

THE PORTUGUESE ECONOMY IN 1999

1. INTRODUCTION

The forecasts of the *Banco de Portugal* presented in this *Economic Bulletin* point towards a slowdown of Gross Domestic Product (GDP) in 1999, expected to grow between 2¾ and 3¼ per cent (3.8 per cent in 1998). According to the forecast, the slowdown will result both from the lower growth of domestic demand and the slowdown of exports of goods and services. Domestic demand is expected to grow between 4¼ and 4¾ per cent, below the 6.4 per cent growth estimated for 1998 — especially due to the deceleration of Gross Fixed Capital Formation (4¼ to 5¼ per cent growth, against 9.8 per cent in 1998). Exports of goods and services are also expected to grow less, between 3¼ and 4¼ per cent (9.1 per cent in 1998). In line with the slowdown of overall demand, imports of goods and services are expected to slowdown from 14.8 per cent in 1998 to between 7 and 8 per cent. The behaviour of exports is being conditioned by the slowdown of external demand directed towards the Portuguese economy, in the context of a slowdown of economic activity in the euro area in 1999. As a result, the contribution of net external demand to GDP growth shall have remained negative in 1999, though standing below the 1998 contribution in absolute terms.

Despite some differences in the structure of output growth, the current growth forecast does not differ from that disclosed in the March *Economic Bulletin*. Regarding the main components, both private and public consumption are now estimated to exhibit a stronger growth (about 0.5 percentage points (p.p.) more than previously expected) and net external demand is expected to render a more negative contribution to output growth. In this context, a current plus capital account deficit between 5¼ and 6¼ is expected for

1999, ¾ p.p. wider than that projected in March (compared with 4.3 per cent in 1998).

The significant worsening, as a percentage of GDP, of the current plus capital account deficit reflects the increasing net borrowing requirement of the Portuguese economy vis-à-vis abroad, through the widening of the differential between domestic investment and saving. The behaviour of the private sector (corporations and households) — whose borrowing requirements increased again as a percentage of GDP — continued to account chiefly for this development, since the General Government deficit is expected to narrow by around 0.4 p.p. of GDP, to 1.8 per cent.

The fulfilment of borrowing requirements of households and non-financial corporations continued to imply a particularly strong growth of bank lending to these sectors, which as a whole grew 28.1 per cent in August (31.9 per cent for credit to private individuals and 26.9 per cent for credit to non-financial corporations)⁽¹⁾.

As in 1998, in the first half of 1999 monetary financial institutions (MFI)⁽²⁾ continued to finance the resident private sector by raising external resources and through the reduction of net foreign assets — mostly short-term — in the form of deposits and borrowing operations with non-residents. The balance of these operations (of “Other Investment” of the MFI and those established by the MFI through the TARGET system) amounted to about 14.5 per cent of GDP in the first half of 1999, comparing with 14.1 per cent in

(1) Excepting mentions otherwise, all rates of change mentioned in the text are year-on-year rates of change.

(2) Does not include monetary authorities.

Table 1.1

MAIN ECONOMIC INDICATORS

Rates of change (percentage)

	1998	1999		
	Year estimate	1st half estimate	Year	
			Current forecast	March 1999 EB forecast
Private consumption	5.6	5.3	4¼ - 5¼	4¼ - 4¾
Public consumption	3.0	2.4	2.4	2
GFCF	9.8	4.6	4¼ - 5¼	4½ - 5½
Domestic demand	6.4	4.8	4¼ - 4¾	4 - 4½
Exports	9.1	3.2	3¼ - 4¼	3¾ - 4¾
Overall demand	7.0	4.4	4 - 4½	4 - 4½
Imports	14.8	8.1	7 - 8	6¾ - 7¾
GDP	3.8	2.8	2¾ - 3¼	2¾ - 3¼
Current plus capital account (as a % of GDP)	-4.3		-6¼; -5¼	-5½; -4½

the first half of 1998 and 7.9 per cent in 1998 as a whole.

In 1999, in line with the behaviour of long-term interest rates in the euro area, the rates of Treasury Bonds with yield to maturity of 10 years inverted the globally downward trend recorded in recent years, increasing about 1.73 p.p. between January and October. Recently, also shorter-term rates inverted their trend. The 3-month LISBOR rate rose 0.85 p.p. between June and October, to 3.6 per cent at the end of the latter. In the third quarter, interest rates on bank credit to private individuals and corporations also stopped decreasing; rates on short-term credit to corporations rose between 12 and 20 basis points in this period.

According to the forecasts of the *Banco de Portugal*, the unemployment rate is expected to reach 4.6 per cent in 1999 as a whole (5.0 per cent in 1998), while employment shall grow 1.5 per cent (2.3 per cent in 1998). The labour market continues to exhibit a strong relation with economic activity⁽³⁾. Taking as a reference the dynamism of employment and the reduction of the unemployment rate, compensation per employee in the private sector is estimated to grow 5.4 per cent in 1999 (5.1 per cent in 1998), thus exceeding by about 2 p.p. wages implicit in collective agreements, as in 1998.

Inflation, measured by the year-on-year rate of change of the Harmonised Index of Consumer

Prices (HICP)⁽⁴⁾, was 1.9 per cent in the third quarter of 1999. Inflation had decreased to 2.1 per cent in May, after remaining virtually stable around 2.7 per cent since the third quarter of 1998.

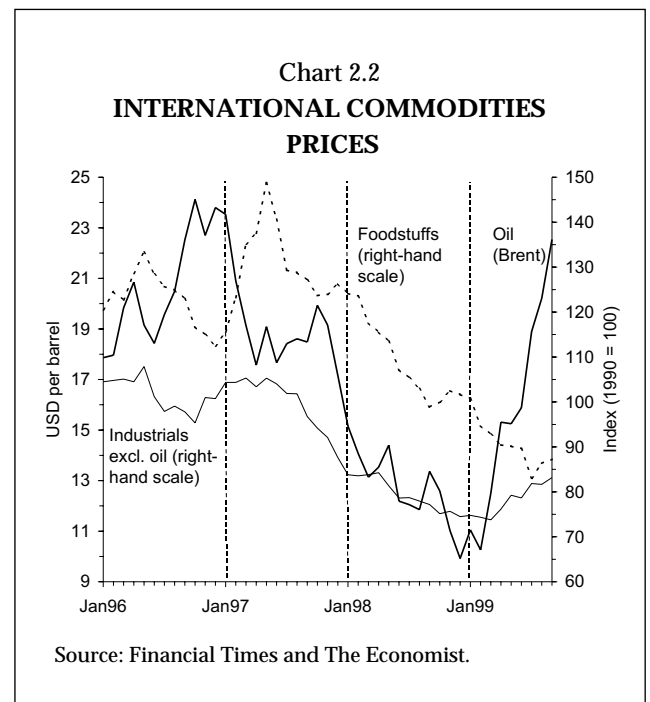
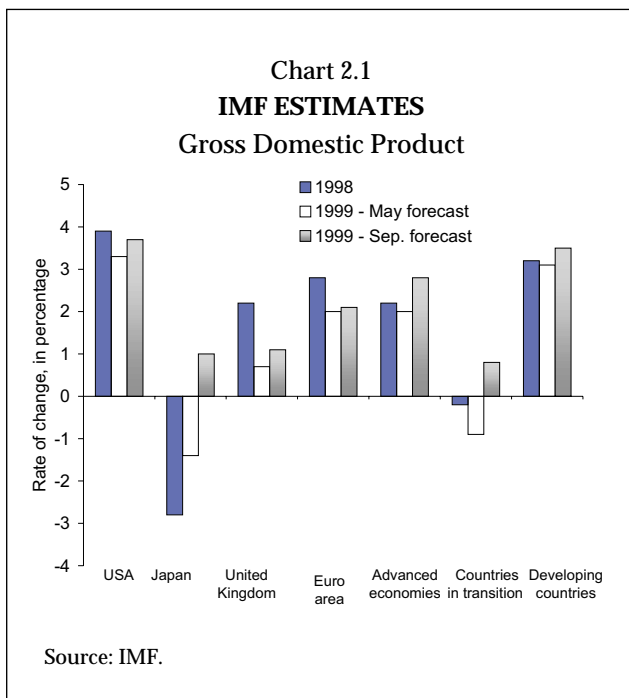
This inflation rate increase had been an outcome of transitory factors, whose effects dissipated over the course of the second quarter of the current year. This was the case of the correction to the abnormally high increase in the prices of some foodstuff goods occurred in 1998. The pressures on the prices of some services, due to the Expo-98, also dissipated in 1999. Finally, the effects of the escudo depreciation vis-à-vis the set of currencies in the European Monetary System Exchange Rate Mechanism, linked to the convergence towards the central parities in the period prior to the creation of the euro, shall also have dimmed in 1999.

The behaviour of the trend inflation indicators calculated by the *Banco de Portugal* confirm that the reduction of the inflation rate from May onwards was partly explained by the correction of the anomalous behaviour that some prices exhibited in 1998. Indeed, up to May 1999, trend indicators of year-on-year inflation continued to stand below the year-on-year inflation rate, exhibiting a smoother reduction than the latter afterwards.

Contrary to what occurred in Portugal, year-on-year inflation rose in the euro area countries as

(3) The employment growth forecast continues to be consistent with the *Okun Law* estimated by the *Banco de Portugal* for the Portuguese economy, when disregarded the series break occurred in early 1998.

(4) After adjusting in 1998 for the effects of sales and promotions and for the change in the sample of goods and services. See Box III.1 - "Changes to the HICP: Estimate of the Revision of Inflation Levels for 1998" in Chapter III of the 1998 *Annual Report*.



a whole, from 0.8 per cent in January to 1.2 per cent in September. The narrowing of the inflation differential between Portugal and the euro area results not only from the dissipation of the above referred temporary effects, but also from the neutralisation in Portugal of the direct effect of the rise in international oil prices on the prices of energy products included in the HICP basket. Since the Portuguese Government has opted to maintain maximum prices of sale to the public, energy consumer prices did not contribute to increase Portuguese inflation in 1999, contrary to what occurred in most remaining euro area countries⁽⁵⁾.

2. INTERNATIONAL BACKGROUND OF THE PORTUGUESE ECONOMY

The improvement of the world economic situation since early 1999 has consolidated in recent months. Among the industrialised economies, stress should be laid on the maintenance of growth in the USA above that expected, the unexpected recovery of the Japanese economy and the strengthening of activity in the United Kingdom (chart 2.1). As for the euro area, the recovery of economic growth projected for the second half of

1999 is apparently being confirmed. Regarding the Asian economies most affected by the 1997/98 crisis, activity is recovering earlier and stronger than expected. In Russia, economic activity has shown signs of recovery — although the overall situation remains fragile — while in Brazil economic slow-down shall be less pronounced than previously expected. However, the behaviour of some emerging markets is still subject to important risks, given their vulnerability to swings in international investors' confidence.

International prices of commodities — especially oil, which recently contributed significantly to inflation moderation in the leading industrialised economies — recovered throughout 1999. Oil prices continued to increase until September — continuing the trend recorded since early 1999 — chiefly reflecting the substantial cuts in supply but also some recovery of world demand (chart 2.2). In September, the price of Brent reached around USD 22 per barrel, compared with USD 10 at the end of 1998. In the period January-September, oil prices grew 18.5 per cent year-on-year, after falling 33.2 per cent in 1998 as a whole. Prices of other industrial commodities have also recovered. In September, the price index in US dollars calculated by *The Economist* increased 8 per cent year-on-year, though in the first three quarters of 1999 a reduction was still recorded (-3.5 per cent year-on-year, against -20.5 per cent in 1998). On the contrary, foodstuff commodities continued to fall in year-

(5) Likewise, in 1998 the strong reduction of international prices of oil did not reflect directly to consumer prices of fuel in Portugal, conversely to what occurred in the remaining euro area countries.

on-year terms, though by less than in previous months.

In the USA, activity is expected to maintain a growth rate close to that recorded in the previous two years. Most estimates point towards a 3.8 per cent growth, which compares with 3.9 per cent in 1997/98. In the first two quarters of the year, GDP exceeded again expectations, growing close to 4 per cent year-on-year (chart 2.3). Domestic demand continued to show a strong momentum — especially private consumption, which continued to grow faster than disposable income — though slowing down slightly from the first to the second quarter. Exports exhibited a slight recovery in the second quarter of 1999, after having behaved particularly unfavourably early in the year (3.7 per cent growth year-on-year, compared with 0.5 per cent in the first quarter). Together with the greater demand for imports (10.6 per cent growth in the second quarter, against 9 per cent in late 1998/early 1999), this development translated into the continued increase of the trade and current account deficits since early 1999. According to the International Monetary Fund (IMF) estimates, current deficit shall reach 3.5 per cent of GDP in 1999 (2.6 per cent in 1998) (chart 2.4). The available information for the third quarter points towards a sustained growth of economic activity⁽⁶⁾.

Despite the strong pace of economic growth, inflation in the USA continued to stand only marginally above 2 per cent — the year-on-year rate of change of consumer prices stood at 2.3 per cent in August (chart 2.3). However, this accounts for an acceleration from early 1999 (1.7 per cent in January), greatly reflecting the reversal of some factors which were conditioning favourably the behaviour of prices (namely the fall in international prices of commodities and import prices). In the labour market, although wage increases were slightly greater in the second quarter of 1999 (rising from 4.0 to 4.3 per cent year-on-year), these continued to be compensated by the growth of productivity — which has been greater than ex-

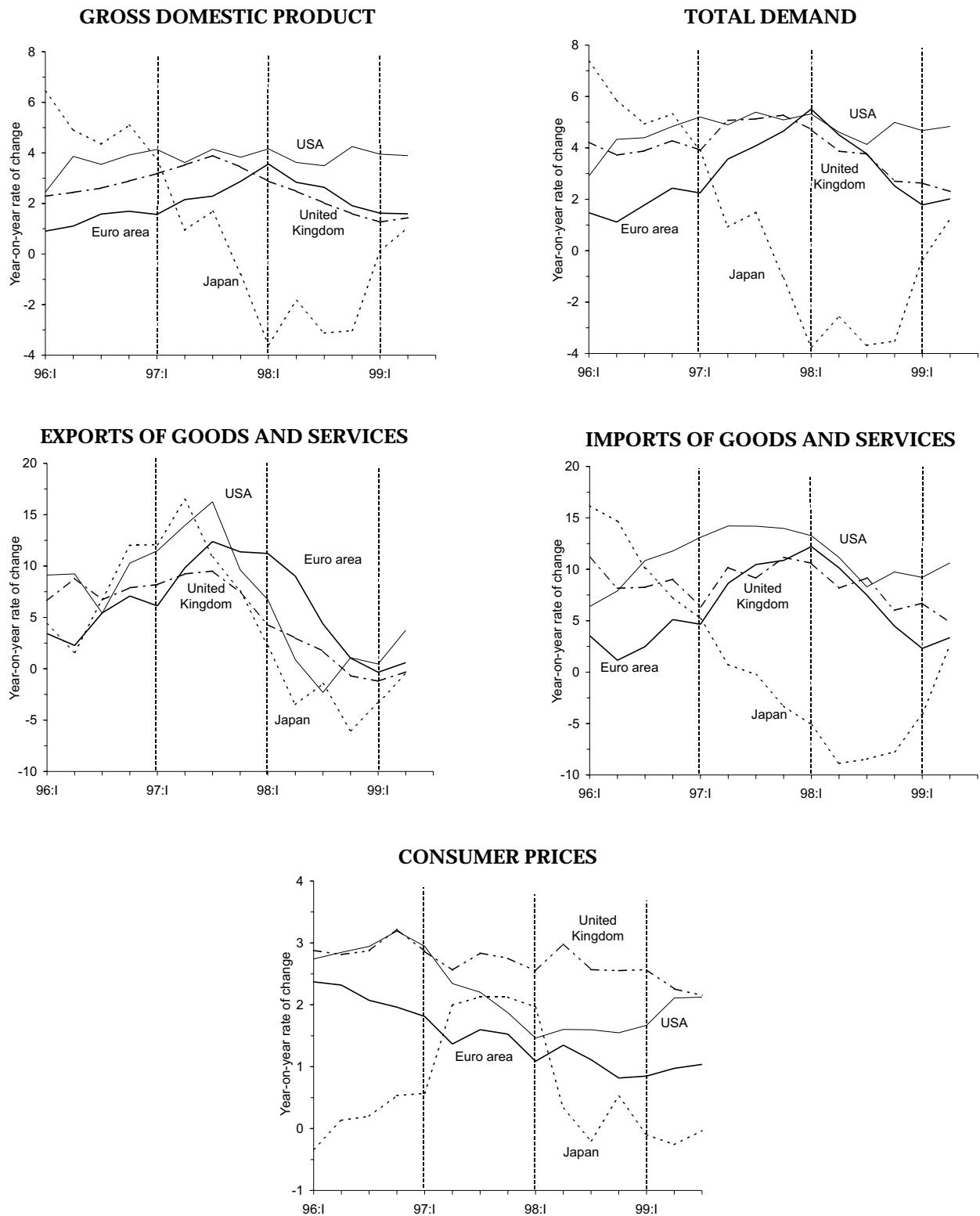
(6) Over the course of 2000, the most likely scenario is that of a moderate slowdown of activity (2.6 per cent growth according to the IMF forecast disclosed in September), namely reflecting the higher level of interest rates — the 10-year public debt bond yields rose 1.5 percentage points (p.p.) up to October, to around 6 per cent (chart 2.6) — with the first effects having been felt at the level of the construction sector.

pected in an advanced stage of the business cycle — maintaining labour costs controlled (1.4 per cent increase in the first half-year, against 2.0 per cent in 1998). On 24 August, the Federal Reserve increased again the fed funds reference rate by 0.25 p.p., to 5.25 per cent. The Fed considered that the size of the reductions carried out in Autumn 1998 was no longer compatible with a non-inflationary sustained economic expansion. In early October, though maintaining the intervention rates unchanged, the central bank announced a greater probability of a further increase in the tightness of monetary policy.

In 1999 economic growth in Japan is expected to recover to 1.0 per cent, according to the IMF estimate (2.9 per cent fall in 1998). The projections for the Japanese economy were significantly revised upwards in recent months (chart 2.1), after a much stronger than expected growth recorded in the first half of 1999 (0.1 and 1.1 per cent year-on-year, respectively in the first and second quarters). This expansion was partly sustained by public expenditure, although private sector demand also recovered significantly. Indeed, private consumption improved (1.3 per cent growth in the first half-year, against a 1.1 per cent fall in 1998), as well as investment in housing, especially in the second quarter, benefiting from public support. Private corporate investment continued to fall sharply. Meanwhile, exports and, especially, imports of goods and services recovered throughout the first half-year (chart 2.3). However, some uncertainties and fragilities persist in the Japanese economy. Consumers' confidence is deficiently sustained in the context of an unfavourable behaviour of earnings and the labour market situation; the latest surveys to industrials point towards a further downward revision of the cuts to investment foreseen for the current fiscal year; the effects of the former public measures are expected to dissipate in the second half of the year, and the strengthening that the yen has recorded (chart 2.5) may limit the contribution of net exports to growth. Consumer prices decreased 0.1 per cent in the period January-August, after having increased 0.6 per cent in 1998.

In the United Kingdom, economic activity shall have slowed from 2.2 per cent in 1998 to 1.1 per cent in 1999, according to the IMF estimate, although later projections point towards a growth

Chart 2.3

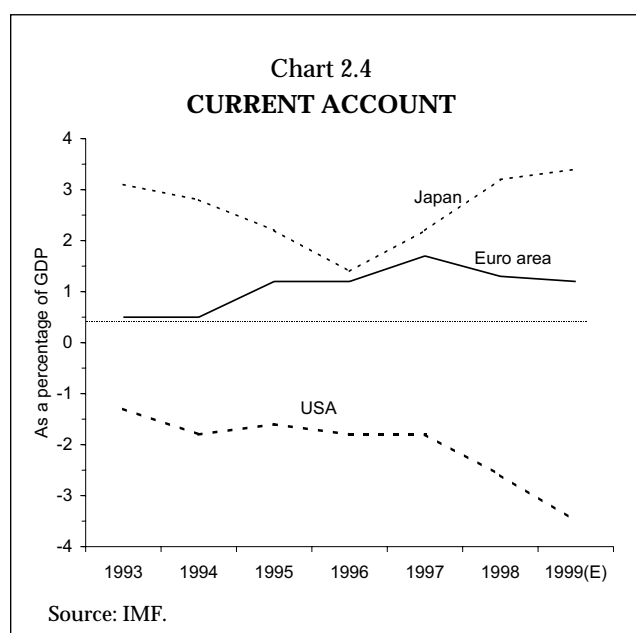


Source: Datastream and Eurostat.

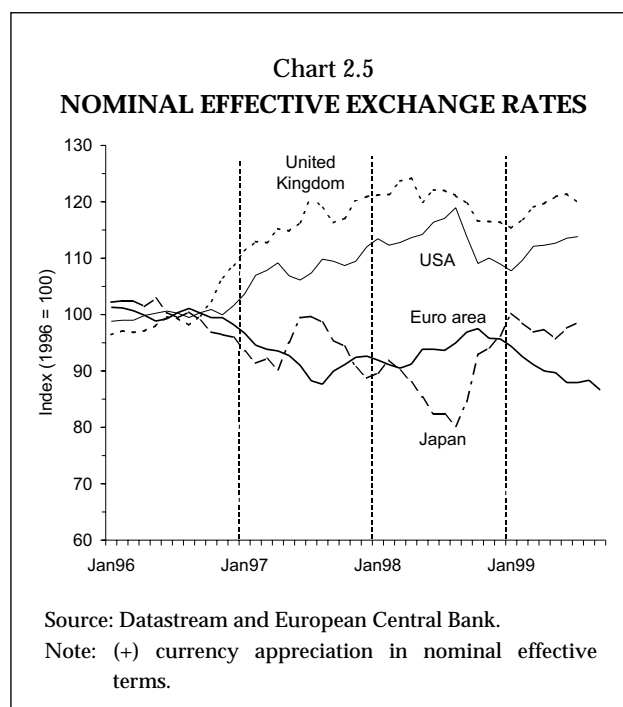
Note: Consumer prices — the third quarter of 1999 corresponds to the quarter to August, except for the United Kingdom.

closer to (or even above) 1.5 per cent. Over the course of the year growth has strengthened progressively. Activity slowed down up to early 1999

— though less than previously expected — but an improvement was already seen in the second quarter. Indeed, GDP slowed down from 1.6 per

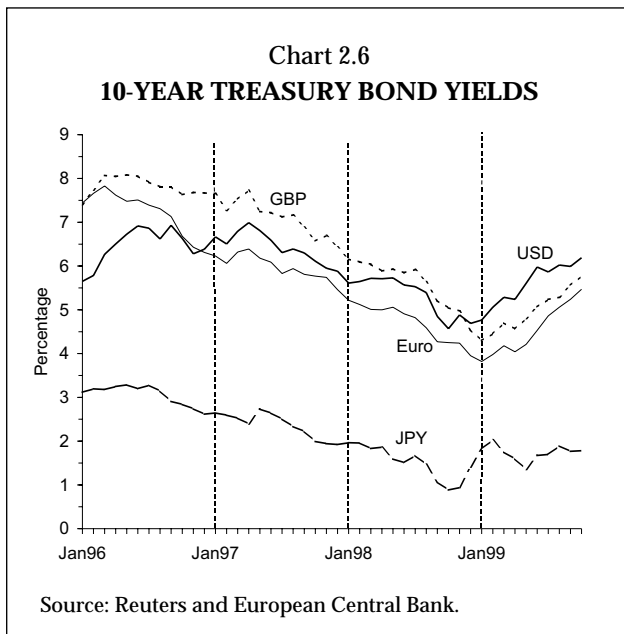


cent in late 1998 to 1.3 per cent in early 1999 year-on-year, accelerating to 1.4 per cent in the second quarter (chart 2.3). The strength of domestic demand (excluding stocks) — which helped to sustain growth throughout the previous year — improved in the first half of 1999. In this context, stress should be laid on private consumption (3.8 per cent growth in the first half-year, against 2.8 per cent in the previous half). The correction to the previous stock building process contributed negatively to GDP growth in this period. Net external demand continued to render a particularly negative contribution to growth, although it stopped worsening in the second quarter. In this quarter, the slight improvement of exports took place alongside a further slowdown of imports (from 6.7 to 4.8 per cent, which compares with 7.6 per cent in the second half of 1998). The favourable behaviour of the latest indicators available — especially qualitative data — point towards the continuation of the strengthening of activity in the second half of the year. In the labour market, the unemployment rate continued to decrease, to 4.2 per cent in September (4.6 per cent in late 1998). As regards nominal earnings, despite accelerating slightly in recent months, growth has been lower than in the previous year. Together with the exchange rate behaviour (chart 2.5), this development contributed favourably to the inflation reduction recorded in the first nine months of 1999 (consumer prices excluding mortgage lending interest grew 2.3 per cent in this period, against 2.7 per cent in 1998). On 8 September, the Bank of England announced a



0.25 p.p. increase to the intervention rate — which had been subject to several cuts between October 1998 and June 1999 — to 5.25 per cent, in a context of recovering world demand, strong buoyancy of private consumption and the housing market and some pressures in the labour market. In early November, the central bank increased again the intervention rate, to 5.5 per cent.

Output in the euro area is expected to grow around 2 per cent in 1999 — in line with the forecasts disclosed earlier in 1999 — hence slowing down from the 2.7 per cent growth recorded in 1998 (chart 2.1). This relatively moderate growth reflects the significant weakening of activity in late 1998 and early 1999 (chart 2.3), although the underlying trend points towards some recovery over the course of the year. This recovery shall strengthen in the following months, leading to a growth rate closer to 3 per cent in 2000, according to the IMF forecasts. Although some improvement of activity was evident from the first to the second quarter of 1999, year-on-year growth of GDP reached 1.6 per cent in both quarters, compared with 2.3 per cent in the second half of 1998. Domestic demand excluding stocks remained quite robust in the first half of the year (2.5 per cent growth in year-on-year terms), despite the slight slowdown of private consumption. In this period — and as expected — the change in stocks rendered a negative contribution to GDP growth, following to the significant stock building recorded



in 1998. Net exports continued to contribute negatively to GDP growth. In the half-year as a whole, exports grew only 0.1 per cent (2.7 per cent in the previous half), while imports slowed down from 6.0 to 2.8 per cent. Nevertheless, both exports and imports showed some recovery throughout the second quarter, after the sharp slowdown occurred up to early 1999. For the upcoming quarters, indicators point towards a clear recovery of activity in the euro area, namely in the industrial sector, where activity weakening was sharper, given its greater exposure to the international background. Industrials' expectations regarding future production and appraisals of their order book improved significantly up to September. Consumers' confidence remains high and stabilised in the third quarter, after having deteriorated in the previous quarter. The recovery of external markets shall provide a key factor to the consolidation of the expansion process. In the months that follow, exports are expected to reflect the already evident recovery of the export order book, additionally favoured by the behaviour of the euro — which depreciated about 9 per cent in real effective terms until September.

Among the economies integrating the euro area, Germany and Italy are expected to continue exhibiting the lowest growth rates in 1999 (1.4 and 1.2 per cent, respectively, according to the IMF — which is somewhat below expectations earlier in the year, especially as regards the Italian economy). This was already evident in the first half of

1999, with Germany growing 0.6 per cent year-on-year, and Italy growing 0.8 per cent. In 1999, growth in France and Spain shall exceed slightly the previous expectations (2.5 per cent in France and 3.6 per cent in Spain).

Inflation in the euro area — measured by the year-on-year rate of change of the Harmonised Index of Consumer Prices — showed some increase over the course of 1999 (chart 2.3), from 0.8 per cent in January to 1.2 per cent in August, chiefly reflecting the effects of the oil price increase in the international markets. However, in the first eight months of 1999, inflation stood at 1.0 per cent (1.1 per cent in 1998).

On 4 November, the European Central Bank announced a 0.5 p.p. increase to the intervention rates — the main refinancing operations rate was increased to 3.0 per cent — aiming at counteracting the growing risks to price stability, in a context of more favourable economic conditions. The improvement of economic conditions shall have been one of the motivations behind the upward movements of interest rates in the euro area, which were greater in longer maturities. Indeed, the 10-year public debt bond yields rose about 1.5 p.p. since the end of 1998, to 5.5 per cent in October (chart 2.6).

3. INTEREST RATES AND CREDIT

In line with the behaviour of long-term interest rates in the euro area, rates on Treasury Bonds with yield to maturity of 10 years increased 1 p.p. between June and October (1.73 p.p. since January). Therefore, in 1999 interest rates in the bond market inverted the overall downward trend recorded in the previous four years. This process was extended to the shorter maturity interest rates in the third quarter of 1999. Indeed, in line with the behaviour of money market interest rates in the euro area, the 3-month LISBOR rate rose 0.85 p.p. between June and October, to 3.6 per cent.

Reflecting the money market situation in the third quarter, interest rates on credit to corporations and private individuals interrupted the downward trend recorded in recent years (chart 3.1). Between June and September, the interest rates on new loans to private individuals over 5 years remained stable, reaching 4.9 per cent (5.7 per cent in December 1998). Meanwhile, rates on

Chart 3.1
MONEY MARKET, BOND MARKET AND
BANK CREDIT INTEREST RATES

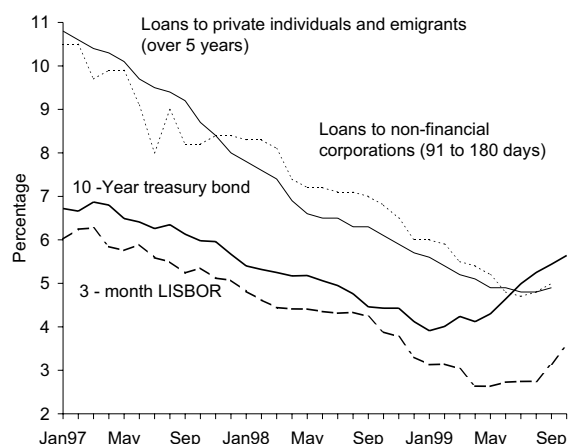
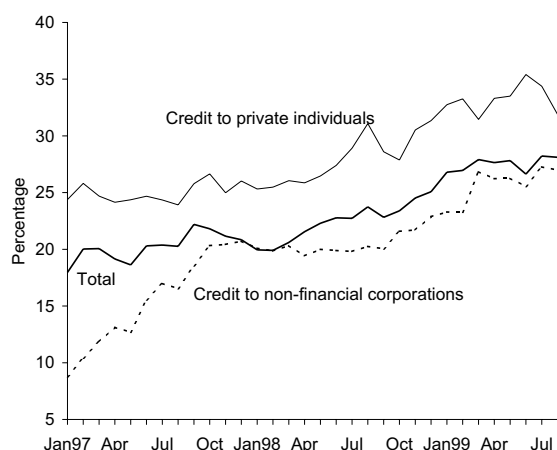


Chart 3.2
DOMESTIC BANK CREDIT TO THE
NON-MONETARY RESIDENT SECTOR
(EXCLUDING GENERAL GOVERNMENT)
Year-on-year rates of change



Note: The Non-monetary Resident Sector (excluding General Government) includes Private Individuals, Non-financial Corporations and Non-monetary Financial Institutions.

loans to non-financial corporations between 91 and 180 days rose 0.20 p.p. in the same period, to 5.0 per cent (6.0 per cent in December 1998). Interest rates on 85 to 95 days commercial paper increased 0.12 p.p., to 2.9 per cent.

Between May and August, domestic bank credit to the non-monetary resident sector continued to grow strongly, reaching 28.1 per cent in August (chart 3.2). However, it should be noted that credit to private individuals slowed down in

the last two months, from a maximum of 34.8 per cent in June to 31.9 per cent in August. In turn, credit to non-financial corporations accelerated slightly (from 26.3 per cent in May to 26.9 per cent in August). This behaviour of credit was crucial to the continuation of the increase in individuals and corporations' indebtedness in 1999. Individuals' gross debt is estimated to account for about 80 per cent of their disposable income (about 56 per cent of GDP) at the end of 1999, while the indebtedness ratio of non-financial corporations is expected to reach about 75 per cent of GDP. These forecasts assume that bank credit will slow down up to the end of the year, to 27.3 and 21.6 per cent, respectively for credit to private individuals and to non-financial corporations (table 5.2).

