



Note:
(a) In exchange rate derivatives the breakdown by currency totals 200% of total amounts, since both sides of each operation are taken into account.

than offset the increase in currency swaps. Thus, there was a change in the relative weight of the different instruments against 1998 (a reduction in the share of forwards together with an increase in the weight of currency swaps) and a return to the structure recorded in previous years (see Chart 2.11).

In terms of ***breakdown by currency***, it should be stressed that despite the contraction in absolute values of the amounts outstanding denominated in euro (when compared with the amounts outstanding that in 1998 were denominated in the currencies currently composing the euro), in terms of relative weights the euro holds a dominant position with 93%, followed by the US dollar with 71% and by the pound sterling and the yen with around 15%. It should be emphasised that, in absolute terms, the US dollar has also recorded a decline, while the pound sterling and, to a lesser extent, the yen increased significantly. It should also be noted that this development was not homogeneous among the different instruments. With regard to currency swaps, in fact, the amounts outstanding denominated in euro increased, even in absolute terms (see Chart 2.12).

The analysis of the breakdown by ***counterparty*** enables the identification of some changes in the wake of the introduction of the single currency. On the one hand, the slight increase of the share of non-financial customers, which had already occurred in 1998, was more marked in 1999 and this counterparty held around 45% of the amounts outstanding. In fact, the amounts outstanding held by non-financial customers remained at 1998 levels, while those held by financial institutions were nearly halved. This development is likely to be associated with the developments above-mentioned in terms of transactions: there seems to have been a replacement, to some extent, of borrowing from the interbank foreign exchange market by the direct recourse to the money market. On the other hand, there was a slight reduction in the weight of non-resident counterparties, which also reflects the contraction of the amounts outstanding of financial institutions (which hold around 85% of the amounts outstanding of non-residents). The above-mentioned developments were broadly based in the different instruments (see Table 2.8).

The **OTC interest rate derivatives segment**, after the strong growths recorded until 1997, remained virtually unchanged in 1998 and 1999 (see Table 2.9).

The very marked decline recorded by FRA was offset by the increase in interest rate swaps. This development was reflected in a significant change in the relative weight of the different instruments. By contrast with transactions, FRA no longer hold the highest share in portfolios, a position currently occupied by IRS (see Chart 2.13).

Table 2.8

AMOUNTS OUTSTANDING OF OTC EXCHANGE RATE DERIVATIVES

Breakdown by counterparty[(a)]

As a percentage of the total

	1995	1996	1997	1998	1999
	Sep.	Sep.	Sep.	Sep.	Sep.
Financial institutions	75	77	79	71	57
Residents	13	11	7	11	7
Non-residents	62	66	72	60	50
Non-financial customers .	25	23	21	29	43
Residents	24	19	20	21	32
Non-residents	1	4	1	8	11
Total residents	37	30	27	32	39
Total non-residents	63	70	73	68	61

Table 2.9

OTC INTEREST RATES DERIVATIVES

Amounts outstanding

USD million

	Total	FRA	IRS	OTC Options	Other OTC
1995					
Mar.	7552	2707	4845	0	0
Sep.	15968	7591	7947	430	0
1996					
Mar.	28488	17709	10293	486	0
Sep.	38805	24046	14282	477	0
1997					
Mar.	83853	63373	19472	1008	0
Sep.	117103	81229	33809	1664	401
1998					
Mar.	133178	84711	44773	3440	254
Sep.	130838	68420	57405	4821	192
1999					
Mar.	130574	66449	62424	1701	0
Sep.	129402	46470	78945	3511	476
Change(%):					
Sep. 1998 / Sep. 1999 .	-1.1	-32.1	37.5	-27.2	147.9
Mar. 1999 / Sep. 1999.	-0.9	-30.1	26.5	106.4	-

Chart 2.13

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

Breakdown by instrument

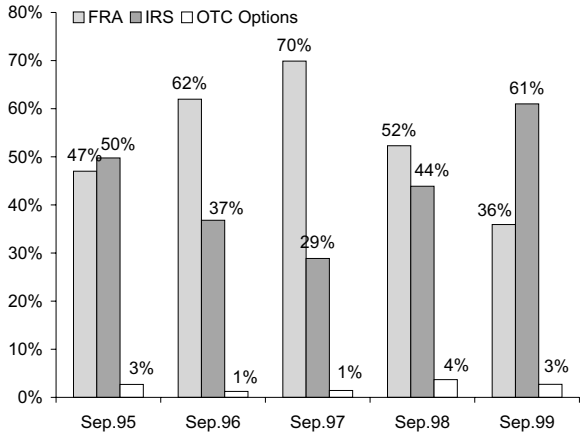
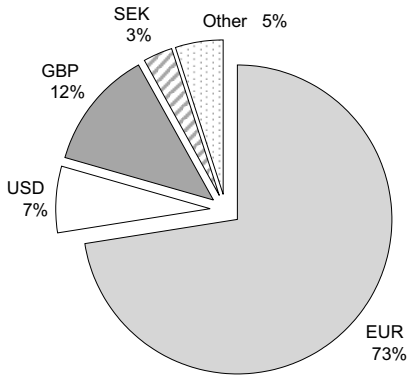


Chart 2.14

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

Breakdown by currency (Sep. 99)



In terms of the ***breakdown by currency***, and analysing the relative weight of the interest rate of each foreign currency, the share of the interest rates of the currencies currently composing the euro declined somewhat, thus offsetting a slight increase in the share of several other currencies, namely European currencies not participating in the euro area (such as, for example, the Swedish krona, the Swiss franc and the Danish and Norwegian kroner). With the introduction of the euro and the implementation of a global market, the chances of investment in euro area currencies disappeared, which led investors to search for alternative investments. However, it should be stressed that the euro interest rate is clearly the prime rate in terms of amounts outstanding, with a share of 73% (see Chart 2.14).

Taking into consideration the development of each instrument, and in spite of the broadly based reduction in the weight of the euro interest rate, in absolute terms, the amounts outstanding held in

Table 2.10

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

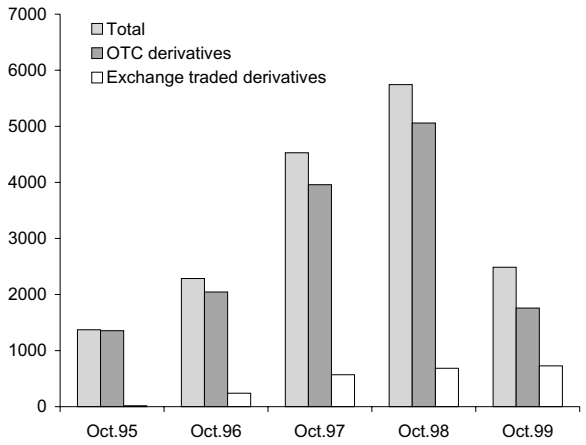
Breakdown by counterparty

As a percentage of the total

	1995	1996	1997	1998	1999
	Sep.	Sep	Sep.	Sep.	Sep.
Financial institutions	91	95	98	90	95
Residents	36	38	32	28	13
Non-residents	55	57	66	62	82
Non-financial customers	9	5	2	10	5
Residents	9	5	2	2	3
Non-residents	0	0	0	8	2
	100	100	100	100	100
	100	100	100	100	100
Total residents	45	43	34	30	16
Total non-residents	55	57	66	70	84

Chart 2.15

TRANSACTIONS IN EXCHANGE TRADED AND OTC DERIVATIVES



euro increased in IRS, but decreased significantly in FRA.

With regard to ***counterparties,*** there was a strengthening of the predominance of non-residents in 1999, which was due exclusively to the development of the financial counterparties. Indeed, non-financial customers, who had recorded an increase of their relative weight in 1998, held again a negligible weight in 1999. This was a broadly based development of the different interest rate derivative instruments (see Table 2.10).

2.2 Organised market

In contrast with the OTC market, the turnover in organised markets increased (by around 6%), which was reflected in the increase in the relative importance of the operations traded on the exchange market, whose weight went up to close to 30% in total overall transactions of exchange rate and interest rate derivatives (see Chart 2.15).

Exchange traded instruments, however, continued to be confined almost exclusively to interest rate futures and the discontinuance of transactions with the BVLP (*Lisbon and Oporto Stock Exchange*) was more than offset by the development of investments in foreign exchanges, in particular in interest rate contracts with maturities over 1 year. Indeed, after the implementation of the euro, there was a gradual disappearance of interest rate contract trading on the Portuguese derivatives exchange, and the 3-month LISBOR contract and the 10-year OT contract were not traded in October 1999. In that month, foreign exchanges were already the single counterparty in this type of transaction.

The contracts denominated in euro were preferentially chosen among exchange transactions (74%), as a replacement of the previous dominant option for the EU11 currencies. The remaining investments were confined to the interest rates of the US dollar (18%), of the pound sterling (7%) and of the yen (1%).

When compared to the results of the survey of October 1998, stress should be laid on the following movements:

i) the slight decline in the turnover denominated in euro, against the turnover for the interest rate transactions of the EU11 currencies as a whole;
ii) the increase in the volume of transactions in US dollar contracts;
(iii) the continued absence of significant interest rate investments in currencies other than the euro, the US dollar, the pound sterling and the yen;
(iv) and the significant increase in the turnover of the interest rate futures contracts with maturities over 1 year, together with the decline in the interest rate contracts with maturities up to 1 year, despite the maintenance of their usual relative predominant position over the former (see Chart 2.16).

Chart 2.16

TRANSACTIONS IN INTEREST RATE FUTURES

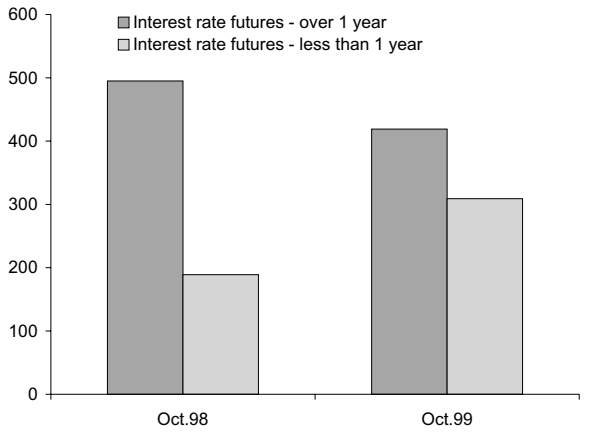


Table 3.1

TRADED VOLUMES

Concentration indicators

	n [a]	S 3	S 6
Spot			
Oct. 1996	30	54.3	85.1
Oct. 1997	29	62.8	85.2
Oct. 1998	28	56.3	82.4
Oct. 1999	28	67.1	85.2
Exchange rate derivatives			
Oct. 1996	22	68.9	86.7
Oct. 1997	23	69.0	87.3
Oct. 1998	26	61.6	87.6
Oct. 1999	26	75.3	86.3
Interest rate derivatives			
Oct. 1996	11	67.5	92.9
Oct. 1997	14	69.7	93.2
Oct. 1998	15	71.6	96.1
Oct. 1999	13	68.6	92.4

Note:
(a) See footnote (4).

3. CONCENTRATION IN THE FOREIGN EXCHANGE AND DERIVATIVES MARKETS

Data on transactions collected from the surveys that took place in 1999 points to an increase in the degree of concentration in the foreign exchange market and to a relative stabilisation in the interest rate derivatives market. Nevertheless, it should be noted that the number of banks that reported activity in the different segments under analysis remained relatively stable after the introduction of the euro (see Table 3.1).

The analysis of the share of the financial institutions[4] evinces the strengthening of the relative weight of the three most active entities on the foreign exchange market. However, when taking into consideration the range of the six major institutions, there is a relative maintenance of the degree of concentration and their share stands above 85%.

It should be noted that the degree of concentration of the transactions continues to be higher in the exchange rate derivatives segment than in spot transactions.

With regard to the interest rate derivatives, there were no significant changes in terms of the degree of concentration, with six participating entities holding more than 90% of the total traded in this segment. It should be mentioned that, in 1999, the number of institutions trading interest rate derivatives was half the number of those dealing in the foreign exchange derivatives market, as had been observed in previous years.

(4) In terms of the financial institutions intervening in the Portuguese market, two different realities were considered: i) that of the banks belonging to Portuguese financial groups; and ii) that of the banks intervening individually in the Portuguese market. In the share analysis, given the joint strategy usually adopted by each financial group, the joint weight of the different institutions forming the same group was taken into consideration, instead of its individual weight.

THE BANKING SYSTEM IN THE FIRST HALF OF 2000

1. INTRODUCTION

In the first half of 2000 the banking system in Portugal was marked by the implementation of a range of acquisitions in the sector, which led to an increase in concentration in most segments of its domestic activity. The growth of credit to the private sector remained high, in particular credit to non-financial corporations, which evinced no signs of deceleration. In turn, the rise in interest rates in the beginning of the second half of 1999 and expectations of additional increases, together with the levels of indebtedness already reached, may have contributed to a deceleration in the pace of growth of credit to households.

In view of the maintenance of a pace of growth of bank credit above 25 per cent and the significant increase in financial fixed assets resulting from the consolidation operations carried out in this period, banks' assets recorded an increase in the respective growth rate(1). On the other hand, the position of all banks strengthened during this period in terms of profitability and efficiency. In fact, in the first half of 2000, net return on total assets and equity capital increased, compared with the same period in 1999. Net income increased by 21 per cent and accounted for 12.4 per cent of equity capital (11.3 per cent in 1999). These profitability levels reflected the lower growth of administrative expenses, the recovery of profits in financial operations and the marked growth of commissions, which offset a decline of the financial margin as a percentage of average assets, in a context of maintenance of the downward trend in the delinquency rates of loan portfolios, in line with the cyclical position of the economy. In this context of improved profitability, the ratio of administrative expenses to banking product, usually applied to measure the efficiency of institutions, stood below 50 per cent, a significant figure in international terms.

In terms of solvency, despite the decline in the regulatory ratio of own funds, the increase in total provisions for credit to 139.7 per cent of total credit overdue (128.6 per cent in December 1999) and the decline of the latter to 2 per cent of total credit (2.2 per cent at end-1999) strengthened the soundness of the banks' position.

However, the average capital adequacy ratio declined significantly from June 1999 to June 2000. Behind this result lies the fact that the strong expansion of loan portfolios was accompanied by a more moderate growth of own funds, as well as by the marked increase in deductions from own funds in this period, which was mainly due to the increase in the financial fixed assets resulting from the acquisitions conducted in the first half of 2000. The degree of permanence of the reduction recorded in this ratio will, to a large extent, depend on the consolidation of the reorganisation of the sector, in the wake of the already mentioned acquisitions, allowing the recomposition of own funds of the banks involved.

(1) Except where otherwise stated, the aggregate considered in the present section refers to all banks, the *Caixa Geral de Depósitos* and the *Montepio Geral* Savings Bank, excluding banks having their head office in Madeira offshore, carrying on their activities chiefly with non-residents and with a low correspondence with domestic economic conditions. Branches of credit institutions having their head-office in another European Union Member State are also considered as banks and included in this aggregate, except those that are not classified as monetary financial institutions. In addition, data refer to the overall activity, encompassing activities carried on in domestic and foreign agencies, including off-shore activities, for each individual credit institution and not in consolidated terms. For the appreciation by the market of banks listed in the Stock Exchange consolidate data are more relevant.

As in recent years, assets continued to grow at a rate higher than resources from customers, which led banks to increase their capital and resort to international monetary markets and to the issuance of bonds.

The level of indebtedness of the private sector will increase significantly further in 2000 as a whole. Interest paid by households and corporations, as a percentage of disposable income and GDP respectively, are likely to increase, as a consequence of the strong growth of indebtedness in both sectors and of the increase in the interest rates recorded so far.

The rate of growth of housing prices remained relatively stable during the first half of 2000, below the peak levels observed in mid-1999, in line with the deceleration in housing credit started in the second half of 1999. Notwithstanding the deceleration in housing credit during the first half of 2000, the persistence of a strong growth of this segment of the credit market, as well as of the range of segments related to the real estate sector, continued to be reflected in an increased share of the activities related to this sector in total credit granted by banks.

The increase in the interest rates and the level of indebtedness attained by the private sector will strengthen a deceleration in domestic demand and credit expansion. This trend will also induce banks to contain their recourse to external indebtedness, which has accelerated in recent years.

2. BANKING MARKET STRUCTURE

The Portuguese banking system has undergone a particularly dynamic reorganisation process in recent years, namely through mergers and acquisitions involving the largest institutions. Continuing this trend, a set of consolidation operations was carried out in the first half of 2000, which led to a higher market concentration. In fact, the banks that at end-1999 were operating within the six major banking groups, were part of only five groups at the end of the first half of 2000. This was reflected in a significant increase in the market share of the five major banking groups in most of the segments in which they operate.

Assessing the share of all banks belonging to the five major banking groups in a set of variables usually taken to measure the size of the institutions, it can be concluded that the assets of those banks accounted for 84.1 per cent of total assets of the banking system at end-June 2000, compared with 75.1 per cent in December 1999 (Table 2.1). Credit to customers evolved similarly, and the market share of the five major groups went up from 75.0 per cent in December 1999 to 82.8 per cent in June 2000, while the corresponding values for the number of branches were 75.8 per cent in December 1999 and 86.5 per cent in June 2000. Turning to resources from customers, the increase in the share was less marked, albeit significant (from 80.3 per cent in December 1999 to 85.1 per cent in June 2000). It should also be noted that the trend towards market concentration observed in the first half of 2000 led to an increase in the market share of the two major banking groups, whose joint market share increased from around 40 percent in December 1999 in the variables considered to around 50 per cent in June 2000.

Also as a result of the above consolidation operations, the number of banks in operation declined to 59 at end-June 2000, as a consequence of the merger occurred within a banking group, in which one of the institutions incorporated two other institutions of the group, and of the reorganisation of a foreign banking group, which led to the incorporation of a branch in a subsidiary of that group (Chart 2.1). In the first half of 2000, the number of non-domestic institutions in operation increased to 29, which resulted from the net balance of the acquisition of two retail banks by a non-domestic banking group, previously operat-

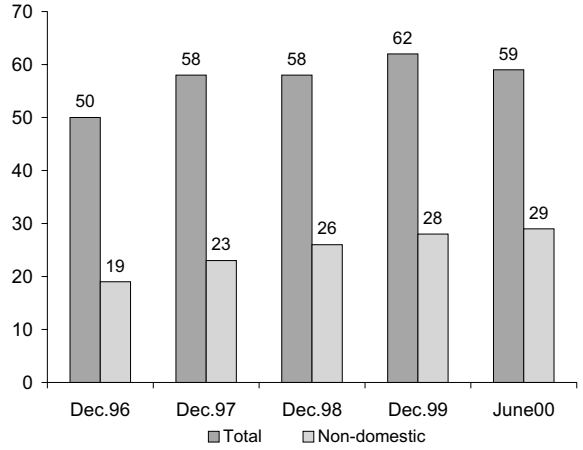
Table 2.1

MARKET SHARE OF THE FIVE MAJOR BANKING GROUPS

	1995	1996	1997	1998	1999	2000
	Dec.	Dec.	Dec.	Dec.	Dec.	June
Credit to customers	76.0	79.6	77.3	76.9	75.0	82.8
Resources from customers	80.6	84.9	82.8	81.7	80.3	85.1
Assets	77.6	83.0	78.1	77.1	75.1	84.1
Branches	79.4	78.3	76.0	76.5	75.8	86.5

Note: Banks having their head office in Madeira's offshore are taken into account in the calculation.

Chart 2.1
NUMBER OF BANKS



Note: All monetary financial institutions, including banks having their head office and exclusive activity in Madeira's offshore.

ing in Portugal and from the mentioned incorporation of a branch of a foreign bank. This acquisition was significantly reflected in the market share of non-domestic banks(2) and thereafter the assets of those institutions accounted for 20.5 per cent of the assets of the aggregate system in June 2000 (12.7 per cent in December 1999), while the market share of non-domestic banks in credit granted to customers increased from 11.2 per cent in December 1999 to 19.3 per cent in June 2000 (Table 2.2). Amongst the variables taken into account, the highest share increases were recorded in resources from customers and in the number of branches, variables in which non-domestic banks historically had a more reduced expression. In fact, non-domestic banks increased their market share in total resources raised by the banking system from customers to 17.3 per cent in June 2000 (6.8 per cent in December 1999), while the expression of their branch network in total branches of the banking system increased from 6.8 in December 1999 to 15.9 per cent in June 2000.

(2) Including subsidiaries (meaning the institutions having their head office in Portugal, with the majority of their capital held by banking groups having their head office in third countries) and branches of foreign banks, including subsidiaries of banks having their head office in the European Union.

Table 2.2

MARKET SHARE OF NON-DOMESTIC BANKS

	1995	1996	1997	1998	1999	2000
	Dec.	Dec.	Dec.	Dec.	Dec.	June
Credit to customers (gross)	8.0	7.6	8.3	8.8	11.2	19.3
Resources from customers	5.8	4.9	6.2	6.2	6.8	17.3
Assets	8.4	7.6	11.7	11.6	12.7	20.5
Branches	7.9	7.2	7.2	7.1	6.8	15.9

Note: Banks having their head office in Madeira's offshore are taken into account in the calculation.

3. DEVELOPMENTS IN THE BANKING SYSTEM

3.1 Developments in the credit market

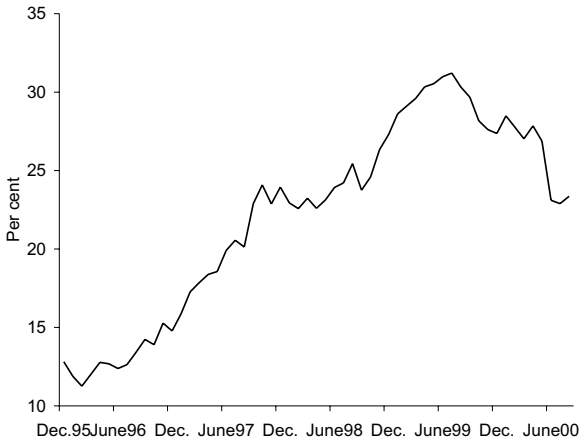
The low levels of aggregate indebtedness of the private sector recorded up to the beginning of the 1990s in Portugal, when compared to those observed in most developed economies, were mainly justified by the liquidity constraints when accessing credit, associated with the levels (and volatility) of nominal interest rates, which persisted in Portugal during the 1980s and early 1990s.

During the nominal convergence process in Portugal, throughout which nominal interest rates posted a gradual and steady decline, private agents expected continuously decreasing levels of interest rates in the medium run, which allowed to ease the liquidity constraints in accessing credit. These expectations were fully confirmed with the entry into Monetary Union on 1 January 1999, which was reflected in the transition to an economic regime characterised by low and stable inflation and interest rates in the medium term.

Thus, in recent years, and in particular as from 1996, bank loans to the non-financial private sector, which comprises households and non-financial corporations, recorded a strong expansion, substantially above nominal GDP developments, and justified by the anticipation of investment and consumption expenses, which occurred without aggravating the interest burden in the current budget of those sectors (Chart 3.1).

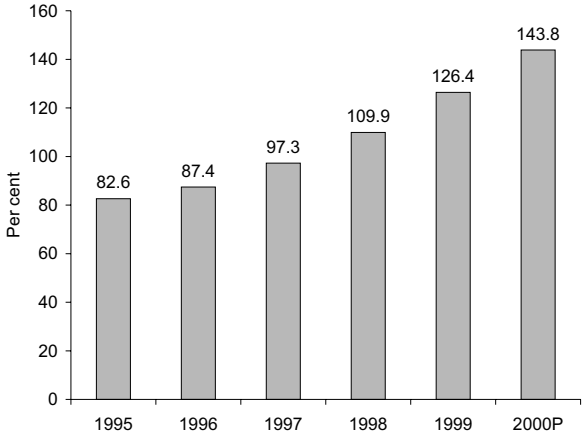
Consequently, the indebtedness of the non-financial private sector increased significantly from 82.6 per cent of GDP in 1996 to 126.4 per cent

Chart 3.1
BANK LOANS TO THE NON-FINANCIAL PRIVATE SECTOR
Year-on-year rate of change



Source: Monetary and Financial Statistics.