4. BUDGET POLICY

In August 1999, the *Ministério das Finanças* submitted to the European Commission the second notification of 1999, in the framework of the excessive deficit procedure. In relation to the previous notification and the statistics built upon the 1999 State Budget, the General Government overall deficit as a percentage of GDP decreased from 2.0 to 1.8 per cent. This objective stands below that proposed in the Stability and Growth Programme for 1999 (2.0 per cent of GDP). The overall deficit for 1998 was also revised, to 2.2 per cent of GDP, which compares with an initial objective of 2.5 per cent.

The budgetary perspectives for 1999, presented in the August notification, differ from those resulting from the February notification. Interest expenditure was revised downwards by 0.2 percentage points of GDP, while total revenue and total primary expenditure were revised upwards. The primary balance continues to amount to 1.4 per cent of GDP, which equals the Stability Programme forecast.

The structure of tax receipts underwent some changes, translated into a higher growth of taxes on goods and services and social contributions, alongside a lower growth of taxes on income and wealth. The behaviour of revenue from taxes on goods and services has benefited from the particularly strong growth of private consumption, but also from a consumption structure that favours goods subject to a greater tax burden (as is the case

of car purchases)⁽⁷⁾. In what concerns primary expenditure, the comparison with the previous notification and with the accounts built upon the 1999 State Budget indicates that all items grow above the initial forecasts.

According to preliminary estimates by the *Banco de Portugal*, in 1999 the cyclically-adjusted overall deficit as a percentage of GDP, shall have decreased by 0.3 p.p. (after increasing by 0.2 p.p. in 1998). Indeed, cyclically-adjusted revenue and expenditure grew respectively 1.4 and 1.1 percentage points. In turn, the primary surplus adjusted for cyclical changes (which excludes the effect of the reduction of interest expenditure) shall have increased 0.2 p.p. of GDP in 1999 (after decreasing about one percentage point in 1998)⁽⁸⁾.

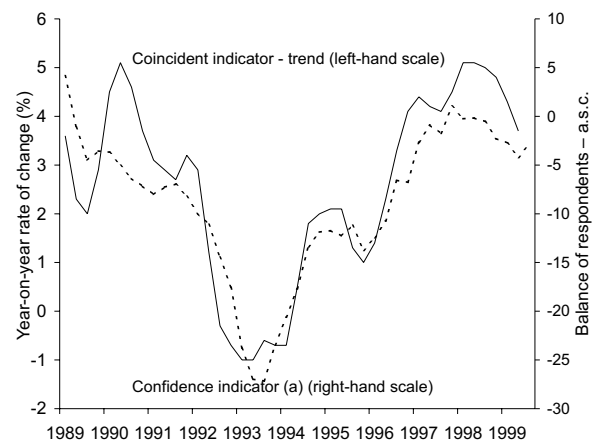
The public debt to GDP ratio stood at 56.8 per cent in the latest notification, remaining unchanged from the previous notification and anticipating the fulfilment of the objective defined in the Stability Programme.

In the first eight months of 1998, net financing to General Government reached 1,154 million euros, 98 million euros less than in the same period of the previous year. As in late 1998, in the period January-August the trend of reduction of net credit granted by the resident sectors proceeded (-3,755 million euros), while net credit granted by non-residents continued to increase (4,838 million euros). Also worth noting the reduction of short-term instruments issues — namely through the net redemption of Treasury bills — in parallel with the predominant role of medium- and long-term instruments in General Government financing.

(7) According to the Monthly Bulletin of the *Direcção-Geral do Orçamento*, the State revenue due to taxes on goods and services grew 11.1 per cent in the first nine months of 1999 (10.6 per cent growth in 1998 as a whole). Stress should be laid on the Car Tax revenue, which grew 25.8 and 24.6 per cent, respectively in the first nine months of 1999 and in 1998 as a whole.

(8) The estimate for the change in the cyclically-adjusted balances should be interpreted with the greatest caution. Indeed, these results depend strongly on a reference path for output of the economy — usually referred to as potential output — as well as on the estimation of the sensitivity of the various kinds of tax revenue to changes in the rate of growth of output.

Chart 5.1
COINCIDENT INDICATOR OF ACTIVITY AND
CONFIDENCE INDICATOR
INDUSTRY, CONSTRUCTION AND TRADE



Source: *Banco de Portugal*, European Commission ("Monthly Surveys") and INE ("Monthly Trade Survey").

5. DEMAND AND OUTPUT

In the first half of 1999, the Portuguese economy grew 2.8 per cent in real terms, according to the estimates of the *Banco de Portugal* — see table 1.1 (Main economic indicators). In this period, the pattern of growth was characterised by a slowdown of domestic demand (4.8 per cent real growth) and of exports of goods and services (3.2 per cent real growth). The slowdown of economic activity is illustrated by the behaviour of the coincident indicator of the *Banco de Portugal*, which synthesises the behaviour of activity in industry, trade and construction (chart 5.1). However, the behaviour of the confidence indicator in these sectors points towards some improvement of economic activity in the second half of the year (chart 5.1). In particular, the qualitative information points towards an acceleration of industrial production, resulting from an improvement of the overall order book, but especially of the external order book. This development allows to foresee a recovery of the pace of growth of exports in the second half of the year.

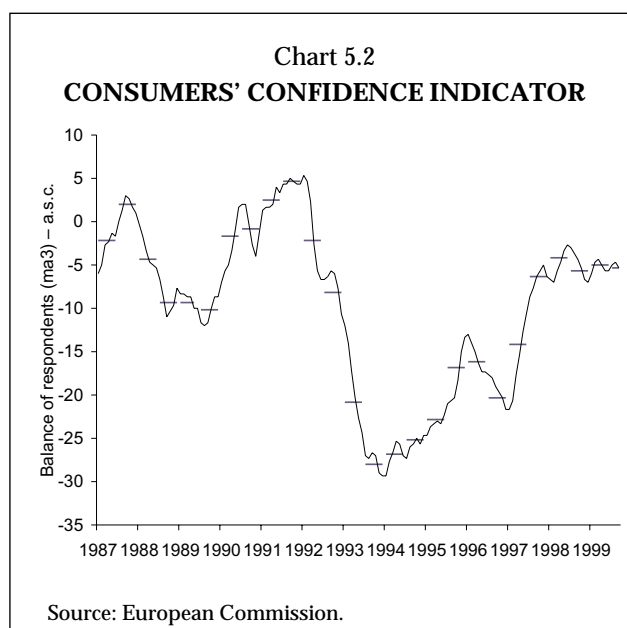
For the year as a whole, the forecasts presented in this *Economic Bulletin* point towards a slowdown of Gross Domestic Product (GDP) in 1999, which is estimated to grow between 2¾ and 3¼

per cent (3.8 per cent in 1998). According to the forecast, the slowdown shall result from a lower growth of domestic demand — which shall stand between $4\frac{1}{4}$ and $4\frac{3}{4}$ per cent (6.4 per cent in 1998) — and from the slowdown of exports of goods and services, with a projected growth between $3\frac{1}{4}$ and $4\frac{1}{4}$ per cent (9.1 per cent in 1998). The slowdown of domestic demand is estimated to widespread to all components, especially to Gross Fixed Capital Formation, which will contribute to a slower growth of imports of goods and services (between 7 and 8 per cent in real terms, compared with 14.8 per cent in 1998). The behaviour of exports shall be conditioned by the slowdown of external demand directed towards the Portuguese economy, in the context of a slower economic growth in the euro area in 1999 as a whole. In the current year, net external demand will continue to render a negative contribution to GDP growth, though a less negative one than in 1998.

The current economic growth forecast does not differ widely from that presented in the March *Economic Bulletin*, although some differences in the structure of output exist. Indeed, domestic demand will grow stronger than previously expected, and the contribution of net external demand to output growth shall become more negative. In this context, the current plus capital account deficit shall exceed that foreseen in March by about $\frac{3}{4}$ p.p.

Individual's real disposable income is expected to continue increasing in 1999, though slowing down from the previous year. Compensation of employees shall maintain a significant growth, supported by net increases to the number of wage earners and by an increase of real wages. The lower growth of individuals' real disposable income resulted from a particularly sharp slowdown of property income and from the slowdown of domestic transfers to households. Net interest received by households, in particular, is expected to record a quite sharper fall than in the previous year. Indeed, while interest paid by households shall remain virtually unchanged from 1998 — despite the increase in this sector's level of indebtedness — revenue from interest due to households' financial investments is expected to drop strongly.

Private consumption shall continue to grow at a high pace in 1999 (between $4\frac{3}{4}$ and $5\frac{1}{4}$ per cent), though growing less than in the previous year (5.6



per cent). Growth now projected for real private consumption in 1999 as a whole exceeds the upper limit presented in the March *Economic Bulletin*, which is greatly explained by a sharper fall of individuals' saving rate than previously expected. Indeed, despite this slight slowdown, private consumption shall maintain a high buoyancy in 1999, above that of individuals' disposable income, leading to a sharp fall in the saving rate. This behaviour of private consumption reflects households' high confidence levels, resulting from a globally favourable appraisal of their financial situation and the general economic situation in Portugal (chart 5.2). Meanwhile, interest rates, though to a lesser extent, decreased again in annual average terms, reaching historically low levels. This development yields an expansionary impact on households' consumption and investment decisions, naturally rendering a disincentive to households' saving.

In 1999, the trend towards the rise in households' indebtedness vis-à-vis financial institutions continued, due to the strong growth of this sector's expenditure — in both consumption and investment in housing — only partly followed by the increase of disposable income (see March 1999 *Economic Bulletin*, Box - "Saving and indebtedness of the private sector in Portugal"). In August 1999, the year-on-year rate of change of mortgage lending to individuals was of 33.2 per cent. In the same period, bank lending to individuals for other pur-

Table 5.1

DEMAND INDICATORS
Year-on-year rates of change

	1997	1998	1999 ^(a)	Last month	1997					1998				1999							
					1st half	2nd half	1st half	2nd half	1st half	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	
Private consumption																					
Retail Trade Turnover index	5.1	11.1	5.9	Jun	4.5	5.7	12.3	10.2	5.9	4.5	4.5	4.9	6.3	11.3	13.1	9.5	10.7	7.5	4.3		
Licenses of light passenger cars incl. 4x4	-0.8	18.1	20.6	Sep	-2.7	1.5	13.6	23.0	24.7	-3.3	-2.1	-1.3	4.0	5.4	21.7	23.6	22.5	35.0	16.0	11.8	
Bank credit to individuals for purposes other than housing	22.9	23.0	28.6	Aug	22.4	22.9	18.0	23.0	31.7	22.4	22.4	20.9	22.9	17.9	18.0	18.9	23.0	18.3	31.7		
Investment																					
Cement sales	11.9	4.7	3.3	Sep	19.5	5.3	4.6	4.7	2.1	22.6	16.8	9.4	0.9	10.0	-0.2	0.2	9.9	-0.6	4.8	5.6	
Contracted construction works	26.1	-26.8	-25.3	Aug	66.9	-4.8	-26.4	-27.4	-27.8	73.1	61.5	-10.7	1.2	-14.7	-37.3	-13.1	-40.3	-26.5	-29.5		
Mortgage lending to individuals	27.4	34.8	33.2	Aug	25.7	27.4	31.4	34.8	36.9	25.8	25.7	28.0	27.4	29.5	31.4	32.6	34.8	36.5	36.9		
IPI of equipment goods excluding transport material	-0.1	8.8	-1.0	Jul	-1.4	1.3	9.6	8.0	-1.7	-0.4	-2.4	1.0	1.6	8.6	10.5	8.3	7.6	0.6	-3.8		
Imports of equipment goods excluding transport material ^(b)	14.7	18.9	9.3	Jun																	
Exports of equipment goods excluding transport material ^(b)	22.2	17.9	27.3	Jun																	
Sales of commercial vehicles under 3.5 ton.	20.9	11.9	7.4	Sep	27.0	15.6	8.8	15.0	5.1	28.3	25.6	19.6	12.8	14.6	2.8	6.8	21.3	-0.6	11.7	12.3	
Sales of commercial vehicles over 3.5 ton.	32.0	10.6	31.9	Sep	28.3	35.4	18.2	4.1	34.8	14.7	41.0	44.5	28.8	26.6	11.8	7.1	1.6	46.3	24.9	25.6	
Registrations of commercial vehicles over 3.5 ton.	39.5	24.9	20.3	Sep	32.6	46.4	38.0	13.2	17.9	10.7	57.0	65.3	29.7	63.4	18.0	0.9	26.9	13.2	23.1	25.8	
Foreign trade ^(b)																					
Total exports.	10.5	7.4	-0.7	Jun	6.1	15.1	12.2	2.5	-0.7	2.7	9.5	12.7	17.4	13.7	10.7	6.8	-1.3	1.0	-2.4		
Consumer goods exports	7.9	5.8	-2.2	Jun																	
Equipment goods exports	12.6	13.1	8.0	Jun																	
Intermediate goods exports	12.8	6.8	-6.3	Jun																	
Fuel exports	9.7	-27.8	-0.3	Jun																	
Total imports	13.1	13.1	4.8	Jun	10.8	15.4	16.9	9.4	4.8	9.0	12.6	16.0	14.9	16.7	17.0	10.8	8.2	5.0	4.6		
Consumer goods imports.	11.3	18.1	8.1	Jun																	
Equipment goods imports	14.2	21.3	15.4	Jun																	
Intermediate goods imports	12.8	10.0	-6.4	Jun																	
Fuel imports	15.2	-22.4	-2.1	Jun																	

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

Notes:

(a) Accumulated values up to the last month available.

(b) The rates of change of exports and imports result from comparing definitive versions in 1997, from comparing preliminary declared values for the January-December period in 1998 and from comparing preliminary declared values for the January-June period in 1999.

Table 5.2

INDEBTEDNESS OF THE NON-FINANCIAL PRIVATE SECTOR^(a)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 ^(b)
Private individuals (as a % of disposable income)	19.6	20.9	22.5	27.5	32.2	38.2	45.7	54.4	66.1	79.9
Private individuals (as a % of GDP)	14.8	16.1	17.2	21.1	23.8	27.8	33.0	38.8	46.7	55.9
Non-financial corporations (as a % of GDP) ..	59.1	59.8	61.0	60.9	55.6	54.7	55.0	59.9	65.4	74.9

Notes:

(a) Includes only financing raised from the financial system, and from the stock market in case of corporations. Credits raised from the non-financial private sector (e.g. those resulting from instalment sales or other commercial credit) are not included.

(b) Forecast for December 1999 assuming Private individuals and Non-financial corporations' debt grow respectively 27.3 and 21.6 per cent from December 1998.

poses grew 28.6 per cent (table 5.1). The level of indebtedness of households, calculated as a percentage of disposable income, is estimated to reach close to 80 per cent at the end of the current year, assuming that credit to individuals slows down to around 27 per cent in December (table 5.2).

In the first half-year, according to the estimates of the *Banco de Portugal*, private consumption grew 5.3 per cent in real terms. The forecast for the year as a whole considers a further slowdown in the second half of the year, partly due to the lower growth of households' expenditure on services — namely hotels, restaurants and transports — which in the same period of the previous year had presented a strong growth linked to the Expo-98.



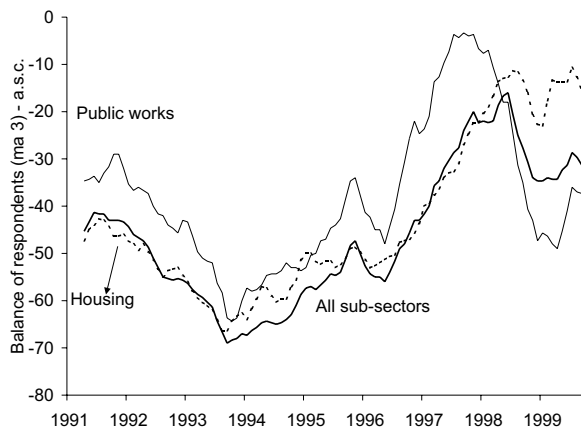
Moreover, in the third quarter of 1999 sales of light passenger vehicles including 4x4 grew 11.8 per cent, which compares with 24.7 per cent in the first half of the year. In the same period, the expenditure on other consumer goods shall have maintained a strong dynamism, according to the latest qualitative indicators (chart 5.3).

According to the forecasts of the *Banco de Portugal* public consumption is expected to grow 2.4 per cent in volume terms in 1999, below the pace recorded in 1998 (3.0 per cent), but exceeding the figure submitted in December 1998 by the *Ministério das Finanças* in the context of the Stability and Growth Programme 1999-2002 (2.0 per cent). This revision is chiefly explained by an increase of the number of civil servants above that expected, and by a stronger real growth of the consumption of goods and services.

Gross Fixed Capital Formation (GFCF) shall exhibit a sharp slowdown in 1999. The real growth projected for this aggregate stands between 4¼ and 5¼ per cent (9.8 per cent in 1998). This slowdown was already observed in the first half of 1999. In this period, according to the estimates of the *Banco de Portugal*, GFCF grew 4.6 per cent in volume terms. The slowdown shall have affected both GFCF in construction and GFCF in equipment.

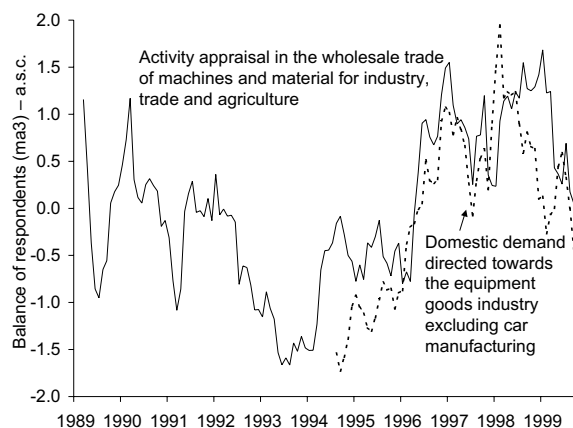
Regarding GFCF in construction, the indicators of consumption of materials suggest that the slowdown recorded in 1998 proceeded in the first half of 1999. In this period, cement sales increased 2.1 per cent (4.7 per cent in 1998 as a whole). The slowdown shall have continued resulting from the

Chart 5.4
ORDER BOOK OF THE CONSTRUCTION AND
PUBLIC WORKS SECTOR



Source: INE, "Construction and Public Works Monthly Survey".

Chart 5.5
INVESTMENT IN MACHINERY: QUALITATIVE
INDICATORS

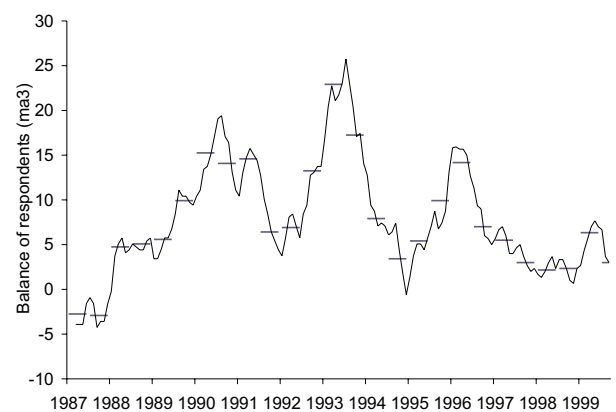


Source: INE, "Monthly Manufacturing Industry Survey" and "Monthly Trade Survey".

behaviour of the public works sub-sector, since activity in the housing building sub-sector continued to stand at high levels. Investment in this segment shall have continued to be driven by the lagged effects of interest rate reductions and by the high confidence levels shown by households.

The qualitative data available point towards some recovery of investment in construction in the second half of the year. According to the Construction and Public Works Monthly Survey, the order book appraisal in the sector improved from the first half of the year, especially in the public works

Chart 5.6
STOCK OF FINISHED GOODS IN
MANUFACTURING INDUSTRY



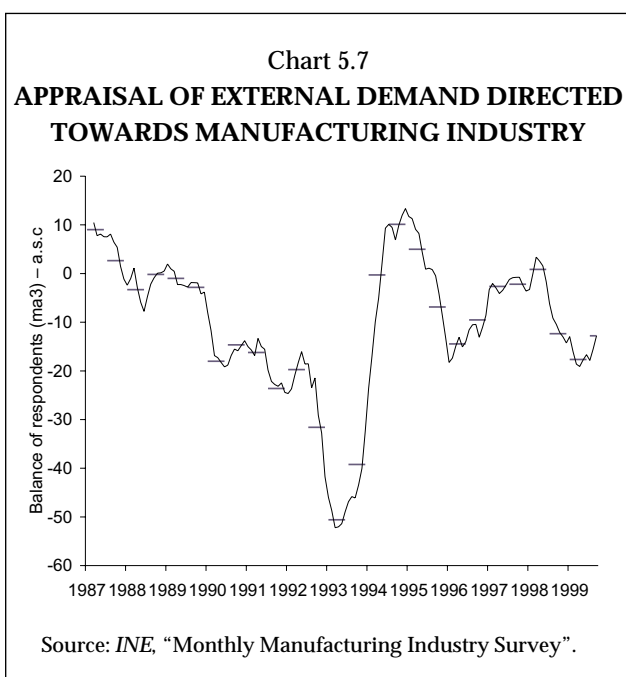
Source: INE, "Monthly Manufacturing Industry Survey".

sub-sector (chart 5.4). Meanwhile, bank credit to individuals for housing purchasing continued to exhibit very high growth rates up to August, despite slowing down (table 5.1). Also worth noting that cement sales grew 5.6 per cent in the third quarter of 1999.

The slowdown of GFCF in equipment in the first half of 1999 was linked to the reduction of confidence levels in industry in this period. This period also saw a reduction in the rate of productive capacity utilisation in manufacturing (table 5.3). The qualitative indicators suggest that the weak dynamism of GFCF in machinery in the first half of 1999 shall proceed in the second half (chart 5.5). In turn, investment in transport material also slowed down in the first half of the year, but maintaining a significant growth, measuring by the behaviour of sales of commercial vehicles under 3.5 ton and by registrations of commercial vehicles over 3.5 ton (table 5.1).

In what concerns to the change in inventories, the first half of the year recorded a stock building — especially in manufacturing industry — due to the more unfavourable behaviour of external demand than expected by industrials. However, according to the available qualitative data for the second half of the year, this stock building process has already started to be corrected (chart 5.6).

Exports of goods and services shall grow between $3\frac{1}{4}$ and $4\frac{1}{4}$ per cent (9.1 per cent in 1998). This slowdown reflects, to its greatest extent, the



deceleration of external demand directed towards Portuguese merchandise exports, resulting from the behaviour of economic activity in the euro area (see Section 2. International Background).

The forecast interval for the growth of exports of goods and services in 1999 was revised slightly downwards. This revision is linked to the behaviour of merchandise exports in the first half of the year, which showed a weaker momentum than expected. It should be noted that, in this period, economic growth in the euro area — which concentrates about two thirds of exchanges of Portugal with abroad — stood also below that foreseen by most international institutions at the time the March *Economic Bulletin* forecasts were built. According to the estimates of the *Banco de Portugal*, merchandise exports slowed down sharply in the first half of the year, growing 4.1 per cent in real terms⁽⁹⁾.

However, it should be noted that the indications of an acceleration of external demand directed towards Portuguese producers in recent months have strengthened. The accomplishment of economic activity acceleration in the euro area

(9) The estimated growth of merchandise exports is based on the foreign trade data disclosed by the INE. However, the growth rates of these flows have been revised considerably in 1999 (see the June 1999 *Economic Bulletin*). The estimate attempts to anticipate revisions for the most recent months, from the analysis of the pattern of revision of data referring to the first months in the year.

in the second half of the year appears to be confirmed. Moreover, according to manufacturing industrials' appraisal, their external order book is showing signs of recovery since later in the first half of 1999, after having continued slowing down earlier in the year (chart 5.7). Therefore, the forecast for the year as a whole assumes that the rate of growth of merchandise exports shall recover in the second half of 1999.

Alongside the slowdown of merchandise sales abroad, exports of services are expected to grow clearly below 1998, due in part to the exceptional increase of tourism receipts linked to the Expo-98. In the first half of 1999, according to the estimates of the *Banco de Portugal*, exports of services decelerated sharply, growing 0.3 per cent in real terms.

Imports of goods and services shall slowdown in annual average terms in 1999, reflecting the smaller buoyancy expected for overall demand. According to the forecasts of the *Banco de Portugal*, the real growth of imports of goods and services shall reach between 7 and 8 per cent (14.8 per cent in 1998). In the first half-year, imports of goods and services grew 8.1 per cent in volume terms. Alongside the slowdown of merchandises purchased abroad⁽¹⁰⁾, imports of services fell sharply in this period. Indeed, imports of technical-professional services — which had recorded a quite significant growth in the previous year, due to the Expo-98 — fell from the year ago level.

In this context, the contribution of net external demand to output growth remained negative in 1999, though smaller in absolute terms than in the previous year.

An analysis of the behaviour of economic activity broken-down by sectors of activity reveals that the slowdown recorded in the first half of 1999 was especially due to the behaviour of industry. The services sector continued to grow strongly in this period, translated into strong net job creation. As regards output in agriculture, forestry and fisheries, a recovery was seen in the first half of 1999, following to the sharp fall recorded in the previous year as a whole.

In the first half of 1999, production in manufacturing industry presented a weak dynamism,

(10) The procedure of estimation of merchandise imports nominal growth in the first half of the year was similar to that for exports (see footnote 9).

Table 5.3
SUPPLY INDICATORS

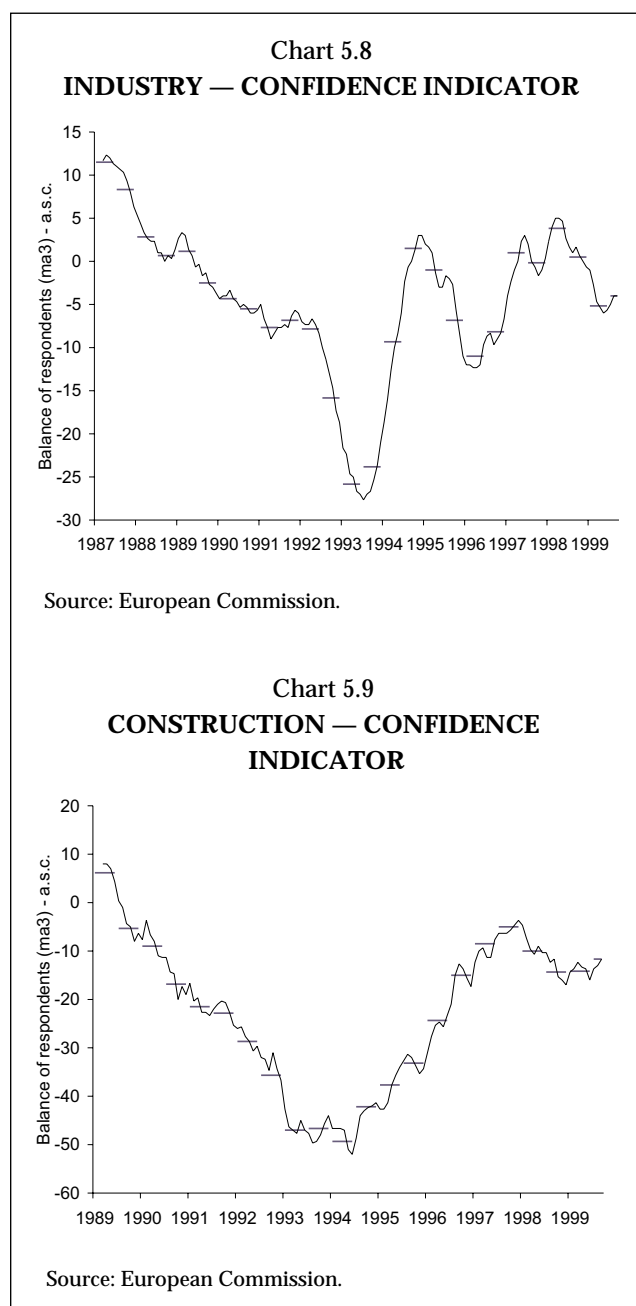
		1997	1998	1999 ^(a)	Last month															
						1997		1998		1999	1997				1998				1999	
						1st half	2nd half	1st half	2nd half	1st half	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q
Industry																				
Industrial production indices (1995 = 100)																				
Manufacturing industry.....	yr-n-yr	2.9	3.7	0.0	Jul	3.2	2.6	4.2	3.2	-0.1	3.7	2.7	1.5	3.6	4.4	3.9	3.9	2.6	0.8	-1.0
Consumer goods industry.....	yr-n-yr	-0.6	5.6	-2.5	Jul	0.7	-2.0	5.2	6.0	-2.9	2.0	-0.5	-2.0	-1.9	4.1	6.2	6.9	5.0	-1.2	-4.5
Investment goods industry.....	yr-n-yr	0.7	5.5	-3.0	Jul	-4.2	6.5	8.0	2.8	-2.4	-5.2	-3.3	-1.7	13.9	8.1	7.9	10.2	-2.9	2.5	-6.8
Intermediate goods industry.....	yr-n-yr	4.4	5.8	6.8	Jul	3.5	5.4	6.0	5.7	6.8	3.9	3.2	2.8	7.9	6.0	5.9	6.1	5.4	5.6	8.0
Turnover index (1995 = 100)																				
Manufacturing industry.....	yr-n-yr	5.9	6.2	-2.0	Jul	4.0	7.7	8.9	3.5	-1.4	1.2	6.7	7.2	8.2	11.1	6.9	5.4	1.8	-1.3	-1.5
Consumer goods industry.....	yr-n-yr	2.8	6.0	-2.0	Jul	1.0	4.5	8.5	3.6	-1.4	-1.5	3.6	3.9	5.2	10.6	6.6	5.7	1.5	-1.8	-1.1
Investment goods industry.....	yr-n-yr	8.1	12.2	-2.8	Jul	1.3	15.1	17.7	7.2	-1.3	-2.3	4.6	9.1	20.3	19.4	16.3	16.6	-0.1	5.2	-6.9
Intermediate goods industry.....	yr-n-yr	6.6	4.8	0.1	Jul	6.7	6.5	6.5	3.2	0.4	3.2	10.2	6.6	6.5	8.9	4.4	3.0	3.3	-0.7	1.5
Rate of productive capacity utilisation																				
Manufacturing industry.....	%	81	82	81	2 nd Q	80	82	82	82	81	80	80	82	81	83	81	81	82	80	81
Consumer goods industry.....	%	79	80	79	2 nd Q	78	80	79	80	79	77	79	81	78	80	78	80	80	79	78
Investment goods industry, excl. Car manufacturing.....	%	84	87	87	2 nd Q	83	86	88	87	87	84	82	86	85	85	90	89	85	85	89
Intermediate goods industry.....	%	82	83	81	2 nd Q	81	83	84	83	81	80	81	83	82	84	83	82	83	80	82
Construction																				
Rate of productive capacity utilisation.....	%	79	79	75	2 nd Q	80	79	81	77	75	77	82	81	77	82	79	77	76	73	76

Source: *INE*.

Yr-n-yr: year-on-year rate of change

Note:

(a) Accumulated values up to the last month available.



sharpening the slowdown recorded in late 1998. In this period, the Industrial Production Index in the sector recorded a negative change of 0.1 per cent (compared with a 3.7 per cent growth in 1998), while the Turnover Index decreased 1.4 per cent (6.2 per cent increase in 1998, table 5.3). However, industrials' confidence has recorded some improvement in recent months. This behaviour results from a more favourable appraisal of overall demand, and especially of external demand, which shall contribute to an acceleration of merchandise exports in the second half of the year (chart 5.8).

Regarding the construction sector, activity also decelerated in the first half of 1999, which shall have continued to result basically from the behaviour of the public works sub-sector. In the third quarter of the year, the confidence indicator in construction, however, improved from the first half of the year (chart 5.9).