Chart 3.2
INDEBTEDNESS OF THE NON-FINANCIAL PRIVATE SECTOR[a]
As a percentage of GDP



Note:
(a) It includes non-financial corporations and households.

in 1999. In turn, the development of credit granted by financial institutions to this sector in 2000 points to a ratio of around 144 per cent of GDP at end-2000 (Chart 3.2). Despite the fact that these developments represent an objective well-fare improvement, namely by providing households anticipated access to a range of goods, namely housing, and access by companies to financing at lower costs in a context of less uncertainty, there are still some associated risks. Considering the levels already reached, and after the adjustment of the private sector stock of debt to the new economic regime, it is expected that the future developments in the indebtedness ratio will reflect more closely the financing conditions of the private sector and the economic outlook, since the sensitiveness of the financial situation of households and corporations to changes in the macroeconomic environment has now increased. This is strengthened by the fact that, since November 1999, changes in monetary policy have led to an increase by 2.25 percentage points in the official interest rates, which was partly reflected in the interest rates on bank loans and, therefore, in interest paid by the non-financial private sector.

In the first half of 2000, the pace of growth of total bank credit granted to resident customers, which, in addition to households and non-financial corporations, comprises also general government and non-banking financial institutions, declined only slightly compared to 1999, thus remaining at a very high level: the annual rate of change of credit to residents stood at 26.1 per cent in June 2000, which compares with 28.6 per cent in December 1999 (Table 3.1 and Table 3.2). Thus, the credit portfolio continued to increase its share in total assets of banks, to stand at nearly half of investments (49.3 per cent in June 2000, compared with 46.9 per cent in December 1999 and with 42.3 per cent in December 1998).

In turn, the rate of growth of credit to non-resident customers increased significantly from 8.7 per cent in December 1999 to 31.8 per cent in June 2000, which may be related to the conduction of financing operations of non-banking subsidiaries of Portuguese banks abroad.

In the first half of 2000, the delinquency rates of the whole credit portfolio, as measured by the ratio of credit and interest overdue to gross credit, continued the downward trend evinced since 1994. Thus, in June 2000, this ratio stood at 2.0, which compares with 2.2 per cent in December 1999 (Chart 3.3). Similarly, the capital component of credit to residents overdue for a period of up to one year, as a percentage of outstanding credit to residents, declined form 0.52 per cent in December 1999 to 0.47 per cent in June 2000. Concerning the resident non-financial private sector, which repre-

Table 3.1

BALANCE SHEET

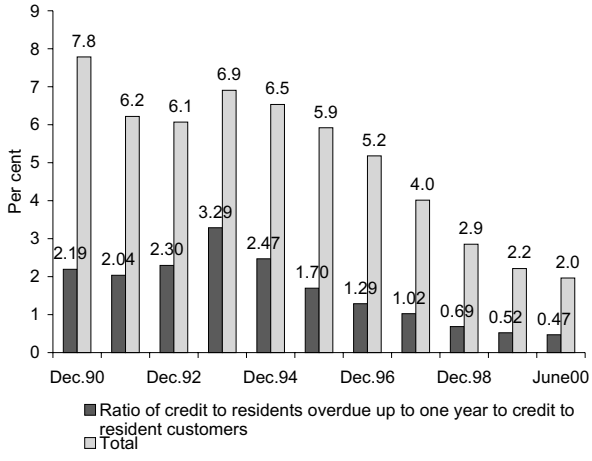
EUR billion

	1996	1997	1998	1998	1999	1999	2000
	Dec.	Dec.	June	Dec.	June	Dec.	June
1. Cash and liquid assets in central banks	2582.8	2907.7	2407.5	2236.3	2884.6	5733.5	3877.3
2. Credit to credit institutions (net)	55160.2	63220.1	64358.1	68539.9	62560.7	67988.7	66340.9
2.1. In the country	28949.7	31824.5	35442.4	36449.1	34281.1	40887.2	36302.0
2.2. Abroad	26210.5	31395.5	28915.7	32090.8	28279.6	27101.4	30038.9
3. Credit to customers (net)	57348.3	70170.3	78010.7	90098.7	101162.3	114586.0	127933.5
3.1. Credit to residents (net)	53018.6	65094.5	72021.7	83518.3	94578.4	107441.4	119262.8
3.2. Credit to non-residents (net)	4326.0	5075.8	5982.2	6570.5	6572.9	7139.5	8664.4
3.3. Credit and interests overdue	3085.1	2902.9	2892.5	2628.0	2640.9	2579.2	2549.5
3.4. Investments in securities (net)	2044.8	1939.8	1904.1	1724.4	1744.9	1705.3	1676.4
4. Investments in securities (net)	34626.3	34357.5	35958.5	31684.1	31822.4	30132.3	31626.1
5. Financial fixed assets (net)	4717.0	5551.3	6169.3	6140.5	6169.7	6648.4	9519.3
6. Non-financial fixed assets (net)	3365.3	3532.7	3704.7	3810.8	3685.1	3745.9	3641.9
7. Other assets (net) and sundry accounts	8570.9	10395.5	12587.0	10532.5	13699.0	15734.7	16545.6
8. Total assets	166370.8	190135.1	203195.8	213042.8	221983.7	244569.5	259484.6
1. Resources from credit institutions	53405.0	63016.5	69194.5	75761.4	73413.7	85494.0	88728.7
1.1. In the country	20923.7	24001.6	26910.0	27727.8	28165.3	35721.9	30054.0
1.2. Abroad	32481.3	39014.9	42284.5	48033.6	45248.5	49772.1	58674.7
2. Resources from customers	89379.4	98836.9	102131.6	104167.0	109729.4	113704.5	121683.3
of which:							
2.1. Deposits	87341.4	95977.7	97560.9	101516.5	107967.2	111486.7	118660.9
2.1.1. General Government	4083.2	4613.1	4791.8	5559.0	5978.5	6347.2	6668.2
2.1.2. Other residents	62835.1	68385.1	68754.2	73605.6	77538.1	82990.1	85387.9
2.1.3. Emigrants	12876.4	12737.5	12320.2	11853.6	12223.5	10863.5	10856.2
2.1.4. Other non-residents	7027.7	9676.7	11097.7	9877.7	11564.5	10588.2	15007.3
2.1.5. Other deposits	519.1	565.3	597.1	620.6	662.7	697.7	741.3
3. Liabilities represented by securities	3675.5	4994.5	6577.0	7244.4	8902.9	11615.9	13730.9
4. Other liabilities and sundry accounts	4953.6	6292.0	6748.6	5706.4	7937.8	9680.8	8185.1
5. Provisions	1267.5	1263.6	1356.4	1472.0	1558.1	1890.9	2117.6
6. Subordinated debt	3073.8	4181.2	4220.5	4708.3	6121.6	7061.4	7745.2
7. Equity capital	10616.0	11550.4	12966.8	13983.3	14320.3	15122.1	17293.7
of which: 7.1. Net income	900.0	1188.9	678.8	1270.1	803.5	1413.3	972.1

sents the bulk of bank credit and is the sector with higher credit risk, the delinquency rates of non-financial corporations(3) recorded the most significant decline (from 3.3 per cent in December 1999 to 2.8 per cent in June 2000, and to 2.7 in August 2000) (Chart 3.4). In turn, regarding credit to households, the decline in the delinquency level was less marked, from 2.1 per cent in December 19999 to 1.9 per cent of credit granted in June 2000, standing at 2.0 per cent in August 2000. The delinquency rate of housing credit remained broadly stable from December 1999 to August 2000, rang-

Chart 3.3

DELINQUENCY RATES OF CREDIT TO CUSTOMERS



(3) The delinquency rates of the non-financial resident sector broken down by institutional sector were calculated with base information of Monetary and Financial Statistics and therefore only comprise activity in Portugal.

Table 3.2

BALANCE SHEET

Structure and year-on-year rate of change

	Year-on-year rate of change					Structure					
	1997	1998	1999		2000	1996	1997	1998	1999		2000
	Dec.	Dec.	June	Dec.	June	Dec.	Dec.	Dec.	June	Dec.	June
1. Cash and liquid assets in central banks	12.6	-23.1	19.8	156.4	34.4	1.6	1.5	1.0	1.3	2.3	1.5
2. Credit to credit institutions (net)	14.6	8.4	-2.8	-0.8	6.0	33.2	33.3	32.2	28.2	27.8	25.6
2.1. In the country	9.9	14.5	-3.3	12.2	5.9	17.4	16.7	17.1	15.4	16.7	14.0
2.2. Abroad	19.8	2.2	-2.2	-15.5	6.2	15.8	16.5	15.1	12.7	11.1	11.6
3. Credit to customers (net)	22.4	28.4	29.7	27.2	26.5	34.5	36.9	42.3	45.6	46.9	49.3
3.1. Credit to residents (net)	22.8	28.3	31.3	28.6	26.1	31.9	34.2	39.2	42.6	43.9	46.0
3.2. Credit to non-residents (net)	17.3	29.4	9.9	8.7	31.8	2.6	2.7	3.1	3.0	2.9	3.3
3.3. Credit and interests overdue	-5.9	-9.5	-8.7	-1.9	-3.5	1.9	1.5	1.2	1.2	1.1	1.0
3.4. Provisions for credit overdue	-5.1	-11.1	-8.4	-1.1	-3.9	1.2	1.0	0.8	0.8	0.7	0.6
4. Investments in securities (net)	-0.8	-7.8	-11.5	-4.9	-0.6	20.8	18.1	14.9	14.3	12.3	12.2
5. Financial fixed assets (net)	17.7	10.6	0.0	8.3	54.3	2.8	2.9	2.9	2.8	2.7	3.7
6. Non-financial fixed assets (net)	5.0	7.9	-0.5	-1.7	-1.2	2.0	1.9	1.8	1.7	1.5	1.4
7. Other assets (net) and sundry accounts	21.3	1.3	8.8	49.4	20.8	5.2	5.5	4.9	6.2	6.4	6.4
8. Total assets	14.3	12.0	9.2	14.8	16.9	100.0	100.0	100.0	100.0	100.0	100.0
1. Resources from credit institutions	18.0	20.2	6.1	12.8	20.9	32.1	33.1	35.6	33.1	35.0	34.2
1.1. In the country	14.7	15.5	4.7	28.8	6.7	12.6	12.6	13.0	12.7	14.6	11.6
1.2. Abroad	20.1	23.1	7.0	3.6	29.7	19.5	20.5	22.5	20.4	20.4	22.6
2. Resources from customers	10.6	5.4	7.4	9.2	10.9	53.7	52.0	48.9	49.4	46.5	46.9
of which:											
2.1. Deposits	9.9	5.8	10.7	9.8	9.9	52.5	50.5	47.7	48.6	45.6	45.7
2.1.1. General Government	13.0	20.5	24.8	14.2	11.5	2.5	2.4	2.6	2.7	2.6	2.6
2.1.2. Other residents	8.8	7.6	12.8	12.7	10.1	37.8	36.0	34.5	34.9	33.9	32.9
2.1.3. Emigrants	-1.1	-6.9	-0.8	-8.4	-11.2	7.7	6.7	5.6	5.5	4.4	4.2
2.1.4. Other non-residents	37.7	2.1	4.2	7.2	29.8	4.2	5.1	4.6	5.2	4.3	5.8
2.1.5. Other deposits	8.9	9.8	11.0	12.4	11.9	0.3	0.3	0.3	0.3	0.3	0.3
3. Liabilities represented by securities	35.9	45.0	35.4	60.3	54.2	2.2	2.6	3.4	4.0	4.7	5.3
4. Other liabilities and sundry accounts	27.0	-9.3	17.6	69.6	3.1	3.0	3.3	2.7	3.6	4.0	3.2
5. Provisions	-0.3	16.5	14.9	28.5	35.9	0.8	0.7	0.7	0.7	0.8	0.8
6. Subordinated debt	36.0	12.6	45.0	50.0	26.5	1.8	2.2	2.2	2.8	2.9	3.0
7. Equity capital	8.8	21.1	10.4	8.1	20.8	6.4	6.1	6.6	6.5	6.2	6.7
of which: 7.1. Net income	32.1	6.8	18.4	11.3	21.0	0.5	0.6	0.6	0.4	0.6	0.4

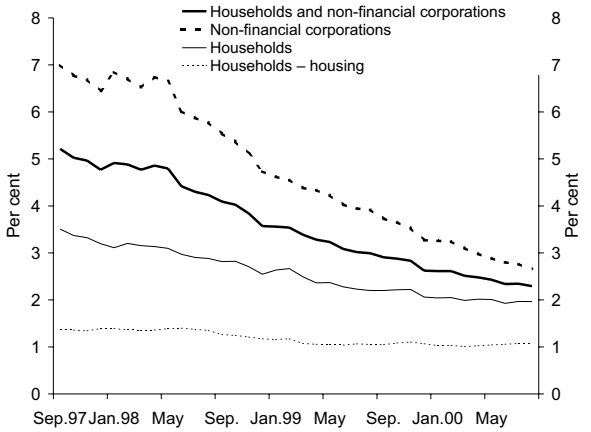
ing between 1.1 per cent and 1.0 per cent of total loans granted.

The reduction in credit and interest overdue as a percentage of credit granted in the first half of 2000 continued to be accompanied by a reduction in the value of that item. Indeed, credit and interest overdue as against the same period in the previous year, declined by 3.5 per cent in June 2000, compared with the reduction of 1.9 per cent in December 1999. In parallel, the levels of provisions for credit overdue decreased by 3.9 per cent year-on-year in June 2000 (a 1.1 per cent decline in December 1999), resulting in a slight reduction in the degree of coverage of credit and interest overdue by provisions (for credit overdue) from 66.1 per in December 1999 to 65.8 per cent in June 2000. The ratio of credit and interest overdue net of provisions (for credit and interest overdue) to credit granted, also net of these provisions, declined also, standing at 0.68 per cent in June 2000 (0.76 per cent in December 1999). In turn, total provisions for credit increased from 128.6 per cent of total credit and interest overdue in December 1999 to 139.7 per cent in June 2000.

3.1.1 Developments in credit to households

In the first half of 2000, although experiencing an overall strong expansion, the pace of bank lending was different in the segments of credit to

Chart 3.4
DELINQUENCY RATES IN CREDIT OPERATIONS WITH RESIDENT CUSTOMERS



Source: Monetary and Financial Statistics.
Note: The indicators represent the ratio of credit and interest overdue to the gross value of operations with the corresponding resident customers. Data refer to activity in Portugal and include Mutual Agricultural Credit Banks and all Savings Banks.

Chart 3.5
ACCESSIBILITY INDICATOR AND ITS COMPONENTS
Year-on year rate of change

households and to non-financial companies (Table 3.3)[4]. In fact, the rate of growth of bank loans to households reached its peak in June 1999, having declined gradually thereafter, from 34.9 per cent in June 1999 to 20.8 in June 2000 and further to 20.7 per cent in August 2000. This slowdown was led by the segment of housing credit, which accounts for around three-quarters of total bank credit to households and started to decelerate in June 1999. In fact, the rate of growth of housing credit declined from 36.9 per cent in June 1999 to 29.7 per cent in December 1999, standing at 22.6 per cent in June 2000. In August 2000, this rate stood at 22.4 per cent. Regarding bank credit to households with purposes other than housing purchase, there was also a downward trend in the pace of growth as from the second half of 1999, although the rate of growth of that credit has presented higher volatility than that of housing credit. Indeed, the year-on-year rate of change of that credit segment stood at 15.7 per cent in August 2000, which compares with 23.2 per cent in December 1999 (29.6 per cent in June 1999). However, it should be noted that data available for Credit-Purchase Financing Companies evince a strong acceleration of credit granted by these institutions as from end-1999. In fact, the annual rate of change of credit granted by these institutions, after standing at 13.7 per cent in November 1999, increased to 24.8 in December 1999, remaining consistently above 25 per cent in the first half of 2000 and amounting to 30.6 per cent in June 2000. Credit granted by these entities is mostly intended to finance expenditure of households for purposes other than housing purchase[5].

The dissipation of the effects of the decline in nominal interest rates as from mid-1999, together with the change in expectations towards their future rise, which influenced negatively the confidence of households, were the main factors underlying the moderation of the growth of credit to this sector. In particular, regarding housing credit, the indicator of accessibility of households to the housing market with resort to credit started to signal less favourable conditions in the access to this market in the first quarter of 1999, after several years of successive improvements (Chart 3.5). The

(4) The source of the analysis of credit granted broken down by sector is Monetary and Financial Statistics, based only in domestic activity. Besides, these data refer to all monetary and financial institutions, i.e., consider also other savings banks, mutual agricultural credit banks and banks having their head office in Madeira offshore.

(5) In June 2000, credit granted by Credit-Purchase Financial Companies accounted for 13 per cent of bank credit to households with purposes other than housing purchase.

Table 3.3

BANK LOANS TO THE NON-MONETARY PRIVATE SECTOR

Year-on-year rate of change – per cent

	Loans to households and non-financial corporations														
	Households			Non-financial corporations									Total households and non-financial corporations	Loans to non-monetary financial institutions[(b)]	Total loans to the non-monetary private sector
	Total	By purpose		Total[(b)]	By sector of activity										
		Housing	Other purposes[(a)]		Agriculture, livestock, forestry and fishing	Mining	Manufac-turing	Production and distribution of electricity, gas and water	Construction	Services	of which:				
										Total	Other business services	Real estate activities			
1996															
Dec.	25.1	26.0	22.9	5.8	6.7	11.2	-7.2	-17.0	13.5	14.2	n.d.	n.d.	14.8	21.2	15.2
1997															
Dec.	26.1	27.4	22.9	21.8	-3.7	16.1	10.8	15.4	30.7	27.0	n.d.	n.d.	23.9	18.1	23.5
1998															
Dec.	31.4	34.8	23.1	22.9	4.6	3.1	15.6	23.1	33.3	24.4	35.6	25.5	27.3	23.0	27.0
1999															
Mar.	31.5	36.5	18.3	27.5	15.8	19.3	15.1	42.2	30.5	32.4	55.4	30.9	29.6	35.4	30.0
1999															
June	34.9	36.9	29.6	26.7	16.2	41.1	14.9	66.9	29.0	29.3	60.2	32.3	31.0	14.5	29.8
Sep.	31.2	32.5	27.6	28.0	30.2	41.9	13.4	52.0	33.7	31.2	91.1	33.4	29.7	53.0	31.2
Dec.	28.0	29.7	23.2	26.7	24.9	37.2	13.6	41.9	31.7	29.9	74.5	41.8	27.4	41.5	28.3
2000															
Jan.	27.3	28.4	24.3	29.9	22.9	34.6	21.2	22.3	34.7	32.7	63.9	41.3	28.5	27.3	28.4
Feb.	25.8	26.8	23.1	30.0	20.4	28.1	19.4	41.3	45.9	29.6	49.5	37.4	27.8	36.5	28.3
Mar.	27.2	26.3	29.8	26.9	11.8	18.8	17.9	34.2	40.7	26.8	55.9	42.5	27.0	44.5	28.2
Apr.	24.2	25.1	21.5	32.1	9.4	16.7	19.2	33.5	42.2	35.4	112.6	44.4	27.9	53.2	29.4
May	23.7	25.1	19.7	30.5	14.4	25.3	21.8	15.0	37.9	33.5	111.0	39.0	26.9	43.3	27.9
June	20.8	22.6	15.9	25.7	7.1	25.3	20.4	16.8	40.3	24.8	48.5	38.7	23.1	89.3	27.3
July	19.9	22.1	14.0	26.4	5.9	11.2	18.9	23.7	42.2	25.7	51.3	39.7	22.9	88.4	27.1
Aug.	20.7	22.4	15.7	26.5	2.1	15.4	19.9	19.3	38.2	27.1	47.2	41.6	23.4	57.9	25.8
Memo: Percentage of total loans to the non-monetary private sector in Aug.2000	48.2	36.1	12.1	43.1	0.6	0.4	9.0	1.5	8.0	23.4	3.7	4.2	91.3	8.7	100.0

Source: Monetary and Financial Statistics.

Notes:

(a) Includes all credit granted to households with purpose other than housing purchase, namely consumer credit.

(b) Developments in banking credit have been affected by financing operations intra-financial groups, involving banks and the respective holdings. Such was the case in April and May 2000, when the year-on-year rate of change of loans to non-financial corporations was affected by the carrying out of an operation between a bank and a non-financial holding. In June 2000, the effect of this operation ceased to be apparent in the non-financial corporations sector, and was considered in the non-monetary financial corporations sector, due to the fact that the statute of the mentioned holding was changed to financial holding.

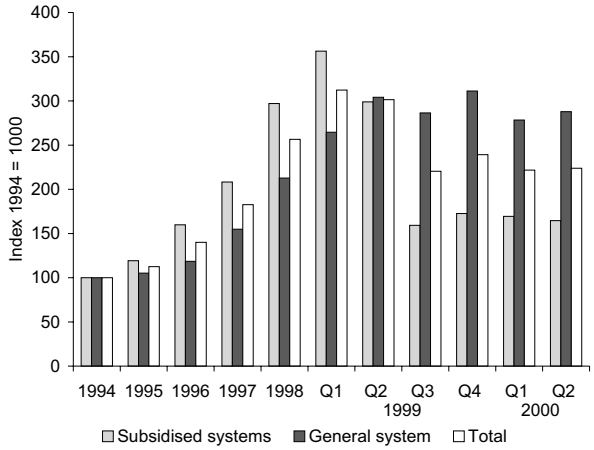
main factor behind the development of the indicator was the increase in mortgage interest rates observed as from November 1999.

Another important aspect for the slowdown in credit to households initiated in 1999 is related to reforms introduced in the subsidised credit systems for housing purposes, in particular the setting of ceilings on the transaction values of the houses that customers applying for the interest rate subsidy intend to purchase. Such measure may have also contributed for a higher restrictiveness, albeit not measurable, of the accessibility conditions to the housing market by those households intending to purchase houses whose prices were higher than the eligibility ceilings determined by Law(6). In fact, according to the Treasury, the number of contracts of housing credit made under subsidised credit systems, after having increased progressively from 1994 to the first quarter of 1999(7), declined substantially in the second and third quarters of 1999 (Chart 3.6 and Chart 3.7). From the third quarter of 1999 to the second quarter of 2000 the number of contracts within this segment stabilised at levels similar to those observed in 1996 and around 60 to 70 per cent above those recorded in 1994. It should be also mentioned that this decline was not apparent under the general (non-subsidised) system and that, as from the second quarter of 1999, the number of new contracts stabilised at a level 2.5 to 3 times higher than in 1994. These levels suggest that, notwithstanding the slight slowdown in mortgage market activity, a high demand in the housing market continued to be observed in the first half of 2000.

While a reduction in investment in housing is expected in the forthcoming years, there is a demographic aspect that might mitigate the already mentioned effects leading to a decline in demand in this market. In fact, according to the estimates of population of the *INE*, the group of individuals aged from 20 to 34 years, who will tend to seek for a house for the first time and, therefore, may continue to contribute to a net increase in demand, rose by around 175 thousand individuals from 1991 to 1998 (Chart 3.8). Projections for 2000 point to a stabilisation of the number of individuals in this group, suggesting the reversal of this effect in the forthcoming years.

Taking into account the developments in credit granted by banks and by other financial institutions so far, the level of total indebtedness of households is likely to stand at around 86 per cent of disposable income at end-2000, compared with 76.3 per cent in December 1999 (Table 3.4). This

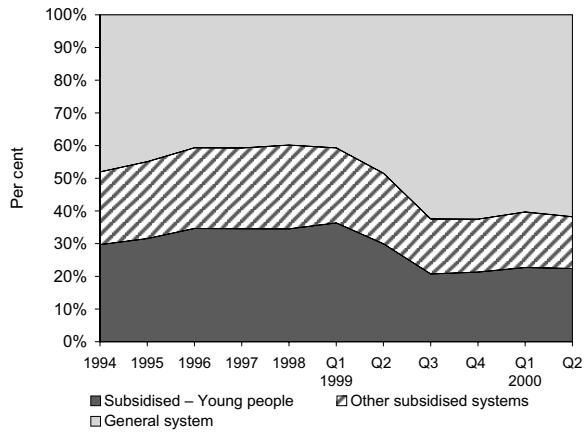
Chart 3.6
NEW CONTRACTS OF HOUSING CREDIT



Source: Treasury.

Note: The quarterly values for 1999 and 2000 were annualised.

Chart 3.7
STRUCTURE OF HOUSING CREDIT NEW CONTRACTS

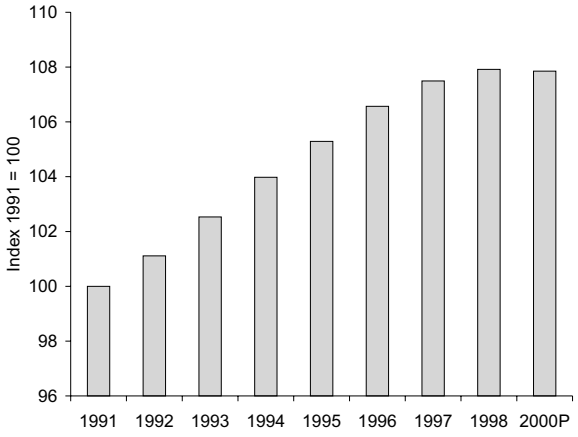


Source: Treasury.

(6) The amount of interest subsidies granted by the government for housing purposes reached 0.5 per cent of disposable income per annum in 1998 and 1999.

(7) In the first quarter of 1999, the number of contracts of housing credit under the subsidised system, in annualised terms, was around 3.5 times higher than the number recorded in 1994 as a whole.

Chart 3.8
NUMBER OF INDIVIDUALS AGED FROM 20 TO 34



Source: *INE*, "Estimates of the population and Projections for the resident population 1995-2005".

development, together with the higher levels of interest rates expected for the year as a whole vis-à-vis 1999, is likely to lead to an increase in interest paid by households of around 0.5 percentage points of disposable income. This trend contrasts with the situation in the past three years: after having stabilised in 1996 and 1997 at around 4.5 per cent of disposable income, interest paid declined to 3.8 per cent in 1998 and to 3.5 per cent in 1999. The aggregate total debt burden of households (interest paid and redemptions of capital) is also likely to rise significantly in 2000, as a consequence of the developments in total debt of households and of the increase in bank interest rates. The total debt burden of households as a percentage of disposable income is expected to rise by around 2 percentage points in the year as a whole[8], which compares with a slightly lower increase by around 1.8 percentage points estimated for 1999 and by around 0.5 percentage points for 1998.

The growing pressure on the financial situation of households should have been underlying the slowdown of private consumption as from the second half of 1999, consistent with the need for the allocation of savings to the accomplishment of commitments assumed with the debt. In this context, the savings rate of households, which has been gradually falling in recent years, is estimated to stabilise in 2000.

In recent years, there has been a recomposition in the assets of households, with an increase in holdings of real assets, both by means of strong housing purchase and by means of the appreciation recorded in the real estate market, to the detriment of holdings of financial assets. Even though estimates are not available, the household sector is likely to have recorded a significant increase in net wealth, notwithstanding the expressive increases in indebtedness and the decline in the liquidity of assets held.

Against the background of the mentioned increase in importance of housing in household wealth as a whole, which typically constitutes the collateral in housing credit operations, price developments in this market are a relevant factor in risk assessment associated with this segment of credit granted by banks.

For many years, the housing market in Portugal recorded stable prices, namely without situations

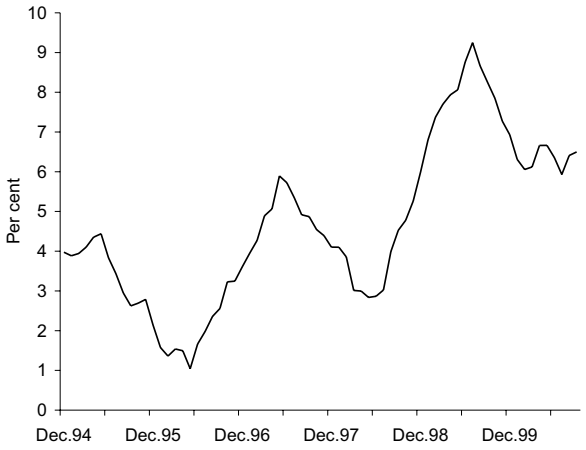
(8) In these estimated 2 percentage points for the increase in total debt burden for 2000, approximately 1.5 percentage points correspond to debt redemptions.

Table 3.4
INDEBTEDNESS AND INTEREST PAID BY HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS

	1995	1996	1997	1998	1999	2000P
Indebtedness						
Households (as a percentage of disposable income)	36.8	43.7	52.1	62.7	76.3	85.5
Households (as a percentage of GDP)	27.7	32.4	38.0	45.8	54.9	62.5
Non-financial corporations (as a percentage of GDP).	54.9	55.0	59.2	64.1	71.4	81.3
Interest paid						
Households (as a percentage of disposable income)	4.0	4.5	4.5	3.8	3.5	3.9
Non-financial corporations (as a percentage of GDP).	7.9	6.8	6.0	5.1	4.3	n.a.

P: Projection to end-year.

Chart 3.9
HOUSING PRICES
Year-on-year rate of change



Source: *Confidencial Imobiliário.*

of nominal price reduction. This development occurred in a context of strong regulation, both of the housing and renting market and of the mortgage credit market. After almost a decade since the liberalisation of housing credit and given the strong expansion of the indebtedness of households represented by mortgages, the monitoring of price developments, as well as of demand and supply conditions in the housing market, became more important. According to data from *Confidencial Imobiliário*, housing prices accelerated in 1998 and 1999, maintaining a broadly stable pace of growth in the first three quarters of 2000. Indeed, the year-on-year rate of change of prices in this market stood at 4.1 per cent in December 1997, increased to 6.0 per cent in December 1998 and further to 6.9 per cent in December 1999, having recorded its peak in recent years in July 1999 with 9.2 per cent (Chart 3.9). From January to September 2000 the growth rate of housing prices stabilised slightly above 6 per cent year-on-year (6.5 per cent in September 2000). The previously mentioned price developments were in line with the intra-annual developments of housing credit.

It should be noted that the values previously presented for indebtedness and the share of the debt service in the disposable income of households correspond to statistics for the aggregate of the economy and comprise heterogeneous situations. Therefore, amongst households which incurred debt, the most exposed are those that, other things being equal, have higher levels of indebtedness as a percentage of their current income and lower levels of financial wealth and other accumulated assets and whose elements have a less stable labour contract. One of the groups of the population which is likely to correspond to the mentioned pattern consists in young first-time buyers of a house. Thus, because they are starting their working life and have not yet capitalised gains in the transaction of real estate previously acquired, they have lower levels of accumulated wealth than the average of the population. In general, this group of the population coincides, to some degree, with the beneficiaries of the subsidised credit system for young people, one of the most buoyant segments of housing credit in recent years: the number of contracts of housing credit in 1994 in this segment accounted for 29.7 per cent of the total number of housing credit contracts negotiated in that year, a percentage which increased progressively to reach 36.3 per cent in the first quarter of 1999. Subsequently, this share declined significantly, stabilising slightly above 20 per cent as from the first quarter of 1999[9].

The concentration of activity in the mortgage market in the segment of subsidised credit for young people, at least until the first quarter of 1999, firstly suggests that a significant segment of the household sector is particularly exposed to changes in macroeconomic and monetary policy conditions. However, banks current practice of associating this type of contracts to personal guarantee, added to real collateral, usually from a close relative of the borrower, limits substantially the risk for banks of conducting this type of operations. In addition, banks assess the capacity of future debt service in the segments of credit for young people according to the growth potential of income earned by applicants, namely considering the respective levels of education.

In June 2000, the Banco de Portugal introduced a change in the weighting of housing loans for capital adequacy, with a view to increasing this requirement whenever, at the moment of the credit granting, the value of the loan exceeds 75 per cent

(9) The number of contracts negotiated under all subsidised credit systems, which comprises other subsidised systems in addition to subsidised credit for young people, accounted for 60 per cent of total new contracts from 1996 to the first quarter of 1999.

of the value of the real estate given as mortgage collateral[10]. This measure, increasing the cost of bank capital for mortgages under these conditions, aimed at discouraging the granting of loans to an amount close to the market value of the collateral given, which, under adverse price developments in the housing market, could jeopardise the full coverage of the outstanding debt by the real estate given as collateral.

2.1.2 Developments in credit to corporations

Bank loans to non-financial corporations accelerated in 1999 and did not show a clear downward trend in the pace of growth until August 2000, despite the rise in interest rates as from the second half of 1999. Indeed, the rate of growth of these loans stood at 25.7 per cent in June 2000 and at 26.5 per cent in August 2000, remaining consistently above 25 per cent since March 1999 (Table 3.3).

As in 1999, borrowing requirements of non-financial companies are likely to increase significantly in 2000, reflecting the acceleration of investment of this sector, with a growth clearly above that of GDP and financed only partly by the internal generation of funds. In 2000, the internal generation of funds by corporations, which grossly correspond to savings in this sector, will probably stand at a lower level than in 1999, namely as a result of an increase in manufacturing input costs. In 1999 and until August 2000 the strong growth of bank credit to non-financial corporations was associated with the high level of borrowing requirements of this sector, in a context in which, among the range of external financing sources to non-financial corporations, bank credit traditionally prevails.

It should also be mentioned that credit granted by financial leasing companies, whose bulk is intended for the financing of companies, had a very strong growth in the first half of 2000. Indeed, the year-on-year rate of change of this credit stood at 24.3 per cent in July 2000 (23.2 per cent in June 2000) and evinced no clear downward trend vis-à-vis previous years (rates of growth of 20.3 per cent in December 1999 and of 24.3 per cent in December 1998)[11].

Turning to the breakdown of credit to non-financial corporations by sector of activity, stress is laid on the construction sector which, after a growth rate of 31.7 per cent in December 1999, remained particularly buoyant in the first eight months of 2000, with growth rates of around 40 per cent (40.3 per cent in June and 38.2 per cent in August 2000). Bank loans to the sub-sector of "other business services", which comprises non-financial holdings, continued to grow substantially above total loans to non-financial corporations: in August 2000, the year-on-year rate of change stood at 47.2 per cent, which compares with 48.5 per cent in June 2000 and 74.5 per cent in December 1999. These developments suggest that part of the credit extended to non-financial corporations will continue to be intended to finance the reorganisation of non-financial economic groups, in particular the acquisition of shareholdings. It should also be mentioned that non-financial holdings are often intermediaries in the access to financing by companies in which they have shareholdings, whose main activity is associated with other sectors, namely manufacturing and construction sectors.

The concentration of bank credit in activities related to the real-estate sector strengthened further during the first half of the year, continuing the gradual increase observed in recent years. Thus, the range of loans to households for housing purposes, loans to companies of both the construction sector and the services sub-sector of "real-estate activities" reached 52.7 per cent of total bank loans to the non-financial private sector in June 2000 (52.1 per cent in December 1999), increasing further to 53.0 per cent in August 2000. This evolution was fully due to the strong expansion showed in the first half of 2000 by credit to construction and services companies of "real-estate activities", whose year-on-year rates of change stood at 40.3 per cent and 38.7 per cent respectively, in June 2000 (38.2 per cent and 41.6 per cent respectively, in August 2000). These two segments maintain a relatively limited share in total loans to the non-

(10) It should be noted that this requirement is applicable not only to new credit granted, but also to all the stock of housing credit granted prior to June 2000.

(11) In July 2000, credit granted by financial leasing companies accounted for around 10 per cent of bank credit to non-financial corporations.

financial private sector: the construction sector accounted for 8.8 per cent of this aggregate in August 2000, while the share of the services subsector of "real-estate activities" was 4.6 per cent. It should also be mentioned that information available points to a strong recovery of investment in public works in 2000 carried out by entities belonging to the corporate sector.

2.2 Developments in bank non-lending activity

At end-June 2000 the year-on-year rate of change of total assets of the banking system stood at 16.9 per cent, corresponding to a slight acceleration vis-à-vis December 1999 (Table 3.1 and Table 3.2). This development was mainly due to the persisting growth of credit to customers at high levels (as described in the previous sections), to the reversal of the downward trend in credit to credit institutions and to the strong growth of financial fixed assets. The exceptionally high levels of the item "cash and assets in central banks" held by banks in December 1999[12] were reversed during the first half of 2000, which was reflected in the decline of the pace of growth of this item.

Resources from customers accelerated slightly from December 1999 to June 2000, although not sufficiently to cover the borrowing requirements associated with assets growth. In the first half of 2000, lending to and raising of resources from customers continued to evince very different paces of growth. Therefore, the ratio of bank credit to deposits (and equivalent) of the non-financial private sector (as a percentage) increased by 8.2 percentage points during this period, to stand at 118.9 per cent in June 2000 (122.9 per cent in August 2000), reflecting an increase in the degree of utilisation of resources from customers and the growing deficit of financing of the non-monetary private sector[13].

This development also signals the continued introduction of changes in the structure of investment and resources from banks, namely an increase of importance of credit to customers in total investments and the strong recourse, by banks, to funds arising from the money and capital markets (external interbank loans, issue of bonds, issue of stocks). The change in the structure of banks' financing is related to the relative attractiveness of bank deposits for investors vis-à-vis other alternative investments, in a framework in which saving levels of the economy as a whole are increasingly not sufficient to finance total investment, which was directly reflected in an increase in the current account deficit.

The high borrowing requirements, in a context in which a growing share of households' savings is intended for the redemption of debt, points to the existence of a shortage of resources generated in the economy to face increasing investment rates. This fact also suggests stronger rigidity of bank deposits vis-à-vis interest rate changes in these operations.

It should be noted that most funds obtained in capital markets are related to interbank loans from abroad, denominated in euro, therefore not contributing to an increase in foreign exchange risk associated with bank financing, reflecting, on the contrary, the integration of money markets in the euro area.

On the other hand, the fact that the borrowing requirements of the Portuguese banking system are a small percentage of the funds available in the euro area interbank market makes it possible to obtain the necessary financing at the interest rate prevailing in this market (comprising a differential that reflects the risk profile of the fund takers).

As a result of the previous considerations, and pursuing the trend observed in recent years, the strong divergence between credit and deposit growth also led to a decline in the net position of highly-liquid assets (net of interbank liabilities)[14] in the first half of 2000. This lower liquidity of banks in June 2000, when compared with December 1999, was mainly due to the above-mentioned increase in net recourse to interbank funds abroad.

(12) The high amounts of assets in central banks kept by banks at end-1999 were a liquidity reserve to face possible problems in the settlement of operations, as a consequence of the so-called "millennium bug".

(13) This ratio was calculated on the basis of Monetary and Financial Statistics, wherefore data correspond to the activity carried on in Portugal by all Monetary Financial Institutions. In this context, deposits and equivalent comprise demand deposits, fixed-term and savings deposits, deposits redeemable at a period of notice and repurchase agreements.

(14) Highly liquid assets defined as the aggregate of cash, demand deposits in central banks, credit to credit institutions (net of resources from credit institutions) and fixed-income securities issued by governments and international financial organisations.

The value of securities held in portfolio remained broadly unchanged between June 1999 and June 2000 (a reduction of 0.6 per cent), which resulted from different behaviours of fixed-income (a reduction of 3.0 per cent) and variable-income security portfolios (an increase of 20.2 per cent). The developments in fixed-income security portfolios were different in the two half-years ended in December 1999 and in June 2000 respectively: after a reduction in the second half of 1999, these securities recorded a partial recovery from December 1999 to June 2000, fully associated with Portuguese government debt portfolios. This was probably related to the concentration of issues of these securities in the beginning of 2000, partially acquired by Portuguese banks. Thus, from December 1999 to June 2000, the portfolio of government issues, including securities issued by foreign governments, maintained its weight of around one third of total investments in securities, reversing the trend of a continued reduction in importance of these securities in recent years (40.2 per cent of the overall portfolio of securities in June 1999, 45.1 per cent in December 1998 and 56.6 per cent in December 1997).

In turn, the behaviour of the portfolio of variable-income securities was relatively uniform in the second half of 1999 and in the first half of 2000. In addition, the structure of investments in variable-income securities changed significantly from December 1999 to June 2000, namely with a marked strengthening of shares issued by residents (which almost doubled in this period, accounting for 6.1 per cent of total investments in securities in June 2000), to the detriment of units of participation in national investment funds, which declined by 27.4 per cent from December 1999 to June 2000 (a weight of 4.1 per cent in total portfolio in June 2000).

The important increase in bank's financial fixed assets in the first half of 2000 reflected the carrying out of the previously mentioned acquisitions, which involved the acquisition of important shareholdings, both in banks[15] and in non-banking financial institutions.

The aggregate exposure of Portuguese banks vis-à-vis Latin American, Asian and Eastern Europe economies did not show significant changes, standing at around 1.5 per cent of assets net of the interbank activity in the first half of 2000. It should be recalled that most of the aggregate exposure is related to Brazil, in particular to the financing of trade and other transactions with this country (namely long-term investments related to the implementation of subsidiaries, the acquisition of Brazilian government debt and investments in credit institutions of the same group).

Regarding the financing of banks, stress should be laid on the maintenance of the acceleration trend of resources from customers, with a year-on-year rate of change of 10.9 per cent in June 2000, which compares with 9.2 per cent in December 1999. This acceleration was almost exclusively due to the strong expansion in deposits from non-residents (excluding emigrants), which increased by 29.8 per cent year-on-year in June 2000. In turn, deposits from residents (excluding general government deposits) reduced their pace of growth slightly from 12.7 per cent in December 1999 to 10.1 per cent in June 2000. The increase in short-term interest rates observed as from the second half of 1999 may have given rise to gradual changes in the choice of investors towards an increase in investments in time (and savings) deposits, to the detriment of demand deposits. Those changes were more intense in the course of the first semester of 2000.

In fact, the year-on-year rate of change of demand deposits declined from 18.1 per cent in December 1999 to 12.5 per cent in June 2000, while time and savings deposits increased their pace of growth from 5.4 per cent in December 1999 to 8.9 per cent in June 2000.

As mentioned above, external interbank financing accelerated significantly in the first half of the current year, recording a year-on-year rate of change of 29.7 per cent in June 2000. Liabilities represented by securities continued to record very high growth rates in the first half of 2000 (year-on-year rate of change of 54.2 per cent in June 2000, which compares with 60.3 per cent in December 1999 and 45 per cent in December 1998), due to the persistent dynamism of new issues of on-the-shelf bonds and in issues of medium- and long-term bonds in the international market al-

(15) An important part of the increase in financial fixed assets in banks involved the exchange of shareholdings between institutions.

ready evinced in 1999. Liabilities represented by securities have thus continued to rise in importance in the bank financing structure, standing at 5.3 per cent of total resources in June 2000 (4.7 per cent in December 1999). This increased recourse to market debt instruments (which also comprise subordinated debt, previously not considered), typically with longer maturities than interbank loans, counteracted, albeit partially, the importance of shorter maturities in the structure of financing.

Developments in sundry provisions in the balance sheet, whose growth rate stood at 35.9 per cent in June 2000 (28.5 per cent in December 1999), was mainly due to the behaviour of provisions for general credit risks, which have a minimum level of compulsory nature defined as a percentage of credit granted. In June 2000, the year-on-year rate of change of these provisions stood at 38.5 per cent, up from 33.3 per cent observed in December 1999.

Considering that banks concentrated in the first half of 2000 the issuance of new equity shares, associated mostly with the acquisitions conducted during this period, equity capital grew by 20.8 per cent year-on-year, a rate of change substantially higher than in December 1999 (8.1 per cent).

4. RETURN AND SOLVENCY

The net income of the banking system grew by 21.0 per cent in the first half of 2000, a value considerably above the 18.4 per cent recorded at end-June 1999. This behaviour induced a growth of the indicators of net return on assets (from 0.74 per cent to 0.78 per cent in June 2000)[16] and on equity (12.4 per cent against 11.3 per cent a year earlier) (Chart 4.1)[17]. Gross return on average assets (overall gross income as a percentage of average assets) declined slightly to 1.41 per cent in June 2000 (1.50 per cent in the first half of 1999).

The financial margin reduced its negative contribution to the change of net return of equity, from -2.9 p.p. at the end of the first half of 1999 to -1.9 p.p. one year later (Chart 4.2). The contribution of other current income became positive (0.6 p.p.) and the developments in administrative expenses were less favourable for the net return of equity than in same period of the previous year (0.9 p.p. in June 2000 against 2.3 p.p. in June 1999). It should also be noted that non-operational income items (extraordinary gains, provisions, depreciation and income taxes) continued to contribute positively to the increase in return on equity

Chart 4.1
RETURN ON ASSETS AND ON EQUITY

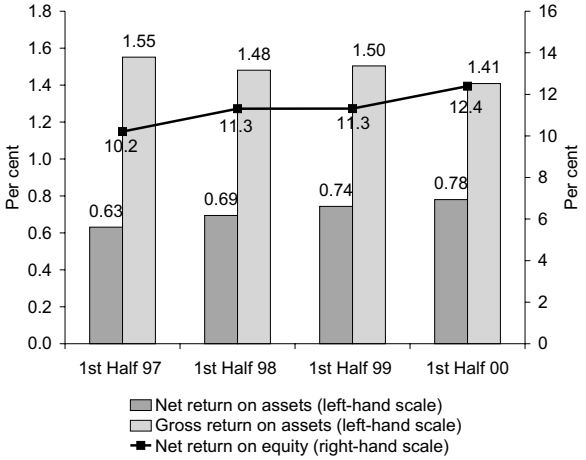
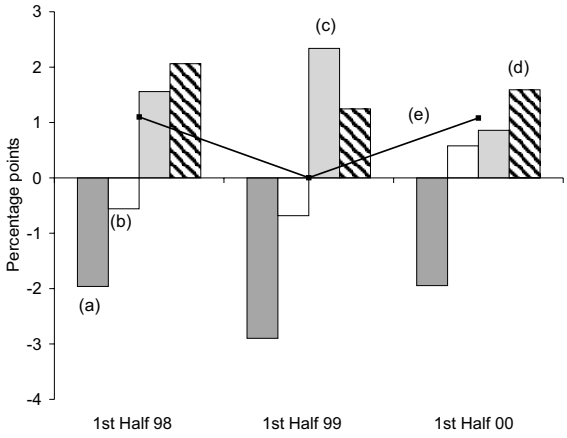


Chart 4.2
BREAKDOWN OF THE CHANGE IN NET RETURN ON EQUITY



Notes:
(a) Financial margin.
(b) Other current income.
(c) Administrative expenses.
(d) Extraordinary gains, provisions, depreciation and income taxes.
(e) Total change in ROE.

(16) Net return on assets net of interbank activity increased from 1.06 per cent in the first half of 1999 to 1.09 per cent in the same period of the current year.

(17) The values of semi-annual profitability, as well as ratios of the items of income account to average assets are calculated in annualised terms.