According to the estimates of the *Banco de Portugal*, activity in the services sector continued to grow at a high pace in the first half of 1999. Stress should be laid on the trade sub-sector and the acceleration of activity in the communications and financial sub-sectors. On the contrary, the hotels, restaurants and transports sub-sectors slowed down, following to particularly high growths recorded in the previous year as a result of the Expo-98.

6. LABOUR MARKET

In the first half of 1999, the behaviour of the main indicators of the labour market behaviour continues to translate a strong sensitivity — lagged some quarters — to the cyclical changes of economic activity. In this period, total employment, wage earners and the participation rate increased, while unemployment decreased. The behaviour of economic activity allowed for a further reduction of the unemployment rate in the first half of 1999. According to the Employment Survey of the *INE*, the unemployment rate was 4.6 per cent in the first half of the year, 0.6 p.p. less than one year before.

In the first half of 1999, the number of unemployed individuals decreased 10.7 per cent in year-on-year terms. A reduction was recorded in the number of new job seekers (-7.4 per cent), but especially in the number of first job seekers (-25.4 per cent).

The overall participation rate — which usually exhibits a pro-cyclical profile — rose 0.5 p.p. in the first half of 1999 in year-on-year terms, to 50.6 per cent. Considering only individuals aged between 15 and 64 years old, the participation rate rose from 70.2 to 70.7 per cent in the same period.

According to the estimates built from the Employment Survey, total employment grew 1.9 per cent in year-on-year terms in the first half of 1999. This increase was due to the growth in the number

of wage earners (3.6 per cent), since self employment fell 2.6 per cent.

The breakdown of the change in employment by job situation and kind of labour contract shows that permanently contracted wage-earners shall have increased 1.9 per cent from the first half of 1998. In the same period, the number of fixed-term contracted employees increased 10.6 per cent.

In the first half of 1999, the breakdown of the change in employment by activity sector reveals a strong pace of job creation in services and construction, and a fall in employment in manufacturing industry and agriculture, forestry and fisheries. In this period, stress should be laid on the contribution given by the services sector to the change in total employment — especially by the wholesale and retail trade sectors. Indeed, employment in the trade sector grew 4.6 per cent in the first half of the year. In the same period, employment in manufacturing industry decreased 1.4 per cent.

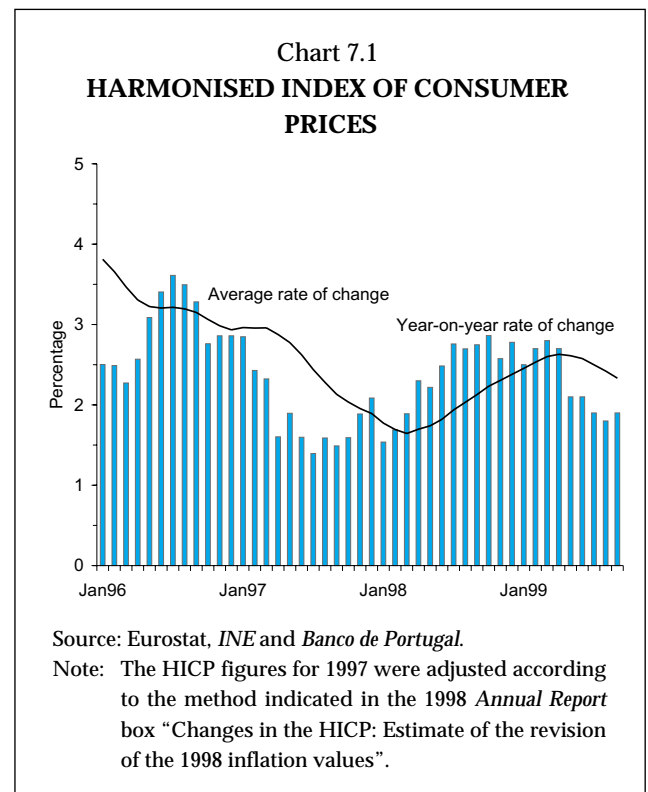
For the year as a whole, according to the forecasts of the *Banco de Portugal* the unemployment rate shall stand at 4.6 per cent (5.0 per cent in 1998), while total employment is expected to grow 1.5 per cent (2.3 per cent in 1998).

According to the collective agreements registered up to September 1999, average wages implicit in collective agreements for the private sector, covering 1,151.7 thousand workers (1,256.1 thousand in the period January-September 1998) recorded a nominal growth of 3.4 per cent in relation to the previous year (3.1 per cent growth in 1998). Taking into account the buoyancy of employment and the reduction of the unemployment rate, the growth of nominal wages effectively paid are estimated to have continued exceeding that of contracted wages.

According to the estimates of the *Banco de Portugal*, the nominal rate of change of compensations per employee in the private sector shall reach 5.4 per cent in 1999, compared with 5.1 per cent in the previous year.

7. INFLATION

The inflation rate in Portugal, measured by the year-on-year change of the Harmonised Index of Consumer Prices (HICP), continued to decrease in the third quarter, from 2.3 per cent in the second



quarter to 1.9 per cent in July, 1.8 per cent in August and 1.9 per cent in September (chart 7.1). The average rate of change stood at 2.4 per cent in September, which compares with 2.5 per cent at the end of the second quarter⁽¹¹⁾. The recent behaviour of prices allows to foresee the continuation of the reduction of the average inflation rate up to the end of 1999.

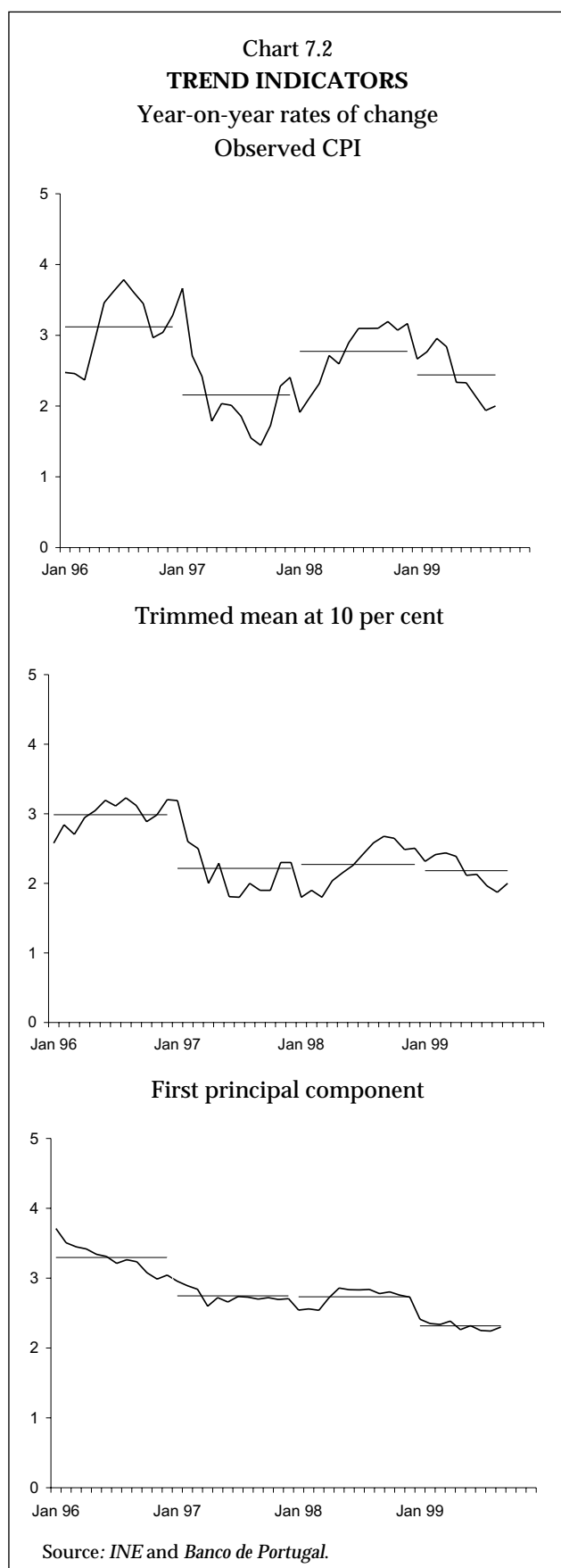
The rise in the inflation rate in 1998 was strongly influenced by transitory factors. In this context, the arithmetic effects linked to the behaviour of prices in 1998 allowed to foresee a reduction of the inflation rate in 1999 — which, however, was slower than initially expected, and became more evident only from the second quarter onwards. Indeed, the reduction of the inflation rate recorded from May onwards was closely related with the slowdown of the prices of foodstuff goods and corresponds chiefly to the correction of the abnormally high price increase exhibited by some non-processed foodstuff goods occurred in 1998. In addition, the behaviour of the inflation

(11) These estimates for the average rate of change are not adjusted for the effects of changes in coverage and methodology introduced in the HICP from January 1998 onwards. For an estimate of these effects on the 1998 inflation rate see the box in the 1998 *Annual Report* "Changes in the HICP: Estimate of the revision of the 1998 inflation values".

rate in 1999 is being favourably influenced by the correction of other temporary factors, namely the slowdown of the prices of a range of services which were affected by the Expo-98 and the dissipation of the effects of the escudo depreciation observed in 1998, linked to the convergence of the escudo exchange rates vis-à-vis its central parities in the period of transition to the euro.

The behaviour of the trend inflation indicators confirms that the reduction of the inflation rate since May was partly explained by the correction of the anomalous behaviour of some prices in 1998. Indeed, up to May 1999, the trend indicator of the year-on-year inflation continued to stand below the year-on-year growth of the Consumer Price Index (CPI), showing afterwards a smoother slowdown than the CPI. Between April and September, the year-on-year rate of change of the CPI decreased from 2.8 to 2.0 per cent, while the trimmed mean at 10 per cent decreased from 2.4 to 2.0 per cent and the first principal component remained unchanged at 2.3 per cent (chart 7.2).

As regards the behaviour of the external determinants of inflation, in the first months of 1999 the imports deflator maintained the markedly downward intra-annual path observed over the course of 1999. According to the *Direcção-Geral das Relações Económicas Internacionais*, prices in escudos of merchandise imports fell 6.3 per cent in year-on-year terms in the first quarter of 1999, which compares with a 4.3 per cent reduction in the fourth quarter of 1998. In the same period, import prices of energy fell sharply, due to the lagged effects of the fall in oil prices in 1998 (23.9 per cent, against 35.8 per cent in the last quarter of 1998), though its direct impact on consumers was annulled due to the maintenance of the smoothing policy of consumer paid oil prices. Excluding oil products, import prices also recorded a significant slowdown (from -1.8 to -5.0 per cent), influenced by the behaviour of the import prices of intermediate goods (from -5.9 to -10.5 per cent). The changes in the prices in escudos of consumer good imports reached -1.7 per cent in the first quarter of 1999, against a 0.5 per cent growth in the last quarter of 1998. However, due to the effects of the US dollar exchange rate appreciation in 1999 and the acceleration of international prices in US dollars — especially oil prices and prices of other commodities —



import prices in escudos are expected to inflect, accelerating throughout 1999.

However, in annual average terms the estimated contribution of the imports deflator to the growth of consumer prices is not expected to exceed that recorded in 1998. Indeed, the acceleration of import prices in 1999 will be mainly explained by the behaviour of energy prices — whose effect on the CPI has continued to be neutralised — and by the behaviour of import prices of intermediate goods, which do not influence consumer prices directly. Regarding the remaining import prices, the expected acceleration throughout 1999 will be much more sluggish, and its effects on inflation are expected to be attenuated, not only due to the downward path these prices followed up to early 1999, but also due to the fact that fluctuations of import prices transmit to consumer prices with a lag. Therefore, the effects on inflation due to the acceleration of import prices over the course of 1999 shall occur especially in 2000.

In what concerns the domestic determinants of inflation, the existence of some tension in the labour market — translated into a high rate of growth of wages (see Section 6. Labour Market) — continues to provide a factor of pressure on prices, namely by preventing a sharper slowdown of prices in the services sector. These effects are being strengthened by the growth of final demand — namely private consumption — although the high level of openness of the Portuguese economy should determine a small influence of the pace of growth of private consumption on inflation (instead, this influence takes principally the form of a worsening of the trade balance, as in 1998). However, it should be noted that the effects of these domestic conditions on the growth of service prices will have been significantly attenuated by the reduction of some prices, as an outcome of a gradual deregulation process. For example, in the telecommunication sector, prices have come to decrease over more than one year. Meanwhile, electricity prices were also cut significantly in early 1999.

By HICP components, foodstuff good prices recorded a particularly sharp slowdown, due to the reduction of the growth of prices of some non-processed foodstuff goods⁽¹²⁾, which had grown quite strongly since early 1998 (chart 7.3).

(12) This component includes the following items: meat, fish (fresh and dried), fruit, vegetables, potatoes and other tubers.

Indeed, the year-on-year rate of change of the prices of these goods decreased from 3.6 per cent in the second quarter to 1.6 per cent in the third quarter. Prices of processed foodstuff goods recorded a smoother slowdown in year-on-year terms from the second to the third quarter of 1999 (from 3.3 to 2.8 per cent).

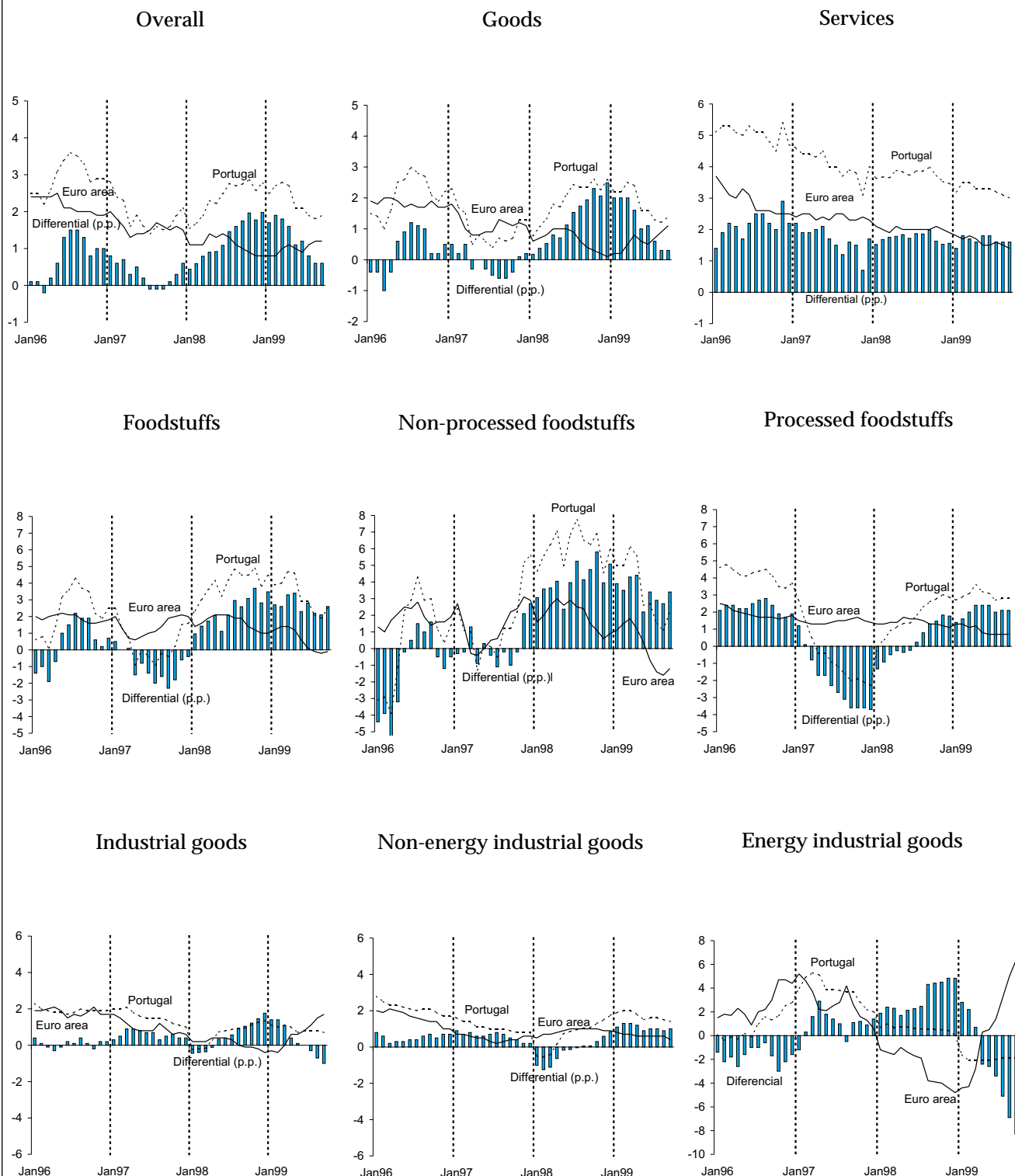
Regarding industrial goods, in the third quarter both the year-on-year change of non-energy prices and the pace of reduction of energy prices remained virtually unchanged around 1.5 and -2.0 per cent, respectively. The fall in energy prices followed the trend recorded since early 1999, which shall be maintained up to late 1999 due to the effect of the reduction in the electricity tariffs in January 1999 and the neutralisation of the direct effects of oil price fluctuations on the fuel prices paid by consumers.

Prices of services increased by 3.1 per cent in year-on-year terms in the third quarter of 1999, 0.2 p.p. less than in the previous quarter. The recent slowdown of service prices resulted mainly from the contribution of the items “accommodation services”, “restaurants and cafés”, and “package holidays” — affected in 1998 by the Expo-98. The increasing liberalisation process some sectors are undergoing — namely the telecommunication sector — have also allowed for a favourable impact on the prices of these services.

In the third quarter of 1999, while inflation in Portugal decreased, the euro area as a whole recorded an increase, leading to the further narrowing of the inflation differential — from 2.0 p.p. in December 1998 to 0.7 p.p. in September 1999 (chart 7.3). Broken-down by components, the greatest contribution to the reduction of the inflation differential was rendered by the behaviour of energy prices (1.2 p.p.)⁽¹³⁾. As referred above, the narrowing of the growth differential of energy prices (from 4.8 per cent in December 1998 to -8.3 per cent in September) results not only from the fact that administrative control of fuel prices in Portugal neutralised the direct effects on consumers resulting from changes in oil prices in the international markets — contrary to what occurs in the euro area — but also from the above mentioned

(13) It should be noted that foodstuff goods, non-energy industrial goods and services contributed respectively -0.2, + 0.1 and 0.0 p.p. to the change in the differential.

Chart 7.3
HARMONISED INDEX OF CONSUMER PRICES - OVERALL INDEX AND AGGREGATES
 Year-on-year rates of change and differentials



Source: Eurostat, INE and Banco de Portugal.

Note: The HICP figures for 1997 were adjusted according to the method indicated in the 1998 Annual Report box "Changes in the HICP: Estimate of the revision of the 1998 inflation values".

reductions of electricity tariffs carried out in Portugal in early 1999.

The reduction of the inflation differential of foodstuff good prices (from 2.8 per cent in June to 2.6 per cent in September) was smaller than that of energy prices, since the former also slowed down in the euro area from the second quarter onwards. The growth differential of service prices between the end of the second quarter and end of the third quarter also narrowed by 0.2 p.p., to 1.6 p.p.

8. BALANCE OF PAYMENTS

For 1999 as a whole the current plus capital account deficit is expected to range between 5.5 and 6.5 per cent, which compares with 4.3 per cent in 1998. As in the previous year, this deficit increase reflects to a great extent the behaviour of the trade balance. Although a slowdown of real imports of goods is expected for 1999, these shall continue to grow above exports, in line with the growth differential between domestic demand in Portugal and its leading trade partners. The dynamics of the deficit in 1998 and 1999 is also explained, though to a lesser extent, by the behaviour of the terms of trade. Contrary to what occurred in 1998, where a gain in terms of trade of about 2.0 per cent rendered a contribution of about 0.5 p.p. to the reduction of the deficit, in 1999 terms of trade shall record a slight deterioration, contributing by around 0.1 p.p. to the worsening of the deficit.

In the first half of 1999, the Current Plus Capital Account deficit increased 0.6 p.p. of GDP from the first half of 1998, reaching 6.4 per cent of GDP (table 8.1). This result was due to the worsening of the current account, which recorded a deficit amounting to 8.2 per cent of GDP in the first half of 1999 (7.4 per cent of GDP in the same period of the previous year). Meanwhile, the capital account surplus reached 1.8 per cent of GDP, 0.2 p.p. of GDP above the level recorded one year before. The increase in the borrowing requirements of the Portuguese economy vis-à-vis the rest of the world reflected the widening of the differential between investment and domestic saving, measured as a percentage of GDP. The behaviour of the private sector, which again exhibited increasing borrowing requirements as a percentage of GDP, continued to determine this behaviour of the borrowing requirements of the economy as a whole.

In the first half of the year, as in 1998, the widening of the Current Account deficit resulted chiefly from the greater deficit in merchandise trade⁽¹⁴⁾. This deficit rose 0.9 p.p. of GDP in relation to the first half of 1998, from 11.1 per cent to 12.0 per cent of GDP. The widening of the trade deficit in this period reflected the distinct pace of growth of real merchandise exports and imports, since a gain in terms of trade was again recorded. Merchandise exports recorded a further slowdown in the first six months of the year, in line with the behaviour of net external demand directed towards Portuguese producers. The slowdown of domestic demand in the first half of 1999 also led to a slowdown of imports of goods, which nevertheless continued to grow more than sales abroad. According to the estimates of the *Banco de Portugal* based on very preliminary data, exports prices shall have decreased 2.8 per cent, while import prices are expected to have decreased 4.4 per cent in the first half of the year.

In the first six months of 1999, the Services surplus reached 1.1 per cent of GDP, 0.4 p.p. of GDP more than one year before. The travel surplus improved slightly in the first half of 1999. Nominal tourism receipts grew 7.3 per cent in year-on-year terms, while expenditure on travel and tourism by residents abroad rose 2.1 per cent. Meanwhile, the remaining services as a whole exhibited a smaller deficit, especially at the level of technical-professional services, the imports of which had increased substantially in the first half of 1998 due to the construction of the Expo-98.

The Income Account deficit decreased from 0.9 per cent of GDP in the first half of 1998 to 0.8 per cent of GDP in the first half of 1999. Income from portfolio investments received from abroad exceeded those paid to abroad, contrary to what occurred in the first half of 1998. Regarding income from deposits, the deficit increased in line with the increasing resource of resident monetary financial

(14) It should be noted that merchandise exports and imports used in the calculation of this trade balance are estimates of the *Banco de Portugal*, which include adjustments to the foreign trade data for the first half-year disclosed by the *Instituto Nacional de Estatística (INE)* intended to anticipate revisions. See footnotes 9 and 10. Therefore, the goods balance here considered differs from that disclosed in the Monthly Indicators and in the *Statistical Bulletin*, where foreign trade data are presented as disclosed by the *INE*.

Table 8.1

BALANCE OF PAYMENTS — Transactions Basis

	January-December 1998 Balance		January-June 1998			January-June 1999			Balance as a % of GDP	
		as a % of GDP	Debit	Credit	Balance	Debit	Credit	Balance	Jan-Jun 1998	Jan-Jun 1999
Current Account	-6462.2	-6.6	23761.7	20235.8	-3525.9	24404.4	20263.2	-4141.2	-7.4	-8.2
Merchandise	-10975.2	-11.3	17195.1	11919.8	-5275.3	18137.3	12063.4	-6073.9	-11.1	-12.0
Services	1417.6	1.5	3053.2	3404.1	351.0	2888.9	3446.6	557.7	0.7	1.1
Travel	2611.7	2.7	958.6	1955.2	996.6	979.0	2098.4	1119.4	2.1	2.2
Other services	-1194.2	-1.2	2094.6	1448.9	-645.7	1909.9	1348.2	-561.7	-1.4	-1.1
Income	-526.8	-0.5	2558.9	2125.5	-433.4	2495.6	2093.8	-401.8	-0.9	-0.8
Current transfers	3622.2	3.7	954.6	2786.4	1831.8	882.6	2659.3	1776.8	3.9	3.5
Official transfers	763.1	0.8	694.1	1189.1	495.0	595.3	1041.8	446.5	1.0	0.9
Private transfers	2859.1	2.9	260.5	1597.3	1336.8	287.3	1617.5	1330.3	2.8	2.6
Capital Account	2289.1	2.4	81.7	858.1	776.3	106.4	1000.0	893.6	1.6	1.8
Transfers	2275.7	2.3	70.5	838.7	768.1	91.0	990.7	899.7	1.6	1.8
Official transfers	2287.5	2.4	7.1	765.6	758.5	4.9	935.8	930.9	1.6	1.8
Private transfers and acquisition/disposal of non-produced non-financial assets	-11.8	0.0	63.4	73.1	9.6	86.2	54.9	-31.3	0.0	-0.1
Financial Account	5475.4	5.6	153531.2	157817.9	4286.7	358053.6	363088.4	5034.9	9.1	9.9
Direct investment	-1024.8	-1.1	4904.1	4219.9	-684.3	7946.1	7922.5	-23.7	-1.4	0.0
Portuguese investment abroad	-2605.4	-2.7	1474.4	297.5	-1176.8	2740.5	2914.5	174.1	-2.5	0.3
Foreign investment in Portugal	1580.6	1.6	3429.8	3922.3	492.6	5205.7	5007.9	-197.8	1.0	-0.4
Portfolio investment	136.6	0.1	78144.0	76339.2	-1804.8	94226.5	94828.5	602.1	-3.8	1.2
Assets	-5481.6	-5.6	51433.5	47740.2	-3693.3	57974.5	54909.0	-3065.4	-7.8	-6.0
Liabilities	5618.2	5.8	26710.5	28598.9	1888.5	36252.0	39919.5	3667.5	4.0	7.2
Other investment	6741.3	6.9	69240.4	76039.5	6799.1	237298.3	241838.6	4540.4	14.4	8.9
Assets	-5270.7	-5.4	42622.1	43187.7	565.6	76971.8	77706.5	734.6	1.2	1.4
Liabilities	12012.0	12.3	26618.3	32851.7	6233.5	160326.4	164132.2	3805.7	13.2	7.5
Financial derivatives	100.7	0.1	281.0	333.4	52.4	608.1	645.3	37.2	0.1	0.1
Reserve assets	-478.5	-0.5	961.7	886.0	-75.7	17974.6	17853.5	-121.1	-0.2	-0.2
Errors and omissions	-1302.3	-1.3			-1537.1			-1787.3	-3.2	-3.5
<i>Pour mémoire:</i>										
Current plus Capital Account	-4173.1	-4.3	23843.5	21093.9	-2749.6	24510.8	21263.2	-3247.5	-5.8	-6.4

institutions to external financing sources, namely to meet the borrowing requirements of the private sector.

In the first half of 1999, the Current Transfers surplus decreased to 3.5 per cent of GDP (3.9 per cent of GDP one year before). This reduction resulted not only from the behaviour of current official transfers — namely the lower receipts of the European Social Fund — but also to the maintenance of the emigrants' remittances surplus at virtually the same level of the first half of 1998 (2.6

per cent of GDP, compared with 2.7 per cent of GDP one year before).

In the first six months of 1999, the Capital Account surplus rose from 1.6 to 1.8 per cent of GDP, reflecting an increase of official capital transfers received by Portugal in this period, especially those received in the framework of EAGFF — Guidance.

In the first half of 1999, the Financial Account recorded a capital inflow amounting to 9.9 per cent of GDP, against 9.1 per cent of GDP in the

Table 8.2

BEHAVIOUR OF THE PORTUGUESE FINANCIAL ACCOUNT IN THE FIRST HALF OF 1998 AND 1999^(a)

As a percentage of GDP

	January-June 1998			January-June 1999		
	Change in liabilities	Change in assets	Net change	Change in liabilities	Change in assets	Net change
Financial account	17.6	-8.5	9.1	13.1	-3.2	9.9
Direct investment	1.0	-2.5	-1.4	-0.4	0.3	0.0
Portfolio investment	4.0	-7.8	-3.8	7.2	-6.0	1.2
Other investment	13.2	1.2	14.4	7.5	1.4	8.9
Financial derivatives	-0.6	0.7	0.1	-1.1	1.3	0.1
Reserve assets	-	-0.2	-0.2	-	-0.2	-0.2
By resident institutional sector:						
General Government	1.6	0.0	1.6	8.1	0.0	8.0
Portfolio investment	1.8	0.0	1.8	8.1	0.0	8.1
Other investment	-0.2	0.0	-0.1	-0.1	0.0	-0.1
Monetary financial institutions	12.1	-0.6	11.5	3.1	4.9	8.0
Direct investment	0.1	-0.5	-0.4	-1.4	-0.1	-1.5
Portfolio investment	1.0	-3.3	-2.3	0.2	-2.2	-2.1
Other investment	11.5	2.6	14.1	5.5	6.0	11.5
Financial derivatives	-0.6	0.7	0.1	-1.1	1.3	0.1
Non-monetary financial institutions	0.3	-4.2	-3.9	-0.3	-3.8	-4.1
Direct investment	0.1	-0.1	0.0	-0.1	-0.1	-0.2
Portfolio investment	0.4	-4.4	-4.0	-0.1	-3.7	-3.9
Other investment	-0.1	0.3	0.2	0.0	0.0	0.0
Non-financial corporations and private individuals	2.5	-3.4	-0.9	-1.4	-2.4	-3.8
Direct investment	0.8	-1.9	-1.1	1.2	0.5	1.7
Portfolio investment	0.8	-0.1	0.7	-1.0	-0.5	-1.5
Other investment	0.9	-1.5	-0.6	-1.6	-2.4	-4.0
Monetary authorities	1.1	-0.3	0.7	3.7	-1.9	1.7
Portfolio investment	-	-	-	-	0.4	0.4
Reserve assets	-	-0.2	-0.2	-	-0.2	-0.2
Other investment	1.1	-0.2	0.9	3.7	-2.1	1.5

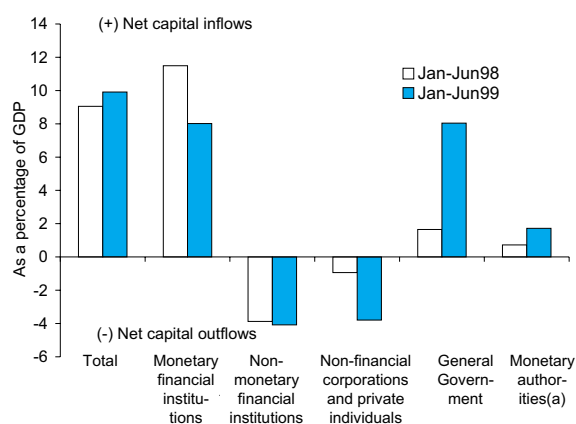
Note: A (+) sign indicates an increase of foreign liabilities or a reduction of foreign assets, i.e. a capital inflow. A (-) sign indicates a reduction of foreign liabilities or an increase of foreign assets, i.e. a capital outflow.

same period of 1998. In the first half of the year, the increase of the borrowing requirements of the Portuguese economy translated into a significant growth of the external indebtedness of General Government (chart 8.1). The monetary financial sector continued to play an important role in the intermediation of external capitals. On the contrary, the Financial Account operations carried out by non-monetary financial institutions (e.g., investment funds, insurance companies and pension funds) and by non-financial corporations and private individuals led to a capital outflow in the first half of 1999.

In the first six months of 1999, foreign direct investment in Portugal and Portuguese direct investment abroad reached almost identical amounts (disinvestments below 0.5 per cent of GDP in both cases). Therefore, the balance resulting from these operations showed little significance, as opposed to that recorded in the first half of 1998 — where Portuguese direct investment abroad exceeded by far foreign investment in Portugal.

In the first half of the year, the Portuguese economy recorded a net inflow of capital due to portfolio investment operations amounting to 1.2 per cent of GDP (against a net outflow of 3.8 per

Chart 8.1
FINANCIAL ACCOUNT
Balances



Note:

(a) Includes international payments carried out by resident monetary financial institutions through the TARGET system.

cent of GDP in the first half of 1998). This capital inflow resulted mainly, from the significant growth of the investment of non-residents in Portuguese securities (from 4.0 per cent to 7.2 per cent of GDP). More specifically, investments in public debt bonds issued by the Portuguese State increased from 2.3 to 8.1 per cent of GDP in net terms. On the contrary, as regards securities representing the equity of resident companies, a net disinvestment was recorded in the first half of 1999. In turn, portfolio investment of the resident sectors abroad decreased from 7.8 per cent to 6.0 per cent of GDP in the first half of 1999. Residents continued to invest in bonds and other long-term debt securities, though less than in the first half of 1998 (3.1 and 6.8 per cent of GDP, respectively). On the contrary, portfolio investment in equity securities rose significantly in the first half of this year, reaching 2.5 per cent of GDP (0.6 per cent of GDP in the first half of 1998). Portuguese portfolio investment abroad continued to be made chiefly by non-monetary financial institutions, especially investment funds.

Loans and deposits operations with abroad included in “Other Investment” led to a net capital inflow of 8.9 per cent of GDP, against 14.4 per cent of GDP in the first half of 1998. As in the previous year, the bulk of these operations was carried out

by monetary financial institutions, which continued to record an increasing external indebtedness in the first half of this year. The raising of external resources and the reduction of foreign assets — especially short-term — by monetary financial institutions as a whole exhibited a level similar to that recorded in the first half of 1998 (14.5 per cent of GDP, including operations carried out through the TARGET system). “Other Investment” financial operations carried out by monetary financial institutions directly with non-residents amounted to 11.5 per cent of GDP in net terms (14.1 per cent of GDP in the first half of 1998), while the balance of loans and deposits operations carried out through the TARGET system reached 3.0 per cent of GDP. It should also be noted that, in terms of the Balance of Payments, international payments carried out through the TARGET system (which was created in January 1999) were recorded as changes in the foreign assets or liabilities of Monetary Authorities in the Financial Account, under “Other Investment - Loans/Currency and Deposits”⁽¹⁵⁾. As regards operations included under “Other Investment” carried out by non-financial corporations and private individuals (mostly loans and deposits), these resulted in a net capital outflow equivalent to 4.0 per cent of GDP (0.6 per cent of GDP in the first half of 1998). In this period, non-financial corporations and private individuals increased their deposits in non-resident banks and carried out a net reimbursement of loans, mostly short-term ones.

9. CONCLUSION

In recent years — and especially since 1997 — the Portuguese economy has experienced a period of transition to a new regime associated with the participation in the euro area. In the context of expectations of higher future income and of nominal convergence — translated into a substantial reduction of both inflation and interest rates — consumption and investment exhibited strong growth. Budgetary policy contributed to this expansion of domestic demand through the signifi-

(15) See box “Impact of the participation of Portugal in the Economic and Monetary Union on the Balance of Payments Statistics” in the June 1999 *Economic Bulletin*.

cant nominal growth of public consumption, transfers and subsidies to households. The financing of the growth of expenditure gave rise to a significant increase in households and corporations' indebtedness, reflecting above all a greater resource to bank lending.

At the level of the balance of payments, the buoyancy of domestic demand and, more recently the significant slowdown of external demand directed towards the Portuguese economy translated into a substantial widening of the trade deficit, yielding the corresponding worsening of the current plus capital account deficit. The latter deficit widening reflects a greater net borrowing requirement vis-à-vis abroad of Portuguese households and corporations, which have been intermediated by the resident banking system through raising external deposits and loans.

In late 1998 and in 1999, the slowdown of external demand — reflected in the growth of exports of goods and services — contributed to the moderation of GDP growth. Simultaneously, consumption slowed down slightly and investment exhibited a sharper deceleration, though both expenditure items maintained high growth rates, growing clearly more than GDP. Recent indicators seem to confirm the recovery of external demand, though lower than that recorded up to early 1998. The growth of external demand is also clearly insufficient to allow for the adjustment of the trade account, if the current levels of expansion of domestic demand proceed. Therefore, a slowdown of domestic demand is welcome in the near future, so as to adjust the recent structure of output growth, enabling the readjustment of external deficit — lowering the net borrowing requirements of the resident sectors of the economy, especially those of households.

The rise in households and corporations' level of indebtedness, as mentioned above, can be interpreted as the result of the transition between stages of indebtedness associated with distinct economic regimes, which have allowed to fund particularly strong growths of both consumption and investment. Though resulting from a natural process — and, to a great extent, an expected one — the current indebtedness situation has increased households and corporations' vulnerability to less favourable cyclical developments. Indeed, the capacity of meeting the debt service of a

fringe of more highly indebted households may be jeopardised by unfavourable shocks affecting the labour market — rising the unemployment rate — or by significant increases to bank lending interest rates. In this context, it does not seem possible that the expansion of the indebtedness levels in the future reaches the size recorded in recent years, with the risk of unsustainable situations being achieved, implying that the following adjustments of the Portuguese economy are sharper. After reaching new indebtedness stages, domestic demand is now expected to show a healthy slowdown that enables the reduction of external net borrowing requirements, hence leading to a progressive reduction of the external deficit.

The adjustment process can be smoothed through the efficient functioning of prices and wages in the Portuguese economy. More specifically, a strong wage moderation is required in the future, so as to ensure a favourable development of unit labour costs in the Portuguese economy, as occurs in our trade partners. An increase of the competitiveness of the Portuguese economy favours market share gains of Portuguese exports in the international markets where they compete, and helps to contain the markedly upward trend exhibited by the rate of penetration of imports in the domestic market. If wage moderation does not take place, competitiveness is jeopardised, growth shall slow down and unemployment will rise. In other words, the adjustment to unsustainable wage increases shall be made through unemployment increases, not through devaluation-supported price increases.

The empirical evidence available for Portugal points towards a greater real wage flexibility in the face of cyclical conditions of the economy than in most euro area countries. This flexibility has been mirrored in fast and significant reactions of real wages to economic conditions, allowing for an adjustment with limited fluctuations of the employment and unemployment levels. It is crucial that this feature of the Portuguese labour market — observed under high inflation situations — is preserved in the new framework with price stability. In the absence of the exchange rate adjustment mechanism, if wage flexibility does not perform, the re-equilibrium process undergone by the Portuguese economy shall require significantly higher costs in terms of unemployment.

In the current situation, where both exchange rate and monetary policy are guided taking into account the overall economic conditions in the euro area, the process of adjustment of the Portuguese economy also demands an important contribution of budgetary policy. The continuation of the deficit reduction efforts, according to the objectives subscribed by the Portuguese Government in the context of the Stability and Growth Programme, shall render direct corrective effects on the current account and is expected to promote the moderation of domestic demand growth — hence contributing also indirectly to the readjustment of the economy. However, as explained in the box “ The General Government Balance and the Stability and Growth Programme Objectives”, it should be noted that the foreseeable dissipation

of the budgetary consolidation pattern followed in recent years — in a desirable context of more moderate domestic demand growth — shall difficult the accomplishment of the objectives established and will require that further budgetary policy measures are taken, according to the commitment made in the Programme. More specifically, it shall become necessary to change the trend of strong current primary expenditure growth recorded in recent years, or the increase of tax rates. However, the latter alternative shall be weighted in the light of the more competitive context in which the Portuguese economy is found since its participation in the euro area.

Written with the latest information available as on 20 October 1999, except for interest rates (4 November 1999).

**THE GENERAL GOVERNMENT BALANCE AND THE STABILITY AND
GROWTH PROGRAMME OBJECTIVES**

As most EU Member-states, Portugal underwent recently a significant reduction of General Government deficit as a percentage of GDP. Indeed, since 1993 the General Government deficit decreased 4.3 percentage points (p.p.) of GDP, being expected to reach 1.8 per cent in 1999.

Table 1

GENERAL GOVERNMENT REVENUE AND EXPENDITURE: 1993-1999

As a percentage of GDP

	1993	1995	1997 ^E	1998 ^E	1999 ^P
Total revenue	41.8	41.3	44.4	44.2	45.7
Tax revenue	34.7	35.2	37.1	37.4	38.2
Other revenue	7.1	6.1	7.3	6.8	7.5
Total expenditure	47.9	47.0	46.9	46.4	47.5
Primary expenditure	41.7	40.7	42.7	43.0	44.3
of which:					
Staff costs	14.6	14.1	14.6	14.6	14.9
Transfers to households	15.1	15.2	15.9	16.0	16.4
Capital expenditure	4.0	3.7	4.2	4.1	4.3
Debt interest	6.2	6.3	4.3	3.4	3.2
Primary balance	0.1	0.6	1.7	1.2	1.4
Overall balance	-6.1	-5.7	-2.5	-2.1 ^(a)	-1.8

E - estimate; P - projection.

Note:

(a) This figure differs from that of the excessive deficit procedure notification (2.2 per cent) since the GDP estimate used by the *Banco de Portugal* is higher.

The reduction of the deficit resulted from the combination of an increase in public revenue with a sharp reduction of interest expenditure, which overcompensated for the rise in primary expenditure. Indeed, between 1993 and 1999, total General Government revenue grew 3.9 p.p. of GDP (3.5 p.p. of which were due to tax revenue growth), while interest expenditure decreased 3.0 p.p. of GDP. Meanwhile, primary expenditure increased 2.6 p.p. of GDP, partly due to the strong growth of transfers to households (1.3 p.p.).

It appears to be fairly clear-cut that no further significant reductions can be expected for the interest expenditure ratio, and that the maintenance of rates of growth of tax revenue above the nominal rate of growth of the economy is not sustainable without a rise of tax rates. Therefore, the pattern of budgetary consolidation that has been pursued is particularly vulnerable to cyclical developments that are less favourable to generating revenue. If discretionary measures are not taken towards controlling primary expenditure, the budgetary deficit may worsen in the near future. For this to take place, economic growth only needs to record a re-composition, featuring a stronger buoyancy of exports and a slowdown of private consumption (especially affecting the most taxed goods and services). Indeed, such a development would imply a reduction of the rate of growth of indirect tax revenue from its very high levels recorded in the recent past. Obviously, this slowdown shall be sharper if simultaneously the economy slows down.

The Stability and Growth Programme, presented by the Portuguese Government in late 1998, elected as its key objective the reduction of General Government deficit. According to the Programme, the deficit shall stand

at 1.5 and 1.2 per cent of GDP, respectively in 2000 and 2001, to reach a medium-term objective of 0.8 per cent of GDP in 2002. For the above referred reasons, the commitment towards ensuring a 1.5 per cent of GDP deficit in 2000 may be troublesome if no additional policy measures — as foreseen by the Programme⁽¹⁾ — are taken, reversing the high growth rates of current primary expenditure observed in recent years.

(1) *The Stability and Growth Programme foresees that (page 3):*

“In case of an unfavourable behaviour of public finance, national authorities are committed to adopt the effective and necessary measures to immediately correct the referred situation, as to reach the objectives fixed for the overall deficit”.

MAIN DEVELOPMENTS IN FOREIGN EXCHANGE AND DERIVATIVES MARKETS IN THE PERIOD 1995-1998

International Market

- *Between 1995 and 1998, **traditional foreign exchange market** turnover measured in US dollars slowed down from the previous triennium (from 45% to 26%); average daily turnover is estimated to have reached USD 1,500 billion in April 1998. Forwards (outright forwards and foreign exchange swaps) strengthened their leadership position (from 56% to 60%), especially due to the increase in the market share of foreign exchange swaps. Transactions continued to be held chiefly between financial counterparts (82%), while transactions are quite evenly distributed according to counterparts' residence. The US dollar strengthened its relative share as the most traded currency, to 87% of total transactions, alongside the relative share reductions exhibited by the Deutsche mark, the yen and the French franc. The concentration of transactions by region continued to increase with the United Kingdom (32%), the USA (18%), Japan (8%) and Singapore (7%) accounting for around 65% of total turnover in 1998 (63% in 1995).*
- *In April 1998, **total turnover of OTC derivatives** (including traditional foreign exchange derivatives) reached USD 1,300 billion, 44% more than three years before. As regards turnover, foreign exchange derivatives continued to stand clearly above interest rate derivatives, with swaps as the leading kind of instrument in both market segments. Some important developments were seen in the interest rate derivatives segment: the share of interest rate swaps (IRS) rose from 42% to 58%, especially as a counterpart to the reduction in the share of FRA, from 44% to 28%. The US dollar remained as the major currency in OTC derivatives' transactions, although the Deutsche mark became very close to the US dollar's share as regards interest rate derivatives. The Deutsche mark benefited from the role of a proxy to the euro, which together with the convergence trade strategies developed between European currencies shall have induced an increase of the number of interest rate swaps contracted in the Deutsche mark up to mid-1998.*
- *At the end of June 1998, the estimated value of total nominal **amounts outstanding** reached USD 72,000 billion, increasing 52% from end March 1995. Contracts on interest rates kept their leading position in total amounts outstanding, showing a much greater pace of growth than foreign exchange derivatives. The remaining OTC derivatives products (commodity, equity and credit derivatives) continued to hold a small relative share.*

Portuguese market

- *From 1995 to 1998, average daily turnover in the **traditional foreign exchange market** in Portugal grew around 85%, to USD 4.4 billion in April 1998 and USD 6.1 billion in October 1998. The growth of this market was mostly due to the turnover growth of forwards, rising to about 60% of total turnover. The US dollar replaced the escudo as the most important currency (with 70% of all transactions). The share of operations involving the Deutsche mark and the escudo decreased, yielding a reduction of operations between EMS currencies to half*

of its value (from 32% to 15%). Among the non-EU-11 currencies, stress should be laid on the increase of the relative share of Sterling (from 2% in April 1995 to 13% in October 1998). Financial counterparts continued to dominate transactions (around 80% of total transactions). As regards counterparts' residence, the share of non-residents was strengthened in the period, to over 70%.

- In the Portuguese **OTC derivatives market**, the average daily volume traded more than multiplied threefold from April 1995, reflecting mainly the increase of traditional foreign exchange forwards, as well as FRA and IRS. Foreign exchange derivatives turnover grew 156% (to USD 2.6 billion), while turnover in the interest rate derivatives segment more than multiplied fifteenfold from April 1995, to USD 1,000 million. As an outcome, the structure of the Portuguese market became closer to international markets, with over 2/3 of turnover concentrated in foreign exchange derivatives. The growing buoyancy of activity in the derivatives market continued in the second half of 1998, the turnover of foreign exchange and interest rates contracts increasing respectively to USD 3.8 and 1.3 billion in October 1998.
- The notional amounts outstanding of OTC derivatives more than multiplied fourfold between 1995 and 1998, due to the growth of amounts outstanding of interest rate derivatives; the relative share of the latter in total portfolios rose from around 20% to almost 85%.
- According to the preliminary results of the **half-yearly survey carried out by the Banco de Portugal in April 1999**, average daily turnover in OTC market fell to around half the value recorded in April 1998 — to which corresponds a 52% fall in the traditional foreign exchange market, 63% in foreign exchange derivatives and 47% in interest rate derivatives. In the OTC foreign exchange market, the most significant development was the reduction of around 70 per cent of turnover of foreign exchange swaps, chiefly reflecting the replacement of funding in the foreign exchange market by funding directly through the money market. In the OTC interest rate derivatives market, stress should be laid on the 57% fall recorded by turnover of FRA, induced by the elimination of the possibility of arbitrage between the interest rates of the currencies in the euro. Conversely, activity in the IRS segment increased, reflecting the growth of liquidity and depth of this market gained with the introduction of the euro.

A. INTRODUCTION

In 1998, a new triennial survey of activity in the foreign exchange and derivatives markets was carried out, co-ordinated by the Bank of International Settlements (BIS). Once again, the *Banco de Portugal* participated in this initiative, while carrying out the two regular half-yearly surveys (in March/April and in September/October 1998) on activity in the Portuguese market.

The most relevant results of the triennial survey co-ordinated by the BIS in April/June 1998 are presented in the first part; the second part concentrates on the analysis of the Portuguese data provided by the surveys carried out in 1998. Throughout this article, a comparison is drawn over the

main developments in the foreign exchange and derivatives markets in *Portugal* and in the set of countries participating in the BIS survey, both as regards turnover and notional amounts outstanding.

B. TRIENNIAL SURVEY CO-ORDINATED BY THE BIS IN 1998

The 1998 triennial survey focused on transactions carried out in the spot foreign exchange market and on foreign exchange and interest rate derivatives instruments in the over-the-counter (OTC) market and also on the notional amounts

and gross market values outstanding in OTC foreign exchange, interest rate, credit, equity and commodity derivatives markets.

The new survey co-ordinated by the BIS had the participation of the central banks and monetary authorities of a broad set of countries (43 in 1998, against 26 in 1995); the coverage of data regarding the derivatives market underwent some changes, stress being laid on the following:

- i) Exchange traded instruments are no longer surveyed (since the BIS collects these data on a regular basis directly from exchanges), hence covering only operations carried out in the over-the-counter market.
- ii) Regarding amounts outstanding, data on credit derivatives — a segment that has presented significant growth — began to be collected.
- iii) The data report on notional amounts outstanding changed in what concerns the reference date of positions (end June, instead of end March) and the report criterion (on a consolidated basis, in replacement of the report on a book location basis). These changes result from the implementation of a regular survey in the G10 countries covering exclusively data on positions, to be carried out on a half-year basis (in end June and December every year).

Therefore, the changes to the methodology of report of amounts outstanding prevent the full comparability of the 1998 and 1995 surveys data, laying caution on inter-temporal comparisons.

Meanwhile, data comparability as regards transactions is fully ensured, since the respective survey structure remains virtually unchanged since 1992.

In the overall analysis of results in any surveyed market segment, account should be taken of the effects due to exchange rate fluctuations recorded between 1995 and 1998. These render a significant impact on totals due to data conversion to US dollars. Most currencies exhibited a similar behaviour vis-à-vis the US dollar, peaking in 1995 and reaching in 1998 levels close to those recorded in 1992 (the Sterling providing the sole exception).

Table 1

TRANSACTIONS IN TRADITIONAL FOREIGN EXCHANGE MARKETS

Average daily turnover ^(a)

US dollar billion and percentages

	1992	1995	92/95	1998	95/98
			%		%
Total estimated	820	1190	45	1500	26
Spot	400	520	30	600	15
Forwards ^(b)	420	670	60	900	34

Notes:

(a) Adjusted for double-counting due to transactions carried out in the domestic interbank market and between countries participating in the survey; also adjusted to compensate for an eventual under-appraisal of overall data, since in some countries the survey does not cover all financial institutions.

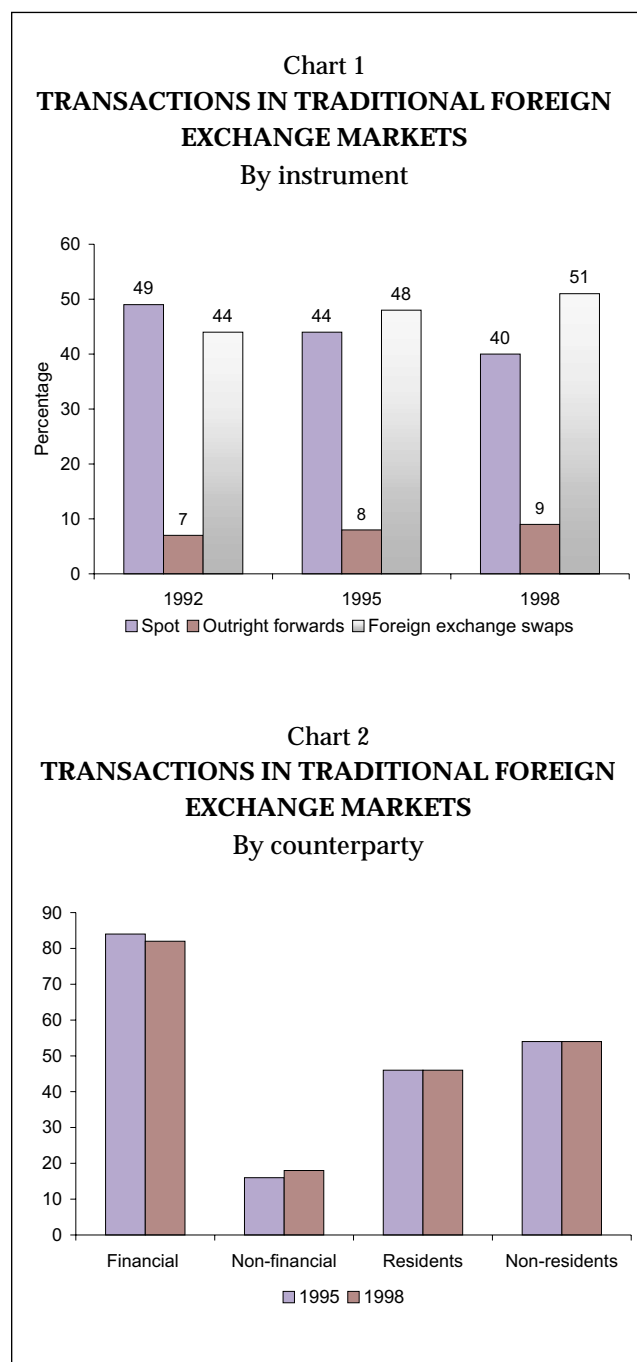
(b) Outright forwards and foreign exchange swaps.

1. Turnover in traditional foreign exchange markets

According to the data disclosed by the BIS, in the period 1995-1998 the pace of turnover growth in the traditional foreign exchange market slowed down from the previous triennium (from 45% to 26%). However, when adjusted for exchange rate variations due to the dollar appreciation in the last three years, turnover growth is stronger: 46%. In current US dollars terms the annual rate of growth of turnover slowed from 13% in the triennium 1992-1995 to around 8% in the triennium 1995-1998. Using April 1998 exchange rates, annual growth rose from 9% in 1992-1995 to 14% in 1995-1998.

Average daily turnover in the traditional foreign exchange market instruments — spot, outright forwards and foreign exchange swaps — was estimated at USD 1,500 billion in April 1998 (*pour mémoire*: in Portugal turnover reached USD 4.4 billion, growing around 85% from April 1995, non-adjusted for exchange rate fluctuations).

In the 43 surveyed countries as a whole, the leadership position of forwards was strengthened in the traditional foreign exchange market (60%, against 56%), a segment where stress continued to be laid on foreign exchange swaps (as in Portugal). Transactions continued to be carried out between



financial counterparts (82%), remaining quite evenly distributed between residents (46%) and non-residents (54%). In the Portuguese case, however, the relative share of transactions held with financial institutions remained around 80%, while operations with non-residents increased from 64% to 72%.

Breakdown by currency

The **US dollar** remained as the most traded currency (87%), benefiting from its predominance in commercial operations, the depth of its market and its role as a vehicle-currency in transactions

Table 2

TRANSACTIONS IN TRADITIONAL FOREIGN EXCHANGE MARKETS

By currency

As a percentage of total ^(a)

	1995	1998
USD	83	87
DEM	37	30
JPY	24	21
GBP	10	11
FRF	8	5
CHF	7	7
ECU and other EMS currencies . . .	15	17
Other currencies	16	22

Note:

(a) In the foreign exchange market, the breakdown by currency sums 200% of total turnover, since both sides of each operation are recorded.

between third currencies. The increase of its relative share (from 83% to 87%) took place alongside the increase in the share of a wide range of other currencies (from 16% to 22%), against the relative share reduction exhibited by the Deutsche mark, the yen and the French franc. Nevertheless, the BIS refers that, at constant exchange rates, the relative share of the US dollar in total turnover falls to 76%, while the share of the yen rises to 29%.

Though keeping the second position (with 30% of turnover), the **Deutsche mark** relative share continued to decrease despite its strengthening role as a proxy to the euro. This development is linked to the progressively smaller volatility of European crosses. The most significant reduction was recorded by the DEM/FRF cross (from 3% to 0.7%). According to the BIS, in most surveyed countries, the relative share of transactions between the Deutsche mark and domestic currencies is lower than 10% (in Portugal its share was 10%).

The **yen** kept ranked third (with 21%), continuing to be more traded against the dollar than against the Deutsche mark. The leading markets of USD/JPY continued to be located in Asia/Pacific and in the USA. According to the BIS, direct transactions of the yen against domestic currencies did not reach relevant relative shares, except in Greece (18%) and Portugal (6%).

The relative share of **Sterling's** turnover increased slightly (to 11%), hence interrupting the

Table 3

TRANSACTIONS IN TRADITIONAL FOREIGN EXCHANGE MARKETS

By currency pairs

As a percentage of total

	1995	1998
USD/DEM.....	22	20
USD/JPY.....	21	19
USD/GBP.....	7	8
USD/CHF.....	5	5
USD/FRF.....	5	4
USD/ECU and other EMS currencies.....	11	13
USD/others.....	12	18
DEM/JPY.....	2	2
DEM/GBP.....	2	2
DEM/CHF.....	2	1
DEM/FRF.....	3	1
DEM/ECU and other EMS currencies.....	4	3
DEM/others.....	1	1
Other pairs.....	3	3

downward trend recorded since 1989. The increase was particularly noticeable as regards USD/GBP and DEM/GBP crosses (which recorded turnover

Table 4

TRANSACTIONS IN TRADITIONAL FOREIGN EXCHANGE MARKETS

By counterparty

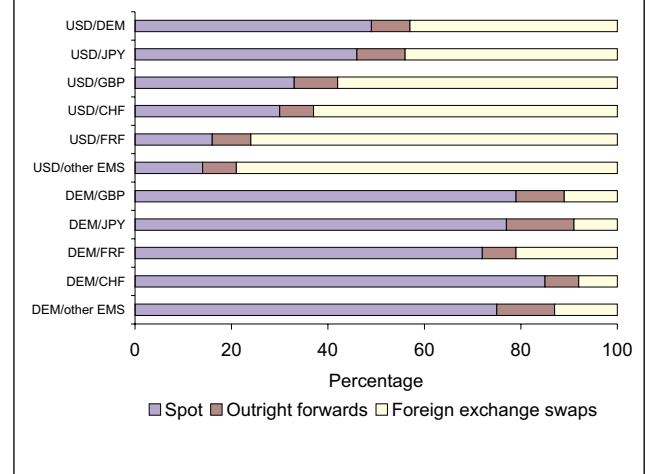
As a percentage of total

	1995	1998
Reporting dealers ^(a)	64	63
Residents.....	26	26
Non-residents.....	38	38
Other financial institutions.....	20	19
Residents.....	10	9
Non-residents.....	10	10
Non-financial customers.....	16	18
Residents.....	11	12
Non-residents.....	5	6
	100	100
	100	100
Total residents.....	46	46
Total non-residents.....	54	54

Note:

(a) Institutions participating in the triennial survey co-ordinated by the BIS.

Chart 3
TRANSACTIONS IN TRADITIONAL FOREIGN EXCHANGE MARKETS
By instrument for each currency pair



growths of 52% and 44%, respectively), reflecting the development of investment in the most important European currency outside the euro area.

The **other EMS currencies** recorded slight share increases, mostly as a result of the growth of transactions involving the US dollar, since those against the Deutsche mark decreased (due, as mentioned above, to the increased stability in the ERM).

Breakdown by types of counterpart

The structure by counterpart remained very stable; 63% of total turnover continued to be traded between reporting dealers, close to 60% of which established with non-residents. Conversely, turnover of operations carried out with non-financial customers was more oriented to residents (67%).

Nevertheless, the BIS stresses that this pattern differs according to market size. Indeed, local counterparts hold a greater relative share in greater markets, while in medium-size markets, the intermediation of operations by the greater centres lowers the importance of domestic transactions; the dispersion of patterns tends to rise among smaller markets. In Portugal around 71% of all operations were carried out with reporting dealers, mostly non-residents (90%). On the contrary, resident entities have a significant presence (83%) in operations carried out with non-financial

customers (which represent 20% of all transactions).

Breakdown by instrument

Spot operations continued to lose importance in the traditional foreign exchange market, to 40% of total transactions (against 44% in 1995 and 49% in 1989). Nonetheless, the market of foreign exchange spot operations continued to provide the preferred segment for currency pairs not including the US dollar — especially in transactions involving the Deutsche mark. This shall have been due to the role played by the Deutsche mark as a vehicle currency in the transactions involving European currencies.

Simultaneously, foreign exchange swaps (“forex swaps”) strengthened their leading position in the traditional segment (51% of total turnover in 1998, against 48% in 1995). Forex swaps continued to account for 85% of forward transactions, being mostly traded in the US dollar market (95% involving this currency), due to the greater liquidity of the market of this currency.

Outright forwards are mostly carried out with resident counterparts (62%) — especially with non-financial customers, confirming that this market is more devoted to retail business and to meet the customers’ needs for hedging commercial operations.

Geographical distribution of transactions

The trend towards the increase of geographical concentration of transactions proceeded in the period under scrutiny. The United Kingdom (32%), USA (18%), Japan (8%) and Singapore (7%) concentrated around 65% of total turnover, against 63% in 1995. London strengthened its leading position, with 32% of transactions involving the dollar taking place in the United Kingdom (against 18% in the USA), while concentrating 34% of Deutsche mark transactions (compared with 10% in Germany). The leading four countries were maintained in 1998. The relative shares of the United Kingdom and the USA both rose by 2 p.p., while Japan’s share decreased 2 p.p. (becoming closer to the share of Singapore). The market share reduction exhibited by Japan reflected the reduction, in absolute terms, of the Japanese average daily turnover — greatly due to exchange rate fluctuations, according to the BIS. Meanwhile, the

Table 5

OVERALL RESULTS CALCULATED BY THE BIS Geographical distribution of turnover

As a percentage of total		
	1995	1998
1. EU excluding UK	21	19
2. UK	30	32
3. Total EU (1.+2.)	51	51
4. Asia	n.a.	22
5. America excluding USA	n.a.	3
6. USA	16	18
7. Total America	n.a.	21
8. First total (3.+4.+7.)	n.a.	94
9. Other countries	n.a.	6
10. Grand total(8.+9.)	n.a.	100

composition of the group of the eight leading international financial centres remained unchanged from 1995, continuing to account for around 80% of world transactions.

The results compiled by the BIS evidence the negative effects of the Asian crisis on some centres. This is the case of Hong Kong (where turnover fell 13%), replaced by Germany in the 5th position. Germany also surpassed Switzerland, which experienced a 5% turnover reduction. Switzerland now occupies the 6th position, followed by Hong Kong.

It should be noted that activity carried out by the EU countries continues to account for the greatest part of the world foreign exchange market (51% of global turnover), while both Asian and American countries exhibit a similar share, around 20 per cent.

Among the EU markets, the greater turnover growths were scored by Greece (118%), Ireland (106%) and Portugal (83%).

Concentration of Transactions

According to the results of the BIS regarding intra-financial centres, transactions continued to show an increasing trend. This behaviour was linked to the consolidation process recorded in the international financial sector.

In the leading financial centres, the market share of the 10 leading institutions rose from 44% to 50% in the United Kingdom and from 48% to

Table 6

OVERALL RESULTS CALCULATED BY THE BIS
Turnover of 10 major financial centres

US dollar billion and as a percentage of total

April 1995		April 1998			
Value	%	Value	%		
1. UK.....	463.8	30	1. UK.....	637.3	32
2. USA.....	244.4	16	2. USA.....	350.9	18
3. Japan.....	161.3	10	3. Japan.....	148.6	8
4. Singapore...	105.4	7	4. Singapore..	139.0	7
5. Hong-Kong..	90.2	6	5. Germany...	94.3	5
6. Switzerland..	86.5	6	6. Switzerland.	81.7	4
7. Germany...	76.2	5	7. Hong-Kong.	78.6	4
8. France.....	58.0	4	8. France.....	71.9	4
9. Australia....	39.5	3	9. Australia...	46.6	2
10. Denmark...	30.5	2	10. Netherlands	41.0	2

51% in the USA. In the medium-size markets, the level of concentration measured by this indicator tends to be even higher. In France, for instance, the ten major institutions hold around 80% of total turnover.