Chart 4.3

FINANCIAL MARGIN AS A PERCENTAGE OF TOTAL AVERAGE ASSETS AND OF TOTAL AVERAGE ASSETS ADJUSTED FOR INTERBANK ACTIVITY

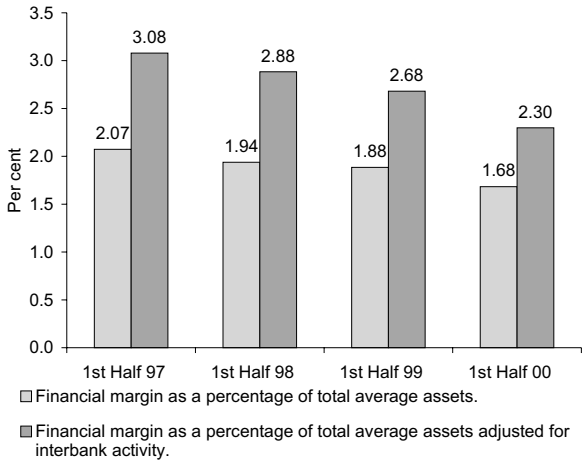
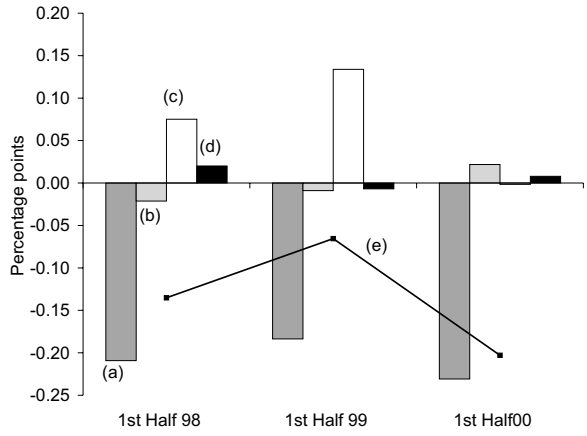


Chart 4.4

BREAKDOWN OF THE CHANGE IN THE FINANCIAL MARGIN AS A PERCENTAGE OF AVERAGE ASSETS



Notes:

(a) Effect of the change in the differential between average lending and deposit rates.
(b) Effect of the change in the interest rate level.
(c) Effect of the change in the balance-sheet structure.
(d) Effect arising from off-balance-sheet operations.
(e) Total change in the financial margin as a percentage of average assets.

(1.6 p.p. in the first half of 2000 and 1.2 p.p. in the same period of 1999).

The profit and loss account of the banking system, is presented in tables 4.1 and 4.2. The financial margin decelerated significantly and recorded a growth rate of 2.9 per cent, which compares with 7.5 per cent a year earlier. As a consequence, the financial margin indicator as a percentage of average total assets declined further and went down from 1.88 to 1.68 per cent (Chart 4.3). As a percentage of average total assets net of interbank activity, it declined from 2.68 to 2.30 per cent.

The breakdown of the change in the financial margin as a percentage of average total assets by the main determining effects (Chart 4.4) shows that the reduction in the differential between average rates of lending and deposit operations had the main contribution to the fall in the financial margin (which actually strengthened vis-à-vis the same period of the previous year). The difference between the average return on assets and the average cost of liabilities narrowed further in the first half of 2000, similarly to the corresponding periods as from 1997, standing at 1.73 p.p. in June this year (Table 4.3). Behind this development was the narrowing in the margin of non-interbank operations from 3.17 p.p. in June 1999 to 2.77 p.p. one year later (with a decrease of 42 p.p. in the margin of credit on deposits to 3.39 p.p.), since the (negative) differential of profitability in interbank operations remained broadly stable.

The continued narrowing of margins in lending operations, taking as a reference money market interest rates (Charts 4.5A and 4.5B) led this development, since margins in deposit operations recorded a significant increase as from the second half of 1999. This behaviour of the margins is likely to be associated, on the one hand, with the lag prevailing in the transmission of movements in interbank money market interest rates and, on the other hand, with the differences in the velocity of adjustment of lending and deposit rates to the new levels of interbank interest rates. In this sense, the narrowing of margins in lending operations and the widening of margins in deposit operations are probably mostly temporary and their reversal to their medium-term level is to be expected.

Stress should be laid on the change in the financial margin as a percentage of average total assets related to changes in the structure of the balance sheet, which went from major positive contribution in the first half of 1999 to a marginally negative contribution in the first half of 2000. This behaviour is probably associated with the fact that the positive change effect of the asset structure —

Table 4.1

PROFIT AND LOSS ACCOUNT

EUR million

	1995	1996	1997 1st Half	1997	1998 1st Half	1998	1999 1st Half	1999	2000 1st Half
Income and gains									
1. Interest income	13052.0	12811.7	6266.6	12675.8	6188.2	12356.9	5712.9	11734.1	6973.8
2. Income from variable-income securities	178.1	212.5	125.6	249.9	208.7	419.3	389.9	660.0	353.8
3. Commissions	538.3	605.4	376.5	839.0	486.9	1119.3	585.5	1267.7	735.7
4. Income from financial operations	2696.4	3240.8	3370.3	4734.8	3200.6	7184.8	4112.0	8488.8	4587.7
5. Other income	299.1	399.5	199.4	438.5	231.6	456.6	238.1	464.6	223.2
6. Extraordinary gains	305.6	289.0	141.5	412.0	154.0	311.7	195.9	422.6	312.1
A. Total income	17069.6	17558.9	10479.8	19350.0	10470.0	21848.5	11234.1	23037.9	13186.4
Costs and losses									
7. Interest expenses	9740.0	9560.8	4473.1	8995.4	4293.2	8524.0	3676.2	7753.3	4877.4
8. Commissions	89.6	102.4	52.9	115.6	74.9	169.5	91.8	200.1	122.0
9. Losses in financial operations	2342.9	2564.9	2994.6	4041.6	2934.4	6695.1	3962.9	8036.4	4331.7
10. Staff costs	1661.9	1768.9	933.7	1925.2	936.6	1897.1	1003.8	2011.0	1051.2
11. Other administrative costs	900.2	1027.0	508.5	1117.4	588.3	1257.6	634.6	1384.8	690.7
12. Taxes	26.5	32.1	16.6	32.3	19.2	37.7	20.3	41.6	20.2
13. Other costs and losses	36.1	63.0	17.0	41.7	21.1	47.1	22.9	49.2	25.7
14. Extraordinary losses	150.7	147.8	89.9	204.9	92.4	190.2	98.7	204.0	96.0
B. Total costs	14947.9	15266.9	9086.3	16474.2	8960.1	18818.3	9511.3	19680.5	11214.9
C. Cash-flow for the year	2121.6	2292.1	1393.5	2875.8	1509.9	3030.2	1722.9	3357.4	1971.4
D. Depreciations for the year	368.8	367.4	186.1	392.8	199.1	424.6	216.7	463.8	217.2
E. Provisions for the year (net of replacements)	767.4	786.0	495.1	975.3	439.0	998.1	522.3	1209.6	576.6
F. Income before taxes	985.5	1138.6	712.3	1507.7	871.8	1607.6	983.8	1684.0	1177.7
G. Income taxes	202.4	238.7	166.3	318.8	193.0	337.4	180.3	270.7	205.6
H. Net income for the year	783.0	900.0	546.0	1188.9	678.8	1270.1	803.5	1413.3	972.1
I. Financial margin	3312.1	3251.0	1793.5	3680.4	1895.0	3832.8	2036.7	3980.8	2096.4
J. Other current income	1216.7	1695.7	990.6	2031.0	1078.3	2230.5	1227.4	2553.7	1400.9
L. Banking product	4528.8	4946.7	2784.1	5711.4	2973.3	6063.4	3264.1	6534.5	3497.3
M. Administrative expenses	2562.1	2795.8	1442.2	3042.7	1524.9	3154.6	1638.4	3395.8	1741.9
N. Overall gross income	1966.7	2150.9	1341.9	2668.7	1448.3	2908.7	1625.7	3138.8	1755.3
O. Extraordinary gains	154.9	141.2	51.6	207.1	61.6	121.5	97.2	218.6	216.1

Year-on-year rate of change

	1996	1997	1998 1st Half	1998	1999 1st Half	1999	2000 1st Half
Income and gains							
1. Interest income	-1.8	-1.1	-1.3	-2.5	-7.7	-5.0	22.1
2. Income from variable-income securities	19.3	17.6	66.2	67.8	86.8	57.4	-9.2
3. Commissions	12.5	38.6	29.3	33.4	20.2	13.3	25.7
4. Income from financial operations	20.2	46.1	-5.0	51.7	28.5	18.1	11.6
5. Other income	33.6	9.8	16.2	4.1	2.8	1.7	-6.2
6. Extraordinary gains	-5.4	42.5	8.8	-24.3	27.2	35.6	59.3
A. Total income	2.9	10.2	-0.1	12.9	7.3	5.4	17.4
Costs and losses							
7. Interest expenses	-1.8	-5.9	-4.0	-5.2	-14.4	-9.0	32.7
8. Commissions	14.3	12.9	41.5	46.6	22.6	18.1	32.8
9. Losses in financial operations	9.5	57.6	-2.0	65.7	35.0	20.0	9.3
10. Staff costs	6.4	8.8	0.3	-1.5	7.2	6.0	4.7
11. Other administrative costs	14.1	8.8	15.7	12.5	7.9	10.1	8.8
12. Taxes	21.1	0.8	15.2	16.7	6.1	10.3	-0.6
13. Other costs and losses	74.3	-33.8	24.2	12.9	8.7	4.6	12.3
14. Extraordinary losses	-1.9	38.6	2.7	-7.2	6.8	7.3	-2.7
B. Total costs	2.1	7.9	-1.4	14.2	6.2	4.6	17.9
C. Cash-flow for the year	8.0	25.5	8.4	5.4	14.1	10.8	14.4
D. Depreciations for the year	-0.4	6.9	7.0	8.1	8.9	9.2	0.2
E. Provisions for the year (net of replacements)	2.4	24.1	-11.3	2.3	19.0	21.2	10.4
F. Income before taxes	15.5	32.4	22.4	6.6	12.8	4.8	19.7
G. Income taxes	17.9	33.6	16.1	5.8	-6.6	-19.8	14.0
H. Net income for the year	14.9	32.1	24.3	6.8	18.4	11.3	21.0
I. Financial margin	-1.8	13.2	5.7	4.1	7.5	3.9	2.9
J. Other current income	39.4	19.8	8.8	9.8	13.8	14.5	14.1
L. Banking product	9.2	15.5	6.8	6.2	9.8	7.8	7.1
M. Administrative expenses	9.1	8.8	5.7	3.7	7.4	7.6	6.3
N. Overall gross income	9.4	24.1	7.9	9.0	12.2	7.9	8.0
O. Extraordinary gains	-8.9	46.7	19.3	-41.3	57.8	79.9	122.4

Table 4.2

PROFIT AND LOSS ACCOUNT

As a percentage of average assets

	1995	1996	1997 1st Half	1997	1998 1st Half	1998	1999 1st Half	1999	2000 1st Half
Income and gains									
1. Interest income	9.34	8.43	7.25	7.08	6.33	6.12	5.29	5.21	5.60
2. Income from variable-income securities	0.13	0.14	0.15	0.14	0.21	0.21	0.36	0.29	0.28
3. Commissions	0.39	0.40	0.44	0.47	0.50	0.55	0.54	0.56	0.59
4. Income from financial operations	1.93	2.13	3.90	2.65	3.27	3.56	3.80	3.77	3.68
5. Other income	0.21	0.26	0.23	0.25	0.24	0.23	0.22	0.21	0.18
6. Extraordinary gains	0.22	0.19	0.16	0.23	0.16	0.15	0.18	0.19	0.25
A. Total income	12.22	11.55	12.12	10.81	10.71	10.83	10.39	10.23	10.58
Costs and losses									
7. Interest expenses	6.97	6.29	5.17	5.03	4.39	4.22	3.40	3.44	3.91
8. Commissions	0.06	0.07	0.06	0.06	0.08	0.08	0.08	0.09	0.10
9. Losses in financial operations	1.68	1.69	3.46	2.26	3.00	3.32	3.67	3.57	3.48
10. Staff costs	1.19	1.16	1.08	1.08	0.96	0.94	0.93	0.89	0.84
11. Other administrative costs	0.64	0.68	0.59	0.62	0.60	0.62	0.59	0.61	0.55
12. Taxes	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
13. Other costs and losses	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
14. Extraordinary losses	0.11	0.10	0.10	0.11	0.09	0.09	0.09	0.09	0.08
B. Total costs	10.70	10.05	10.51	9.21	9.16	9.32	8.80	8.74	9.00
C. Cash-flow for the year	1.52	1.51	1.61	1.61	1.54	1.50	1.59	1.49	1.58
D. Depreciations for the year	0.26	0.24	0.22	0.22	0.20	0.21	0.20	0.21	0.17
E. Provisions for the year (net of replacements)	0.55	0.52	0.57	0.55	0.45	0.49	0.48	0.54	0.46
F. Income before taxes	0.71	0.75	0.82	0.84	0.89	0.80	0.91	0.75	0.95
G. Income taxes	0.14	0.16	0.19	0.18	0.20	0.17	0.17	0.12	0.16
H. Net income for the year	0.56	0.59	0.63	0.66	0.69	0.63	0.74	0.63	0.78
I. Financial margin	2.37	2.14	2.07	2.06	1.94	1.90	1.88	1.77	1.68
J. Other current income	0.87	1.12	1.15	1.14	1.10	1.11	1.14	1.13	1.12
L. Banking product	3.24	3.25	3.22	3.19	3.04	3.00	3.02	2.90	2.81
M. Administrative expenses	1.83	1.84	1.67	1.70	1.56	1.56	1.52	1.51	1.40
N. Overall gross income	1.41	1.42	1.55	1.49	1.48	1.44	1.50	1.39	1.41
O. Extraordinary gains	0.11	0.09	0.06	0.12	0.06	0.06	0.09	0.10	0.17
Average assets (EUR million)	139712.1	151978.6	172974.6	178937.3	195588.8	201811.2	216171.0	225212.0	249212.6

towards an increase in importance of operations with a higher remuneration, such as credit to customers — was more than offset by the joint effect of changes in the structure of liabilities — towards an increase in the share of more expensive operations (e.g. interbank liabilities, financing by the issue of securities) — and a more marked growth of remunerated liabilities than of remunerated assets. On the contrary, the rise in the level of interest rates and the off balance-sheet operations started to contribute positively to the change in the financial margin as a percentage of average total assets.

Other current income grew by 14.1 per cent in June 2000, a value that represents a slight acceleration from the rate recorded a year earlier. Despite the slight increase in the growth rate, this component of income declined by 0.02 p.p. as a percentage of average total assets, standing at 1.12 per cent in June 2000. Therefore, banking product decelerated vis-à-vis the same period of the previous

Table 4.3

IMPLICIT AVERAGE YIELDS

	1996	1997	1998	1999	2000
	1st Half	1st Half	1st Half	1st Half	1st Half
Interbank assets [(a)]	6.01	5.25	4.30	3.37	3.54
Non-interbank assets	9.79	8.32	7.00	5.64	5.37
Credit (gross)	10.59	9.18	7.77	6.12	5.67
Fixed-income securities (gross)	9.11	7.08	5.70	4.63	4.88
Other assets	0.91	2.70	2.13	1.15	0.84
Interest-bearing assets	**8.43**	**7.13**	**5.99**	**4.86**	**4.79**
Interbank liabilities	6.73	5.47	4.65	3.64	3.82
Non-interbank liabilities	6.28	4.70	3.58	2.47	2.60
Deposits	6.14	4.40	3.40	2.31	2.28
Demand deposits	2.53	1.96	1.51	0.91	1.03
Time deposits	7.48	5.43	4.31	3.07	3.02
Other	3.18	3.04	2.24	1.89	1.37
Securities	8.22	8.07	5.33	3.32	4.16
Subordinated loans and interest-bearing equity instruments	8.93	6.87	5.73	4.73	5.22
Other liabilities	6.87	5.83	3.08	1.73	1.66
Interest-bearing liabilities	**6.42**	**4.98**	**3.98**	**2.92**	**3.07**
Differentials:					
Interest-bearing assets - interest-bearing liabilities	2.00	2.16	2.01	1.94	1.73
Non-interbank assets - non-interbank liabilities	3.51	3.62	3.42	3.17	2.77
Credit - deposits	4.45	4.78	4.37	3.81	3.39
Interbank assets - interbank liabilities	-0.72	-0.22	-0.35	-0.27	-0.28

Note:

(a) It includes: cash, demand deposits with the *Banco de Portugal*, liabilities from credit institutions and credit to credit institutions.

year, and the respective growth rate stood at 7.1 per cent in June 2000 (9.8 per cent in June 1999); as a percentage of the average assets, the change was from 3.02 at the end of the first half of 1999 to 2.81 per cent one year later.

The growth of other current income was due to the evolution of net income in financial operations, whose year-on-year rate of change reached 71.7 per cent, against a decline of 44.0 per cent in the previous year. This marked change in income from financial operations was mainly due to capital gains and holding gains derived from variable-income portfolios, which increased more than fourfold vis-à-vis the same period of the previous year. Net gains on commissions accelerated also from 19.8 per cent in June 1999 to 24.3 per cent one year later, which was mostly due to the growth of commissions on account of stand-by commitments and other commitments towards third parties, commissions associated with the management and domiciliation of securities, namely shares and mutual fund units, as well as commissions due to the conduct of operations involving securities on behalf of third parties. In turn, in contrast with the previous years, income from variable-income securities declined by 9.2 per cent in the first half of 2000, which compares with an increase by 86.8 per cent in the same period of 1999.

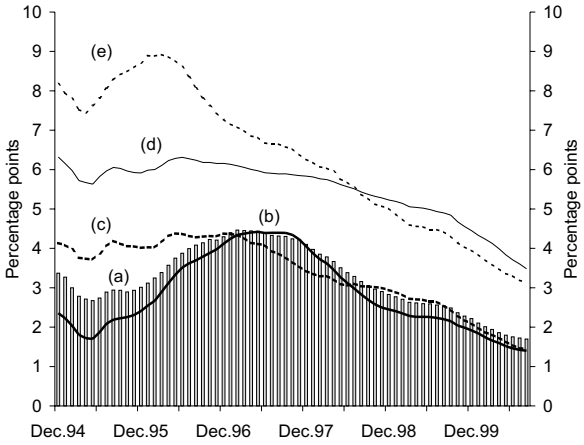
The level of extraordinary gains in the first half of 2000, which more than doubled vis-à-vis the same period of 1999, is likely to be related with the selling of shareholdings with book value much lower than current market values, in a context in which, after the strong price gains recorded at end-1999 and in the first months of 2000, the stock market presented a less favourable evolution.

In the first half of 2000, the relative importance of the financial margin in total banking product declined further from 62.4 per cent in June 1999 to 59.9 per cent in June 2000 (Chart 4.6), reflecting the

Chart 4.5A

DIFFERENTIALS BETWEEN BANK CREDIT INTEREST RATES AND MONEY MARKET INTEREST RATES

12-month averages



Notes:

(a) Differential between average bank credit interest rates and money market interest rates (weighted by maturity and amount of the credit operations).

(b) Differential between interest rates on loans to households (over 5 years) and the 6-month money market interest rate.

(c) Differential between interest rates on loans to non-financial corporations (90 to 180 days) and the 3-month money market interest rate.

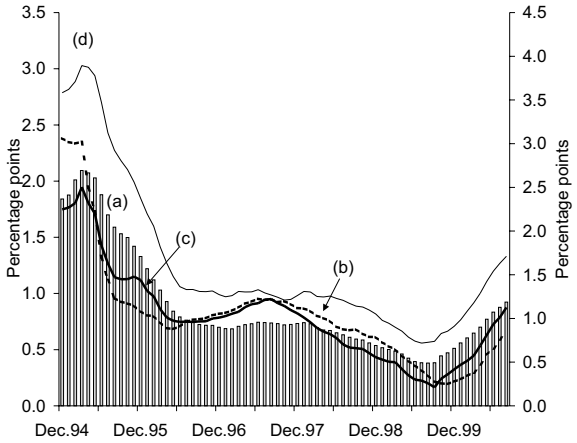
(d) Differential between (discount) interest rates on loans to non-financial corporations (90 to 180 days) and the 3-month money market interest rate.

(e) Differential between (discount) interest rates on loans to non-financial corporations (90 to 180 days) and the 3-month money market interest rate.

Chart 4.5B

DIFFERENTIALS BETWEEN MONEY MARKET INTEREST RATES AND BANK DEPOSIT INTEREST RATES

12-month averages



Notes:

(a) Differential between money market interest rates and average interest rates on fixed-term deposits and equivalent — weighted by maturity and amount of the deposits (it includes all deposits and equivalent, excluding demand liabilities).

(b) Differential between 1-month money market interest rates and interest rates on fixed-term deposits - 31 to 90 days.

(c) Differential between 3-month money market interest rates and interest rates on fixed-term deposits - 91 to 180 days.

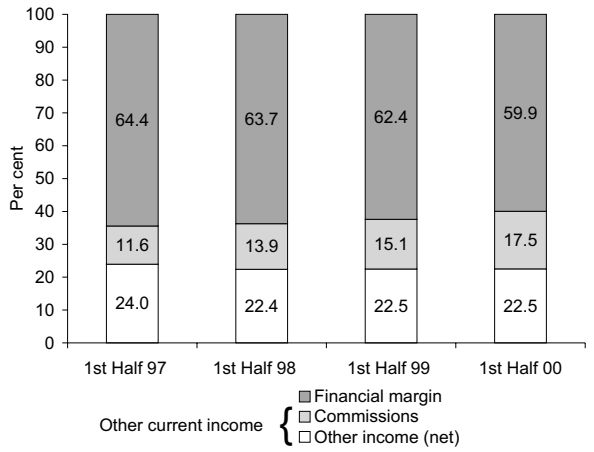
(d) Differential between 6-month money market interest rates and interest rates on fixed-term deposits - 181 days to 1 year.

increase in income from financial operations (2.8 p.p. higher than in the first half of 1999) as well as in commissions (2.4 p.p. higher than in the previous year).

Administrative expenses grew more moderately in the first half of 2000 (6.3 per cent) than in the same period a year earlier (7.4 per cent), as a result of the strong deceleration recorded in staff costs (4.7 per cent against 7.2 per cent in June 1999). Administrative expenses as a percentage of average assets declined from 1.52 per cent in the first half of 1999 to 1.40 per cent in the same period of 2000, while the indicator which relates administrative expenses to the banking product was lower than the 50 per cent benchmark. The rate of growth of staff costs net of social charges stood at 5.1 per cent in the first half of 2000, compared with 5.4 per cent in the same period of the previous year. The share of staff costs in total administrative expenses went down from 61.3 per cent at the end of the first half of 1999 to 60.3 per cent one year later, in line with the reduction observed in the number of employees per branch from 12.6 in June 1999 to 12.0 in June 2000. In turn, the pace of growth of other administrative costs increased from 7.9 per cent in the first half of 1999 to 8.8 per cent in the same period of the current year. Around one quarter of the growth of this item was associated with the rental and repair of equipment and the hiring of skilled services in the field of computer services, while around 10 per cent was associated with communication and mailing expenses, and the other 10 per cent to advertisement campaigns.

Chart 4.6

COMPOSITION OF BANKING PRODUCT



The average ratio of capital adequacy stood at 10.8 per cent on 30 June 2000 (Tables 4.4 and 4.5), which represents a reduction of 1.5 p.p., when compared with 30 June 1999. The reduction in the ratio of the base own funds from 9.3 to 8.3 per cent contributed mainly to this change. The sharp growth of requirements for the coverage of credit and market risks is behind this evolution of capital adequacy ratios (25.3 per cent vis-à-vis June 1999), which resulted mainly from the expansion of the volume of the loan portfolio, accompanied by a more modest growth of own funds (9.8 per cent), and together with the significant increase in deductions from own funds. This increase in the deductions was the result of the consolidation operations in the sector conducted in the first half of 2000.

The decline in the capital adequacy ratio was concentrated in the first half of 2000, given the fact that, from December 1999 to June 2000, this ratio decreased by 1.0 percentage points reflecting, to a large extent, the impact of acquisitions in the sector. The persistence of the reduction recorded in this ratio will depend, to a large extent, on the consolidation of the reorganisation of the sector, in the wake of the already mentioned acquisitions, allowing for the recomposition of own funds of the banks involved.

Table 4.4

CAPITAL ADEQUACY

On a consolidated basis

EUR million

	1999		2000
	June	Dec.	June
1. Own funds			
1.1. Base own funds	11 876.3	12 504.3	13 243.6
1.2. Complementary own funds	4 540.9	4 892.4	5 489.7
1.3. Deductions	745.1	800.5	1 678.6
1.4. Supplementary own funds	10.6	39.7	162.8
Total own funds	15 682.7	16 635.9	17 217.4
2.2 Own fund requirements			
2.1. Solvency ratio	9 801.3	10 923.9	12 318.5
2.2. Position risks	273.9	227.0	292.7
2.3. Settlement and counterparty risks	49.3	47.8	27.4
2.4. Foreign exchange risks	67.4	85.1	135.1
2.5. Other requirements	1.3	0.0	0.1
Total own funds	10 193.4	11 283.7	12 773.8
3. Ratios			
3.1. Own funds / total requirements (per cent)	153.9%	147.4%	134.8%
3.2. Own funds / (total requirements x 12.5) (per cent)	12.3%	11.8%	10.8%

Table 4.5

BREAKDOWN OF THE OVERALL CAPITAL ADEQUACY RATIO

On a consolidated basis

Per cent

	Base own funds	Other funds	Deductions	Overall capital adequacy ratio
	Weighted risks			
1999				
June	9.3	3.6	0.6	12.3
Dec.	8.9	3.5	0.6	11.8
2000				
June	8.3	3.5	1.1	10.8

5. CONCLUSION

In the first half of 2000 the situation of the banking system improved in terms of profitability and efficiency. The levels of provisioning strengthened considerably and total provisions for credit accounted for around 140 per cent of total credit overdue, which was an important counterbalance to the reduction in the capital adequacy ratio.

The levels of profitability that have been recorded are partly associated with the cyclical position of the economy, which stimulated the expansion of the volume of banks' activity and the low delinquency levels in the loan portfolio.

However, it should be noted that the persistence, in the medium run, of paces of expansion of banks' activity clearly above the evolution of economic activity, in particular in bank credit, is not sustainable. Therefore, a rapid resumption of more moderate changes is desirable, consistent with the future development of Portuguese economy without aggravating external borrowing requirements. The deceleration recorded in credit to households points in that direction, notwithstanding the fact that the pace of growth of this credit segment is still significantly above the growth of the disposable income of the sector.

The combination of the upward trend of bank interest rates and the current high levels of indebtedness of the private sector will tend to moderate the growth of domestic demand and, consequently, credit expansion. This will permit to contain the external financing of banks, thus avoiding a higher vulnerability to adverse shocks in the financing conditions at the international level.

USING THE ASYMMETRIC TRIMMED MEAN AS A CORE INFLATION INDICATOR*

*Carlos Robalo Marques***
*João Machado Mota***

1. INTRODUCTION

Recently Marques *et al.* (1999) have introduced new criteria to evaluate potential core inflation indicators and showed that the trimmed mean, that has been used by the *Banco de Portugal* as an instrument to analyse inflation, exhibits a systematic bias relative to the average level of inflation.

This paper discusses the use of trimmed means as core inflation indicators, when the price changes distribution is skewed, and shows that the trimmed mean bias results from the fact that the price changes distribution in Portugal is, on average, right skewed.

Using this finding the paper computes several trimmed means which meet all the conditions set out in Marques *et al.* (1999) and so, in particular, do not exhibit any systematic bias relative to the inflation rate.

Among these, the 10 per cent asymmetric trimmed mean centred on the 51.5th percentile, i.e., the one that trims 11.5 per cent of the left-hand tail and 8.5 per cent of the right-hand tail of the ordered price change distribution, is the least volatile. For this reason it is recommended as a core inflation indicator. It should however be noted that this indicator is not very smooth and so, it may be difficult to draw definite conclusions from its short run behaviour.

The remaining part of this paper is organised as follows: section 2 briefly reviews the theoretical arguments invoked to justify the use of trimmed means as core inflation indicators. Section 3 characterises the price changes distribution in the Portuguese case in terms of skewness and kurtosis. Section 4 discusses the calculation and the use of trimmed means in the context of asymmetric and fat-tailed distributions. Section 5 evaluates several asymmetric trimmed means, which do not exhibit any systematic bias relative to inflation, and finally, section 6 concludes.

2. THEORETICAL ARGUMENTS FOR USING THE TRIMMED MEAN AS A CORE INFLATION INDICATOR

This section briefly reviews the main arguments for using the trimmed mean as a measure of core inflation. Let P_{it} stand for the price index of the i^{th} basic item of the consumer price index (CPI) and α_i, for its weight. By definition we have:

$$P_t = \sum_{i=1}^{N} \alpha_i P_{it} \qquad (1)$$

where P_t represents the CPI and N the number of basic items. It is easy to demonstrate that (1) can be written as:

$$\pi_t = \sum_{i=1}^{N} \omega_{it} \pi_{it} \qquad (2)$$

where

$$\pi_t = \left(\frac{P_t}{P_{t-12}} - 1 \right).100$$

* The views expressed in this paper are those of the authors and not necessarily those of the *Banco de Portugal*.

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The authors wish to thank Scott Roger, Luc Aucremanne, Afonso Silva and José Ferreira Machado for their comments and suggestions as well as Fátima Teodoro and João Barrambana for the work they did developing the computer programme used in the calculations made in this paper.

$$\pi_{it} = \left(\frac{P_{i,t}}{P_{i,t-12}} - 1 \right).100 \qquad (3)$$

$$\omega_{it} = \alpha_i . \frac{P_{i,t-12}}{P_{t-12}}$$

It should be noted that equation (2) presents the year-on-year inflation rate π_t as a weighted average of the year-on-year rates of change of all basic CPI items. However the weights ω_{it}, despite totalling 1, are time varying.

Economic literature generally sees inflation as the outcome of two effects. The first arises from changes in the overall price level and is connected with monetary factors. This is usually referred to as core inflation. The second effect stems from changes in the relative prices of one or more components included in CPI, as a result of phenomena, which are limited to restricted markets, triggered by short-term economic factors or measurement problems. On the basis of these effects, price changes of the i^{th} basic item of the CPI can be written as:

$$\pi_{it} = \pi_t^* + v_{it} \qquad (4)$$

where π_t^* represents core inflation and v_{it} the deviations between price changes of item *i* and core inflation, in period *t*. Multiplying (4) by, ω_{it} summing and noting that $\sum_{i-1}^{N} \omega_{it} = 1$, we obtain the condition:

$$\pi - \pi_t^* = \sum_{i-1}^{N} \omega_{it} v_{it} = u_t \qquad (5)$$

where u_t is, by assumption, a zero-mean stationary variable.

Monetary policy is supposed to be concerned with long run or core inflation π_t^* and not with current inflation. This fact explains the reason why the search for core inflation indicators has recently become an active research area in many central banks.

By definition, a core inflation indicator should disregard price changes resulting from short-lived phenomena, which give rise to erratic changes in recorded inflation. The calculation of trimmed means is one of the methods proposed in the literature for the construction of such indicators, which has attracted most attention, due to its simplicity and potential.

The trimmed mean can be computed from equation (2), by excluding a given percentage of the largest and smallest price changes. For example, the 10 per cent trimmed mean is obtained from (2) by excluding 10 per cent of the smallest price changes (π_{it}) and 10 per cent of the largest price changes, i.e. only 80 per cent (calculated taking into account the weights ω_{it}) of the central price changes is taken into consideration.

The use of trimmed means as core inflation indicators is generally motivated both in economic and statistical terms. Economic arguments are generally based on theoretical models of price-setting behaviour, in the presence of adjustment costs(1).

The statistical arguments in favour of the trimmed means are built on the intuition that the kurtosis of the price changes distribution of the several CPI components is larger than the kurtosis of the normal distribution, i.e., it is leptokurtic. If the price changes distribution is leptokurtic it can be demonstrated that, in general, an estimator of the population mean that puts a greater weight on central price changes is more efficient than the sample mean. The reason is that in a leptokurtic distribution the probability of a large contribution to inflation of an extreme observation not being offset by an equally extreme observation on the other side of the distribution is larger than in the normal distribution(2).

In this case the most efficient estimator of the mean inflation (the mean of the price changes distribution) which is identified as core inflation is not likely to be the year-on-year CPI rate of change (the sample mean) but any estimator that attaches more weight to central observations. The trimmed mean and the median are the simplest of these estimators. Bryan *et al.* (1997) have shown that the more leptokurtic the distribution the less efficient the sample mean. They have also shown that, in general, the more leptokurtic the price changes distribution the larger the ideal trim (percentage of observations to be excluded or trimmed in the dis-

(1) For a brief discussion of these models, see Marques and Mota (2000).

(2) See Bryan *et al.* (1997).

tribution tails). The idea is that the more leptokurtic the distribution the higher the proportion of unrepresentative price changes that must be eliminated in order to identify the trend of inflation.

These statistical arguments presented for instance in Cecchetti (1997) build on the idea that the underlying price changes distribution is symmetric. However, as we shall see in the following sections, these results cannot be immediately generalised when the price distribution is not only leptokurtic but also asymmetric, given that in this case, changes in the percentage of the trim alter the expected value of the estimator. Due to this fact, the trimmed means used in the following sections must be mainly seen as a statistical device which allows constructing core inflation indicators that potentially fulfil the evaluation criteria presented in section 5.

3. CHARACTERISTICS OF THE PRICE CHANGES DISTRIBUTIONS

This section analyses the main characteristics of the price changes distribution underlying the CPI, by resorting to the traditional kurtosis and skewness measures. A similar analysis was carried out in Coimbra and Neves (1997).

Representing the central moment of order k by m_{kt} we have

$$m_{kt} = \sum_{i}^{N} \omega_{it} \left(\pi_{it} - \pi_t\right)^k \qquad (6)$$

and the skewness (S_t) and kurtosis (K_t) coefficients are given by

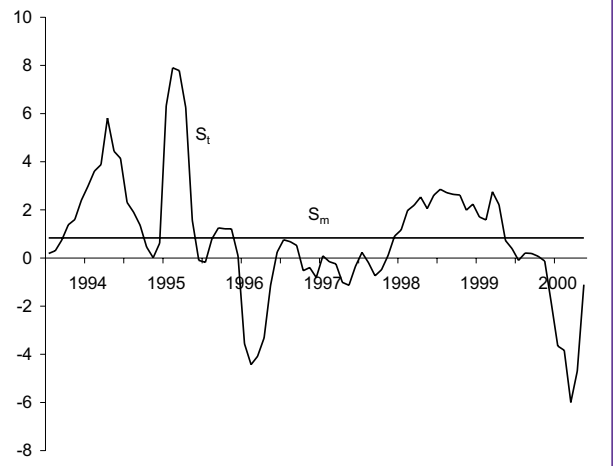
$$S_t = \frac{m_{3t}}{\left(m_{2t}\right)^{\frac{3}{2}}} \qquad (7)$$

$$K_t = \frac{m_{4t}}{\left(m_{2t}\right)^2} - 3 \qquad (8)$$

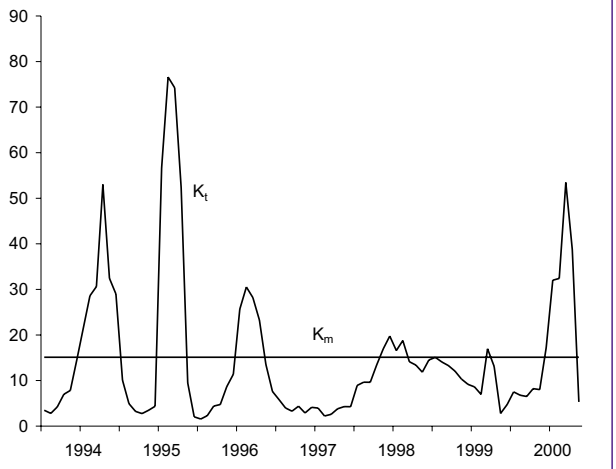
Chart 1 presents the values obtained for the skewness and kurtosis coefficients in the period from July 1993 to May 2000. The skewness coefficient has varied over time, alternating positive and negative asymmetry periods. On average, the skewness coefficient was positive and equal to 0.83 (Sm line in Chart 1). This figure is higher than

Chart 1

SKEWNESS



KURTOSIS



the one found for the US (0.2) by Bryan *et al.* (1997), but close to the figures found for New Zealand (0.7) by Kearns (1998), or for Ireland (0.8) by Meyler (1999). However we must bear in mind that these figures may be sensitive to the disaggregation level of the CPI as well as to the sample period.

Another skewness indicator is the so-called mean percentile (the percentile that corresponds to the sample mean of the distribution). In a symmetric and mesokurtic distribution ($S_t = 0$ in (7) and $K_t = 0$ (8)), the average mean percentile is expected to stand around the 50th percentile. This is not the case if the distribution is skewed. Chart 2 plots the empirical mean percentile for the price changes distribution (β) and the respective average value (β_m), obtained by averaging the monthly mean

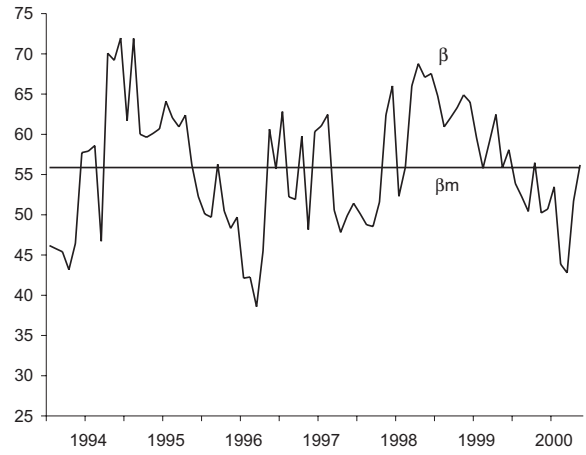
percentiles over the sample period. As it can be seen, the mean percentile happens virtually always above the 50th percentile, which is another strong piece of evidence of the chronic right skewness of the price changes distribution. For the sample period the average mean percentile (value of β_m) is 56. This figure is close to that obtained for other countries.

The second part of Chart 1 presents the kurtosis coefficient. It should be noted that K_t, in equation (8) measures the "excess" kurtosis relative to the normal distribution, so that any value above zero means that the distribution is leptokurtic. The value of K_t along the sample period is always positive with an average value of 15.10, meaning that the distribution of the price changes is strongly leptokurtic. For this reason, in a typical month, a large proportion of the CPI items may experience price changes that are significantly different from the mean inflation rate.

Another important conclusion that can be drawn from the analysis of Chart 1 is that asymmetry and kurtosis are quite correlated. Periods of strong (positive or negative) asymmetry are in general linked with periods of higher kurtosis (or *vice-versa)*. In other words, it seems that there is a strong link between the two indicators, which can be justified in two different ways. On the one hand, if the distribution is positively (negatively) skewed, the sample tends to be skewed to the right (left), meaning that the right (left) tail is the longest one. However, the kurtosis evaluates the relative importance of the distribution tails and therefore it will tend to be higher, the higher (in absolute value) the asymmetry. However, the relation can also work the other way around. According to Bryan *et al.* (1997), when the distribution is fat-tailed, there is a higher probability of obtaining a draw from one of the tails of the distribution, which is not balanced by an equally extreme observation from the other tail of the distribution. That is, the higher the kurtosis, the higher the probability of obtaining a skewed sample, even if the underlying distribution is symmetric. Therefore some proportion of the sample skewness may simply be generated by the kurtosis of the distribution.

This result has wide implications at the practical level, since it means that it is not possible to separate or correct separately the skewness and kurtosis of a given sequence of samples.

Chart 2
MEAN PERCENTILE



4. THE USE OF THE TRIMMED MEAN WHEN THE DISTRIBUTION IS SKEWED AND LEPTOKURTIC

As it has been stated in section 2, the use of the trimmed mean as a core inflation indicator stems from the fact that it is a more efficient estimator of the population mean than the sample mean, when the distribution is symmetric but leptokurtic.

The starting hypothesis is that, in each month, the price change of one of the items in the CPI basket, is a particular draw of a distribution whose unknown population mean is the core inflation prevailing in that month. However, given that the distribution is leptokurtic, recorded inflation (the sample mean) is an unbiased but relatively inefficient estimator of the core inflation (population mean), and this justifies the use of the trimmed mean as an estimator of the population mean.

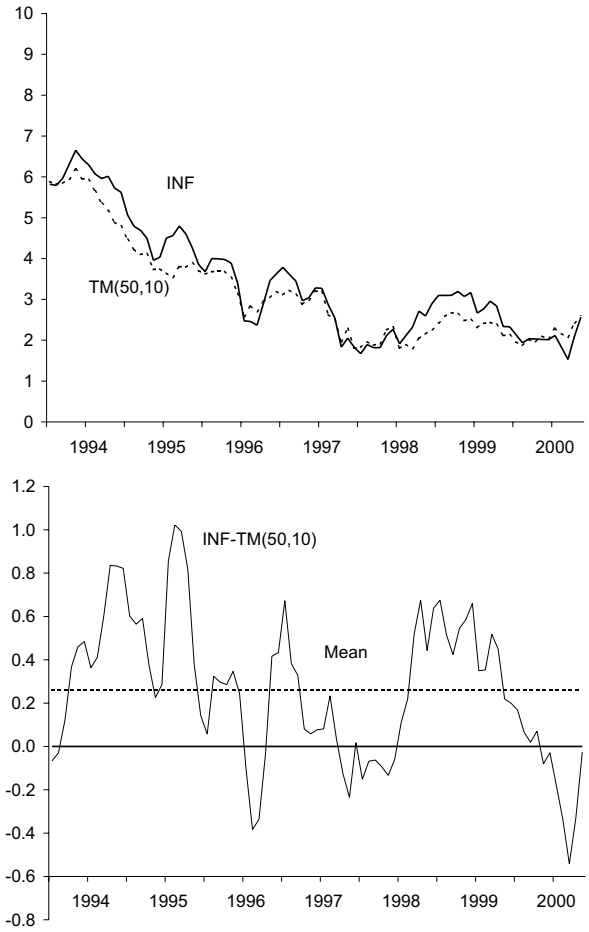
In addition to the trimmed mean, the use of a (weighted) median has been suggested in the literature, as an indicator of core inflation (Bryan and Cecchetti (1994) and Cecchetti (1997)). When the distribution is symmetric, using the median (or even the mode) is probably a good thing to do. This is because recorded inflation — the variable of interest — corresponds to the sample mean of the price changes distribution. However, when the distribution is asymmetric, the mean differs from

the median or the mode[3] and, therefore, in order to obtain an indicator that verifies condition (5) of section (2), i.e. to be an unbiased estimator of core inflation, we have to use an unbiased estimator of the population mean of the price changes distribution.

This conclusion suggests that the use of trimmed means may be warranted, even when the price changes distribution is asymmetric. However, it seems obvious that the trimmed mean must be calculated so as to be an unbiased estimator of the population mean. In fact, this condition helps to answer the question of whether (for instance) in a positive asymmetric distribution one should trim more from the right-hand tail or the left-hand tail of the distribution. The answer to this question is conditional on the relative weight attached to the bias and to the variance of the estimator. In fact, in a positive asymmetric distribution the draws with large price changes tend to emerge from the right hand tail of the distribution and, hence, the minimisation of the variance of the resulting estimator would lead to a higher trim from the right-hand tail of the distribution. However it can easily be anticipated what happens to the trimmed mean if one trims more from the right-hand tail. When the distribution is right skewed, the largest, let us say, 10 per cent price changes have a greater contribution to the inflation rate (sample mean) than the 10 per cent smallest price changes. This means that if we trim more on the right-hand tail, the resulting trimmed mean will systematically underestimate the mean of the distribution. In other words, on average, the trimmed mean will be lower than recorded inflation and, hence, condition (5) of section (2) will not be verified, i.e. we are bound to have $E[u_t] \neq 0$. Thus, in the case of a positive asymmetric distribution, if we want to obtain an estimator that does not systematically diverge from the recorded inflation rate, we must trim less from the right-hand tail of the distribution.

Chart 3 shows the 10 per cent symmetric trimmed mean, which has been calculated on a regular basis, by the *Banco de Portugal* for some years now. For the sake of harmonisation we shall call it TM (50,10) (short form of 10 per cent trimmed mean, centred on the 50th percentile). It is obtained by trimming 10 per cent of the price changes on each tail of the distribution. As it can be seen, the series TM (50,10) presents a lower average level than inflation along the sample period, which is reflected in the fact that the trimmed mean is most of the time below the inflation rate. This characteristic of the trimmed mean makes it obviously less interesting as a trend inflation indicator, since the series is unable to establish the correct level of core inflation itself. In other words, the variable TM (50,10) does not meet condition (5) of section 2, as showed in Marques *et al.* (1999). This clearly reduces the usefulness of TM (50,10) as a core inflation indicator. However, the explanation for this result is now quite clear. The symmetric 10 per cent trimmed mean systematically

Chart 3
INFLATION RATE (INF) AND 10 PER CENT SYMMETRIC TRIMMED MEAN, TM (50,10)



(3) For instance, in a positive asymmetric distribution we have in general the inequality: mode < median < mean.

underestimates the inflation rate, because it trims too much from the right-hand tail of the distribution (or, equivalently because it trims too less from the left-hand tail).

In practical terms, the question of how to find an asymmetric trimmed mean, which does not exhibit a systematic bias relative to the recorded inflation, arises. Under the simple hypothesis (which is realistic in the Portuguese case) that the degree of asymmetry and kurtosis are constant over time, there is a relatively easy way of finding a trimmed mean that does not exhibit a systematic bias relative to the inflation rate. This can be translated into the following rule:

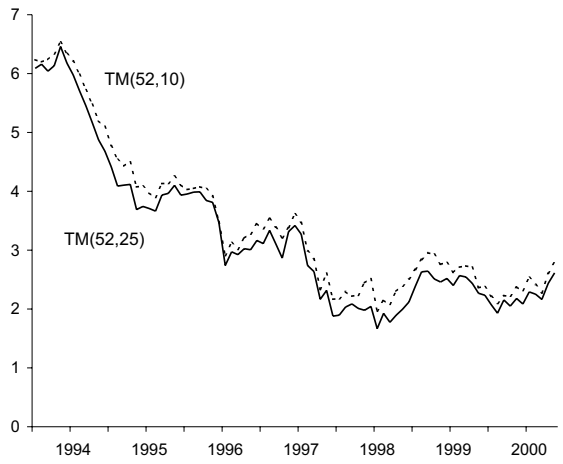
i) For a given trimming level, compute the trimmed mean centred on different percentiles of the distribution, starting at the 50th percentile and taking successively higher values (in the case of a positive asymmetric distribution);
ii) Stop whenever the resulting trimmed mean satisfies the condition $\sum_{1}^{T}\left(\pi_t - \pi_t^*\right) = 0$, where π_t^* represents the trimmed mean.

Condition i) of this rule simply says that if the distribution is right skewed it is of no use to calculate trimmed means centred on percentiles below the 50th percentile, because it will never be possible to obtain an unbiased trimmed mean. Condition ii) in turn sets the upper limit of the research range relevant for a given level of trim, since any trimmed mean centred on a higher percentile, will exhibit a higher average level and so cannot be an unbiased estimator of core inflation.

For the Portuguese case, by applying this rule to the 5 per cent trimmed mean, we verify condition ii) for the 51st percentile. It should be noted that in this case the trimmed mean is obtained by trimming 4 per cent from the right-hand tail of the distribution and 6 per cent from the left-hand tail.