Meanwhile, subsidiary institutions or foreign branches play an increasingly important role in the foreign exchange market: those operating in the UK accounted for 85% of total turnover (against 79% in 1995); among these, those from the USA were the most active institutions, rising their market share from 42 to 49%. The relative share of foreign institutions also increased in Japan (from 49% to 57%), being the market share increase stronger in transactions involving non-financial counterparts (from 31% to 65%). In Portugal, the market share of the 10 leading banks amounted to 85%, also indicating an increase in the level of concentration. However, the share of foreign institutions did not reach 10% of total turnover.

2. Activity in international OTC derivatives markets

The overall turnover of OTC derivatives — including traditional foreign exchange derivatives — grew 44% (13% in annual average terms), to an estimated USD 1,300 billion in April 1998. The amounts traded in foreign exchange derivatives

Table 7

OVERALL RESULTS CALCULATED BY THE BIS
Geographical distribution of turnover within EU

US dollar billion

Countries	April 1995	Countries	April 1998
1. UK.....	463.8	1. UK.....	637.3
2. Germany....	76.2	2. Germany....	94.3
3. France.....	58.0	3. France.....	71.9
4. Denmark....	30.5	4. Netherlands..	41.0
5. Belgium....	28.1	5. Denmark....	27.3
6. Netherlands..	25.5	6. Italy.....	28.2
7. Italy.....	23.2	7. Belgium....	26.5
8. Sweden.....	19.9	8. Luxembourg..	22.2
9. Luxembourg..	19.1	9. Spain.....	19.3
10. Spain.....	18.3	10. Sweden.....	15.4
11. Austria.....	13.3	11. Austria.....	10.5
12. Finland.....	5.3	12. Ireland.....	10.1
13. Ireland.....	4.9	13. Greece.....	7.2
14. Greece.....	3.3	14. Portugal....	4.4
15. Portugal....	2.4	15. ^o Finland.....	4.2

again exceeded by far those recorded in the interest rate derivatives segment.

At the end of June 1998, the notional amounts outstanding were estimated at USD 72,000 billion⁽¹⁾, increasing around 52% (15% in annual average terms) from 31 March 1995⁽²⁾. Contrary to what was noticed as regards turnover, the relative share of interest rate derivatives in banks' portfolios continued to exceed foreign exchange derivatives. This fact might be due to foreign exchange derivatives exhibiting shorter maturities, hence strengthening their share in terms of transactions. Moreover, the fact that foreign exchange derivatives are preferably traded in shorter maturities favours the OTC market with detriment to organised markets (the activity of which is not covered by this survey). Conversely, interest rate derivatives contracted for shorter maturities are more associated with organised markets than with OTC.

It should be noted that, according to the latest international statistics, amounts outstanding in the

(1) Data reported on a consolidated basis.

(2) Overall values of turnover and amounts outstanding, after adjusted for exchange rate fluctuations, indicate even sharper increases, over 60%.

Table 8

OTC FOREIGN EXCHANGE AND INTEREST RATE DERIVATIVES

Average daily turnover

US dollar billion and percentages

	April 1995		April 1998		1995-1998
	Value	%	Value	%	%
1. Foreign exchange derivatives	688	100	961	100	40
- Outright forwards	97	14	130	14	34
- Foreign exchange swaps	546	79	734	76	34
- Currency swaps	4	1	10	1	150
- Options	41	6	87	9	112
- Others	1	0	0	0	
2. Interest rate derivatives	151	100	265	100	75
- FRA	66	44	74	28	12
- Swaps	63	42	155	58	146
- Options	21	14	36	14	71
- Others	2	1	0	0	
3. Total estimated 1.+ 2. ^(a)	880		1265		44

Note:

(a) Adjusted for double-counting due to transactions carried out in the domestic interbank market and between countries participating in the survey; also adjusted to compensate for an eventual under-appraisal of overall data, since in some countries the survey does not cover all financial institutions.

OTC market continued to outnumber operations carried out in stock exchanges.

Gross market values were estimated at USD 2,600 billion at the end of June 1998, representing around 3.6% of total amounts outstanding. However, this ratio is sensitive to the market segment — ranging between 1% in forward rate agreements (FRA) and 15% in equity-linked options.

2.1 Turnover

Turnover in foreign exchange derivatives contracts increased 40%, to USD 961 billion, while interest rate derivatives contracts grew 75%, to USD 265 billion. Swaps became the leading instrument in the OTC market of both foreign exchange and interest rate derivatives.

In the **foreign exchange derivatives** segment, the breakdown by instruments remained stable. Only worth noting is the slight relative share decrease of swaps, alongside the increased share of options.

More significant changes were recorded in the **interest rate derivatives** segment, where the relative share of interest rate swaps (IRS) increased from 42% to 58%, especially with detriment to

FRA (market share reduction from 44% to 28%). According to the BIS, this development reflects a greater preference for shorter-term interest rate futures. Among the non-traditional OTC derivatives, IRS were the leading instrument, accounting for over 40% of total turnover of this range of instru-

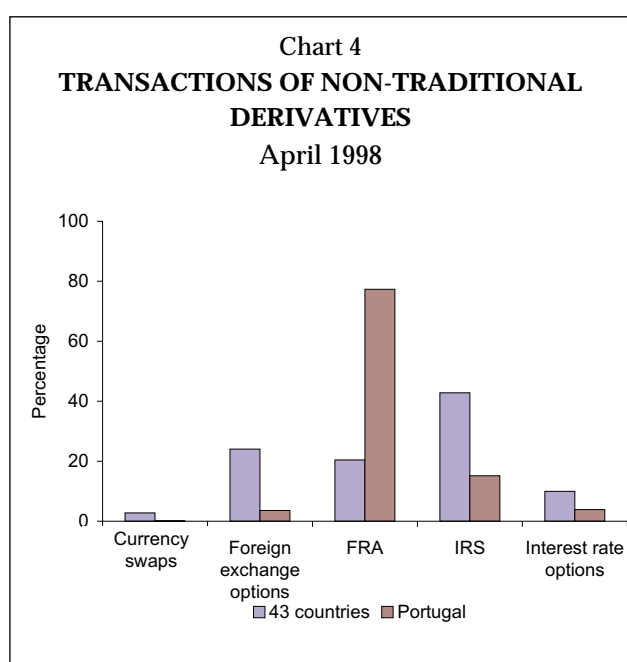


Table 9

TRANSACTIONS OF OTC DERIVATIVES

By currency

As a percentage of total

	Foreign exchange derivatives ^(a)		Interest rate derivatives	
	1995	1998	1995	1998
USD	91	92	27	27
DEM.	24	23	12	24
JPY	26	21	23	10
GBP	9	11	n.a.	6
FRF	8	6	n.a.	9
CHF	7	7	n.a.	4
ECU and other EMS currencies	18	20	n.a.	13
Other currencies.	17	20	38	7

Note:

(a) In the foreign exchange market, the breakdown by currency sums 200% of total turnover, since both sides of each operation are recorded.

ments. In Portugal, however, FRA continued to lead, with around 80% of total turnover.

Contracts involving the **US dollar** continued to dominate OTC transactions, although the share of the Deutsche mark became quite close to that of the US dollar as regards interest rate derivatives. The role played by the Deutsche mark as a proxy to the euro, together with the development of convergence trade strategies between European currencies, shall have induced an increased contracting of swaps over the Deutsche mark interest rates up to mid-1998. As a result, the share of the Deutsche mark in total interest rate derivatives turnover rose from 12% in April 1995 to 24% in April 1998.

The **regional concentration** of derivatives transactions in the OTC market increased in the period under review, showing a similar development to that of spot transactions. London and New York remained as the leading centres, both having strengthened their importance. However, activity in the London market continued to represent around twice of that recorded by New York. The increase in the level of geographical concentration of turnover in the five major financial centres was stronger as regards interest rate contracts than for foreign exchange derivatives. However,

Table 10

OVERALL RESULTS CALCULATED BY THE BIS

Turnover of 5 major financial centres

US dollar billion and as a percentage of total

OTC foreign exchange derivatives			OTC interest rate derivatives		
	Value	%		Value	%
1. UK.....	468.3	35	1. UK	122.9	36
2. USA.....	235.4	18	2. USA	58.4	17
3. Japan.....	91.7	7	3. France ...	40.6	12
4. Singapore.	85.4	6	4. Japan	31.6	9
5. France....	57.9	4	5. Germany .	29.1	8
Total.....	938.7	70	Total	282.6	82

according to the BIS the level of concentration of interest rate transactions in the OTC market seems to be smaller than that of foreign exchange derivatives. Stress should be laid on the outstanding growth turnover of OTC foreign exchange derivatives recorded in some smaller European centres, like Athens, Dublin and Lisbon.

2.2 Notional amounts outstanding

Notional amounts outstanding provide above all an indicator of market risk exposure⁽³⁾, whereas gross market values are fit to indicate counterparty credit risk, also reflecting market volatility.

Total notional amounts outstanding of OTC derivatives reached USD 72,000 billion at the end of June 1998, growing 52% from end March 1995 (15% growth in annual average terms). However, after adjusting for the effect of exchange rate fluctuations and shifting to a new reporting basis (from book location to a consolidated basis), the BIS indicates a 130% growth of amounts outstanding.

Contracts over interest rates continued to dominate total amounts outstanding, growing much faster than foreign exchange derivatives. The remaining OTC derivatives instruments continued

(3) Since most contracts do not involve the payment of "principal", these are not valid indicators in assessing counterparty credit risk.

Table 11

AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE AND INTEREST RATE DERIVATIVES

Notional amounts in US dollar billion and percentages

	31 March 1995		30 June 1998		1995-1998
	Value	%	Value	%	%
1. Foreign exchange derivatives	13095	100	22055	100	68
- Forwards	8699	66	14658	66	69
- Currency swaps	1957	15	2324	11	19
- Options	2379	18	5040	23	112
- Others	61	0	33	0	
2. Interest rate derivatives	26645	100	48124	100	81
- FRA	4597	17	6602	14	44
- IRS	18283	69	32942	68	80
- Options	3548	13	8528	18	140
- Others	216	1	52	0	
3. Total 1.+ 2.	39740		70179		77
4. Equity derivatives	579		1341		132
5. Commodity derivatives	318		506		59
6. Credit derivatives and others . . . .	..		118		
7. Total estimated ^(a)	47530		72143		52

Note:

(a) Adjusted to compensate for an eventual under-appraisal of overall data.

to account for a small share in portfolios, though derivatives on equity more than multiplied two-fold, merchandise derivatives grew around 60% and credit derivatives started to have some significance.

The ratio between the **gross market value** (gmv) of OTC derivatives and total notional amounts outstanding fell to 3.6% at the end of June 1998 (against 4.6% in March 1995). This development is related on the one hand to the lower volatility in the markets of the leading international currencies — when compared with that recorded prior to March 1995 — and on the other hand to the reduction in the maturity of foreign exchange contracts — which prevented wider changes in the gmv.

Broken-down by instruments, quite disparate ratios of gmv to notional amounts can be found. Indeed, this ratio is smaller for interest rate contracts (2.8%) than for foreign exchange contracts (4.5%), and is clearly higher for equity derivatives (15%) and commodity derivatives (8%). In the case of foreign exchange and interest rate derivatives, different ratios shall be related with the fact that most foreign exchange contracts involve a trade of

principal, which is not the case with interest rate contracts. Moreover, foreign exchange contracts have an increased potential exposure to the foreign exchange (in addition to interest rate exposure). In overall terms, exposure to changes in interest rates remained as the major source of market risk, with interest rate derivatives holding 66% of total amounts outstanding, reflected also in their predominance (52%) in total gmv of OTC derivatives.

Foreign exchange derivatives

Among foreign exchange contracts, forwards continued to account for the bulk of financial institutions' portfolio (66%), growing 19% in annual average terms — as much as overall market growth. The faster growth of options (28% in annual average terms) translated into a gain of market share of this instrument, from 18% to 23%. On the other hand, currency swaps grew only 6%, yielding a market share reduction from 15% to 11%. In Portugal, forwards also remained as the leading instrument, accounting for 86% of the market in June 1998, followed by currency swaps (10%).

Table 12

AMOUNTS OUTSTANDING OF FOREIGN EXCHANGE DERIVATIVES

By currency

As a percentage of total ^(a)

	1995	1998
USD	82	87
DEM	25	24
JPY	32	28
GBP	n.a.	12
FRF	n.a.	7
CHF	n.a.	6
ECU and other EMS currencies. . .	n.a.	5
Other currencies	61	30

Note:

(a) In the foreign exchange market, the breakdown by currency sums 200 % of total turnover, since both sides of each operation are recorded.

The behaviour of the ratio of foreign exchange contracts' **gross market value to notional amounts outstanding** reflected differences in foreign exchange market volatility in the two periods compared. Indeed, the ratio narrowed from 8% at the end of March 1995 to 4.5 per cent at the end of June 1998, in a context where market volatility in the first half of 1998 was quite lower than in early 1995 — when the US dollar recorded sharp falls against the yen and the Deutsche mark.

In terms of notional amounts, OTC foreign exchange derivatives increased their concentration in short-term contracts and in those involving the dollar (from 82% to 87%), followed by the yen (28%) and the Deutsche mark (24%).

The breakdown by counterparts reveals the rise in the relative share of other financial institutions (from 22% to 37%), possibly reflecting the increasing role played by hedge funds in the OTC derivatives market. Simultaneously, the market share of the reporting dealers, which reached over 50% in 1995, fell to 40% at the end of June 1998. This development should be analysed with caution, as it may not reflect a real reduction of the relative importance of the interbank market, but instead the changes to the report criterion from a book location basis in the 1995 survey to a consolidated basis in the 1998 one.

Table 13

AMOUNTS OUTSTANDING OF FOREIGN EXCHANGE DERIVATIVES

By counterparties

As a percentage of total

	1995	1998
Reporting dealers	54	40
Other financial institutions	22	37
Non-financial customers	24	23

Interest rate derivatives

Interest rate swaps' (IRS) share in total notional amounts outstanding of interest rate derivatives remained unchanged (68%). Options gained market share (as occurred in the foreign exchange market), from 13% to 18%, with detriment to FRA (from 17% to 14%).

Chart 5
AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE DERIVATIVES
By maturity

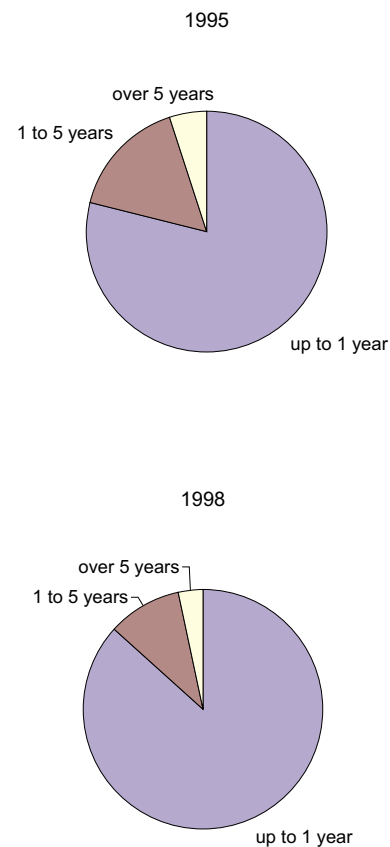


Table 14

AMOUNTS OUTSTANDING OF INTEREST RATE DERIVATIVES

By currency

As a percentage of total

	1995	1998
USD	35	30
DEM	13	15
JPY	21	16
GBP	n.a.	8
FRF	n.a.	8
CHF	n.a.	2
ECU and other EMS currencies ..	n.a.	5
Other currencies	32	17

According to the BIS, the reduction of the market share of FRA is an outcome of the great preference market participants show for futures con-

Table 15

AMOUNTS OUTSTANDING OF INTEREST RATE DERIVATIVES

By counterparties

As a percentage of total

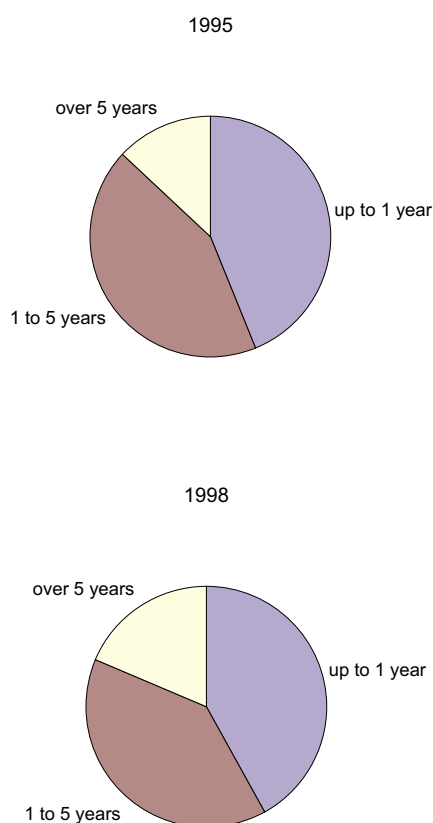
	1995	1998
Reporting dealers	59	45
Other financial institutions	25	43
Non-financial customers	16	13

tracts on short-term interest rates, which provide a much more liquid market. The market structure in Portugal is different, with FRA holding the greatest share, followed by IRS (31%).

Contrary to the trend recorded in the foreign exchange derivatives market, the interest rate derivatives segment evolved towards longer maturities and away from the US dollar. This behaviour translated into the increase in the relative share of contracts with maturities over 5 years to 19%, with detriment to amounts traded in shorter maturities; and to the market share loss of contracts over US dollar interest rates — though this currency keeps leading (30%) — in parallel with the increase of the Deutsche mark (15%); the yen remained as the second currency.

As in the foreign exchange derivatives segment, also the interest rate derivatives market saw an increase in the share of other financial institutions (to 43%), closer to that of reporting dealers, whose market share narrowed to 45%.

Chart 6
AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES
By maturity



C. 1998 HALF-YEARLY SURVEYS OF THE BANCO DE PORTUGAL

1. Developments in the Portuguese traditional foreign exchange market between 1995 and 1998

In April 1998, average daily turnover in the traditional foreign exchange market amounted to USD 4.4 billion, growing around 85%⁽⁴⁾ from April 1995. Turnover growth became even stronger in October 1998, reaching USD 6.1 billion. This growth was greatly due to forwards (outright forwards and foreign exchange swaps), which were the most traded instruments since October 1997. In April 1998, forwards accounted for 59% of the

Table 16

PORTUGUESE TRADITIONAL FOREIGN EXCHANGE MARKET

Average daily turnover

US dollar million		Total	Spot	Outrights	Foreign exchange swaps
1995	April	2382	1379	126	877
	October	2677	1496	108	1073
1996	April	2715	1465	184	1066
	October	3249	1690	319	1240
1997	April	3484	1957	223	1304
	October	4495	1699	246	2550
1998	April	4398	1834	337	2227
	October	6054	2271	446	3337
Change (%)					
April 95- April 98		84.6	33.0	167.5	153.9

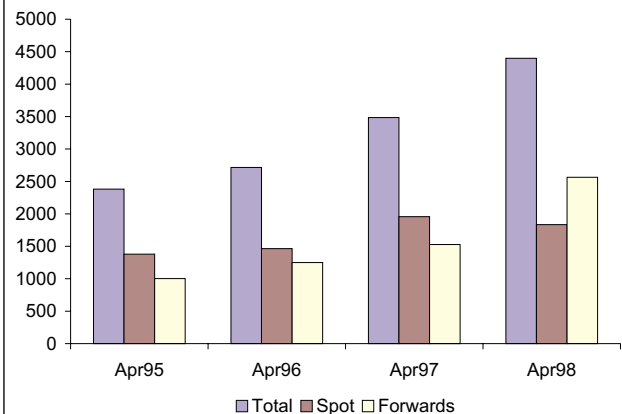
market's turnover — similar to that recorded in the 43 countries participating the BIS survey as a whole.

The trend towards the strengthening importance of forwards, in line with the international developments, proceeded in the Portuguese market, the relative share of these instruments having increased to 62% in October 1998. Foreign exchange swaps became the traditional foreign exchange market's leading instrument, with turnover more than multiplying threefold since April 1995.

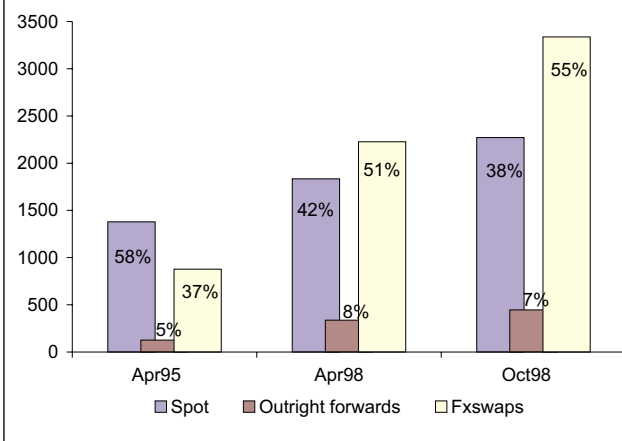
The strengthening of forwards was reflected in the increase of the relative share of transactions involving the US dollar — due to the high level of liquidity shown by this market — especially of those carried out against the escudo and the Deutsche mark. Therefore, the US dollar replaced the escudo as the leading currency in the traditional foreign exchange market. On the other hand, the relative share of operations involving the Deutsche mark and the escudo decreased (especially over the pair DEM/PTE, from 20% to 10%). This development led to a reduction of operations between EMS currencies to half of the relative share held in April 1995 (from 32% to 15%).

(4) Except when mentioned otherwise, exchanges refer to the period April 1995-April 1998.

**Chart 7
TRADITIONAL FOREIGN EXCHANGE MARKET**



**Chart 8
TRADITIONAL FOREIGN EXCHANGE MARKET
By instrument**



As regards European currencies outside the EMS, and which currently do not integrate the euro, stress should be laid on the relative share gain of Sterling (from 2% in April 1995 to 13% in October 1998).

In Portugal, as recorded at the international level, financial counterparts continued to dominate transactions (around 80%). In the Portuguese market, however, non-resident entities continued to provide the major counterparts, strengthening their relative share in total turnover to over 70% in 1998. This compares with a virtually even distribution in the group of 43 countries surveyed by the BIS.

The results of the Portuguese surveys suggest, as those of the BIS, an increase in the level of con-

Table 17

**TRANSACTIONS IN THE PORTUGUESE
TRADITIONAL FOREIGN EXCHANGE MARKET**

By currency

As a percentage of total ^(a)

	April 1995	April 1998	October 1998
PTE.....	70	68	63
USD	59	69	73
DEM	45	29	36
JPY	8	7	6
GBP	2	9	13
CHF	1	2	1
ESP	6	11	3
ECU and other EMS currencies ..	9	3	3
Other currencies	0	1	2

Note:

(a) In the foreign exchange market, the breakdown by currency sums 200 % of total turnover, since both sides of each operation are recorded.

Table 18

**TRANSACTIONS IN THE PORTUGUESE
TRADITIONAL FOREIGN EXCHANGE MARKET**

By currency pairs

As a percentage of total

	April 1995	April 1998	October 1998
PTE/USD	37	45	43
PTE/DEM.....	20	10	10
PTE/JPY	7	6	5
PTE/GBP	1	2	2
PTE/CHF	1	0	0
PTE/ECU and other EMS currencies	5	4	3
PTE/others.....	0	0	0
USD/DEM.....	17	11	19
USD/JPY.....	1	1	1
USD/GBP.....	0	2	8
USD/CHF.....	0	2	0
USD/ECU and other EMS currencies.....	3	8	1
USD/others.....	0	0	1
DEM/JPY.....	0	0	0
DEM/GBP.....	0	5	4
DEM/CHF.....	0	0	0
DEM/ECU and other EMS currencies.....	7	2	2
DEM/others.....	0	0	0
Other currency pairs.....	0	0	0

Table 19

**TRANSACTIONS IN THE PORTUGUESE
TRADITIONAL FOREIGN EXCHANGE MARKET**

By counterparty

As a percentage of total

	April 1995	April 1998	October 1998
Financial institutions	83	80	85
Residents.....	19	11	13
Non-residents.....	64	69	72
Non-financial customers ..	17	20	15
Residents.....	17	17	12
Non-residents.....	0	3	3
	100	100	100
	100	100	100
Total residents.....	36	28	25
Total non-residents.....	64	72	75

centration in the traditional foreign exchange market. In the 1998 surveys, the market share of institutions exhibiting the ten greatest turnovers in the traditional foreign exchange market stood around 85%, similar to the levels reached in other medium and small international markets.

**2. Main developments in the Portuguese
derivatives market between 1995 and 1998**

2.1 OTC market

Turnover

The Portuguese OTC derivatives market showed a considerable development in the last triennium, both as regards turnover and instrument diversity. In 1998, average daily turnover in OTC derivatives instrument more than multiplied threefold from April 1995, chiefly reflecting the above referred growth of traditional foreign exchange forwards, as well as the growth of forward rate agreements (FRA) and interest rate swaps (IRS).

Between April 1995 and April 1998, the average daily turnover in OTC foreign exchange derivatives grew 156%, to USD 2.6 billion, while the average daily turnover of interest rate derivatives more than multiplied fifteenfold from April 1995, to USD 998 million. The distinct paces of growth shown by these market segments in Portugal led

Table 20

OTC FOREIGN EXCHANGE DERIVATIVES

Average daily turnover

US dollar million		Total	Forwards	Currency Swaps	OTC options
1995	April	1017	1003	3	11
	October	1202	1181	1	20
1996	April	1272	1250	0	22
	October	1598	1559	1	38
1997	April	1548	1527	13	8
	October	2809	2796	1	12
1998	April	2602	2564	1	37
	October	3786	3783	0	3
Change (%)					
April 95/April 98		155.9	155.6	-66.7	236.4

to a market structure closer to that of international markets, with around two thirds of turnover concentrated in foreign exchange derivatives (75% in October 1998). The growing dynamism of the derivatives market activity is illustrated by turnover growth in foreign exchange and interest rate contracts, respectively to USD 3.8 and 1.3 billion in October 1998.

In the OTC **foreign exchange derivatives** segment, breakdown by instruments, counterparts and currencies remained basically unchanged. Indeed, foreign exchange derivatives remained basically circumscribed to forwards (99%) and to the US dollar market (around 90%), while being mostly traded with non-residents (81%). Forward transactions continued, nevertheless, to show some heterogeneity. Outright forwards remained to be mostly traded in the domestic market with non-financial customers (46%), in most occasions trading the escudo against either the US dollar, the yen or the Deutsche mark. Meanwhile, around 85% of foreign exchange swap transactions were contracted with non-resident financial institutions and concentrated in the pair PTE/USD.

In the OTC **interest rate derivatives** segment, turnover grew strongly in all instruments. This development resulted in a slight loss of market share of FRA (from 90% in April 1995 to 80% in 1998), which nonetheless continued to be preferred to IRS (16%) and to the residual share of options.

Around 99% of turnover in the interest rate derivatives OTC market was contracted with finan-

Table 21

OTC INTEREST RATE DERIVATIVES

Average daily turnover

US dollar million		Total	FRA	IRS	OTC options
1995	April	61	55	6	0
	October	153	122	31	0
1996	April	291	260	31	0
	October	448	384	64	0
1997	April	1501	1331	170	0
	October	1149	902	244	3
1998	April	998	801	157	40
	October	1260	1054	206	0
Change (%):					
April 95 / April 98		1536.1	1356.4	2516.7	-

cial institutions — especially non-residents (although non-resident counterparts recorded a market share loss). The growth of activity in the interest rate derivatives segment was mainly recorded in transactions denominated in escudos (53% of total transactions in October 1998); meanwhile, operations carried out in other currencies became more diversified (in 1995 the US dollar held a significant share, shared in 1998 with the Deutsche mark, the peseta and Sterling).

Notional amounts outstanding

The analysis of the major trend lines of portfolio amounts in the last triennium was based upon the results of the regular half-year surveys carried out by the *Banco de Portugal*. Recall that the Banco de Portugal continued to develop the half-year national survey in the usual standards in 1998, despite the one-off data collection (on a consolidated basis) at the end of June 1998, to meet the statistical request of the BIS. Meanwhile, chapter B.2.2 of this analysis has already stressed the most relevant comparative features between the Portuguese and the BIS surveys of end June.

According to the results of the half-year surveys of the *Banco de Portugal*, notional amounts outstanding of OTC derivatives more than multiplied fourfold between 1995 and 1998. This expansion was due to the growth of amounts outstanding in interest rate derivatives, since foreign exchange derivatives remained somewhat stagnated.

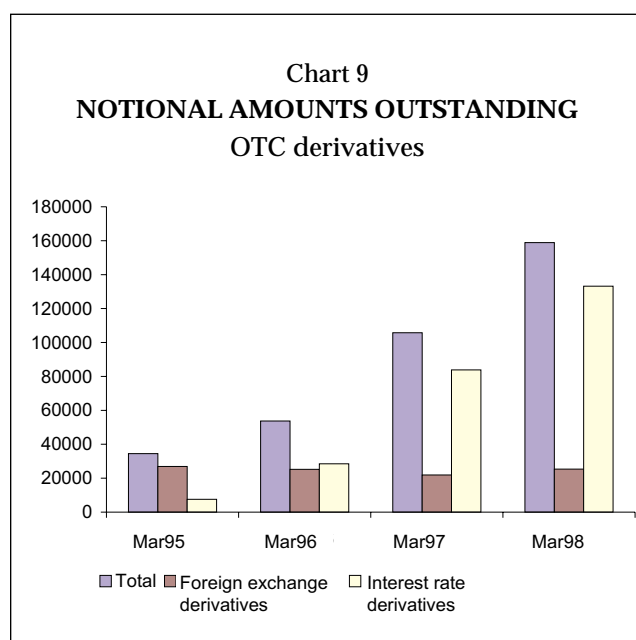


Table 22

NOTIONAL AMOUNTS OUTSTANDING
OTC foreign exchange derivatives

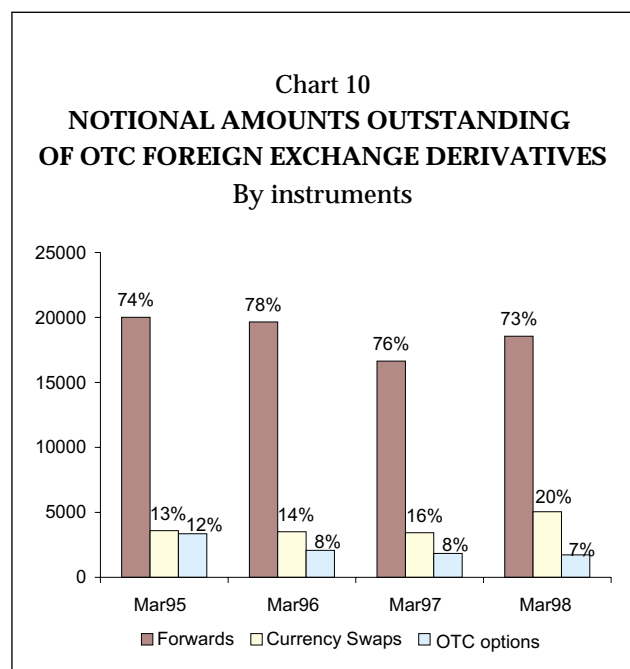
USD million

		Total	Forwards	Currency Swaps	OTC options
1995	March	26955	20009	3595	3351
	September	22865	16987	3854	2024
1996	March	25238	19656	3507	2075
	September	26977	19445	5247	2285
1997	March	21910	16645	3430	1835
	September	24742	18256	5405	1081
1998	March	25336	18558	5049	1729
	September	29180	23611	4315	1254
Change (%)					
March95 - March 98		-6.0	-7.3	40.4	-48.4

The relative share of interest rate derivatives in total portfolios increased from around 20% to almost 85%.

Indeed, and conversely to the behaviour in terms of turnover, amounts outstanding of foreign exchange derivatives showed no significant changes in the last three years, remaining between USD 22 and 30 billion. Also as regards the breakdown by instruments, forwards continued to account for around 75% of total notional amounts of foreign exchange derivatives.