One might think that the solution obtained for the 5 per cent trimmed mean (51st percentile) would also be the optimal solution for the 10, 15 or 25 per cent trimmed mean, but this is not true. Indeed, in the asymmetric distributions, if we change the percentage of trimming the average value of the trimmed mean also changes. Chart 4 shows the 10 and 25 per cent trimmed means centred on the 52nd percentile. As it can be seen, by changing the degree of trimming we basically change the average level of the trimmed mean, which shifts downwards, when the percentage of trimming increases.

Chart 4
10 PER CENT AND 25 PER CENT TRIMMED MEAN CENTRED ON THE 52ND PERCENTILE



The explanation for this phenomenon is very simple. When we increase the percentage of trimming, we change the proportion trimmed from each side of the distribution. For instance, when we shift from a 10 per cent trimmed mean to a 25 per cent trimmed mean we have to trim more 15 per cent from each tail of the distribution. However, given the right skewness of the distribution, the 15 per cent excluded from the right-hand tail have a higher contribution to the resulting trimmed mean than the additional 15 per cent trimmed from the left-hand tail. The result is a trimmed mean with a lower average level. It should however be noted that this is not a parallel shift. As a general rule, the higher the degree of asymmetry of the distribution the larger the difference between the two series.

Let us now see how we can define the set of percentiles, in which it is relevant to carry out the search procedure described above. As we have seen, Chart 2 plots the mean percentile (β) as well as the average mean percentile (β_m). By definition, current inflation is the inflation rate corresponding to the mean percentile. Thus, the inflation rate corresponding to the average mean percentile (β_m)

satisfies by construction equation (5) of section (2), i.e., it does not exhibit any systematic bias. Note that this series is the 50 per cent trimmed mean centred on (β_m), and it appears as a natural candidate for a core inflation measure. In the Portuguese case we have (β_m) equal to 56 and so, we know that the 56th percentile is the highest one for which there is an asymmetric trimmed mean with at least one interesting property. And we also know that it must be a 50 per cent trimmed mean. On the other hand, the percentile corresponding to the trimmed mean with the smallest percentage of trimming that we are willing to consider (5 per cent in our case) also gives us the lowest searching bound for β. Let us exemplify. In our case the 5 per cent trimmed mean (the smallest percentage of trim for which it was decided to calculate the trimmed mean) occurred in the 51st percentile. This means that all other asymmetric trimmed means (for levels of trimming higher than 5 and lower than 50 per cent) must be searched for within the open interval (51,56).

In the following section, in addition to the 50 per cent trimmed mean centred on the 56th percentile, we shall also analyse other trimmed means that do not exhibit any systematic bias relative to the inflation rate: the 5, 10, 15, 20 and 25 per cent trimmed means centred on the 51st, 51.5th, 52.5th, 53rd and 54th percentile, respectively.

It should be noted that the trimmed means presented in the following section have all been calculated under the assumption that the degree of asymmetry can be considered constant over the period under review(4).

5. THE ASYMMETRIC TRIMMED MEAN FOR THE PORTUGUESE DATA

This section analyses the different unbiased asymmetric trimmed means, computed in the previous section. We aim at establishing whether these variables are core inflation indicators with nice properties, assuming that inflation is measured by the year-on-year rate of change of the CPI.

The sample covers the period from July 1993 to May 2000. This was the period chosen in order not to include the effect of significant changes in indirect taxation occurred in the first half of 1992 and which increased significantly the year-on-year inflation rate during one year.

We analyse the following 7 trimmed means: i) the 10 per cent symmetric trimmed mean, which has been calculated by the *Banco de Portugal* on a regular basis and is represented by TM (50,10) and ii) the asymmetric trimmed means TM (51,05), TM (51.5,10), TM (52.5,15), TM (53,20), TM (54,25) and TM (56,50). It should be noted that the latter is just the sample inflation rate of the 56th percentile(5). These trimmed means have been calculated according to the rule suggested in the previous section and, therefore, they verify by construction the condition $\sum_{1}^{T}\left(\pi_t - \pi_t^*\right) = 0$ in statistical terms.

The evaluation criteria of core inflation measures introduced in Marques *et al.* (2000) are also comprehensively explained in Marques *et al.* (1999). Therefore they are presented here without any further discussion. It should be recalled that the three criteria are the following:

i) The difference between recorded inflation and the core inflation indicator shall be a zero mean stationary variable;
ii) The core inflation indicator shall be an attractor of the inflation rate;
iii) Recorded inflation shall not be an attractor of the core inflation indicator.

The tests of these conditions can be carried out in several different manners. The verification of condition i) can be made by testing the existence of cointegration in the regression $\pi_t = \alpha + \beta\pi_t^* + u_t$, where $\beta = 1$ and $\alpha = 0$. This test can be conducted in two stages. At the first stage, unit root tests are used in series $z_t = \left(\pi_t - \pi_t^*\right)$, with the purpose of establishing that z_t is a stationary variable. In Table 1 this test corresponds to column 1. At the sec-

(4) For the discussion of this issue, see Marques and Mota (2000) who approach the way of dealing with time varying asymmetry.

(5) In practice this variable was calculated as the arithmetic average of the price changes of the following two central items: the one that immediately precedes the 56th percentile and the one that comes immediately after it.

Table 1

EVALUATION OF TRIMMED MEANS AS CORE INFLATION INDICATORS

	First condition		Second condition	Third condition
	$\beta = 1$	$\alpha = 0$		
TM(50,10)	Yes	No	Yes	Yes
TM(51,05)	Yes	Yes	Yes	Yes
TM(51.5,10)	Yes	Yes	Yes	Yes
TM(52.5,15)	Yes	Yes	Yes	Yes
TM(53,20)	Yes	Yes	Yes	Yes
TM(54,25)	Yes	Yes	Yes	Yes
TM(56,50)	Yes	Yes	Yes	No

ond stage, the hypothesis $\alpha = 0$ is tested conditioned on the fact that z_t is a stationary variable. The result of this test is found in column 2[6].

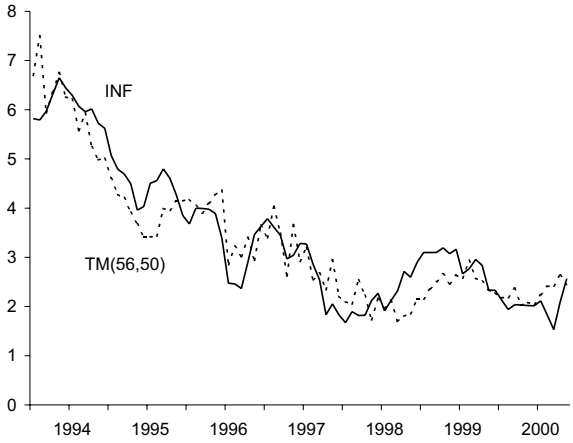
To test the second and third conditions we need to specify dynamic models for π_t and π_t^*. For a description of further technical details, see Marques *et al.* (2000).

Several conclusions can be drawn from Table 1. First, the result presented in Marques *et al.* (1999, 2000) is confirmed, i.e. the 10 per cent symmetric trimmed mean does not verify property i), wherefore it is not an unbiased estimator for the trend of inflation. Indeed, the 10 per cent symmetric trimmed mean systematically underestimates the trend of inflation ($\alpha \neq 0$ in column 2). The reasons for this behaviour have been presented in the previous section and stem from the fact that the distribution of price changes is on average right-skewed.

(6) It should be noted that the unbiasedness property used in the previous section to identify the asymmetric trimmed means guarantees the verification of condition $\alpha = 0$. It does not however guarantee the stationarity of z_t.

Chart 5

INFLATION RATE AND 10 PER CENT TRIMMED MEAN CENTRED ON THE 56th PERCENTILE



On the other hand, it can be verified that the 50 per cent trimmed mean centred on the 56th percentile, TM (56,50), does not meet condition iii), and so it depends on lagged inflation. The analysis of Chart 5 and Table 2 enables this finding to be explained: TM (56,50) is too volatile to be used as a core inflation indicator. It is even more volatile than inflation itself. This result is a clear sign that the degree of trim implicit in the calculation of this indicator is too high, leading to the exclusion of information, which is fundamental for the definition of a core inflation indicator.

Finally, it can be verified that the remaining trimmed means meet all the required properties and so they may be used as core inflation indicators. In particular, note that the result of the previous section is confirmed, i.e. the higher the trim the higher the percentile on which the asymmetric mean must be centred in order to get an unbiased estimator for the trend of inflation. For instance, for the 10 per cent trimmed mean the percentile that makes it possible to obtain an unbiased indicator is the 51.5th, whereas for the 15, 20 and 25 per

Table 2

RELATIVE VARIANCE OF INDICATORS

TM(50,10)	TM(51,05)	TM(51.5,10)	TM(52.5,15)	TM(53,20)	TM(54,25)	TM(56,50)
0.503	0.522	0.497	0.51	0.54	0.541	2.238

Chart 6
10 PER CENT TRIMMED MEAN CENTRED ON THE 51.5th PERCENTILE AND 25 PER CENT TRIMMED MEAN CENTRED ON THE 54th PERCENTILE

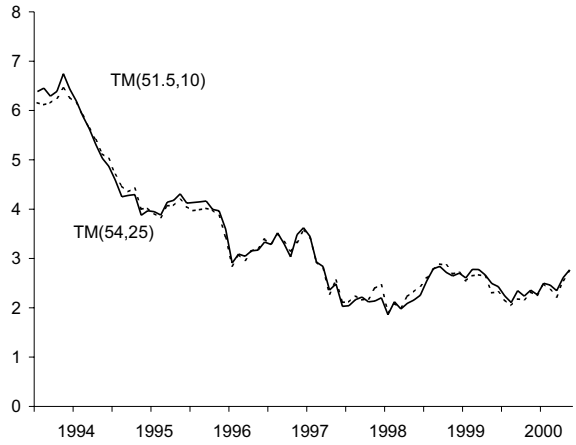
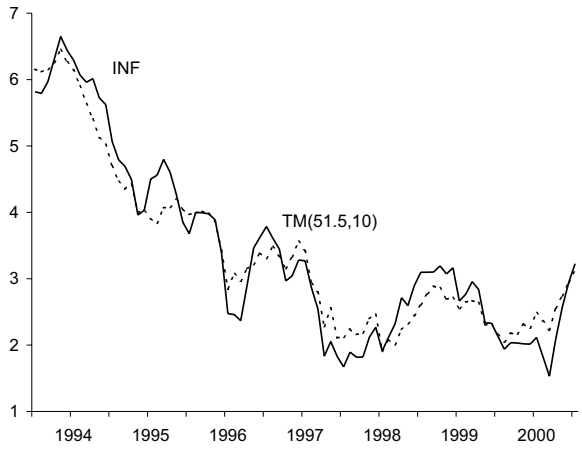


Chart 7
INFLATION RATE AND 10 PER CENT TRIMMED MEAN CENTRED ON THE 51.5th PERCENTILE



cent trimmed mean the corresponding percentiles are the 52.5th, the 53rd and the 54th respectively.

It should also be noted that the percentile that guarantees that the resulting trimmed mean is an unbiased estimator for core inflation is not truly unique. For instance, it is possible to compute a large number of 10 per cent trimmed means centred on a small neighbourhood of the 51.5th percentile, all of them being unbiased estimators of the trend of inflation. Of course all these 10 per cent trimmed means are statistically equivalent.

As might be expected, all these 5 indicators exhibit a very similar time profile, as illustrated in Chart 6 by TM (51.5,10) and TM (54,25). However, as all five indicators verify the three conditions required for a core inflation indicator, we need an additional criterion to be able to choose the best. A good criterion seems to be the degree of smoothness. Indeed, for two otherwise identical indicators we surely prefer the smoothest one, as it will exhibit a smaller short run volatility, and therefore will enable a clearer interpretation of the most recent inflation developments.

Table 2 presents the quotient between the variance of the first difference of each indicator and the variance of the first difference of recorded inflation(7). This statistic is a good indicator of the relative smoothness of each indicator.

For all the five indicators that meet the three properties described above, it can be verified that their variance is lower than the variance of inflation, a fact that derives from conditions ii) and iii). Among these, the one with the smallest relative variance and, hence, the smoothest one, is the 10 per cent trimmed mean centred on the 51.5th percentile (TM (51.5,10)). This is thus the best core inflation indicator, in the class of the trimmed mean core inflation indicators.

Chart 7 shows the performance of TM (51.5,10). The evolution of this variable accords with what should be expected from a core inflation indicator. The indicator is below inflation in periods in which inflation is particularly high (over a large part of the period from 1993 to 1995, throughout 1998 and in early 1999) and is above inflation when this is particularly low (in early 1996, throughout 1997, at the end of 1999 and in early 2000). Additionally it turns out that in general, when TM (51.5,10) has been higher than inflation for some time, there is an increase in inflation, the reversal being the case when TM (51.5,10) has been lower than inflation for some time.

This said, and notwithstanding the fact that the indicator TM (51.5,10) meets all the required con-

(7) It is interesting to note that the five indicators that meet the three conditions are well defined by pure random walks, i.e., their first difference behaves as a white noise.

ditions for a core inflation indicator and is the smoothest among the other indicators, it still presents some limitations. First, TM (51.5,10) is not as smooth as we would like it to be, as illustrated in Chart 7. There are several small changes in the inflation rate that are passed on to this indicator, giving rise to some noise, that makes its interpretation quite difficult in the short run.

Second, this indicator suffers from the limitation that affects all the indicators based on trimmed means. It is not able to deal with simultaneous temporary shocks on prices of all the basic items as, for instance, in the case of a VAT rate increase. In this case, the indicator will increase, by a value equivalent to the one exhibited by the year-on-year rate of change of the CPI. Indeed, this is the reason why the sample period of this paper starts in July 1993, given that in the first half of 1992 there were big changes in VAT rates.

6. CONCLUSIONS

This paper addresses the issue of how to define and compute trimmed means if they are to be core inflation indicators with nice properties, when the price changes distribution is leptokurtic and asymmetric.

It is demonstrated that when the price changes distribution is asymmetric, the conventional (symmetric) trimmed means are biased estimators of core inflation and also that simply changing the total amount of trimming in a symmetric way changes the expected value of the estimator. For this reason, we suggest practical rules for the process of finding an unbiased asymmetric trimmed mean.

Following the practical rules suggested in this paper, several unbiased trimmed means are calculated and subsequently tested according to the conditions stipulated in Marques *et al.* (2000). It can be verified that, with the exception of one case, all symmetric trimmed means meet these conditions. The exception is the symmetric trimmed mean that trims 100 per cent from the distribution around the average mean percentile. This fact is probably due to an excessive trim that makes the indicator too volatile.

Among the unbiased asymmetric trimmed means that meet the three conditions of Marques *et al.* (2000), it is verified that the 10 per cent trimmed mean centred on the 51.5th percentile is the smoothest one, and therefore its utilisation in the future, as a core inflation indicator is suggested. It should be noted that this trimmed mean is obtained by trimming 11.5 per cent from the left-hand tail and 8.5 per cent from the right-hand tail of the price changes distribution.

Despite all its properties, this core inflation indicator must be used with caution, not only because it exhibits some volatility, which may render its interpretation somewhat difficult in the short run, but also because trimmed means are not able of handling general price increases brought about, for instance, by changes in VAT rates, which have permanent effects on the price level, but only temporary effects on the inflation rate.

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MONETARY CONDITIONS INDEX*

*Sónia Costa***

The purpose of this text is to discuss the interpretation of the co-called monetary conditions index (MCI). The MCI is a weighted average of changes in monetary and/or financial variables in which the weights are intended to reflect the effects of those changes on the growth of the economy or on the inflation rate. Notwithstanding the fact that the MCI is often used as an indicator of the monetary policy stance, this interpretation does not seem to be the most adequate, since other factors, apart from monetary policy, may be behind movements in the index. As an alternative, the MCI may be defined as a synthetic indicator of the impact of monetary and/or financial conditions on output growth or on the inflation rate. Even in this context, the developments of the MCI should always be considered in conjunction with an analysis of the origin of the movements in its components. The text is organised as follows: section 1 introduces the MCI concept, emphasising the major aspects underlying its construction; section 2 describes the applications of the index; section 3 presents the estimates for the weights obtained in different studies; section 4 makes reference to MCI limitations; and section 5 presents the conclusions.

1. DEFINITION

Inflation, in the long run, is a purely monetary phenomenon and therefore monetary aggregates are important to evaluate the effects of monetary policy on inflation. The process of transmission of monetary policy to activity and prices works through different channels (in particular the interest rate, the exchange rate, the relative price of assets and credit), which should be taken into account in the short- and medium-term analysis of monetary conditions of the economy.

The Monetary Conditions Index (MCI) is a synthetic measure of changes in monetary conditions affecting the economy, which combines changes in the variables that are relevant for the transmission mechanism in a single indicator. The MCI, although often defined as a measure of changes in the degree of tightness of monetary policy (i.e., the effect of monetary policy decisions on output and on inflation) is in fact not strictly a monetary policy indicator, since other factors may be behind changes in monetary conditions, such as policy decisions (either monetary or fiscal), exogenous shocks and/or the endogenous response of variables included in the index to fluctuations in the level of both prices and economic activity.

The MCI is calculated as a weighted average of changes, vis-à-vis values in a base period, in the variables that are considered relevant for the transmission mechanism. The weights are intended to reflect the relative importance of these variables in the economy. The variables included correspond typically to the short-term interest rate and to the effective exchange rate, meaning that the index is as follows:

$$ICM_t = \beta(r_t - r_0) + \gamma(q_t - q_0)$$

where: r is the short-term interest rate, q is the log of the exchange rate (defined so that an increase corresponds to an appreciation) and period 0 is the base period. The sum of the interest

* The views expressed in this article are those of the author and not necessarily those of the *Banco de Portugal*.

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rate (β) and exchange rate (γ) weights is equivalent to one.

In a given moment, changes in the short-term interest rate and in the exchange rate may have an effect in the same direction, or in opposite directions, on monetary conditions. An increase (reduction) of the MCI corresponds to tighter (looser) monetary conditions. As can be seen in the previous expression, the MCI is usually defined as a change vis-à-vis a base period, in which the index will have a value equal to zero or to one hundred, depending on the manner in which it was constructed. Theoretically, the base period should reflect the period in which monetary conditions are neutral. However, the difficulty in identifying neutral levels for both the interest rate and the exchange rate, aggravated by the fact that these levels change over time with the structural conditions of the economy, makes the choice of the base period irrelevant in practice. Therefore, the MCI only reveals the time change in the degree of tightness of monetary conditions with no indication on its adequacy, i.e., the MCI level does not have any meaning.

The MCI weighs are frequently presented as the β/γ ratio, which represents the percentage of the exchange rate depreciation necessary to outweigh the effect on the MCI of a 100 basis points increase in the short-term interest rate(1). This ratio is therefore negatively related with the degree of openness of the economy.

The expression presented above for the construction of the MCI may be implemented in different ways. Since the appropriate interpretation of the index depends on the specification chosen, the choices made should be in line with the use intended for the MCI.

First, the weights used in the construction of the index are typically calculated in two manners, alternatively reflecting the effects of the changes in the index components on the growth of aggregate demand, or on the inflation rate(2). The selection of one of the approximations should reflect the variable on which the impact of changes on monetary conditions is to be evaluated. From the point of view of a central bank whose monetary policy objective is the maintenance of price stability, it seems more sensible to calculate an MCI based on the effects on the inflation rate. However, in a large part of the applications, the weights used reflect the effects of the components on output growth. The utilisation of indices constructed in such manner will only be appropriate for the analysis of a monetary policy directed towards price stability, should monetary policy influence inflation only through the output gap. There are, however, other transmission channels that may have a direct and non-negligible impact on the inflation rate, such as, for instance, the exchange rate via its direct effect on prices(3).

Second, since monetary policy may have lagged effects on activity and prices, another important issue is the selection of the time horizon for which the MCI weights are estimated. Most applications select a period around 2 years, since this is the time horizon in which monetary policy is considered to reach its maximum effect over activity. The lagged effects of monetary policy on activity and prices differ, depending on the transmission channel considered; for instance, in open economies, the exchange rates seem to have a more immediate effect on prices than short-term interest rates. Therefore, a given movement of the MCI may have behind it for different combinations of component changes, different trends for output or for the inflation rate.

(1) While the change in the interest rate is included as percentage points, the change in the exchange rate is considered as a percentage change, since it is defined as a logarithm, as can be seen in the above expression. This distinction in the specification of both variables is due to the manner in which these are included in the econometric models typically used to estimate the weights.

(2) On an ad hoc basis, the exchange rate weight, in some applications, is approximated by the degree of openness of the economy. See, for instance, Verdelhan (1998).

(3) The utilisation of weights mirroring the effect on aggregate demand reflects the manner in which these were calculated in the studies initially suggesting the construction of the MCI (Duguay (1994) and Freedman (1994)). Indeed, according to Freedman (1994), in the case of Canada, inflationary pressures are to a large extent captured by the output gap and monetary policy affects the output gap chiefly through short-term interest-rate and exchange-rate effects. Freedman's work (1994), although recognising that the exchange-rate changes have a direct effect on prices, considers that, except for periods of high inflation (when temporary changes in inflation may have an effect on the agents' expectations), this should not affect the inflation rate in a permanent manner.

Third, the selection of the MCI components should be in line with the nature of the monetary transmission mechanism and with the structure of the relevant economy. The appropriate specification should vary among countries and over time[4]. In several countries of Continental Europe, in contrast with Anglo-Saxon countries, fixed long-term interest rates exert a larger influence on consumption and investment decisions than short-term or variable interest rates. In these cases, and particularly when the slope of the yield curve changes, it is important to additionally include the long-term interest rate in the computation of the MCI[5]. Recently, against a background in which several factors have contributed to higher attention being granted to stock market developments in monetary policy forecasts and analysis, some indices have been calculated additionally including prices of other financial assets, as well as stock prices. In fact, in some countries such as the United States, stock prices seem to play an important role in the monetary policy transmission mechanism, through wealth effects and effects on the structure of the balance-sheets of the households, corporations and financial intermediaries.

Although all variables relevant for the monetary policy transmission mechanism may be potentially included in the MCI, the selection of components should depend on the utilisation intended for the index. For instance, if it is intended that the MCI should capture monetary policy effects as strictly as possible, the interest rates to be included should then be those more directly controlled by the monetary authority. On the other hand, if the main purpose is that the MCI should contain advanced information regarding an objective-variable (the inflation rate, for instance) the index should then also include financial variables, which, to a large extent, are determined by other factors besides monetary policy.

Finally, the index may be defined on the basis of real, or nominal variables. In theoretical terms, monetary conditions should be expressed on the basis of real variables because, in principle, these determine the decisions of economic agents[6]. There are, however, other factors justifying that MCI components are defined in nominal terms, in a large part of the applications. For example, the difficulty in empirically measuring inflation expectations, the advantage of making the index available as updated as possible (data on the financial market are available more frequently than data on price developments), and the fact that the index weights are often determined on the basis of models whose variables were specified in nominal terms. Given that, in general, the inflation rate is less variable than exchange rates and nominal interest rates, the nominal MCI seems to be a reasonable approximation to the real MCI in the short run, thus justifying the computation of the index in nominal terms, whenever the short-run is the purpose of the analysis[7]. An important issue, not always complied with, is the existence of consistency between the (real or nominal) terms under which the components are incorporated in the computation of the MCI and the terms under which the weights have been estimated.

2. USES OF THE MCI

The MCI has the advantage of taking into account the exchange rate in the evaluation of monetary conditions, which is particularly important in the case of an open economy with flexible exchange rates and capital mobility. In fact, the relative changes in the interest rate and in the exchange rate, as a response to central bank initiatives, may differ depending on the circumstances. Additionally the exchange rate is subject to shocks not associated with monetary policy, whose impact on aggregate demand and on inflation the central bank may, or not, wish to cancel.

(4) For an analysis of the transmission mechanism in the euro area, see ECB (2000).

(5) The indices including capital market indicators, in addition to monetary variables, although frequently denominated as financial conditions indices (FCI), are called MCI in the present text, for simplicity reasons.

(6) Gerlach and Smets (1996) and Peeters (1998) pointed out, however, that in the short run economic agents sometimes react to nominal interest rates due, for instance, to the existence of liquidity constraints.

(7) Freedman's work (1994) on the use of the MCI in Canada supports the evaluation of short-term changes in monetary conditions on the basis of a nominal MCI, given that the latter is considered to have, in the short run, a behaviour similar to that of real MCI. Indeed, in the 1980-1993 period, the correlation coefficient of quarterly changes of both series is equal to 0.88.

Some central banks, in particular the Bank of Canada and the Reserve Bank of New Zealand, that follow inflation targeting strategies conferred the MCI the role of operational target[8]. The use of the MCI as an operational target has created, however, communication problems, since the markets started to anticipate automatic monetary policy responses when the MCI deviates from its desired level, thus increasing interest-rate volatility. Reflecting this situation, both the Bank of Canada and the Reserve Bank of New Zealand have been assigning less importance to the MCI as a reference indicator for the definition of monetary policy[9].

Following the precursory experience of the Bank of Canada, other central banks of smaller open economies have published MCIs (such as Sweden, Norway and Finland). In these cases, however, the MCI is only used as an additional indicator for the orientation of monetary policy (ex-post indicator), or as a leading indicator for inflation. The analysis thus focus on the MCI's current trend and not on its comparison with a target path.

In addition to central banks, several international organisations and private financial institutions calculate and publish MCI, using them in the analysis of monetary policy issues[10].

3. ESTIMATION OF MCI WEIGHTS: SOME RESULTS

The estimation of MCI weights has been chiefly based on three types of alternative methodologies: small structural models, VAR models and large-scale macro-econometric models[11]. In the first case, an equation is usually estimated for aggregate demand, the growth rate of which depends on a range of variables, including the interest rate and the exchange rate, defined in real terms. Therefore, the MCI weights correspond to elasticities implicit in the estimated relationship. In the second case, the weights of the MCI components are calculated from response / impulse functions of shocks in these variables. In the third case, the models are simulated for the effect of shocks on the relevant variables. The three methodologies reveal advantages and disadvantages. The estimation of reduced forms is simple and little demanding in terms of data. However, important relationships between the variables are frequently ignored, thus biasing the estimates[12]. VAR models are particularly useful when the lag structure is important, but also denote some problems, such as the difficulty in identifying which shocks on interest rates and exchange rates are the result of monetary policy. Finally, structural macro-econometric models allow the inclusion of more variables and relationships, but are more demanding in terms of data, require several identification hypothesis and, given their complexity, are subject to specification errors which are sometimes difficult to detect.

In practise, given that uncertainty around the weights estimates is very high and that, as can be

(8) An operational target differs from an intermediate target, since it is almost immediately affected by changes in the policy instrument (the desired behaviour for the MCI is defined for a short-term time horizon, since it changes with the behaviour of the economy) and because it cannot be considered a nominal anchor for the system (there are no theoretical justifications for a long-term stable relationship between the MCI and the level or the growth rate of prices). In practise, the Bank of Canada defined a (desirable) path for the MCI, which should be consistent with the maintenance of the inflation-rate trend within its target range over a pre-determined time horizon. This procedure corresponded to the establishment of a desirable behaviour for the short-term interest rate instrument, conditional to the exogenous behaviour of the exchange rate and to the inflation target. Therefore, in response to shocks leading inflation to deviate from its target, the central bank could take the decision of adjusting the MCI path to that consistent with the inflation target, through interest rate changes. The Bank of Canada and the Reserve Bank of New Zealand calculate the MCI, in nominal terms, taking as components a short-term interest rate and an effective exchange rate. The value of the relative weights used is 3, in the case of Canada, and 2 in the case of New Zealand.

(9) On 17 March 1999, the Reserve Bank of New Zealand adopted the official cash rate (OCR) as its major monetary policy instrument. In this context, it was announced that monetary policy decisions would cease to be explained in terms of the level desired for the MCI, but rather in terms of the OCR level. The MCI would continue to play an important role as summary indicator of monetary conditions (see the Reserve Bank of New Zealand (1999)).

(10) See, for instance, IMF (1996), page 16, OECD (1996), page 31, Goldman Sachs (1998), Goldman Sachs (1999) and ABN AMRO (2000).

(11) See, for instance, Duguay (1994), Deutsche Bundesbank (1999), Verdehlhan (1998), Mayes and Virén (1998) and Peeters (1998).

(12) Eika et al. (1996) discuss the econometric problems of the weights estimated on the basis of this approach.

Table 1 (to be continued)

WEIGHTS OF MCI ESTIMATED AND/OR USED IN SEVERAL STUDIES

	Type of model	Specification	Output (weights expressed as a %)				
			Ratio (Interest rate / exchange rate)	Exchange rate	Short-term interest rate	Long-term interest rate	Stock prices
Canada							
Freedman (1994)	Several	-	3.0	25	75	-	-
OECD (1996)	INTERLINK	Real	2.3	30	70	-	-
Sweden							
Hanson e Lindberg (1994)	Reduced form	Real	3-4	25-20	75-80	-	-
Dornbush et al. (1998)	Reduced form	Nominal	8.1	11	89	-	-
Mayes and Virén (1998)	Reduced form	Real	1.2	45	55	-	-
	NIGEM	Nominal	1.5	40	60	-	-
OECD (1996)	INTERLINK	Real	1.5	40	60	-	-
Norway							
Norges Bank (1995)	RIMINI	Real	3.0	25	75	-	-
Germany							
Deutsche Bundesbank (1999)	Reduced form	Real	3.0	25	75	-	-
Dornbush et al. (1998)	Reduced form	Nominal	1.4	42	58	-	-
Peeters (1998)	NIGEM	Nominal	6.1	14	38	48	-
	EUROMON	Nominal	9.0	10	5	85	-
Banque de France (1996)	NIGEM	Nominal	4.0	20	13	67	-
Mayes and Virén (1998)	Reduced form	Real	3.6	22	78	-	-
	NIGEM	Nominal	4.7	18	82	-	-
OECD (1996)	INTERLINK	Real	4.0	20	80	-	-
France							
Dornbush et al. (1998)	Reduced form	Nominal	2.1	32	68	-	-
Peeters (1998)	NIGEM	Nominal	2.1	33	5	63	-
	EUROMON	Nominal	3.5	22	17	61	-
Banque de France (1996)	NIGEM	Nominal	3.0	25	8	67	-
Mayes and Virén (1998)	Reduced form	Real	2.5	29	71	-	-
	NIGEM	Nominal	4.9	17	83	-	-
OECD (1996)	INTERLINK	Real	4.0	20	80	-	-
Italy							
Dornbush et al. (1998)	Reduced form	Nominal	2.9	26	74	-	-
Peeters (1998)	NIGEM	Nominal	1.9	35	5	60	-
	EUROMON	Nominal	5.7	15	62	23	-
Banque de France (1996)	NIGEM	Nominal	0.1	91	-122	131	-
Mayes and Virén (1998)	Reduced form	Real	7.8	11	89	-	-
	NIGEM	Nominal	7.0	13	88	-	-
OECD (1996)	INTERLINK	Real	4.0	20	80	-	-
Spain							
Dornbush et al. (1998)	Reduced form	Nominal	1.5	41	59	-	-
Banque de France (1996)	NIGEM	Nominal	1.3	43	0	57	-
Mayes and Virén (1998)	Reduced form	Real	0.8	56	44	-	-
	NIGEM	Nominal	2.3	30	70	-	-
OECD (1996)	INTERLINK	Real	1.5	40	60	-	-
United Kingdom							
Peeters (1998)	NIGEM	Nominal	4.6	18	31	51	-
	EUROMON	Nominal	3.0	25	59	15	-
Banque de France (1996)	NIGEM	Nominal	6.2	14	32	54	-
Mayes and Virén (1998)	Reduced form	Real	1.5	40	60	-	-
	NIGEM	Nominal	5.3	16	84	-	-
OECD (1996)	INTERLINK	Real	4.0	20	80	-	-
USA							
Goldman Sachs (1999)	FRB / US changed	-	18.0	5	35	55	5
OECD (1996)	INTERLINK	Real	9.0	10	90	-	-
Pagés and Eslava (2000)	NIGEM	Nominal	7.9	11	89	-	-
Japan							
Goldman Sachs (2000)	-	-	9.6	9	44	42	5
OECD (1996)	INTERLINK	Real	4.0	20	80	-	-

Notes:

The weights of the exports of goods and services in GDP were calculated on the basis of data from the OECD (Economic Outlook, June 2000). In Freedman (1994) the MCI ratio (1994) is consistent with several estimation methods, in particular with Duguay (1994), in which a reduced form for the growth of aggregate demand is estimated, as a function of a three-month real interest rate and the real exchange rate of the Canadian dollar vis-à-vis the US dollar, among other variables.

INTERLINK, NIGEM, EUROMON, RIMINI and FRB / US correspond to macro-economic models of the OECD, of the National Institute of Economic and Social Research of London, of the Nederlandsche Bank, of the Norges Bank and of the Federal Reserve Board, respectively.

The simulations of macro-economic models were carried out for different time horizons: for instance, Goldman Sachs (1999) refers to one year, Mayes and Virén (1998) and Peeters (1998) refer to two years, Norges Bank (1995) refers to two-three years and the Banque de France (1996) to three years.

Table 1 (continued)

WEIGHTS OF MCI ESTIMATED AND/OR USED IN SEVERAL STUDIES

	Type of model	Specification	Prices (weights expressed as a %)				Exports as a percentage of GDP in volume terms in 1980-99 (1997-99)
			Ratio (Interest rate / exchange rate)	Exchange rate	Short-term interest rate	Long-term interest rate	
Canada							
Freedman (1994)	Several	-	2.0	33	67	-	26.8
OECD (1996)	INTERLINK	Real	-	-	-	-	(38.5)
Sweden							
Hanson and Lindberg (1994)	Reduced form	Real	-	-	-	-	
Dornbush et al. (1998)	Reduced form	Nominal	-	-	-	-	33.7
Mayes and Virén (1998)	Reduced form	Real	-	-	-	-	(47.5)
	NIGEM	Nominal	0.6	63	38	-	
OECD (1996)	INTERLINK	Real	-	-	-	-	
Norway							
Norges Bank (1995)	RIMINI	Real	-	-	-	-	38.5 (46.4)
Germany							
Deutsche Bundesbank (1999)	Reduced form	Real	-	-	-	-	
Dornbush et al. (1998)	Reduced form	Nominal	-	-	-	-	
Peeters (1998)	NIGEM	Nominal	-	-	-	-	
	EUROMON	Nominal	-	-	-	-	25.9
Banque de France (1996)	NIGEM	Nominal	1.6	39	10	51	(29.1)
Mayes and Virén (1998)	Reduced forma	Real	-	-	-	-	
	NIGEM	Nominal	2.7	27	73	-	
OECD (1996)	INTERLINK	Real	-	-	-	-	
France							
Dornbush et al. (1998)	Reduced form	Nominal	-	-	-	-	
Peeters (1998)	NIGEM	Nominal	-	-	-	-	
	EUROMON	Nominal	-	-	-	-	19.2
Banque de France (1996)	NIGEM	Nominal	0.6	61	5	35	(26.1)
Mayes and Virén (1998)	Reduced form	Real	-	-	-	-	
	NIGEM	Nominal	0.4	71	29	-	
OECD (1996)	INTERLINK	Real	-	-	-	-	
Italy							
Dornbush et al. (1998)	Reduced form	Nominal	-	-	-	-	
Peeters (1998)	NIGEM	Nominal	-	-	-	-	
	EUROMON	Nominal	-	-	-	-	21.2
Banque de France (1996)	NIGEM	Nominal	0.1	95	-47	53	(28.3)
Mayes and Virén (1998)	Reduced form	Real	-	-	-	-	
	NIGEM	Nominal	2.5	29	71	-	
OECD (1996)	INTERLINK	Real	-	-	-	-	
Spain							
Dornbush et al. (1998)	Reduced form	Nominal	-	-	-	-	
Banque de France (1996)	NIGEM	Nominal	1.0	50	0	50	18.1
Mayes and Virén (1998)	Reduced form	Real	-	-	-	-	(28.0)
	NIGEM	Nominal	2.5	29	71	-	
OECD (1996)	INTERLINK	Real	-	-	-	-	
United Kingdom							
Peeters (1998)	NIGEM	Nominal	-	-	-	-	
	EUROMON	Nominal	-	-	-	-	
Banque de France (1996)	NIGEM	Nominal	1.5	40	24	36	25.1
Mayes and Virén (1998)	Reduced form	Real	-	-	-	-	(31.4)
	NIGEM	Nominal	2.0	33	67	-	
OECD (1996)	INTERLINK	Real				-	
USA							
Goldman Sachs (1999)	FRB / US changed	-	-	-	-	-	8.5
OECD (1996)	INTERLINK	Real	-	-	-	-	(11.9)
Pagés and Eslava (2000)	NIGEM	Nominal	-	-	-	-	
Japan							
Goldman Sachs (2000)	-	-	-	-	-	-	11.3
OECD (1996)	INTERLINK	Real	-	-	-	-	(13.7)

Table 2

ESTIMATION OF MCI WEIGHTS FOR THE EURO AREA

	Type of model	Specification	Variable	Ratio (Interest rate / exchange rate)	Weights estimation (as a %)			
					Exchange rate	Short-term interest rate	Long-term interest rate	Stock prices
Dornbusch et al (1998)	Reduced form	Nominal	Output	2.2	32	68	-	-
Verdelhan (1998)	Reduced form	Real	Output	9.1	10	90	-	-
Mayes and Virén (1998)	NIGEM	Nominal	Output	6.3	14	86	-	-
	NIGEM	Nominal	Prices	1.9	34	66	-	-
	Reduced form	Real	Output	3.5	22	78	-	-
Peeters (1998)	NIGEM	Nominal	Output	4.2	19	29	52	-
	EUROMON	Nominal	Output	17.7	5	22	73	-
Pagés and Eslava (2000)	NIGEM	Nominal	Output	4.4	19	81	-	-
	NIGEM	Nominal	Prices	3.0	25	75	-	-
	NIGEM	Nominal	Output	4.0	19	34	44	2
	NIGEM	Nominal	Prices	2.7	26	34	38	2

Notes:

In the cases of Dornbush et al (1998), Peeters (1998), Mayes and Virén (1998) (NIGEM model) and Pagés and Eslava (2000), the weights were calculated for an horizon of two years.

In addition to the aspects considered in the table, the different works still differ in some important points, in particular as regards the countries included in the estimation and the exchange rate used. The countries included in the estimation were Germany, France, Italy, Spain, United Kingdom and Sweden, in Dornbush et al (1998); all euro area countries, in Verdelhan (1998); all euro area countries, except Luxembourg in Mayes and Virén (1998) and Pagés and Eslava (2000); and, in the case of Peeters (1998), in the NIGEM, Belgium, France, Germany, Italy, the Netherlands and Spain, and, in the EUROMON, additionally Denmark. As exchange rate, Dornbush at al (1998) use the Deutsche mark value vis-à-vis the US dollar, Verdelhan (1998), Peeters (1998) and Pagés and Eslava (2000) use effective exchange rates, and Mayes and Virén (1998) use bilateral exchange rates vis-à-vis the US dollar.

seen in Table 1, results are rather sensitive to the manner in which they are estimated, the MCI is often computed on the basis of values for weights that are consistent with several approaches.

In the case where the estimation of weights is based on the effect on aggregate demand, the interest rate effect prevails over the exchange rate effect, i.e., the β/γ weight ratio is higher than one, standing frequently around 2-4, in the case of more open economies (such as the European economies) and close to 8-10 in the case of large and relatively closed economies (United States and Japan). Given that the exchange rate, in addition to its effect via aggregate demand, has a direct effect on prices (through import prices), when the calculation of short-term interest-rate and exchange-rate weights is based on the impact on the inflation rate, its ratio is lower than that obtained when the calculation is based on aggregate demand, sometimes leading to a ratio below 1. Long-term interest rates, when included as an additional component of the index, tend to have a higher weight than short-term interest rates, in particular, as should be expected in Continental European countries, such as Germany and France.

In addition to the estimates carried out for the different European countries, there are also studies that attempt at computing the MCI for the euro area as a whole. Their results should however be interpreted with caution. Since the MCI is affected by regime changes, no conclusion should be drawn from past experience to the future behaviour of the euro area. As can be seen in Table 2, most results point to a ratio of the interest rate weight to the exchange rate weight of around 4, when calculated on the basis of the effect on out-

put. This value is closer to the ratios typically estimated for open economies than to ratios obtained for closed economies, thereby apparently reflecting a stronger relative impact of the exchange-rate channel, than that inferred merely from the importance of external trade in the euro area[13][14]. In those cases in which the MCI includes the long-term interest rate, in addition to the exchange rate and the short-term interest rate, the estimates reveal that this variable will have a stronger impact on output than that of the short-term interest rate, which, nonetheless, seems to continue to have a stronger effect than that of the exchange rate. As should be expected given to the financial structure of the region, the importance of the introduction of long-term interest rates in an MCI for the euro area is confirmed.

4. LIMITATIONS OF THE MCI

The MCI presents some problems both at the level of its construction and in terms of the possible interpretations of its changes.

The weights of the components are not directly observable but are based on econometric estimates, which are highly sensitive to the model used and, for the same specification, have underlying broad confidence intervals[15]. The MCI is therefore conditional on a particular model of the economy, which has implicit a considerable degree of uncertainty.

Furthermore, there is the implicit assumption that the relative impact of the MCI components on output or prices does not change over time. Should this not be true (such impact may be changed in response, for instance, to structural changes in economic behaviour), its usefulness within short time horizons is limited. It is also not to be expected that the estimated weights are invariant vis-à-vis policy changes, which jeopardises, in particular, the use of the MCI as an operational target for monetary policy.

Moreover, the use of the MCI as an indicator of the effects of monetary policy changes on activity or prices does not seem to be the most appropriate. In fact, as pointed out above, there is no direct relationship between MCI movements and monetary policy changes. The former may reflect other factors, such as expectations as to future policy developments, changes in external interest rates, the credibility of policy decisions, public finance developments and prospects and the behaviour of exogenous variables in general. In other words, the MCI is endogenous and is not under the direct control of monetary authorities. This is even more apparent when the MCI includes other financial variables in addition to short-term interest rates and exchange rates.

The interpretation of the MCI as a leading indicator of output growth or of the inflation rate should also be carried out with caution. In fact, the MCI merely captures some of the factors determining the future trend of these variables. It is therefore not to be expected that it shows a stable relationship with output, or with the inflation rate[16]. Against this background, the MCI should be evaluated together with several factors such as, for instance, the prevailing activity conditions, fiscal policy and the degree of market flexibility.

Finally, problems also arise, even if the MCI is interpreted as an indicator of the effect of changes in monetary / financial conditions, evaluated by the components included in the index, on the relevant variable. A given movement of the MCI may have different consequences in terms of the final policy objective, depending on the factors underlying changes in the components. Therefore, it is necessary to distinguish between changes in the index determined by equilibrium movements of the components, to which the central bank shall

(13) According to balance of payments data, exports in the euro area accounted for 17 per cent of GDP, on average, in the 1997-99 period, compared with ratios, similarly calculated, of approximately 11 per cent in the United States and Japan, 27 per cent in the United Kingdom, 40 per cent in Canada and Norway and 43 per cent in Sweden. These figures differ from those presented in Table 1, since those were calculated according to the most frequent procedure that corresponds to the use of national accounts data. This form of calculation, however, should not be applied in the case of the euro area, as export and import data of euro area national accounts include intra-community trade, thus overestimating external trade in the area.

(14) Note, however, that the large disparity in the values obtained in the different studies suggests, as mentioned, the need for particular caution in the interpretation of the index behaviour.

(15) For instance, behind the 2.17 ratio, obtained in Dornbush et al. (1998) for the euro area, is an interval of 0-4 for a confidence level of 95 per cent.

(16) See Deutsche Bundesbank (1999).

not react (i.e., in these cases, it is not optimum that the MCI stays constant), and those generated by other factors, a situation in which a central bank reaction may be warranted[17]. For instance, an MCI increase motivated by an appreciation of the exchange rate or by an increase in the long-term interest rate, associated with stronger growth prospects should not probably lead to a change in monetary policy, given that this shock would be accompanied by inflationary pressures justifying tighter monetary and financial conditions. Even in cases in which MCI changes are not in line with the behaviour of fundamental variables, an automatic monetary policy response towards correcting this movement could be undesirable. For instance, whenever long-term interest rates increase due to lack of credibility of monetary policy, the monetary authority response towards reducing the tightness of monetary conditions could lead to a further increase of the risk premium and therefore to an even higher increase in long-term interest rates, reinforcing the initial MCI movement.

In practice, the monetary authority has to face the problem of correctly identifying the factors underlying a MCI change within an adequate timing, which suggests that an automatic activism of monetary policy based on MCI should be avoided[18].

5. CONCLUDING REMARKS

The advantage of the MCI lies in that it is a summary indicator of monetary and financial conditions, it is simple to follow and easy to understand, and its computation may be readily updated. These factors are behind the importance assigned to it by central banks, international organisations and private economic analysts. The index, however, has been used with different purposes and built in alternative forms, which may give rise to misunderstandings regarding the manner in which it should be interpreted.

The interpretation of the index movements shall be consistent with the manner in which it has been built up. This determines, in particular, the variable on which the impact of changes on monetary and/or financial conditions is being evaluated, and the time horizon underlying its evaluation.

All the above limitations, as well as the uncertainty as to the computation of weights, jeopardise, in particular, the use of the MCI as an operational target for monetary policy. In fact, this would require that the index would be well defined and that there would be no doubts as to the magnitude and significance of its changes. Additionally, given that the movements of the variables typically incorporated in the MCI reflect other factors besides monetary policy, it is not correct to interpret the MCI as an indicator of the direction of changes in the stance of monetary policy.

The MCI should therefore be used as a synthetic indicator of the effect of changes in monetary/financial conditions (not necessarily related with monetary policy) on the relevant variable, over a given time horizon. Since a particular movement of the MCI may have rather different consequences in terms of the relevant variable, depending on the underlying factors, this interpretation also has limitations, and must always be associated with an acquaintance with the type of shocks that have affected the economy.

(17) With a view to evaluating the information content of the MCI, Grande (1997) compares the behaviour of the index in the presence of six exogenous shocks with the direction of the desired monetary policy response and with the impact of shocks on inflation. The results obtained depend on the characteristics of the model and on the hypothesis assumed for the parameters. For certain shocks, the MCI reveals misleading signals both as an indicator of the monetary policy stance (in case the purpose of the monetary authority is to minimise the deviations of the inflation rates vis-à-vis its target value) and as an indicator of inflationary pressures. Thus, this study considers that MCI movements can only be interpreted as a reference to the type of shocks affecting the economy.

(18) Gerlach and Smets (1996) suggest that when exchange rate disturbances determined by changes in demand and supply conditions cannot be clearly identified, the weight to be assigned to the exchange rate in the MCI should be less than the weight deriving from the exchange rate elasticity of aggregate demand. They also consider that in the cases in which past experience shows that a large part of exchange rate movements are equilibrium movements (such as in Australia, in opposition to Canada and New Zealand), monetary policy should not respond to the exchange rate. This type of argument may justify the fact that some countries following a monetary policy with an inflation target (for instance Australia and the United Kingdom) reject the use of the MCI. Smets (1997b) estimates response functions for the central banks of Canada and Australia and concludes that, in response to depreciations, while the Bank of Canada raised the interest rates, the Bank of Australia did not react. Smets (1997b) considers that this behaviour may be partly explained by the greater importance of terms of trade shocks in Australia and nominal shocks in Canada.

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January*

11 January (Circular Letter of Banco de Portugal no. 2/DMRCF/CR)

Informs that it is available on the Website of Banco de Portugal, the list of eligible assets proposed by the Banco de Portugal and accepted by the European Central Bank.