Conversely, the OTC interest rate derivatives segment recorded significant developments. Total amounts outstanding reached USD 133 billion in



March 1998 — about 20 times its level three years before. This growth was greatly due to the increases in the positions of FRA and IRS over interest rates of the escudo. However, it should be noted that in September 1998 total amounts outstanding of OTC interest rate derivatives had stagnated, since the significant growth of IRS was accompanied by a slightly greater reduction in FRA positions.

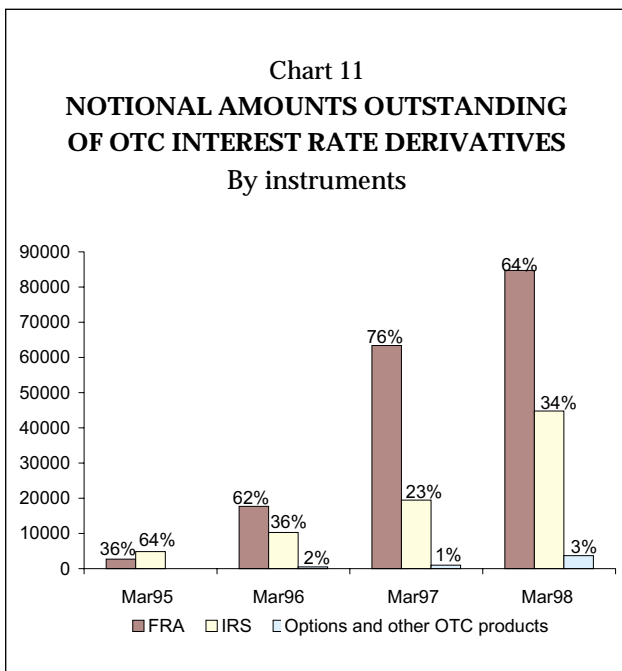
Among all interest rate instruments traded in the over-the-counter market, FRA hold the great-

Table 23

NOTIONAL AMOUNTS OUTSTANDING
OTC interest rate derivatives

USD million

		Total	FRA	IRS	Options and other OTC products
1995	March	7553	2707	4846	0
	September	15967	7591	7946	430
1996	March	28488	17709	10293	486
	September	38805	24046	14282	477
1997	March	83853	63373	19472	1008
	September	116702	81230	33809	1663
1998	March	133178	84711	44773	3694
	September	130838	68420	57405	5013
Change (%):					
March 95 / March 98		1663.2	3029.3	823.9	-



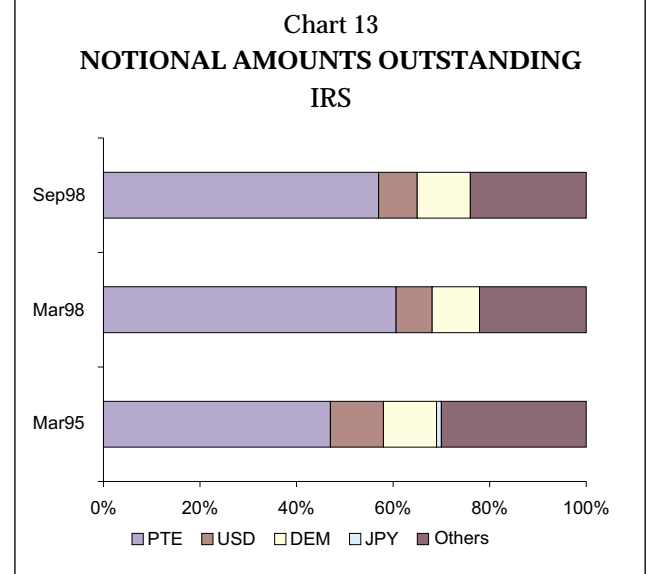
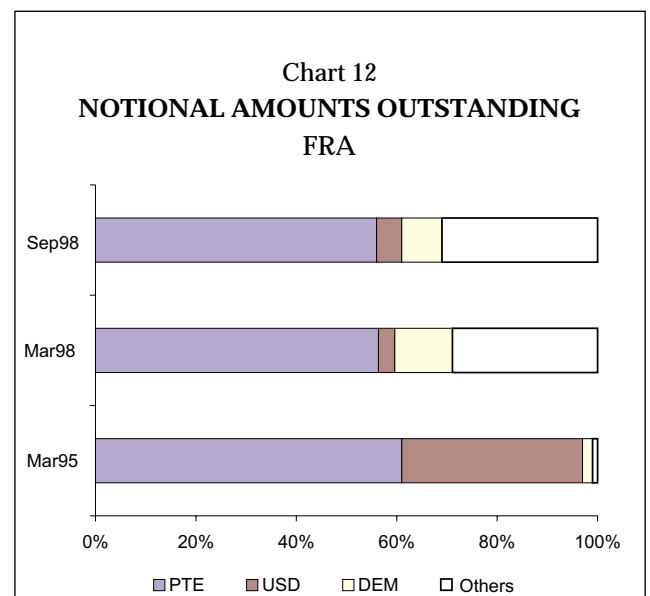
est share in banks' portfolios, accounting for more than half of positions, closely followed by IRS. Contracts denominated in escudos continued to dominate the portfolio of FRA, while those traded over the US dollar were replaced by the Deutsche mark and by a variable set of other currencies (generally corresponding to the momentarily profit-taking of market niches).

The kind of counterparts in these contracts continued to vary according to the currency underlying the contract. Therefore, contracts denominated in escudos were mostly carried out with resident financial institutions, while those denominated in foreign currencies had mostly non-resident financial institutions as their counterpart.

Also in what concerns IRS the escudo stood as the preferred currency. As regards counterparts in these contracts, non-resident financial institutions dominated regardless of contracts being settled in escudos or in foreign currency.

2.2 Exchange-traded derivatives market

According to the regular surveys carried out every six months by the *Banco de Portugal*, exchange-traded derivatives — which were not comprised by the 1998 BIS survey — grew considerably, almost fully due to the buoyancy of interest rate futures. This growth was induced not only by the opening of the Oporto Derivatives Exchange in



June 1996, resulting as well from the increased internationalisation of Portuguese financial institutions' business.

Transactions carried out in exchanges by surveyed entities are basically confined to interest rate futures. Options contracts over interest rates and foreign exchange futures and options are not representative.

Futures were mostly traded over interest rates with maturity up to one year, and denominated in escudos. As with FRA, also futures recorded momentary turnover increases in contracts over a variable set of currencies (e.g., the Spanish peseta and the Italian lira, which gained significant relative shares sporadically).

SURVEY OF FOREIGN EXCHANGE AND DERIVATIVES MARKETS ACTIVITY — APRIL 1999 Preliminary results

The results of the April 1999 survey are particularly important since this is the first survey of activity in the foreign exchange and derivatives markets carried out after the introduction of the euro. Thus, this synthesis tries to identify the most significant changes occurred in the structure of turnover in the Portuguese foreign exchange and derivatives market. Comparisons drawn are made with April 1998, to avoid eventual seasonality issues.

The major development is the sharp turnover reduction recorded both in the traditional foreign exchange market (-52%) and the OTC foreign exchange derivatives market (-63%), as in the OTC interest rate derivatives market (-47%). Indeed, average daily turnover in the over-the-counter market fell to around half its value. The reduction was sharper than that that would result from the simple elimination of transactions between the currencies integrating the euro, as these operations accounted on average for 15% of total transactions in April 1998.

In the overall **OTC foreign exchange market**, the most relevant change consisted of the reduction (by around 70%) of the turnover of foreign exchange swaps, almost totally due to the fall in transactions in maturities up to 7 days. Since this is a kind of instrument usually employed in very short maturities — as a means of carrying out liquidity acquisition and disposal in the interbank market — this turnover reduction reflects to a great extent the replacement of funding through the foreign exchange market for direct financing in the monetary market, in a context where the group of currencies currently composing the euro no longer exists. This replacement did not proceed evenly in all banks; with the introduction of the euro, some institutions resorted increasingly to the traditional deposits market — for financing in short maturities — while others kept the prior funding strategies.

To the reduction of the relative share of forex swaps in the traditional foreign exchange market (from 51% to 33%) contributed also the fact that, with the creation of the euro, the need to use the US dollar as a vehicle currency in operations between the currencies integrating the euro disappeared. Though recording turnover reductions as well, spot operations became the leading instrument in the traditional foreign exchange market (55% market share) and the relative share of outright forwards rose to 12%. Transactions of currency swaps, options and other foreign exchange derivatives continued to show no significance.

The turnover reduction shall have been induced also by some increase in the level of risk aversion, influenced by the recent international financial crises.

As for the breakdown by currency, when comparing with the April 1998 turnover net of intra-EU11 currency transactions, it is worth noting the reduction of the relative share of the euro in foreign exchange transactions (from 92% to 80%) in parallel to the relative share gain of Sterling (from 11% to 20%), while the share of the US dollar remained stable around 83%.

In the **OTC interest rate derivatives market**, stress should be laid on the 57% reduction of turnover on FRA. The reduction of activity in this instrument shall have been due to the elimination of arbitrage between the interest rates of the currencies integrating the euro. Conversely, IRS recorded a turnover growth, reflecting the increased liquidity and depth this market achieved with the creation of the euro. Though remaining as the leading instrument, FRA lost market share (from 80% to 65%), while the relative share of IRS increased (from 16% to 35%).

In the **exchange-traded market**, turnover also decreased but by much less than in the OTC market. The exchange-traded instruments remained virtually limited to interest rate derivatives (almost exclusively futures contracts). In 1999, the share of contracts in US dollars and Sterling increased, with detriment to contracts in euros (when compared with the equivalent share in 1998 of the currencies presently integrating the euro). Meanwhile, contracts over interest rates with maturities over one year gained market share (though remaining less traded than those contracted over interest rates with maturity up to 1 year).

Table A.1

TURNOVER IN TRADITIONAL FOREIGN EXCHANGE MARKETS
Results of the triennial surveys co-ordinated by the BIS

Average daily turnover in US dollar billion and percentages

	April 1992		April 1995		Change 1992-1995	April 1998		Change 1995-1998
	Value	%	Value	%	%	Value	%	%
South Africa	3.4	0	5.0	0	47	8.8	0	76
Germany	55.0	5	76.2	5	39	94.3	5	24
Saudi Arabia . . . . .	..	..	..	..	..	2.3	0	..
Argentina . . . . .	..	..	..	..	..	2.2	0	..
Australia	29.0	3	39.5	3	36	46.6	2	18
Austria	4.4	0	13.3	1	202	10.5	1	-21
Bahrain	3.5	0	3.1	0	-11	2.4	0	-23
Belgium	15.7	1	28.1	2	79	26.5	1	-6
Brazil . . . . .	..	..	..	..	..	5.1	0	..
Canada	21.9	2	29.8	2	36	36.8	2	23
Chile . . . . .	..	..	..	..	..	1.3	0	..
China . . . . .	..	..	..	..	..	0.2	0	..
South Korea . . . . .	..	..	..	..	..	3.5	0	..
Denmark	26.6	2	30.5	2	15	27.3	1	-10
Spain	12.3	1	18.3	1	49	19.3	1	5
USA	166.9	16	244.4	16	46	350.9	18	44
Philippines . . . . .	..	..	..	..	..	0.8	0	..
Finland	6.8	1	5.3	0	-22	4.2	0	-21
France	33.3	3	58.0	4	74	71.9	4	24
Greece	1.1	0	3.3	0	200	7.2	0	118
Netherlands	19.6	2	25.5	2	30	41.0	2	61
Hong-Kong	60.3	6	90.2	6	50	78.6	4	-13
Hungary . . . . .	..	..	..	..	..	1.4	0	..
India . . . . .	..	..	..	..	..	2.4	0	..
Indonesia . . . . .	..	..	..	..	..	1.5	0	..
Ireland	5.9	1	4.9	0	-17	10.1	1	106
Italy	15.5	1	23.2	1	50	28.2	1	22
Japan	120.2	11	161.3	10	34	148.6	8	-8
Luxembourg	13.2	1	19.1	1	45	22.2	1	16
Malaysia . . . . .	..	..	..	..	..	1.1	0	..
Mexico . . . . .	..	..	..	..	..	8.6	0	..
Norway	5.2	0	7.6	0	46	8.8	0	16
New Zealand	4.2	0	7.1	0	69	6.9	0	-3
Poland . . . . .	..	..	..	..	..	2.7	0	..
Portugal	1.3	0	2.4	0	85	4.4	0	83
United Kingdom	290.5	27	463.8	30	60	637.3	32	37
Czech Republic . . . . .	..	..	..	..	..	5.0	0	..
Russia . . . . .	..	..	..	..	..	6.8	0	..
Singapore	73.6	7	105.4	7	43	139.0	7	32
Sweden	21.3	2	19.9	1	-7	15.4	1	-23
Switzerland	65.5	6	86.5	6	32	81.7	4	-6
Thailand . . . . .	..	..	..	..	..	3.0	0	..
Taiwan . . . . .	..	..	..	..	..	4.8	0	..
Total ^(a)	1076.2	100	1571.7	100		1981.6	100	

Note:

(a) Adjusted for double-counting due to transactions carried out in the domestic interbank market, but not for transactions between countries participating in the survey.

Table A.2

TURNOVER IN OTC FOREIGN EXCHANGE DERIVATIVES MARKETS

Results of the triennial surveys co-ordinated by the BIS

Average daily turnover in US dollar billion and percentages

	April 1995		April 1998		Change
	Value	%	Value	%	%
South Africa	2.8	0	5.2	0	86
Germany	45.1	5	57.6	4	28
Saudi Arabia .....	..	..	1.1	0	..
Argentina .....	..	..	0.1	0	..
Australia	22.9	2	28.8	2	26
Austria	4.5	0	6.4	0	42
Bahrain	1.3	0	0.9	0	-31
Belgium	22.4	2	20.1	1	-10
Brazil .....	..	..	..	..	..
Canada	18.7	2	27.2	2	45
Chile .....	..	..	0.5	0	..
China .....	..	..	..	..	..
South Korea .....	..	..	1.0	0	..
Denmark	22.9	2	21.7	2	-5
Spain	11.2	1	13.7	1	22
USA	131.8	14	235.4	18	79
Philippines .....	..	..	0.4	0	..
Finland	2.9	0	3.3	0	14
France	36.1	4	57.9	4	60
Greece	1.3	0	4.1	0	215
Netherlands	15.5	2	27.5	2	77
Hong-Kong	56.4	6	48.9	4	-13
Hungary .....	..	..	0.5	0	..
India .....	..	..	1.3	0	..
Indonesia .....	..	..	1.0	0	..
Ireland	1.7	0	5.6	0	229
Italy	10.8	1	17.1	1	58
Japan	112.2	12	91.7	7	-18
Luxembourg	11.7	1	14.9	1	27
Malaysia .....	..	..	0.8	0	..
Mexico .....	..	..	2.4	0	..
Norway	4.2	0	5.9	0	40
New Zealand	4.1	0	5.0	0	22
Poland .....	..	..	0.5	0	..
Portugal	1	0	2.6	0	160
United Kingdom	292.4	31	468.3	35	60
Czech Republic .....	..	..	3.0	0	..
Russia .....	..	..	0.9	0	..
Singapore	63	7	85.4	6	36
Sweden	11.8	1	11.2	1	-5
Switzerland	44.2	5	57.2	4	29
Thailand .....	..	..	2.2	0	..
Taiwan .....	..	..	1.5	0	..
Total ^(a)	953.0	100	1340.7	100	

Note:

(a) Adjusted for double-counting due to transactions carried out in the domestic interbank market, but not for transactions between countries participating in the survey.

Table A.3

TURNOVER IN OTC INTEREST RATE DERIVATIVES MARKETS

Results of the triennial surveys co-ordinated by the BIS

Average daily turnover in US dollar billion and percentages

	April 1995		April 1998		Change
	Value	%	Value	%	%
South Africa.....	0.2	0	0.8	0	300
Germany.....	10.9	5	29.1	8	167
Saudi Arabia.....	..	..	0.2	0	..
Argentina.....	..	..	..	..	..
Australia.....	2.8	1	2.8	1	0
Austria.....	2.2	1	3.3	1	50
Bahrain.....	4.0	2	0.2	0	-95
Belgium.....	5.8	3	4.9	1	-16
Brazil.....	..	..	..	..	..
Canada.....	4.4	2	6.4	2	45
Chile.....	..	..	..	..	..
China.....	..	..	..	..	..
South Korea.....	..	..	0.0	0	..
Denmark.....	2.7	1	4.2	1	56
Spain.....	3.4	2	2.9	1	-15
USA.....	31.7	15	58.4	17	84
Philippines.....	..	..	..	..	..
Finland.....	1.6	1	2.1	1	31
France.....	18.8	9	40.6	12	116
Greece.....	0.1	0	0.0	0	-100
Netherlands.....	4.1	2	3.5	1	-15
Hong-Kong.....	3.5	2	2.4	1	-31
Hungary.....	..	..	0.0	0	..
India.....	..	..	..	..	..
Indonesia.....	..	..	..	..	..
Ireland.....	1.5	1	1.8	1	20
Italy.....	1.5	1	4.1	1	173
Japan.....	26.4	13	31.6	9	20
Luxembourg.....	2.0	1	2.0	1	0
Malaysia.....	..	..	0.0	0	..
Mexico.....	..	..	0.2	0	..
Norway.....	1.5	1	2.8	1	87
New Zealand.....	0.2	0	0.4	0	100
Poland.....	..	..	..	..	..
Portugal.....	0.1	0	1.0	0	900
United Kingdom.....	58.8	28	122.9	36	109
Czech Republic.....	..	..	..	..	..
Russia.....	..	..	..	..	..
Singapore.....	16.3	8	5.3	2	-67
Sweden.....	1.9	1	3.6	1	89
Switzerland.....	2.4	1	5.9	2	146
Thailand.....	..	..	..	..	..
Taiwan.....	..	..	0.1	0	..
Total ^(a)	208.6	100	343.6	100	

Note:

(a) Adjusted for double-counting due to transactions carried out in the domestic interbank market, but not for transactions between countries participating in the survey.

DEVELOPMENTS IN THE BANKING SYSTEM IN THE FIRST HALF OF 1999

1. INTRODUCTION

This article describes and analyses the structure, activity and results of the Portuguese banking system, as well as the behaviour of credit and market risks underlying those activities, in the first half of 1999.

Excepting mentions otherwise, the sections regarding the characterisation of the banking sector and the developments in business and results refer to banks⁽¹⁾ (including the *Caixa Geral de Depósitos*), regardless of being subject to supervision of the *Banco de Portugal* or not⁽²⁾, and the *Caixa Económica Montepio Geral*.

Therefore, the remaining credit institutions are not covered by the analysis: other saving banks, mutual agricultural credit banks, investment companies, financial leasing companies, factoring companies and credit-purchase financing companies⁽³⁾.

However, in the section on the behaviour of credit and market risks, the analysis comprises only the institutions subject to the prudential supervision by the *Banco de Portugal*.

The analysis utilises data on overall business⁽⁴⁾ of banks on a non-consolidated basis.

The change in the structure of assets of the banking system proceeded in the period under review (table 1), which was translated into a further increase — without precedent in recent years — of credit granted to the private sector, strongly concentrated in mortgage lending to private individuals, alongside the narrowing, in absolute terms, of the value of banks' security portfolios (fully due to the disposal of Portuguese public debt securities) and investments in both resident and non-resident credit institutions.

The structure of liabilities also underwent some changes. Worth highlighting is the slowdown of resources raised from the interbank market and the non-financial sector, offset by the substantial increase in subordinated loans and own resources.

The increase in the volume of business determined, to a great extent, a widening of the financial margin, as well as of commissions and extraordinary income. Simultaneously, the system's profitability ratios improved slightly.

Finally, worth noting the reduction of the ratio between credit and interest overdue, and total credit granted, as well as the rise of the average level of the banking system's global capital adequacy.

2. CHARACTERISATION OF THE SECTOR

2.1 Background of the banking sector

At the end of June 1999, 63 banks and branches of foreign banks were registered (table 2), 47 of which are subject to supervision by the *Banco de Portugal*. It should be noted that, over the course of this half-year, two new banking institutions were

(1) Having their head office in Portugal and branches of foreign institutions.

(2) Recall that branches of credit institutions having their head office in other EC Member-states are subject to the control of home country supervisory authorities.

(3) Except for the analysis of credit distribution according to borrowing sector, which comprises all monetary institutions — i.e., including other saving banks and mutual agricultural credit banks. However, banks dominate credit granting (around 90 per cent).

(4) The overall activity encompasses total domestic activity, off-shore activity and the activity of branches abroad. Except when mentioned otherwise, each institution is taken individually and not in a group perspective.

Table 1

BANKING SYSTEM SITUATION — SYNTHESIS ^(a)

PTE billion

	Jun 98	Jun 99	Change	
			Absolute	Percentage
Assets (net)	42 390.9	46 031.1	3 640.3	8.6
Credit granted.	16 135.0	21 058.4	4 923.4	30.5
Overdue credit and interest	581.6	531.0	- 50.6	- 8.7
Overdue credit and interest/credit granted (percentage)	3.6	2.5	- 1.1	p.p.
Provisions for the year (deducted of replacements)	88.1	100.1	12.0	13.6
of which:				
Overdue credit	51.6	44.4	- 7.2	- 13.9
Doubtful credit	17.2	4.7	- 12.5	- 72.5
Country risk	0.1	4.9	4.9	-
Securities (investment portfolio)	- 0.3	1.5	1.8	-
General risk	17.1	26.9	9.8	56.9
Provisions for credit (accumulated)	622.2	642.3	20.1	3.2
Overdue credit	383.3	351.0	- 32.3	- 8.4
Doubtful credit	47.6	44.6	- 3.0	- 6.3
Country risk	9.3	11.8	2.5	26.7
General risk	181.9	234.9	53.0	29.1
Provisions for unrealised losses	56.3	62.1	5.9	10.4
Total credit provisions/overdue credit and interest (percentage)	107.0	121.0	14.0	p.p.
Specific provisions/overdue credit (percentage)	74.1	74.5	0.4	p.p.
Resources from clients	20 475.6	22 002.6	1 527.0	7.5
Own capital	2 656.0	3 006.2	350.2	13.2
Profit and loss account				
	Jun 98	Jun 99	Change	
			Absolute	Percentage
Net interest income (financial margin)	426.9	493.7	66.8	15.6
Interest income and equivalent ^(b)	1 294.3	1 189.8	- 104.5	- 8.1
Income from securities ^(c)	41.8	78.6	36.7	87.8
Interest costs and equivalent	909.2	774.7	- 134.5	- 14.8
Other current results	180.1	170.6	- 9.4	- 5.2
Commissions (net value)	82.8	98.3	15.5	18.7
Profits in financial operations (net values)	59.0	33.2	- 25.8	- 43.7
Other profits (net values)	38.3	39.2	0.8	2.1
Banking product	607.0	664.3	57.3	9.4
Staff costs	187.9	201.7	13.7	7.3
Services and supplies from third parties	119.3	128.8	9.4	7.9
Operating cash-flow	299.7	333.9	34.2	11.4
Extraordinary income (net)	12.4	19.5	7.1	57.8
Cash-flow	312.0	353.4	41.3	13.2
Allocation:				
Provisions for the year (net of replacement of provisions)	88.1	100.1	12.0	13.6
Depreciation for the year	39.9	43.5	3.6	8.9
Tax on income for the year	39.0	36.4	- 2.6	- 6.6
Net income for the year	145.1	173.4	28.3	19.5
Capital adequacy ratio (on a consolidated basis)	11.2	12.4	1.1	p.p.

Notes:

(a) Includes branches of EC credit institutions (except for the capital adequacy ratio).

(b) Includes interest from fixed-rate securities.

(c) Variable-income securities.

Table 2
INSTITUTIONS REGISTERED^(a)

	Number of institutions	
	1998	1999
	Dec	Jun
Credit institutions	294	294
Banks and branches of foreign banks	62	63
Saving banks ^(b)	7	7
Mutual agricultural credit banks	160	158
Investment companies	3	4
Financial leasing companies	24	22
Factoring companies	9	9
Credit-purchase financing companies	22	21
Branches or other foreign credit institutions	7	10
Financial companies	152	149
Dealers	12	12
Brokers	10	12
Foreign exchange or money market mediating companies	3	3
Investment fund managing companies	55	52
Credit card issuing or managing companies	3	3
Wealth managing companies	20	20
Regional development companies	3	3
Risk capital companies	10	9
Group-purchase managing companies	7	7
Exchange offices	27	26
Other companies	2	2
Representative offices of credit institutions and financial companies having their head office abroad	25	27
Holding companies	58	55
Total	529	525

Notes:

(a) Includes branches of EC credit institutions. Does not include institutions that, although registered in the *Banco de Portugal*, have gone into liquidation.

(b) Includes the *Caixa Económica Montepio Geral*.

created, while the reduction in registrations — of one institution — was due to a merger operation.

The group comprising the remaining credit institutions, financial companies and holding com-

panies⁽⁵⁾ counted 435 institutions. In net terms, four institutions exited this group in the first half of 1999.

Although the overall number of credit institutions and financial companies (443) does not differ greatly from that recorded on 31 December 1998, significant developments took place over the course of the half-year.

Entries into the system resulted chiefly from the constitution of two banks (as mentioned above), the establishment of three branches of specialised foreign credit institutions and the beginning of activity of two brokers, while exits were due namely to the following developments:

- the continuation of the process of financial restructuring and consolidation of the *Crédito Agrícola Mútuo*, which has been carried out mainly through merger operations (the number of agricultural credit co-operatives decreased from 175 in June 1997 to 158 in June 1999).
- the rationalisation processes carried out by the Portuguese financial groups, which is particularly evident in the reduction of the number of financial leasing companies and investment fund managing companies.
- the introduction of the euro, whose impact on exchange offices has already begun to yield some effects⁽⁶⁾.

At the end of June 1999, banking institutions continued to hold the bulk of financial intermediation; this is shown by the indicators presented in table 3. This position is even stronger, taking into account the significant number of other kinds of credit institutions and financial companies belonging to banking groups.

(5) According to the Legal Framework of Credit Institutions and Financial Companies, holding companies are only registered in the *Banco de Portugal* and subject to its supervision when:

- the total value of their holdings in credit institutions, financial companies or in both accounts for 50 per cent or more of total investment; or
- investments held directly or indirectly give them at least 50 per cent of voting rights in one or more credit institutions or financial companies.

(6) In the second half of 1999, two other exchange offices ended business.

Table 3

SOME STRUCTURE INDICATORS ^(a)

30 June 1999

PTE billion

	Banks		Saving banks ^(b)		Mutual agricultural credit banks		Other credit institutions		Financial companies		Total
		%		%		%		%		%	
Net assets	44 742.3	90.2	1 321.5	2.7	1 572.6	3.2	1 540.5	3.1	430.6	0.9	49 607.5
Credit to clients	19 917.5	85.1	1 156.6	4.9	785.4	3.4	1 459.2	6.2	72.9	0.3	23 391.6
Debts to clients	20 703.6	91.3	987.0	4.4	984.7	4.3	0.0	0.0	0.0	0.0	22 675.3
Cash flow	344.7	84.5	8.9	2.2	13.5	3.3	22.0	5.4	19.1	4.7	408.1
Income for the year	169.4	84.3	4.1	2.0	7.4	3.7	9.2	4.6	11.0	5.5	201.0
No. of institutions	63	14.6	7	1.6	158	36.7	56	13.0	147	34.1	431

Notes:

(a) Includes branches of EC banks.

(b) Includes the *Caixa Económica Montepio Geral*.

2.2 Level of concentration of the banking system and market shares of foreign institutions

The behaviour of the indicators for the banks integrating the five major financial groups point towards some stabilisation of the level of concentration. However, the slight increase in the market share in net results, as well as the small share reductions regarding resources from clients and the number of branches should be mentioned (table 4). While as regards resources from clients, the market share of these banks has decreased progressively (by 2.7 percentage points since June 1997), the behaviour of the number of branches partly offsets the slight expansion achieved in the same period of the previous year (+0.5 percentage points), narrowing from 76.9 per cent at the end of June 1998 to 75.8 per cent at the end of the first half of 1999.

Between June 1998 and June 1999, the market share of the five greatest banks recovered according to all indicators analysed.

The change in the market share of the ten greatest banks should be interpreted with caution, since a merger occurred in the second half of 1998; hence in 1999 this group includes one more bank than at the end of June 1998.

Non-domestic banks — subsidiaries⁽⁷⁾ and branches of foreign institutions — recorded a mar-

ket share gain of about one percentage point as regards the analysed indicators (table 5), which despite revealing a still low share in the Portuguese banking system, denotes a sustained expansion by the activity of these institutions.

It should be noted, however, that the market share gains achieved by foreign banks result from distinct behaviours of branches and subsidiaries. Indeed,

- the growth of the market share as regards credit to clients (0.8 percentage points) was due exclusively to the subsidiaries, which exhibited a rate of growth (60.4 per cent) clearly above that of the system as a whole by around 28.8 percentage points; this increase explains about 81.0 per cent of the rise in loans granted by foreign banks.
- meanwhile, market share gains at the level of resources from clients (1.1 percentage points) reflect more homogeneous contributions of branches and subsidiaries, though the latter exhibited a stronger buoyancy in the widening of the deposits base.

(7) Institutions having their head office in Portugal, and whose equity capital is mostly held by banking groups having their head office in other countries.

Table 4

MARKET SHARES^(a)

A - Five major banking groups

Percentage	Assets	Credit	Resources from clients	Net income	Number of branches
30.06.98	77.8	76.7	82.1	79.4	76.9
30.06.99	77.1	76.9	80.9	79.9	75.8

B - Five major banks ^(b)

Percentage	Assets	Credit	Resources from clients	Net income	Number of branches
30.06.98	49.3	46.0	53.7	50.1	44.2
30.06.99	49.8	46.4	54.5	54.9	45.8

C - Ten major banks ^(b)

Percentage	Assets	Credit	Resources from clients	Net income	Number of branches
30.06.98	70.8	60.9	72.4	69.8	62.6
30.06.99	71.1	71.9	81.0	72.1	74.2

Notes:

(a) Includes branches of EC banks.

(b) The five and ten greatest banks in each period are considered; choice is made taking assets as a reference, and on the basis of overall activity.

3. DEVELOPMENTS IN ACTIVITY AND RESULTS

3.1 Activity

The total net assets of the banking system increased by 10.2 per cent in year-on-year terms⁽⁸⁾, considering the average values of the first half of 1998 (table 6). Despite being an outcome of particularly distinct behaviours of the main aggregates, this development evidences a slowdown — for the second consecutive year — from the strong growth rates recorded in the corresponding periods of previous years (18.4 and 15.6 per cent, re-

spectively between June 1996/June 1997 and between June 1997/June 1998). This behaviour is even clearer in terms of end-of-period values — net assets grew 8.6 per cent, against 13.1 and 22.7 per cent at the end of the first half of 1998 and 1997, respectively. The aggregate “credit granted to clients” not only recorded an extremely high growth rate (31.6 per cent), but it also accounted for a strong acceleration from the corresponding half of the previous year (23.1 per cent growth) — which had already evidenced the strong momentum of lending activities. It should also be noted that credit granted to clients is the only major balance sheet item whose value increased in the period.

This behaviour — together with the behaviour of investments in credit institutions and of securities investments — determined the strengthening

(8) Except when mentioned otherwise, the indicated growth rates are the percentage change in relation to the same period of the previous year.

Table 5

SHARE OF SUBSIDIARIES AND BRANCHES OF FOREIGN BANKS

Percentage

	Number		Net assets		Net credit to clients		Resources from clients	
	Jun98	Jun99	Jun98	Jun99	Jun98	Jun99	Jun98	Jun99
Branches	20	19	2.4	3.3	3.6	3.3	1.0	1.8
Subsidiaries	9	11	8.9	8.9	5.3	6.5	5.1	5.5
Foreign banks	29	30	11.3	12.2	9.0	9.8	6.2	7.3

Note: Includes branches of EC banks.

of the trend towards the structural restructuring of the banking system's assets. Indeed, loans to clients reached a relative share of 44.9 per cent at the end of the first half of 1999 (7.9 percentage points more than one year before). As a result, the ratio between high liquidity assets⁽⁹⁾ and credit to clients has come to decrease at a faster pace (51.8, 35.2 and 12.8 per cent, respectively at the end of June 1997, 1998 and 1999). The coverage of net

credit to clients by deposits from the non-financial sector⁽¹⁰⁾ has also decreased gradually, and at a faster pace (coverage rates of 134.0, 118.5 and 99.0

(9) Broadly defined as the sum of cash and liquidity assets in central banks, investments in credit institutions (net of resources from credit institutions) and net investments in Portuguese public debt securities and in fixed-income securities issued by non-residents.

(10) i.e., excluding General Government deposits.

Table 6

STRUCTURE OF ASSETS

PTE billion

	1997		1998		1999		Rate of growth (percentage)	
	Jun	%	Jun	%	Jun	%	Jun 98/ /Jun 97	Jun 99/ /Jun 98
	Net assets	37 476.6	100.0	42 390.9	100.0	46 031.1	100.0	13.1	8.6
Cash and liquid assets in central banks . .	507.6	1.4	482.7	1.1	578.3	1.3	-4.9	19.8
Investments in credit institutions	13 504.8	36.0	14 359.6	33.9	13 458.3	29.2	6.3	-6.3
In Portugal	5 974.5	15.9	7 105.7	16.8	6 901.5	15.0	18.9	-2.9
Abroad	7 530.3	20.1	7 253.9	17.1	6 556.8	14.2	-3.7	-9.6
Credit to clients (net)	12 747.2	34.0	15 694.8	37.0	20 651.0	44.9	23.1	31.6
of which:								
Live credit	12 574.0	33.6	15 553.4	36.7	20 527.4	44.6	23.7	32.0
Overdue credit	606.1	1.6	581.6	1.4	531.0	1.2	-4.0	-8.7
Provisions for overdue credit	393.4	1.0	383.3	0.9	351.0	0.8	-2.6	-8.4
Security investments (net)	7 072.8	18.9	7 209.1	17.0	6 524.4	14.2	1.9	-9.5
Financial fixed assets (net)	1 017.2	2.7	1 236.8	2.9	1 244.3	2.7	21.6	0.6
Non-financial fixed assets (net)	686.1	1.8	742.9	1.8	739.3	1.6	8.3	-0.5
Non-financial fixed assets	1 196.1	3.2	1 328.5	3.1	1 369.9	3.0	11.1	3.1
Depreciation	510.1	1.4	585.5	1.4	630.6	1.4	14.8	7.7
Other assets	750.5	2.0	1 183.5	2.8	1 260.3	2.7	57.7	6.5
Sundry accounts	1 190.4	3.2	1 481.6	3.5	1 575.2	3.4	24.5	6.3
Memo: net average assets in the 1st half-year	35 468.9		40 988.6		45 164.2		15.6	10.2

Note: Includes branches of EC banks.

Table 7

NON-SECURITISED DOMESTIC CREDIT TO COMPANIES AND INDIVIDUALS

PTE billion

	1997		1998		1999		Rate of growth (percentage)	
	Jun	%	Jun	%	Jun	%	Jun98/	Jun99/
							/Jun97	/Jun98
Non-banking financial institutions	838.2	6.6	1 132.7	7.2	1 254.6	6.1	35.1	10.8
Non-financial companies	5 787.7	45.8	6 961.2	44.2	8 817.2	43.2	20.3	26.7
Individuals	6 000.1	47.5	7 646.5	48.6	10 359.6	50.7	27.4	35.5
Housing	4 229.4	33.5	5 557.8	35.3	7 609.5	37.2	31.4	36.9
Other purposes	1 770.7	14.0	2 088.8	13.3	2 750.2	13.5	18.0	31.7
Total	12 626.0	100.0	15 740.4	100.0	20 431.4	100.0	24.7	29.8

Note: Does not include branches of Portuguese credit institutions abroad; includes branches of EC banks in Portugal.

per cent at the end of June 1997, 1998 and 1999, respectively).

Investments in credit institutions decreased in absolute terms, decreasing 4.7 percentage points as a share of total assets (to 29.2 per cent at the end of June 1999); this development follows to the moderate growth recorded between June 1997 and June 1998 (6.3 per cent), slightly below the growth of net assets. The reduction of investments in credit institutions resulted from investments in Portugal (PTE -204.2 billion) but especially from interbank investments abroad (PTE -697.1 billion).

However, it should be noted that underlying the behaviour of investments in credit institutions abroad, there is a partial transfer of investments in the home office or the branches of the (resident) bank itself, as well as in the branches of other Portuguese institutions, to other foreign banks, which increased PTE 981.7 billion. As a result, the reduction of total investments in credit institutions abroad was possibly linked not only to the transfer of resources to domestic lending activity, but also to the financing of non-resident entities eventually belonging to the same group.

The restructuring of interbank investments abroad, of which "other credit institutions" accounted in June 1999 already for 90.8 per cent (65.4 per cent one year before) might also be linked to the reinvestment in specific geographical areas or emerging economies which in the meantime began adjustment processes.

The reduction of investments in credit institutions in Portugal (-2.9 per cent), which follows to a period of strong growth (18.9 per cent) can be re-

lated, namely, with the stabilisation of intra-group operations (recall that the analysis is carried out on an individual basis).

As stressed above, bank credit to clients accelerated again in the period under review, reinforcing the trend recorded in previous periods.

The persistence of the reduction (or maintenance) of nominal (and real) interest rates throughout most of the half-year, together with the growth of households' disposable income and the maintenance of favourable expectations about macroeconomic conditions, are again among the factors explaining the behaviour of bank loans.

The dynamism of (net) credit to resident clients (acceleration from a 22.6 per cent growth rate in June 1998 to 31.4 per cent in June 1999) explains that this item has maintained its position as the bulk of total bank loans granted virtually unchanged (92.2 per cent at the end of the first half of 1999). Indeed, credit to non-residents grew more (33.7 per cent), but achieved only a marginal increase as a share of the portfolio of bank loans (+0.1 percentage points) due to its small share in net assets (3.5 per cent at the end of June 1999).

By borrowing sector⁽¹¹⁾ (table 7), the system's bank lending is characterised by the sharp accel-

(11) The following analysis of the breakdown of gross credit to residents (including overdue credit) by sector refers exclusively to the domestic activity of banks operating in Portugal and in the *Madeira* and *Santa Maria* off-shore areas. Hence, unlike in the remaining balance sheet items of the banking system, the activity of branches abroad is not included. Total credits to non-financial companies do not include the acquisition, by banks, of securities issued by those companies.

Table 8

STRUCTURE OF NON-SECURITISED CREDIT TO NON-FINANCIAL COMPANIES
ACCORDING TO SECTOR

Percentage	Rate of growth (percentage)				
	1997	1998	1999	Rate of growth	
	Jun	Jun	Jun	Jun98/ /Jun97	Jun99/ /Jun98
Agriculture, forestry, hunting and fisheries...	2.4	2.0	1.8	-1.4	16.3
Mining	1.1	1.0	1.1	2.3	41.1
Manufacturing	26.4	24.7	22.4	12.2	14.9
Electricity, gas, water.....	3.4	2.9	3.8	1.7	67.0
Construction and public works	14.9	16.2	16.5	30.4	29.0
Services	51.7	53.4	54.5	24.1	29.3
Total	100.0	100.0	100.0	20.3	26.7

Note: Does not include branches of Portuguese credit institutions abroad; includes branches of EC banks in Portugal.

ation of lending to individuals (35.5 per cent growth in June 1999, against 27.4 per cent one year before), with no parallel in credit to non-financial companies — which nevertheless showed a strong momentum (26.7 per cent growth). As a result, credit to private individuals accounted for over one half of non-securitised domestic credit (50.7 per cent) at the end of the first half of 1999, alongside the reduction of the relative share of credit to non-financial companies (by -1.0 percentage points).

The expansion of domestic bank credit to individuals was chiefly an outcome of the behaviour of mortgage lending (36.9 per cent growth, 5.5 percentage points more than one year before), which represented around 73.5 per cent of that aggregate. Credit granted to individuals for other purposes — mainly consumption — also exhibited a marked acceleration, namely over the course of the half-year (i.e., following to the rise in the minimum provisioning level for the coverage of general risks associated with this kind of loans).

Among the most relevant sectors in the structure of credit to non-financial companies (table 8), the services sector and the construction and public works sector also grew above the average (respectively by 29.3 and 29.0 per cent), though slowing down in the latter case (by 1.4 percentage points).

Therefore, the concentration of domestic credit to non-financial companies in the services sector strengthened (to 54.5 per cent at the end of June

1999, 1.1 percentage points more than one year before). However, these figures are probably overestimated, since non-financial groups resort frequently to bank credit through the respective holding companies, which are classified in the sector “other services” for statistical reasons.

Credit granted to manufacturing industries — the greatest sub-sector of the secondary sector — grew 14.9 per cent; despite accelerating from the same period in 1998, this credit grew below the overall aggregate, yielding a reduction of the relative share of credit to this sector in bank credit to non-financial companies (by about 2.3 percentage points).

The breakdown of non-securitised domestic credit to non-financial companies (table 9) reveals that lending for investment purposes continued to grow strongly (20.1 per cent), though slowing down from the same period of the previous year (25.8 per cent), when this item had evidenced a particularly expressive buoyancy.

Investments in securities fell sharply (-9.5 per cent), after having remained virtually unchanged in the same period of 1998 (1.9 per cent change). This reduction is fully due to the fall in investments in Portuguese public debt securities (PTE-1,201.2 billion between the end of June 1998 and the end of June 1999); the percentage change (-41.4 per cent) exceeded that recorded in the same period of the previous year, which had already been negative (-13.8 per cent). The behaviour of

Table 9

**STRUCTURE OF NON-SECURITISED CREDIT TO NON-FINANCIAL COMPANIES
ACCORDING TO PURPOSE**

Percentage	1997		1998		1999		Rate of growth (percentage)	
	Jun		Jun		Jun		Jun98/ /Jun97	Jun99/ /Jun98
Investment	24.0		25.1		23.8		25.8	20.1
Others	76.0		74.9		76.2		18.5	28.9
Total	100.0		100.0		100.0		20.3	26.7

Note: Does not include branches of Portuguese credit institutions abroad; includes branches of EC banks in Portugal.

banks' investment portfolio of Portuguese public debt securities is linked to the disposal of this kind of security to non-residents.

The remaining fixed-income securities yielded a positive contribution to the aggregate of portfolio investments (8.0 per cent growth), despite the divergent behaviour of investments in bonds issued by "other residents" (which grew 20.0 per cent, exceeding the relative proportion of Portuguese public debt securities in banks' overall portfolio) and those issued by non-residents, which decreased in absolute terms (-3.4 per cent).

Investments in variable-income securities also contributed positively to the banking system's investments in securities, accounting for 11.3 per cent of this item on 30 June 1999 (compared with 8.0 per cent in the corresponding period of 1997 and 1998). Stress should be laid on the behaviour of this kind of securities issued by non-residents (66.3 per cent growth), which however continue to account for a small proportion in total securities investments (4.1 per cent).

As regards banks' liabilities (table 10), worth highlighting is the significant slowdown of resources raised from credit institutions (5.8 per cent

Table 10

STRUCTURE OF RESOURCES

PTE billion	1997		1998		1999		Rate of growth (percentage)	
	Jun	%	Jun	%	Jun	%	Jun 98/ /Jun 97	Jun 99/ /Jun 98
Resources.	37 476.6	100.0	42 390.8	100.0	46 031.1	100.0	13.1	8.6
Resources from credit institutions.	12 453.6	33.2	14 113.3	33.3	14 929.4	32.4	13.3	5.8
In Portugal	4 581.6	12.2	5 427.1	12.8	5 698.3	12.4	18.5	5.0
Abroad	7 872.0	21.0	8 686.2	20.5	9 231.1	20.1	10.3	6.3
Resources from clients.	18 524.0	49.4	20 475.6	48.3	22 002.6	47.8	10.5	7.5
Liabilities represented by securities	2 070.6	5.5	2 527.2	6.0	2 610.9	5.7	22.1	3.3
Other liabilities.	203.1	0.5	250.3	0.6	272.4	0.6	23.3	8.8
Sundry accounts.	1 010.0	2.7	1 249.8	2.9	1 376.1	3.0	23.7	10.1
Provisions	283.6	0.8	272.5	0.6	381.2	0.8	-3.9	39.9
Subordinated debt	717.0	1.9	846.1	2.0	1 452.3	3.2	18.0	71.6
Own capital.	2 214.7	5.9	2 656.0	6.3	3 006.2	6.5	19.9	13.2
Average own capital in the half-year	2 174.4		2 509.9		2 966.9		15.4	18.2

Note: Includes branches of EC banks.

change, against 13.3 per cent one year before) and of resources from clients, though the slowdown of the latter was less significant (7.5 per cent change, compared with 10.5 per cent in the same period of the previous year). This development yielded reductions in the relative share of these items by 0.9 and 0.5 percentage points, respectively.

The behaviour of interbank financing raised abroad is an outcome of opposite trends: on the one hand, the fall (to around half of its value) of resources raised from the head office/branches of the same institution and/or from branches of other Portuguese credit institutions (by PTE -647.5 billion as a whole); on the other hand, the substantial increase of funding through other non-resident banks (by around PTE 1,210.0 billion, to which corresponds a 16.6 per cent growth rate), accelerating from the previous period (12.3 per cent growth).

It should be noted, however, that net foreign interbank liabilities (i.e., interbank liabilities deducted from investments in credit institutions abroad) have not interrupted their upward trend, rising from around PTE 340 billion at the end of June 1997 to over PTE 2,600 billion at the end of the first half of the current year.

Resources from clients — 98.4 per cent of which were, on 30 June 1999, constituted by deposits — slowed down in the period under review, though still rendering the major contribution to the behaviour of the banking system's liabilities.

It should be noted that deposits showed a stronger momentum than resources from clients, growing 10.7 per cent, against 9.0 per cent in the same period of 1998. Indeed, a noteworthy acceleration was recorded both by deposits of other residents (12.8 per cent growth, yielding the leading contribution to the growth of this item) and by deposits of General Government (with its proportion in total deposits rising from 4.7 per cent at the end of June 1998 to 5.4 per cent one year later).

Regarding deposits made by other residents, also worth highlighting is the increasing significance of demand deposits. Indeed, the latter accounted for 42.0 per cent of deposits in June 1999, against 38.2 and 35.4 per cent respectively in 1998 and 1997. As a result, in two years time (between June 1997 and June 1999), the ratio between demand deposits and time or saving deposits rose from 55.0 to 73.1 per cent. This fact is related with

the reduction of the opportunity cost of holding those deposits.

Meanwhile, emigrants' deposits decreased slightly (-0.8 per cent) and securitised deposits held by non-residents exhibited a sharp slowdown (4.2 per cent growth in the period under review, compared with 35.3 per cent one year before), representing around 10.5 per cent of the Portuguese banking system's deposits portfolio on 30 June 1999.

The growth of deposits was not enough to meet the borrowing requirements due to the growth of assets — namely lending — leading to a loss of the relative importance of resources from clients in banks' balance sheet (48.3 per cent in June 1998 and 47.8 per cent in June 1999).

As before, the current behaviour of resources from clients may be associated with the fall in the return of deposits vis-à-vis alternative investments. For instance, the ratio between total investments in investment funds (both securities investment funds and real estate investment funds)⁽¹²⁾ and bank deposits (table 11) increased from 21.8 per cent at the end of June 1998 to 22.2 per cent in June 1999, denoting a slowdown of the public's interest for those securities (after massive investments carried out in previous years), in the context of a decreasing saving rate.

In a context of a strong credit growth and a slowdown of resources from both credit institutions and clients, the resource to alternative funding sources increased, among which stress should be laid on subordinated debt and own funds — jointly contributing with about one fourth of the increase of total resources, growing 27.3 per cent (19.5 per cent one year before). As in the previous period, subordinated debt rendered the greatest contribution to the increase of aggregate "subordinated debt + own funds" (by around PTE 606.2 billion), strengthening their relative share in the system's balance sheet by approximately 1.2 percentage points⁽¹³⁾.

Since on a consolidated basis the increase in complementary own resources (the bulk of which are subordinated debt) was smaller, it should be inferred that the increase of subordinated debt ob-

(12) Excepting investments in units issued by mutual funds.

(13) It should be noted that this trend is not influenced by institutions specialised in off-shore activity.

Table 11

INVESTMENT FUNDS: NUMBER OF FUNDS AND TOTAL INVESTMENTS⁽¹⁾

PTE billion

	Jun 98		Jun 99		Rate of change (percentage)	
	No. of funds	Total investments	No. of funds	Total investments	No. of funds	Total investments
1. Securities investment funds	250	4 656.3	265	4 931.6	6.0	5.9
1.1. Portuguese investment funds	223	4 518.5	229	4 716.5	2.7	4.4
1.1.1. Funds with shares	45	794.1	49	641.6	8.9	-19.2
1.1.1.1. Funds of shares	29	401.2	30	287.4	3.4	-28.4
1.1.1.2. Mixed funds	16	392.9	19	354.2	18.8	-9.9
1.1.2. Bonds funds	65	1 521.5	62	1 579.8	-4.6	3.8
1.1.3. Treasury funds	37	1 052.0	35	1 407.6	-5.4	33.8
1.1.4. Retirement savings funds	8	184.0	8	219.7	0.0	19.4
1.1.5. Shares savings funds	16	69.7	15	75.4	-6.3	8.3
1.1.6. Funds of funds	50	874.6	56	739.1	12.0	-15.5
1.1.7. Groups of funds	5	79.1	6	149.8	20.0	89.4
1.1.8. Guaranteed capital funds	2	22.7	4	53.4	100.0	135.3
1.2. Foreign investment funds	27	137.8	36	215.0	33.3	56.0
1.2.1. Funds with shares	22	129.5	32	202.3	45.5	56.2
1.2.1.1. Funds of shares	22	129.5	32	202.3	45.5	56.2
1.2.1.2. Mixed funds						
1.2.2. Bonds funds						
1.2.3. Treasury funds	5	8.3	4	12.8	-20.0	53.4
2. Real estate investment funds	43	546.0	40	585.0	-7.0	7.1
2.1. Open funds	21	328.6	20	389.1	-4.8	18.4
2.2. Closed funds	22	217.4	20	195.9	-9.1	-9.9
3. Total investment funds (1.+2.)	293	5 202.3	305	5 516.5	4.1	6.0
Memo:				Jun 98	Jun 99	Change
a) Total investments of investment funds, except for domestic units issued by mutual funds				4 473.2	4 883.8	9.2%
b) Debits with clients of the banking system ⁽²⁾				20 475.6	22 002.6	7.5%
c) = a/b				21.8%	22.2%	-

Notes:

(1) Source: APFIN

(2) CGD, CEMG, banks and branches of EU and third countries.

served in the balance sheet of banks analysed on an individual basis partly reflects intra-group operations, aiming an adequate internal distribution of own funds.

3.2 Results

The financial margin grew 15.6 per cent (table 12), accelerating strongly from the first half of 1998 (+5.6 percentage points), and growing clearly more than total assets. The ratio between the financial margin and average net assets rose from

2.08 per cent in the first half of 1998 to 2.19 per cent in the first half of 1999, hence resuming its June 1997 level (table 13). This behaviour is similar to that recorded by the ratio between the financial margin and average assets deducted from inter-bank operations, which rose from 3.10 to 3.29 per cent.

The behaviour of the financial margin in the first half of 1999 resulted mainly from a reduction of interest costs and equivalent greater than that of interest income and equivalent (-14.8 and -8.1 per cent rates of change, respectively), but also from

Table 12

PROFIT AND LOSS ACCOUNT^(a)

PTE billion	1997		1998		1999		Rate of growth (percentage)	
	1st half		1st half		1st half		Jun 98/ /Jun 97	Jun 99/ /Jun 98
	Interest income and equivalent	1 269.5	1 294.3	1 189.8			2.0	-8.1
Income from securities ^(b)	25.2	41.8	78.6			66.2	87.8	
Interest costs and equivalent	906.6	909.2	774.7			0.3	-14.8	
Financial margin	388.0	426.9	493.7			10.0	15.6	
Commissions (net)	65.4	82.8	98.3			26.6	18.7	
Financial operations (net)	76.2	59.0	33.2			-22.6	-43.7	
Other current income (net)	33.2	38.3	39.2			15.4	2.1	
Banking product	562.8	607.0	664.3			7.8	9.4	
Operating costs	289.7	307.3	330.5			6.1	7.5	
Extraordinary income (net)	10.3	12.4	19.5			19.4	57.8	
Cash-flow	283.5	312.0	353.4			10.1	13.2	
Utilisation								
Provisions (replacement of provisions deducted)	99.3	88.1	100.1			-11.3	13.6	
Depreciation	37.3	39.9	43.5			7.0	8.9	
Tax on profits	33.6	39.0	36.4			16.1	-6.6	
Net income	113.4	145.1	173.4			28.0	19.5	

Notes:

(a) Includes branches of EC banks.

(b) Only includes variable income securities.

the PTE 36.8 billion increase of income from securities. A breakdown of the absolute change in the financial margin (PTE +66.8 billion) reveals the positive impact of the quantity effect (expansion of the volume of business), the structure effect (i.e., the widening of the — positive — difference between financial assets and liabilities)⁽¹⁴⁾ and the reduction of the spread between the (implicit) rate of return on financial assets and liabilities, as well as the contribution of income from securities (the latter accounting for about one half of the growth of the financial margin).

Net commissions grew 18.7 per cent, recording a slight slowdown from the high growth rate exhibited in the same period of 1998 (26.6 per cent). The growth of commissions was due to the expansion of commissions charged for the supply of banking services and “other commissions”.

Net income from financial operations strengthened the trend recorded in the first half of 1998,

decreasing in absolute terms (by 43.7 per cent, comparing with 22.6 per cent in the first half of the previous year). This development was chiefly due to net losses and investment revaluation differences (PTE -51.3 billion), which were only partly offset by gains in off-balance sheet operations (PTE +29.2 billion).

The behaviour of the financial margin and other current income translated into a 9.4 per cent growth of the banking product (slowing down 1.6 percentage points from the same period in 1998); since this growth stood slightly below that recorded by average net total assets, the ratio between banking product and average net assets decreased marginally (from 2.96 to 2.94 per cent).

Continuing the trend recorded in the same period of the previous year, contribution of the financial margin to the banking product strengthened again (chart 1), to 74.3 per cent at the end of the first half of 1999 (4.0 percentage points more than one year before). Among current income, net commissions yielded an increased contribution to banking product (1.2 percentage points more than

(14) See chapter “The Banking System” in the 1997 Annual Report of the *Banco de Portugal*/ pages 192 to 194.

Table 13

PROFITABILITY INDICATORS^{(a) (b)}

Percentage	1997	1998	1999
	1st half	1st half	1st half
Return on average assets (ROA)	0.64	0.71	0.77
Return on adjusted average assets (ROA) ^(c)	0.95	1.05	1.16
Return on average equity (ROE)	10.4 3	11.5 6	11.6 9
Financial margin/average assets	2.19	2.08	2.19
Financial margin/adjusted average assets ^(c)	3.25	3.10	3.29
Cash-flow/average assets	1.60	1.52	1.56
Cash-flow/adjusted average assets ^(c)	2.38	2.27	2.36

Notes:

(a) Includes branches of EC banks in Portugal.

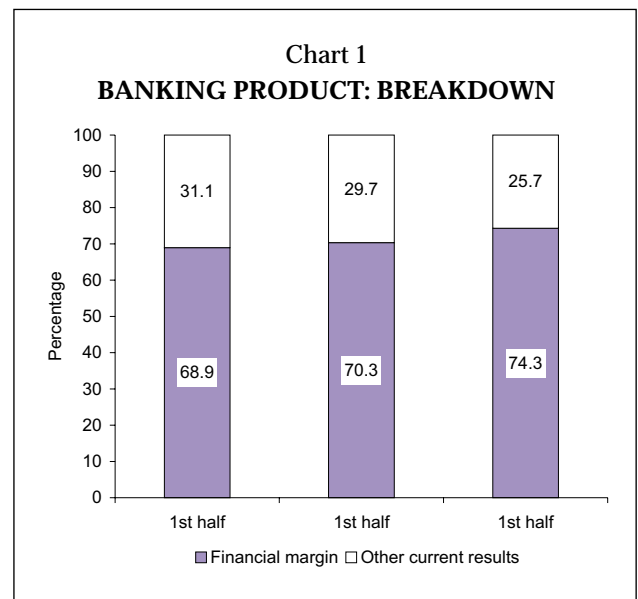
(b) Annualised figures

(c) Adjusted Average Assets — total average assets net of inter-bank resources

in June 1998), while net income from financial operations and other net current income saw their contributions decrease (by 4.7 and 0.4 percentage points, respectively).

The growth of operating costs (7.5 per cent) strengthened strongly from the same period in 1998 (6.1 per cent growth), due to the behaviour of both staff costs and supplies and services from third parties — since the respective shares did not change significantly in the period.

The growth of staff costs (7.3 per cent) is chiefly due to the behaviour of compulsory social contributions (13.5 per cent growth rate), and among these due to contributions to pension funds (26.9 per cent growth), contrary to the behaviour recorded in the first half of 1998, on the other hand, wage costs were less dynamic (5.6 per cent growth), though growing 3.6 percentage points more than one year before. A further breakdown of this item shows that the behaviour of wage costs is greatly due to the growth of additional benefits (10.8 per cent growth), especially as a result of subsidies and other expenses eventually linked to the reduction in the number of banking workers in the banking sector. Indeed, the number of workers decreased since the end of the first half of 1998 (-4.5 per cent change), by around 2.7 thousand workers.



Nevertheless, the share of labour costs in banking product recorded a further reduction (-0.6 percentage points), although the number of agencies continued to increase (slowing down substantially, from 8.1 per cent between June 1997 and June 1998 to 4.8 per cent between June 1998 and June 1999). As a result, the number of workers per counter decreased (from 13.8 at the end of June 1998 to 12.5 in June 1999).

The growth of supplies and services from third parties (especially services, which grew 9.3 per cent), though smaller than one year before, was due chiefly to the outsourcing of skilled services and the hiring of information technology services (in the context of the introduction of the euro and the solving of year 2000 problems).

The ratios that relate total operating costs with average total assets and the banking product decreased again in the first half of 1999, respectively to 0.73 and 49.8 per cent (0.75 and 50.6 per cent one year before).

As in the first half of 1998, the growth of net extraordinary income was determined by the recovery of unrecoverable credits and by capital gains from financial fixed assets.

Net income grew less than in the first half of 1998 (19.5 per cent), which had exhibited a particularly strong growth (28.0 per cent), due especially to the increase of provisions (replacement of provisions deducted), despite the slight reduction in absolute terms of taxes on profits.

Consequently, the half-year profitability of the Portuguese banking system increased (table 13),

when measured by the return on average equity (ROE) and the return on average assets (ROA). ROE in annualised terms rose from 11.56 to 11.69 per cent (thus increasing 0.13 percentage points), while ROA — also calculated in annualised terms — grew 0.06 percentage points, to 0.77 per cent on 30 June 1999. Considering average assets deducted from interbank activity, ROA reached 1.16 per cent, compared with 1.05 per cent at the end of the first half of 1998.

4. DEVELOPMENTS IN CREDIT AND MARKET RISK

4.1 Provisioning

In the first half of 1999, total overdue credit and interest decreased 8.6 per cent (table 14), falling slightly more than in the same period of the previous year (4.1 per cent reduction). This development is linked to a favourable behaviour of new overdue credits, as well as the write-off of credits considered unrecoverable. Therefore, the share of overdue credit and interest with maturity up to 3 months decreased from 7.3 per cent on 30 June 1998 to 6.3 per cent one year later, with most overdue situations continuing to concentrate in longer maturities. The relative share of credit and interest overdue for more than three years has tended to

stabilise (75.6 per cent at the end of the first half of 1999).

In tune with the cyclical position of the economy, the ratio between overdue credit and interest, and (gross) credit to clients stood, at the end of June 1999, at 2.6 per cent, which corresponds to an acceleration of its reduction in comparison with the previous period.

In line with the behaviour of the banking system's portfolio of credit to clients, provisioning for general credit risks grew 29.3 per cent, reaching over one third of total provisioning for the coverage of counterparty risks.

Also worth noting that overdue credit (specific provisions deducted) as a share of net assets decreased from 0.46 per cent in June 1998 to 0.38 per cent in June 1999.

Meanwhile, the ratio between overdue credit and interest (net of provisioning) and total credit granted (provisions also deducted) decreased again, from 1.3 per cent at the end of the first half of 1998 to 0.9 per cent one year later.

Since provisions for overdue credits decreased virtually at the same pace of overdue credit, the coverage of overdue credit by specific provisions stabilised at 66.2 per cent.

Given the behaviour of provisioning for overdue credit and interest, and despite the increase of the remaining provisions for credit granted (by

Table 14

OVERDUE CREDIT AND PROVISIONING

PTE billion	1997		1998		1999		Rate of growth (percentage)	
	1st half		1st half		1st half		/Jun 97 Jun 98/	
							Jun 99/ Jun 98	
1. Credit granted (gross)	12 785.4	15 592.8	20 363.7				22.0	30.6
2. Overdue credit and interest	596.9	572.7	523.7				-4.1	-8.6
3. Provisions for overdue credit	390.3	379.4	346.9				-2.8	-8.6
4. Provisions for general credit risk	146.2	177.4	229.4				21.4	29.3
5. Provisions for doubtful credit (credit)	27.5	43.6	42.5				58.6	-2.6
6. Provisions for country risk (credit)	7.3	9.3	11.8				26.9	26.7
7. Average risk of credit granted [(2)/(1)X100]	4.7%	3.7%	2.6%					
8. Average risk of credit net of provisions [(2-3)/(1-3)] x 100	1.7%	1.3%	0.9%					
9. Total credit provisioning [(3)+(4)+(5)+(6)]/(1) x 100	4.5%	3.9%	3.1%					
10. Overdue credit coverage [(3)/(2)] x 100	65.4%	66.2%	66.2%					

Note: Does not include branches of EC banks in Portugal.

Table 15

CAPITAL ADEQUACY
Consolidated basis

PTE billion	1998		1999
	Jun	Dec	Jun
1. Own funds			
1.1. Base own funds	1 840.6	2 208.5	2 379.2
1.2. Complementary own funds	759.4	894.3	910.2
1.3. Deductions	219.4	153.8	156.3
1.4. Supplementary own funds	3.3	2.5	2.1
Total own funds	2 383.9	2 951.5	3 135.2
2. Own funds requirement			
2.1. Solvency ratio	1 599.6	1 788.2	1 964.3
2.2. Position risks	64.4	51.9	54.8
2.3. Settlement and counterpart risks	6.8	7.5	9.9
2.4. Foreign exchange risks	24.3	57.4	13.4
2.5. Other requirements	0.1	0.0	0.3
Total own funds requirements	1 695.2	1 905.1	2 042.7
3. Ratios			
3.1. Own funds / total requirements	140.6%	154.9%	153.5%
3.2. Own funds / total requirements x 12.5 per cent	11.2%	12.4%	12.3%

PTE 52.4 billion), the overall level of credit provisioning decreased from 3.9 per cent on 30 June 1998 to 3.1 per cent on one year later, greatly reflecting the acceleration of credit to clients.

4.2 Global capital adequacy

The analysis of global capital adequacy uses data compiled on a consolidated basis, although

the average ratio of the banking sector includes some elements compiled on an individual basis (namely the data on institutions not included in financial groups).

On 30 June 1999, the average ratio of global capital adequacy of the system's own funds reached 12.3 per cent (tables 15 and 16), accounting for a 1.1 percentage points increase from one year before, due to the increase in own funds (PTE

Table 16

CAPITAL ADEQUACY RATIO: BREAKDOWN
Consolidated basis

Percentage	Base own funds / weighted risks	Other own funds / weighted risks	Deductions / weighted risks	Global capital ratio
1998				
Jun	8.7	3.6	1.0	11.2
Dec	9.3	3.8	0.6	12.4
1999				
Jun	9.3	3.6	0.6	12.3

751.3 billion) above that of the requirements for the coverage of credit and market risks (PTE 347.5 billion).