27 January (Circular Letter of Banco de Portugal no. 4/DMR)

Informs that, following Circular Letter no. 347/DMR, of 27 October 1999, the rate of return on Certificates of Deposit, Series B, was fixed at 3%, to prevail on the quarter started on 4 February 2000.

February

8 February (Regulation no. 5/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in no. 2 of Article 5, in Article 212, in no. 2 of Article 351 and in paragraph b) of no. 1 of Article 353 – all of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November –, regulates the functioning of markets, in general, and of stock markets, in particular. This Regulation comes into force on 1 March 2000.

8 February (Regulation no. 7/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in Article 11 and for the purposes specified in Article 12 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, establishes the legal framework of credit-rating agencies. This Regulation comes into force on 1 March 2000.

8 February (Regulation no. 8/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in no. 4 of Article 265 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, lays down the rules applicable to contango and securities lending operations, and exempts from this system the operations performed by the Banco de Portugal. This Regulation comes into force on 1 March 2000.

10 February (Regulation no. 14/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in no. 2 of Article 5, in no. 2 of Article 59, in Article 60, in no. 6 of Article 91, in no. 5 of Article 99, in Article 105 and in paragraph b) of no. 1 of Article 353 – all of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November –, lays down the regulations applicable to central securities depositories and to the compulsory registration of securities with a single financial intermediary. This Regulation comes into force on 1 March 2000.

11 February (Notice of the European Central Bank 2000/C 39/04)

Notice of the European Central Bank on the imposition of sanctions for breaches of the obligation to hold minimum reserves.

15 February (Regulation no. 15/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in nos. 1 and 5 of Article 260, in no. 1 of Article 264 and in nos. 1 and 2 of Article 273 – all of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November –, lays down the rules governing the securities settlement systems, irrespective of their managing entity, and provides for the adequacy of the settlement system managed by the Lisbon Stock Exchange Association until 1 September 2000. This Regulation comes into force upon the registration at the Securities Market Commission (CMVM) of the operational rules governing the systems, under the terms laid down in no. 3 of Article 6 of Decree-Law no. 486/99 of 13 November.

15 February (Regulation no. 16/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in Article 212 and in no. 4 of Article 214 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, lays down the legal framework, the organisation and the functioning of the second market managed by the Lisbon Stock Exchange Association. This Regulation comes into force on 1 March 2000.

* The chronology for monetary measures of the Eurosystem can be found in the Monthly Bulletin of the European Central Bank.

15 February (Regulation no. 17/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in Article 212 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, lays down the regulations governing the functioning of the market without quotations managed by the Lisbon Stock Exchange Association. This Regulation comes into force on 1 March 2000.

15 February (Regulation no. 18/2000, Supplement to Official Gazette no. 45, Series II of 23 February)

Under the provisions laid down in Article 212 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, sets forth the provisions governing the Special Market for Wholesale Transactions. This Regulation comes into force on 1 March 2000.

16 February (Circular Letter of Banco de Portugal no. 4/00/DSBDR)

Sets forth that all credit institutions subject to the supervision of the Banco de Portugal must previously communicate their projects regarding the direct or indirect acquisition of qualifying holdings in credit or financial institutions having their head-office abroad and which represent 10% or more of the capital of the undertaking or 2% or more of the shareholder's capital.

May

16 May (Council Regulation No.1010/2000, OJ L 115)

Adopts measures relating to further calls by the European Central Bank on the national central banks' foreign reserve assets.

23 May (Executive Order no. 284/2000, Official Gazette no. 119, Series I, B)

Taking into account the provisions laid down in Executive Order no. 95/94 of 9 February and under the terms laid down in no. 1 of Article 95 and in no. 1 of Article 196 of the Legal Framework of Credit Institutions and Financial Companies, approved by Decree-Law no. 298/92 of 31 December, fixes the minimum capital stock for credit securitisation funds managing companies and for credit securitisation companies.

25 May (Executive Order no. 289/2000, Official Gazette no. 121, Series I, B)

Under the provisions laid down in paragraph b) of no. 1 of Article 59 of the Stock Market Code (*Código dos Valores Mobiliários*), establishes the rules governing the registration of book-entry securities with the issuer. This Executive Order takes effect on 1 March 2000.

25 May (Executive Order no. 290/2000, Official Gazette no. 121, Series I, B)

Under the provisions laid down in paragraph a) of no. 1 of Article 59 of the Stock Market Code (*Código dos Valores Mobiliários*), approves the model for the registration of securities issues with the issuer, provided for in Article 43 of the aforementioned ordinance. This Executive Order takes effect on 1 March 2000.

26 May (Directive 2000/12/EC of the European Parliament and of the Council, OJ L 126)

Adopts measures relating to the taking up and pursuit of the business of credit institutions. Directives 73/183/EEC, 77/780/EEC, 89/299/EEC, 89/646/EEC, 89/647/EEC, 92/30/EEC and 92/121/EEC, as amended by the directives set out in Annex V, Part A are repealed, without prejudice to the obligations of the Member States concerning the deadlines for transposition of the said directives listed in Annex V, Part B. References to the repealed directives are to be considered as being made to this directive and should be read in accordance with the correlation table in Annex VI.

June

2 June (Decree-Law No. 101/2000, Official Gazette No. 128, Series I, A)

Transposes to Portuguese law Directive 98/7/EC of the European Parliament and of the Council of 16 February amending Directive 87/102/EEC of 22 December 1986 for the approximation of the laws, regulations and administrative provisions of the Member States concerning consumer credit. Replaces annexes nos. 1 and 2 of Decree-Law no. 359/91 of 21 September with annexes I and II of the above Decree-Law.

26 June (Regulation of the Stock Market Commission no. 20/2000, Official Gazette no. 145, Series I)

For the purposes laid down in Article 26 of Decree-Law no. 276/94 of 2 November reworded by Decree-Law no. 323/99 of 13 August, provides for the terms and conditions to be complied with in the disclosure to the public of the profitability measures of real estate investment funds. Revokes Regulation no. 10/97 of 26 June.

28 June (Executive Order no. 382/2000, Official Gazette no. 147, Series I, B)

Pursuant to the provisions set forth in no. 3 of Article 1 of Decree-Law no. 88/94 of 2 April, establishes that the securities representing the public debt, issued under the terms of the Resolution of the Council of Ministers no. 19-A/2000 of 2 May, shall be added to the list published through Executive Order no. 377-A/94, of 15 June.

30 June (Regulation of the Stock Market Commission no. 22/2000, Official Gazette no. 149, Series I, Supplement)

Regulates the operation of the Public Debt Special Market (Portuguese acronym: MEDIP), and provides for the application to this market of the rules laid down in Regulation no. 5/2000 of 23 February, that do not run counter to this Regulation.

July

5 July (Circular Letter of Banco de Portugal no. 23/DMRCF/DMC)

Sends diskette containing a file with the list of all institutions subject to reserve requirements in the euro area, on 29 June 2000.

7 July (Council Regulation no. 1478/2000, OJL 167)

Introduces changes in Regulation (EC) no. 2866/98 on conversion rates between the euro and the currencies of the Member States which adopted the euro. This regulation enters into force on 1 January 2001.

7 July (Council Decision no. 2000/427, OJL 167)

Council Decision, under the provisions of Article 122 (2) of the Treaty, on the adoption of the single currency by Greece, on 1 January 2001. The derogation granted to Greece in recital 4 of the Decision 98/317/CE is revoked, coming into effect as from this date.

13 July (Circular Letter of Banco de Portugal no.13/00/DSBDR)

Recommends, in the wake of previous recommendation of the GAFI-*Grupo de Acção Financeira,* that credit institutions and financial companies should carefully examine the operations in which the respective counterparties have residence or are established in the following countries and territories: Bahamas, Cayman Islands, Cook Islands, Dominica, Philippines, Israel, Lebanon, Liechtenstein, Marshall Islands, Nauru, Niue, Panama, Russia, St. Kitts and Nevis and St. Vincent and Grenadines.

15 July (Decree-Law no. 144/2000, Official Gazette no. 162, Series I, A)

Creates an interest-rate subsidy in credit lines intended to the complementary financing of investment projects of municipal and inter-municipal nature subsidised by the ERDF and approved within the scope of the Community Support Framework (CSF 2000-2006) or of programmes implemented by the Community.

17 July (Regulation of the Stock Market Commission no. 25/2000, Supplement to Official Gazette no. 163, Series II)

Lays down a set of special regulations applicable to registration, clearing and settlement services of over-the-counter purchase and sale transactions of transferable securities, provided by a managing company operating in a regulated market.

17 July (Notice of the Minister of Finance no. 11223/2000, Official Gazette no. 163, Series II)

Announces, in compliance with the provisions laid down in Article 2 of Decree-Law no. 1/94, of 4 January, that the average interest rate to prevail in July 2000 is set at 2.53672%, which, multiplied by the 1.10 factor, is 2.79039%.

17 July (Notice of the Minister of Finance no. 11224/2000, Official Gazette no. 163, Series II)

Announces, in compliance with the final provisions laid down in Article 1 of Decree-Law no. 125/92, of 3 July, that the interest rate to prevail in July 2000, after multiplication by the 0.96 factor, is 2.43525%.

18 July (Regulation of the Stock Market Commission no. 23/2000, Official Gazette no. 164, Series II)

Establishes, under the provisions laid down in Article 34 (1) of the Stock Market Code, approved by Decree-Law no. 486/99, of 13 November, the voluntary intermediation procedure applicable to conflicts arising from relationships involving transferable securities.

19 July (Regulation of the Stock Market Commission no. 24/2000, Official Gazette no. 165, Series II)

Revises the regulatory base regarding the information to be released to the market. Introduces changes in different articles, adds the new articles 1-A and 1-B, and republishes the full version of Regulation no. 11/2000, of 10 February, with the changes introduced therein.

19 July (Notice of Banco de Portugal no. 1/2000, Official Gazette no. 165, Series I - B)

Establishes, under Articles 99 and 196 of Decree-Law no. 298/92, of 31 December (Legal Framework of Credit Institutions and Financial Companies), the relationship between the own funds of credit securitisation companies and the amount of the respective issues of asset-backed securities that comply with the provisions laid down in Article 50 of Decree-Law no. 453/99, of 05 November.

19 July (Decision no. 14580/2000, Official Gazette no. 165, Series II)

Authorises the *Instituto de Gestão do Crédito Público* (Public Debt Management Institute), under the provisions laid down in Article 92 (2) of Law no. 3-B/2000, of 4 April, to intervene in the public debt secondary market as a counterpart in reporting operations of transferable securities representing direct public debt of the State accepted in the Public Debt Special Market (Portuguese Acronym: MEDIP).

24 July (Notice of Banco de Portugal no. 2/2000, Official Gazette no. 169, Series I - B)

Rewords the first indent of no. 2 c) of part I of the attachment to Notice no. 1/93, of 19 May, published in the Supplement to Official Gazette no. 133, Series II, of 8 June 1993.

25 July (Circular Letter of Banco de Portugal no. 24/DMR)

Informs that, following Circular Letter no. 347/DMR, of 27 October 1999, the rate of return on Certificates of Deposit, Series B, was fixed at 3%, to prevail on the quarter started on 4 August 2000.

August

1 August (Regulation no. 28/2000 of the Stock Market Commission, Official Gazette no. 176, Series II)

Lays down regulations on capital stocks, internal control requirements and the obligation to report to the Stock Market Commission applicable to market management companies, securities settlement systems and securities pooling systems, as well as their holding companies.

2 August (Circular Letter of Banco de Portugal no. 25/DMRCF/DMC)

Sends diskette containing a file with the list of all institutions subject to reserve requirements in the euro area, on 28 July 2000.

9 August (Executive Order no. 1197/2000, Official Gazette, no. 183, Series II)

Introduces changes in Executive Order no. 95/94, of 9 February, setting forth new minimum amounts for the capital stock of mutual agricultural credit banks.

10 August (Decree-Law no. 181/2000, Official Gazette no. 184, Series I, A)

Introduces changes in Decree-Law no. 408/91, of 17 October, which sets forth the new legal system governing minimum reserves.

17 August (Guideline of the European Central Bank no. 2000/516/EC, OJ L 207)

Guideline on the management of the European Central Bank reserve assets by national central banks and on juridical agreements relating to operations with European Central Bank reserve assets. (ECB/2000/1). This guideline comes into force on 3 February 2000.

19 August (Regulation no. 26/2000 of the Stock Market Commission, Official Gazette no. 191, Series II)

Introduces changes in Articles 5 (definition of criteria adopted for the valuation of listed assets) and 9 (responsibility of the managing entity) of Regulation no. 16/99, relating to the valuation of the assets of transferable securities investment funds and to the calculation of the value of the units, published in the Official Gazette no. 240, Series II, of 14 October 1999.

19 August (Regulation no. 27/2000 of the Stock Market Commission, Official Gazette no. 191, Series II)

Introduces changes in Article 7 (Information) of Regulation no. 21/99, relating to the use of derivative financial instruments by mutual funds, published in the Official Gazette no. 295, Series II, of 21 December 1999.

22 August (Notice of the Banco de Portugal no. 3/2000, Official Gazette no. 193, Series I, B)

Sets forth the Direct Debits System (Portuguese acronym SDD). This notice comes into force on 1 October 2000.

23 August (Regulation no. 30/2000 of the Stock Market Commission, Official Gazette no. 194, Series II)

Introduces changes in Article 67 (representative for the relationship with the market) of Regulation no. 10/2000, relating to offers and issuers, published in the Supplement to the Official Gazette no. 45, Series II, of 23 February 2000.

23 August (Circular Letter of the Banco de Portugal no. 27/DMR)

Informs of the changes introduced in Instruction no. 1/99 (BNPP no.1, of 15 January 1999), regarding valuation haircuts applied to some assets in Tier 1 and to assets in Tier 2. These changes will come into force as from 31 August 2000.

23 August (Regulation no. 29/2000 of the Stock Market Commission, Official Gazette no. 194, Series II)

Revokes Article 8 and introduces changes in Article 2 (2) (characteristics of underlying assets) as well as in Articles 4 (setting up of the price of the underlying asset), 6 (changes in the underlying asset), 12 (tradability in the spot stock market) and 13 (admission to trading of warrants issued by entities subject to foreign law) of Regulation no. 19/99, relating to autonomous warrants, published in the Official Gazette no. 275, Series II, of 25 November 1999.

29 August (Notice of the Banco de Portugal no. 4/2000, Official Gazette no. 199, Series I, B)

Sets forth, under the provisions laid down in Article 3 (2) of Decree-Law no. 408/91, of 17 October, reworded by Decree-Law no. 181/2000, of 10 August, the conditions of remuneration of cash certificates with nominal value below 50.000 euro, put out to public subscription.

September

5 September (Regulation no. 31/2000 of the Stock Market Commission, Official Gazette no. 205, Series II)

Establishes, for the purpose of the provisions laid down in Article 35 (1) of Decree-Law no. 276/94, of 2 November, reworded by Decree-Law no. 323/99, of 13 August, the legal system governing the accounting of transferable securities investment funds. Revokes Regulation no. 95/14, of 21 December. The present Regulation comes into force on 1 January 2001.

5 September (Executive Order no. 1338/2000, Official Gazette, no. 205, Series II)

Introduces changes, under the provisions laid down in Article 211 of the Stock Market Code, approved by Decree-Law no. 486/99, of 13 November, in the interest rates on out-of-the-market operations. Rewords Articles 3 and 4 and adds article 5-A to the Executive Order no. 313-A/2000 (Series II), of 29 February. The present Executive Order will enter into force immediately, except Article 5-A, which will enter into force on 1 January 2001.

9 September (Decree-Law no. 221/2000, Official Gazette no. 209, Series I - A)

Transposes into national legislation, within the scope of the payment systems, Directive no. 98/26/EC, of the European Parliament and of the Council, of 19 May, on settlement finality in payment and securities settlement systems.

9 September (Regulation (EC) no. 1921/2000 of the European Central Bank, OJ 229, Series L)

Introduces changes in articles 1, 3, 5, 6 and 13 of Regulation (EC) no. 2818/98 of the ECB, of 1 December 1998, on the application of minimum reserve requirements, as well as in articles 4 and 5 of Regulation (EC) no. 2819/98 of the ECB, of 1 December 1998, on the consolidated balance-sheet of the monetary financial institutions sector. The present Regulation will be effective on the reserve maintenance period starting on the month following its publication in the Official Journal. An amendment to Regulation (EC) no. 1921/2000 of the ECB was published in the Official Journal no. 242, series B.

16 September (Notice of the Banco de Portugal no. 5/2000, Official Gazette no. 215, Series 1- B)

Lays down a set of regulations on the remuneration of deposits redeemable at notice, time deposits, time deposits not withdrawable before maturity and deposits opened under a special system, of an amount up to PTE 10 million, mentioned in article 1, (1), b), c), d) and e) of Decree-Law no. 430/91, of 2 November.

23 September (Decree-Law no. 228/2000, Official Gazette no. 221, Series I - A)

Sets up the National Council of Financial Supervisors, with a view to promoting, inter alia, the co-ordination of the performance of national authorities supervising the financial system. It shall be chaired by the Governor of the Banco de Portugal. In addition to the Stock Market Committee and to the Portuguese Insurance Institute, this Council expects to have the participation of representatives of public or private entities, in particular the Deposit Guarantee Fund, the Agricultural Credit Guarantee Fund, the Investor Compensation System, the entities managing regulated markets and associations representing any types of institutions subject to prudential supervision.

25 September (Circular-Letter of the Banco de Portugal no. 29/DMR)

In the wake of the decision of the ECB Council that established the closing days of the TARGET and concomitant closing of the RTGS system in the year 2001, it informs which will be the value-dates or repayment dates of the operations that cannot be carried out through SITEME in 2001. It also informs on which holidays the minimum services shall be ensured.

October

3 October (Circular-Letter of the Banco de Portugal no. 30/DMRCF/DMC)

Sends diskette containing a file with the list of all institutions subject to reserve requirements in the euro area on 28 September 2000.

13 October (Decree-Law no. 250/2000, Official Gazette no. 237, Series I, A)

Transposes into Portuguese legislation Directive 98/33/EC of the European Parliament and of the Council of 22 June amending article 12 of Directive 77/780/EEC on the coordination of laws, regulations and administrative provisions relating to the taking up and pursuit of the business of credit institutions, articles 2, 5, 6, 7 and 8 and annexes II and III of Directive 89/647/EEC on a solvency ratio of credit institutions, and article 2 and annex II of Council Directive 93/6/EEC on the capital adequacy of investment firms and credit institutions. Rewords articles 81 and 82 of the Legal Framework of Credit Institutions and Financial Companies approved by Decree-Law no. 298/92 of 31 December. Increases the number of bodies performing co-operation tasks in the supervisory field, includes certain concepts (e.g. recognised market), fixes weighting coefficients for the calculation of the solvency ratio (e.g. unpaid share in the capital of the European Investment Fund) and introduces changes in the calculation of credit risk in the over-the-counter derivative instruments.

16 October (Regulation no. 32/2000 of the Stock Market Commission, Official Gazette no. 239, Series II)

Regulates some features relating the canvassing for investors within the scope of financial intermediation activities. Amends article 50 and adds articles 19-A, 50-A, 50-B and 50-C to Regulation no. 12/2000 of 10 February.

18 October (Decree-Law no. 263/2000, Official Gazette no. 241, Series I, A)

Transposes into Portuguese law Directive 98/32/EC of the European Parliament and of the Council of 22 June amending - in particular the provisions relating to mortgage credit - Council Directive 89/647/EEC on the solvency ratio of credit institutions, the Banco de Portugal being authorised to change these regulations, under the terms of this Decree-Law..

20 October (Circular Letter of Banco de Portugal no. 31/DMR)

Informs credit institutions that for the calculation and confirmation of reserve requirements of the ESCB, they must comply with the provisions set forth in Regulation (EC) no. 1921/2000 of the European Central Bank of 31 August (ECB/2000/8), which amended Regulation no. 2818/98 of the European Central Bank of 1 December (ECB/1998/15) on the application of minimum reserves and Regulation no. 2819/98 of the European Central Bank of 1 December (ECB/1998/16) concerning the consolidated balance sheet of the monetary financial institutions sector.

30 October (Notice of Banco de Portugal No. 6/2000, Official Gazette No. 251, Series I, B)

Defines the own funds requirements applicable to credit institutions and financial companies assigning claims in securitisation operations, which within the scope of these operations have assumed engagements or received assets or off-balance-sheet items. Adds nos. 7 and 8 to Part I, of the annex to Notice No. 1/93, of 8 June.

November

6 November (Notice of the Banco de Portugal no. 7/2000, Official Gazette no. 256, Series I, B)	Cuts from three years to eighteen months the deadline (as from the date of the respective maturity) for the full provisioning of claims that only have a personal guarantee. Amends Notice no. 3/95, published in the Official Gazette no. 149, Series II.
7 November (Executive Order of the Ministry of Finance no. 1689/2000, Official Gazette no. 257, Series II)	Creates a regulated market, called "new market", for the trading, during a first stage, of shares issued by entities showing a high growth potential or developing technologically innovative activities. The specific requirements for trading in the "new market" include an orchestrated participation between the issuer, the promoter, the holders of qualifying holdings and the market creators.
15 November (Instruction of the Banco de Portugal no. 25/2000, BNBP 11/2000)	Fixes at 75 per cent the limit for the irrevocable payment commitment applicable to contributions relating to the year 2001 to the Deposit Guarantee Fund.
15 November (Instruction of the Banco de Portugal no. 26/2000, BNBP 11/2000)	Fixes at 0.1 per cent the basic contributory rate, applicable to the calculation of the annual contributions relating to the year 2001 to the Deposit Guarantee Fund.

December

14 December (Regulation no. 34/2000 of the Stock Market Commission, Official Gazette no. 287, Series II)	Lays down the general framework and the principles governing the "new market". Amends Regulations nos. 10/2000 and 11/2000 of the Stock Market Commission, published in the Official Gazette no. 45 (Supplement), Series II.
22 December (Decision no. 851/2001, Official Gazette no. 14, Series II)	Approves a set of guidelines governing the management of the direct government debt to be followed by the Public Credit Management Institute.
28 December (Regulation no. 37/2000 of the Stock Market Commission, Official Gazette no. 28, Series II)	Amends Regulation no. 10/2000, so as to cover in the reporting requirements to the Stock Market Commission the issuance of shares through the incorporation of reserves or resulting from the merger or splitting of companies, and consequently changes the respective reporting model. Rewords the title of Chapter I as well as articles 1 and 3, and adds an article 1 - A to the aforementioned Regulation.
29 December (Law no. 30-C/2000, Official Gazette no. 299, Series I, A, 2nd Supplement)	Approves the State Budget for 2001. Enshrines a set of provisions, a number of which of a tax nature, the corresponding amendments having been introduced in the several legal acts referred to thereon, with the exception of the amendments to paragraph 22 of article 11, and to paragraph 2 and the single paragraph of article 33 of *Código do Imposto Municipal de Sisa e do Imposto sobre as Sucessões e Doações* (Municipal Property Transfer Tax and Gift and Inheritance Tax Code), approved by Decree-Law no. 41969 of 24 November 1958. This Law comes into force on 1 January 2001.
29 December (Regulation no. 35/2000 of the Stock Market Commission, Official Gazette no. 299, Series II)	Under the provisions laid down in subparagraph n) of article 9 and of article 26 of the Statute of the Stock Market Commission, approved by Decree-Law no. 473/99 of 8 November, and subparagraph b) of paragraph 1 of article 353 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, fixes the rates due to the Stock Market Commission. Revokes Regulation no. 9/2000 of 23 February. This Regulation comes into force on 1 January 2001.
29 December (Law no. 30-B/2000, Official Gazette no. 299, Series I, A, Supplement)	Approves the Major Options of the Plan for 2001.

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