Requirement for the coverage of counterparty risks of the banking portfolio strengthened their importance (from 94.4 per cent in June 1998 to 96.2 per cent one year later), in line with the behaviour of credit granted by the banking system in the period under review.

The relative share of own fund requirements in the coverage of exchange risks decreased significantly, from 1.4 per cent at the end of the first half of 1998 to 0.7 per cent on 30 June 1999, as an outcome of the introduction of the euro and the resulting reduction in the Portuguese banking system's risk positions.

A breakdown of the banking system's own funds (excluding deductions) reveals that the base

own funds increased in relative terms, from 70.7 at the end of June 1998 to 72.3 per cent one year later, with detriment to complementary own funds. Indeed, base own funds and complementary own funds grew 29.3 and 19.9 per cent, respectively; the growth of own funds and the raising of subordinated debt stand as indispensable instruments for sustaining the high levels of activity of Portuguese banking institutions.

Finally, it should be noted that, in the period under review, all institutions recorded levels of the overall ratio of capital adequacy above the legally fixed minimum threshold (8.0 per cent), both on a consolidated and on an individual basis, according to the regime regulating these institutions.

Completed with information available as on 10 October 1999.

A NEW REGIME OF CAPITAL ADEQUACY

The Project of Recommendations of the Basel Banking Supervision Committee

I. Background

The Basel Banking Supervision Committee released in June a consultative document which presented a project of recommendation aiming at a deep reformulation of the "Capital Agreement" (of 1998), which originally covered above all the minimum own funds regime for credit risk coverage (the solvency ratio).

Meanwhile, in the context of the European Community — by the initiative of the Commission and under the aegis of the Banking Advisory Committee — procedures in this field began; the main objectives of these are to ensure a minimum convergence of prudential requirements at the international level, and to take into account (1) the specificity of European banking systems (e.g., the existence of specialised credit institutions operating at a local scale), (2) the distinct field of application of prudential measures (other non-banking financial institutions), (3) the diversity of implementation of these measures (e.g., consolidation methods), and (4) the distinct nature of requirements (recommendations versus legally imperative provisions).

II. The drawbacks of the current minimum own funds regime for credit risk coverage

Despite the unquestionable contribution of the 1998 Capital Agreement to financial stability, the current regime bears some inefficiencies, which were reinforced with the development of the process of financial and technological innovation meanwhile occurred:

- The structure of risk weights of assets and of off-balance sheet operations does not establish an adequate distinction of the risk profile — in both effective and economic terms — of counterparts.
- The divergence between the concepts of regulatory and economic risk leaves space to regulatory arbitrage.
- The Agreement does not allow the use of new techniques and instruments in order to reduce credit risks (e.g., colateralisation or credit derivatives under certain circumstances), while it may raise perverse incentives.

III. Objectives of the new capital adequacy regime

According to the consultative document, the revision to the own funds regime builds upon the following principles:

- The non-erosion of the current capitalisation levels of banking institutions, as to preserve the soundness and solvency of financial systems.
- The promotion of fairer competitive conditions, meaning that the prudential measures shall not introduce competitive distortions (level playing field).
- Own fund requirements shall continue to be based on the principle of coverage of materially relevant risks, though adopting a broader approach — i.e., covering other risks, like interest rate risk (banking book), operational risks and legal risks.
- Focus on "banks with significant international activity", without prejudice to the application of the recommendations to other institutions.

IV. The three pillars

The new regime builds upon three pillars: (1) the definition of minimum own funds requirements to cover credit risks, interest rate risks (banking book) and risks of difficult quantification (e.g., operational and legal risks); (2) new supervision policies and practices (which may lead to fixing different requirements according to the risk profiles or the soundness of management and internal control systems of banking institutions), and (3) principles of information disclosure to the markets and the general public, to enhance transparency regarding banks' financial situation and solvency.

1. Own funds minimum requirements

a. Methods of calculation of capital minimum requirements for credit risk coverage

The project of Recommendations privileges for most institutions a standard method (improved), though admitting that more sophisticated institutions may use their own internal ratings (providing that these meet a set of quantitative and qualitative criteria, are previously approved by the supervisory authorities, and granted that it is feasible to build a "system of equivalence" to the standard method), and in a wider time span, also internal models.

As regards the standard method, the most substantial changes affect the current set of weights, aiming at ensuring a greater sensitivity of those weights to effective credit risk of counterparts.

Therefore,

- For assets (claims) on central Governments and central banks, it is suggested that banks resort to notations (of long-term sovereign debt) published by rating agencies or other entities (e.g., agencies of official support to credits to OECD countries' exports). However, these notations should not be employed mechanically. Instead, two additional conditions should be fulfilled:*
 - The rating agency must be recognised by supervisory authorities (according to transparency, objectivity, independence, credibility and experience criteria).*
 - For central Governments and central banks to benefit from a zero weighting, the respective country must have subscribed the Special Data Dissemination Standards of the International Monetary Fund.*
- As regards the weighting coefficients of banks and investment firms, the consultative document presents several options:*
 - The first consists in attributing to these entities a weight which is immediately greater than that of the respective central Government, with a ceiling of 100 or 150 per cent.*
 - Instead, rating agencies' notations could be used, possibly developing a ranking according to the term-to-maturity of exposures, while complying to additional criteria — e.g. adhesion to the Core Principles — and fixing floors and ceilings for the weighting coefficients at 20 and 150 per cent, respectively.*
 - In general, a 100 per cent weight shall continue to be attributed to non-financial companies, though a lower weighting coefficient (20 or 50 per cent) might be admitted for companies rated at AA - (or equivalent) at the least, and attributing a 150 per cent weight for companies exhibiting a degraded risk profile.*
 - The maximum weight coefficient shall be raised to 150 per cent; in addition to the above referred cases, this coefficient can be attributed to other situations of very high risk exposure, though these are not identified in the consulting document.*

b. Credit risk mitigation techniques

The chapter of the consultative document dedicated to credit risk mitigation techniques is preliminary and somewhat vague; therefore, only the major solutions under discussion are mentioned.

On-balance-sheet netting may comprise any assets and liabilities beyond those foreseen in the recommendations previously issued by the Basel Committee.

The enlargement of the eligible collateral to reduce counterpart risks shall be applicable to any financial assets with a weighting coefficient below that of the underlying exposure, as long as the market value of the collateral is easily determinable and easily converted in cash. The document also foresees the expansion of eligible guarantors (in principle, entities with a risk weighting coefficient lower than that of the principal counterpart of the transaction). In both cases the Committee asks for comments about the possibility of introduction of a complementary factor of risk reduction — in addition to replacing the counterpart weighting coefficient by that of the collateral/guarantor — as to recognise the imperfect correlation between the default of the counterpart and the default of the guaranty/collateral.

In case of imperfect hedge, the Basel Committee proposes:

- The imposition of own funds requirements — taking the form of an add-on for the coverage of potential future risk — in the case of mismatches between the term-to-maturity of the transaction on that of the risk mitigation instrument/technique — and a minimum maturity for the hedge.*
- The introduction of add-ons or of an over-margin, as to minimise the future potential risk resulting from changes in the market price of the collateral.*
- In the specific case of credit derivatives, it may be required (for the recognition of the respective risk reduction effects) that reference and underlying assets are “issued” by the same entity, that the reference asset has a ranking “pari passu” (with the underlying) and that cross-default clauses are established.*

c. Other risks

Contrary to what happens with interest rate risk underlying the banking book (for which no method for calculating own funds minimum requirements is yet proposed), the Basel Committee refers several alternative methods (to be commented) of determination of minimum own funds for coverage of operational risks, whilst privileging the simplified method — according to which it should be applied a given percentage factor (still to be parameterised to the incidence basis (i.e., aggregated measure based on gross income, commissions, operating costs and/or assets under management)).

2. Supervisory review of capital adequacy

The second pillar of the new regime resumes to four major principles:

- Supervisory authorities expect that institutions have own funds above the minimum regulatory levels and should have competencies to impose different capital requirements according to the risk profile of each bank.*
- Institutions must define strategies compatible with the maintenance of adequate levels of own funds and set up control systems that allow them to monitor the compliance with those strategies.*
- Supervisory authorities shall examine, on a regular basis, the internal systems of assessment of capital adequacy and the compliance with prudential requirements.*
- Supervisory authorities must intervene when adequate, to prevent own funds from falling below prudent levels.*

3. Market discipline

According to the Basle Committee, market discipline can only be achieved if institutions render trustworthy and materially relevant information that enable a correct appraisal of their financial soundness and solvency by financial operators, analysts, institutional investors and other counterparts.

This information should, at the least, be supplied on an annual basis (in reports annexed to institutions' accounts), comprising detailed elements of a qualitative and quantitative nature about the most significant activities, profitability, risk exposures and risk management systems.

OUTLET SUBSTITUTION BIAS*

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This study uses microeconomic data to estimate the size of the CPI bias due to retail outlet substitution. The estimated value for the bias is slightly higher than what is reported in studies carried out in other countries, but it is declining. This difference is explained by the important changes in the selling circuits that occurred in Portugal over the last decade.

1. INTRODUCTION

The Consumer Price Index (CPI), as calculated by *INE* for Portugal, and by equivalent agencies in several other countries, measures the evolution of the price of a fixed basket of goods and services, in a pre-determined set of retail stores. This kind of index is extremely useful, not only due to its simple interpretation, but also because it is based on a set of fully objective procedures established according to internationally accepted methodologies.

Despite their advantages, indices of this kind do not accurately measure changes in the cost of living. In fact, they do not take into account, neither changes to the basket of goods purchased by the consumer, nor the changes in the quality of products and the entry into the market of new types of outlets (see Boskin et al., 1996, and the references therein).

In order to adapt the index to the market evolution, the agencies in charge of constructing price

indices regularly update the contents of the basket of goods taken as representative and the set of stores where prices are collected. However, it is not feasible to carry out this update on a continuous basis. Therefore, it is interesting to study to what extent changes in the economy may imply that the CPI is a biased measure of the cost of living.

For the Portuguese case, Santos and Coimbra (1995) and Neves and Sarmento (1997) analyse possible bias resulting respectively from changes to the quality of products and to the representative basket of goods and services. However, up to now no research has been done on a possible bias due to outlet substitution.

The simple observation of reality suggests that the changes in the distribution circuits occurring in Portugal since the late 1980s may have implied a reasonable bias in the CPI. Indeed, the continuing opening of large hypermarkets, together with the constant expansion of supermarket chains (and more recently also of discount stores) led many consumers to switch from traditional stores to the new outlets. This trend is due not only to the low prices found in hypermarkets and supermarkets, but also to the wider range — and, sometimes, the higher quality — of products sold in the new stores.

If, for products with identical quality, prices in a new store are lower than those in traditional

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shops, then consumers may profit from a lower cost of living by transferring part of their purchases to the new outlet. As the CPI measures the evolution of prices in a fixed set of stores, not even the most careful construction of the index can convey this reduction in the cost of living, unless traditional shops react by lowering their prices to match those of the new competitor. Since, in general, this reaction does not occur, the entry into the market of new outlets with prices below those of traditional stores will indeed imply a bias of the CPI.

The analysis of the bias of the CPI due to outlet substitution can also encompass the appraisal of the effects of temporary and reversible trade shifts resulting from households taking advantage of better conditions offered by some stores during short periods.

This article analyses the outlet substitution bias of CPI, using two important microeconomic data sets. Specifically, we use the individual data supporting the calculation of the 1991=100 CPI (*Instituto Nacional de Estatística*, 1992), as well as the results of the 1989/1990 and the 1994/1995 Households Budget Survey⁽¹⁾.

It should be noted that the fact that the CPI may provide a biased idea of the evolution of the cost of living does not in any way imply that the methods *INE* uses in its construction are flawed or inaccurate. Indeed, in the construction of the CPI, *INE* follows internationally established standards, making the CPI a precise indicator of the changes in the price of the selected basket of goods and services, at the stores that were considered representative at the time the sample was defined. The problem with this kind of index — in Portugal and in any other country — is that it may provide a biased indicator of the evolution of the cost of living. Therefore, this problem is not specific to our economy, although this is the case studied here.

2. THE TRADITIONAL METHODOLOGY

Several methods can be used to assess the size of the CPI bias due to outlet substitution. However, the most commonly used methodology (see Moulton, 1996 and Diewert, 1998) is based on two

values: δ_t , the average percentage difference between the prices in the new and in the traditional outlets in period t ; and θ_t , the market share of the new outlets in the same period.

If δ_t and $\theta_t - \theta_{t-1}$ are relatively small⁽²⁾, and if δ_t is constant in time, the bias of the rate of growth of the CPI is approximately given by the product $\delta_t(\theta_t - \theta_{t-1})$, which is the formula generally used in the literature on this issue.

With the available data, this methodology can be slightly improved since it is possible to calculate the bias due to the growth of the market shares of two kinds of new stores: hypermarkets and supermarkets. Therefore, the total bias can be obtained as the sum of the two estimated components. Moreover, these data enable us to calculate these figures yearly, so the formula used in calculating the bias must be adapted accordingly.

To calculate the bias when δ_t varies over time, we assume that for the period t , the price index adjusted for the bias caused by outlet substitution can be expressed as a weighted average of the non-adjusted price index, T_t and an index measuring price behaviour in the new stores, S_t (see Diewert, 1998, page 50). Taking I_t as the adjusted price index, we have

$$I_t = \theta_t S_t + (1 - \theta_t) T_t = T_t (1 - \theta_t \delta_t)$$

where θ_t stands for the market share of the new stores in period t , and $\delta_t = (1 - S_t/T_t)$ is the average percentage difference between prices in the new stores and in the traditional ones, in the same period. Using the usual logarithmic approximation, the rate of growth of the index can be written as follows:

$$\ln(I_t/I_{t-1}) \approx \ln(T_t/T_{t-1}) - \theta_t \delta_t + \theta_{t-1} \delta_{t-1}.$$

Hence, the bias of the rate of growth of the price index can be written as $(\theta_t \delta_t - \theta_{t-1} \delta_{t-1})$, where positive values indicate an overestimation of the inflation rate. It should be noted that this bias can be written as $\delta_t(\theta_t - \theta_{t-1}) + \theta_{t-1}(\delta_t - \delta_{t-1})$, showing that holding price differentials constant does not imply a systematic bias of the results. However, in periods where both market shares and price differ-

(1) We thank the collaboration of *INE*, who made available the microdata necessary for this research.

(2) To allow an approximation of the kind of $\ln(1 + \varepsilon) = \varepsilon$.

entials can vary quickly, this assumption may have a substantial impact on the results.

Although this is the method generally used to measure the CPI bias due to outlet substitution, there are reasons to believe that the data available for calculating the price differentials — contained in the microeconomic database used in the calculation of the CPI — overestimate prices in the new outlets. Indeed, according to the methodology of calculation of the 1991=100 CPI (see *Instituto Nacional de Estatística*, 1992), these data do not take into account sales and other promotions⁽³⁾. They also overlook the fact that in new stores larger packages can be bought, to which usually corresponds lower unit prices. Furthermore, in this kind of analysis average prices are calculated without weighting each item by the amount traded at the corresponding price. Even if it is not clear in which direction this simplification affects the estimated differential, this problem can be expected to worsen the underestimation of the bias⁽⁴⁾. Finally, this kind of analysis cannot account for temporary and reversible trade shifts resulting from households taking advantage of better conditions offered by some stores during short periods (due to sales, promotions, credit conditions, etc.).

Given these shortcomings, it is important to develop an alternative methodology to calculate the CPI bias due to outlet substitution.

3. AN ALTERNATIVE METHODOLOGY

To overcome some of the drawbacks of the traditional approach to the estimation of the CPI bias due to outlet substitution, a complementary analysis can be carried out using data from the House-

holds Budget Surveys (IOF's) for the years 1989/1990 and 1994/1995. This approach is an extension of the methodology used in Reinsdorf (1994), Saglio (1995) and MacDonald (1995).

For a representative sample comprising around 10,000 households, the IOF's record the expenditure and the quantities purchased of a broad range of products, in addition to data on households' social-demographic features and income sources. Using these data it is possible to estimate the average price at which a given product was purchased in 1989/1990 and in 1994/1995. Therefore, for the products included in both surveys, it is possible to calculate the growth rate of average prices in the period between surveys. Then, these elementary prices indices can be aggregated using as weights the share of each product in total expenditure in the first year, and the respective population coefficient. This yields a Laspeyres index of average prices⁽⁵⁾ which can be compared to the CPI. Obviously, the weights used in the construction of these indices are not exactly the same, and this can account for part — albeit a small one — of the difference between both indices.

At this point it is important to stress that there are two critical differences between a price index of the kind of the CPI and a price index like the one obtained from the Budget Surveys⁽⁶⁾. The first is that the latter index follows the changes in the average of the prices actually paid, and not the evolution of the average of prices in a set of stores. Therefore, the price index based on the IOF's takes into account outlet substitution and discounts and promotions consumers actually benefit from, and hence it is not biased by outlet substitution. The second difference is that the latter index shows much greater heterogeneity than the former, since the differences resulting from the existence of several varieties for each product cannot be controlled for. Obviously, this kind of index will be biased if, for a given kind of good, consumers replace top of the range products by less expensive ones, or *vice-versa*.

(3) "The prices supplied by the selected stores are retail prices, and do not reflect prices during sales, promotions, launchings or campaigns". *Instituto Nacional de Estatística* (1999, pp 13). In January 1998, *Instituto Nacional de Estatística* began to publish the CPI base 1997=100, introducing important methodological changes — namely the consideration of price observations in periods of sales and promotions.

(4) Indeed, one only needs to admit that the correlation between price and quantities sold is stronger in the new outlets than in traditional ones, implying a smaller overestimation of average prices in this kind of store. This happens if, for example, clients of traditional stores choose their purchasing point basically according to the location of the store and the quality of service, but not according to the prices, while clients of new stores search for more favourable prices, buying large quantities of products on sale.

(5) It should be noted that this kind of data also permits the calculation of the Paasche index, hence also the Fisher index.

(6) See Saglio (1995) and Nakamura (1998) for excellent discussions on the interpretations of the behaviour of traditional price indices and indices based on average prices.

This range effect (see Saglio, 1995) cannot be measured using only data from the budget surveys, since these would have to include comprehensive information about the characteristics of the purchased products. In general, the continued quality improvements introduced in the products available in the market lead us to believe that this effect translates into an overestimation of the rate of growth of prices, since part of the price increases may be due to quality improvements. However, for the products sold by the new stores this effect is slightly more ambiguous, since in the period under scrutiny the consumption of own-label products (the so-called "white products"), usually considered to be near the bottom of the range, become widespread.

Given the way it is constructed, the CPI is much more robust to this kind of bias. Indeed, the CPI will be biased if improvements occur in the products it considers, but is totally insensitive to demand shifts towards upper or lower range products.

The impossibility of measuring the range effect makes it unattractive to construct a price index based upon the budget surveys data. However, to obtain an estimate for the outlet substitution this is not necessary. Indeed, sales of the new outlets are concentrated, to a large extent, in the class Food and Beverages, where the various kinds of products considered are substantially more homogeneous than, for instance, in the class Clothing and Footwear. Therefore, comparing the index of average prices of Food and Beverages (excluding Food not consumed at home) constructed from the IOF's data to the price index for the same products published by *INE*, it is possible to obtain an estimate of the CPI bias due to outlet substitution.

To give an idea on how to calculate the CPI bias using this method, suppose that in a first moment price indices of foodstuff products and of the remaining products take the value 100, and let α stand for the weight of Food and Beverages in total CPI. The price index increase from the base period to period 1 is given by

$$1 + \pi = \frac{\alpha A + (1 - \alpha)R}{100},$$

where A is the price index of foodstuff goods in period 1, R is the price index of the remaining products in the same period, and π is the inflation

rate. Now suppose it is possible to know a new price index of foodstuff goods, adjusted for the bias resulting from outlet substitution. Denoting this index by B , the overall price index bias due to using A instead of B is given by

$$\left(\frac{\alpha A + (1 - \alpha)R}{\alpha B + (1 - \alpha)R} - 1 \right) \times 100.$$

If the difference between A and B is small, this bias can be approximated by the expression

$$\alpha (A - B) \left(\frac{100}{\alpha A + (1 - \alpha)R} \right),$$

which has the advantage of not requiring the calculation of R . In practice, the bias of the CPI growth rate due to outlet substitution can be approximated by the product of $\alpha / (1 + \pi)$ by the difference between the annual average growth rates of the prices in class Food and Beverages given by the CPI and by the index calculated from the budget surveys.

It should be noted that although the inflation rate appears in the denominator of this expression we cannot conclude that the bias tends to decrease with inflation. In fact, there is some evidence (see Coimbra and Neves, 1997, and the references therein) that higher inflation levels are associated with greater price dispersion, which increases the potential for differences between the annual average growth rates of prices given by both indices.

4. RESULTS AND INTERNATIONAL COMPARISONS

a) Traditional methodology

The calculation of the CPI bias using the method described in section 2 requires data on the price differentials between the new outlets and traditional stores, as well as on the behaviour of market shares of hypermarkets and supermarkets.

To calculate θ , the turnover of hypermarkets and supermarkets must be known. We used data supplied by *Associação Portuguesa de Empresas de Distribuição* (APED) and by the market research company A. C. Nielsen to calculate this parameter.

APED has data on the turnover of its affiliated hypermarkets and supermarkets. Although these figures are only available from 1994 onwards, the

data for hypermarkets are quite useful, since all major hypermarket chains are affiliates of APED. However, to obtain the corresponding figures for years prior to 1994, other data sources must be used. Furthermore, some Portuguese supermarkets are not affiliated in APED. For this reason, other sources are also necessary to calculate the turnover of supermarkets. The estimates for the turnover of hypermarkets and supermarkets disclosed by A. C. Nielsen overcome this problem⁽⁷⁾. With this information, the value of the market shares for each kind of store can be calculated by dividing the respective turnovers by the value of households' final consumption in the Portuguese territory⁽⁸⁾, which is the relevant concept of consumption for the CPI calculation.

Table 1 displays the market shares of hypermarkets and supermarkets in the period under study. The figures show that the growth of the market share of hypermarkets is slowing down, but this is compensated by a quite substantial increase of the share of supermarkets⁽⁹⁾.

As for the values of δ_t , these can be obtained by using the microdata which supported the calculation of the 1991=100 CPI. This database covers around 570 products in almost 9,100 stores, between January 1992 and December 1997. Since the calculation of δ_t only requires the products traded in the new outlets, a sub-sample was selected, containing data on about 330 products grouped into 68 sub-groups. Thus the sub-sample used in this analysis contains about 2.4 million observations. Using this information, the differential at each moment is obtained by calculating the average of the prices for each product⁽¹⁰⁾ in the different kinds of stores, aggregating the percentage difference between the average of prices in the new outlets and in traditional stores using weights that take into account the share of each product in total expendi-

ture. It should be noted that for confidentiality reasons *INE* does not make available the fully disaggregated weights, nor does it indicate which specific product corresponds to each price. These limitations made it necessary to assume that the share of expenditure within each sub-group is evenly distributed by the various items included.

It is important to consider that in some cases — especially for fresh fruit and vegetables — there may be important quality differences between the products sold in the new and traditional stores. To neutralise (at least, partly) the effect of possible quality differences, price differentials were calculated excluding fresh products⁽¹¹⁾. This procedure is adequate if price differentials for fresh products, calculated after adjusting for quality differences, are identical to those recorded for the remaining products.

Using this methodology, we obtained the price differentials between new and traditional outlets, calculated excluding fresh products. The results are shown in table 2⁽¹²⁾.

These differentials are always positive, indicating that on average new outlets charge lower prices than traditional stores. However, considering the various kinds of products separately, the differentials exhibit a great variability. This is evident through table 3, which displays the average

(7) Data for sales in hypermarkets before 1994 were obtained by retropolating the series given by APED using the sales growth rates for this kind of stores implicit in the data supplied by A. C. Nielsen.

(8) The value of households' final consumption in the national territory was obtained by subtracting to residents' consumption the value of tourism imports. Also the value of housing expenditure was excluded. Therefore, throughout the analysis only the bias of CPI excluding housing is considered.

(9) This development may be linked to the limitations introduced to the opening hours of the larger stores by Decree-law no. 48/96 of 15 May and Notice 153/96 of 15 May.

(10) More precisely, we considered that the products traded in the new stores belong to the following classes: Food and Beverages (except food consumed outside home); Housing Apparel (purchasing of durable domestic goods except furniture and current usage products); Education, Culture and Leisure (only the acquisition of radio and TV sets and others); and Other Goods and Services (personal care, durable articles, non-durable articles and other articles). Products of class Clothing and Footwear were excluded since it was considered that there are great qualitative differences between products traded in the new and traditional stores.

(11) Moreover, due to their seasonal nature, some fresh products exhibit quite significant price changes that might distort results. It should be noted that this kind of procedure is not innovative since the research of *Direcção-Geral do Comércio e da Concorrência*, comparing prices in hypermarkets and supermarkets, also excludes fresh products from the analysis (*Direcção-Geral do Comércio e da Concorrência*, 1998).

(12) A research conducted by *Direcção-Geral do Comércio e da Concorrência* comparing the prices of 205 products in 38 hypermarkets and supermarkets during October 1998 indicates that prices in supermarkets are about 6 per cent higher than in hypermarkets (*Direcção-Geral da Concorrência*, 1998). From the data contained in table 2 we infer that the difference is about 4 per cent in 1997. Given the different period and methodology, the results do not seem incoherent.

Table 1

VALUES OF θ_t FOR HYPERMARKETS AND SUPERMARKETS (%)

	Hypermarkets	Supermarkets
1992	4.14	2.75
1993	5.11	3.04
1994	5.48	3.27
1995	6.07	3.75
1996	6.48	4.74
1997	6.59	5.65

Table 2

VALUE OF δ_t FOR HYPERMARKETS AND SUPERMARKETS (%)

	Hypermarkets	Supermarkets
1992	4.4	1.1
1993	6.3	1.9
1994	5.9	2.1
1995	6.2	2.0
1996	7.3	3.6
1997	7.9	3.9

value of the differentials⁽¹³⁾ in the period 1992/1997, for hypermarkets and supermarkets, at the level of product sub-groups. These results show that, while some products are systematically — and substantially — cheaper in the new stores, in some cases differences are negligible or even negative. However, we must recall that prices supporting these calculations do not take into account promotions, hence results should be interpreted with caution.

Combining the information in tables 1 and 2, we can calculate the estimates for the CPI bias for each year. These are shown in table 4. The bias of the annual growth rate of the CPI due to outlet substitution is estimated to have stood below 0.20 percentage points in the period 1993/1997. How-

(13) Calculated excluding fresh products.

Table 3

MEAN VALUE OF δ IN THE PERIOD 1992-1997, FOR HYPERMARKETS AND SUPERMARKETS, ACCORDING TO PRODUCTS SUB-GROUPS (%)

Classes and sub-groups	Hypermarkets	Supermarkets
Food and beverages		
Cereals and derivatives	9.18	3.08
Starch.	-0.72	0.18
Leguminous	9.03	6.62
Eggs	-0.60	-2.50
Milk and dairies excluding butter	6.82	1.82
Dietetic products	5.55	1.43
Oil and fat	9.48	4.20
Sugar, derivatives and past.	10.20	4.38
Cocoa, coffee, tea	13.98	2.58
Sundry: seasonings, etc.	5.63	-0.65
Alcoholic beverages	1.07	0.77
Non-alcoholic beverages	15.87	8.40
Housing apparel		
Durable domestic goods	6.88	-5.42
Current usage products	7.17	1.45
Other goods and services		
Personal care	5.72	2.88
Durable goods	19.80	13.68

ever, as mentioned above, this result may be underestimated given the kind of data used in calculating the price differentials.

b) An alternative methodology

To estimate the outlet substitution bias by comparing the behaviour of the CPI and of the average prices implicit in the Households Budget Surveys, the first step consists in defining how much the CPI grew in the period running between the budget surveys. The adopted method is based upon the assumption that the budget survey data were collected by distributing the interviews to the households evenly by the twelve months of the inquiries. Therefore, the price increase in the period between surveys can be calculated by comparing the averages of the CPI values for the periods March 1989 - February 1990 and October 1994 -

Table 4

CPI BIAS DUE TO CHANGES IN PURCHASING POINTS (p.p.)

	Hyper- markets	Super- markets	Overall
1993	0.14	0.03	0.17
1994	0.00	0.01	0.01
1995	0.05	0.01	0.06
1996	0.10	0.10	0.19
1997	0.05	0.05	0.10

September 1995⁽¹⁴⁾. According to this procedure, prices for the class Food and Beverages (excluding meals taken outside home) grew about 6.8 per cent in annual average terms.

Meanwhile, for the 230 kinds of goods in this group appearing in both surveys⁽¹⁵⁾, the average prices grew 5.4 per cent in annual average terms. This gives a 1.4 p.p. differential between these indices, which mostly results from the fact that the CPI does not reflect the effects of outlet substitution on the cost of living⁽¹⁶⁾. Bearing in mind that in 1989/1990 expenditure on goods in class Food and Beverages accounted for around 38 per cent of

Table 5

AVERAGE GROWTH RATES OF PRICES OBTAINED FROM THE CPI AND FROM HOUSEHOLDS BUDGET SURVEYS (IOF), FOR SOME SUB-GROUPS OF CLASS FOOD AND BEVERAGES (%)

Sub-groups	CPI	IOF
Cereals and derivatives.....	9.7	8.6
Starch.....	16.4	13.8
Leguminous.....	5.1	5.4
Vegetables.....	7.7	6.9
Fruit.....	4.6	7.2
Meat, sausages and poultry.....	2.8	3.0
Fish, crayfish and shellfish.....	6.0	4.4
Eggs.....	-1.2	0.1
Milk and dairies excluding butter.....	6.2	3.8
Oils and fat.....	4.6	3.3
Sugar, derivatives and past.....	6.8	5.8
Cocoa, coffee and tea.....	7.6	5.7
Sundry: seasonings, etc.....	8.6	8.3
Prepared food.....	10.4	10.2
Alcoholic beverages.....	5.2	5.3
Non-alcoholic beverages.....	9.6	8.7

(14) Although reasonable, this assumption is not innocuous. Indeed, since prices underwent a sharp slowdown in the 79 months period between the beginning of IOF 1989/1990 and the conclusion of IOF 1994/1995, if the IOF data collection is not evenly distributed over time, this value may be distorted. For instance, if the data had been collected only in the last month of the survey, the rate would have been 5.66%. Conversely, if collection was concentrated in the first month of each survey, the rate would rise to 7.27%. Naturally, these are extreme and implausible figures, but they give an idea of the sensitivity of the result to this kind of assumption.

(15) Excluded from this comparison were products for which less than 50 observations are available for the calculation of one of the two average prices required. Also, the inclusion of some products in the analysis is doubtful since they present such sizeable average price increases that can only be explained by changes in the units in which the respective quantities are measured. However, no product was excluded from the calculation of the price index on this basis, since this criterion would always be somewhat subjective. Nonetheless, expenditure weights of these products are in general quite small, and hence they do not influence results significantly.

(16) This difference between the two price indices is compatible with the findings of Reinsdorf (1994) and MacDonald (1995) for the USA.

total expenditure, and that average inflation in this period reached 8.05 per cent, we conclude that the average outlet substitution bias of the CPI between 1989 and 1995 was around 0.49 percentage points.

The CPI bias estimate calculated according to this methodology is substantially larger than that found through the traditional approach. This fact is not surprising since, as seen above, we believe that the first result was underestimated. Nevertheless, it should be noted that the second result refers to a quantitatively and qualitatively different period, and is based on a set of weights for the various prices that does not match exactly those used in the calculation of the CPI.

To give a more accurate idea of the factors underlying this result, it is interesting to analyse the differences between the annual average growth rates of the prices of products in some sub-groups of the class Food and Beverages, calculated using the CPI and the IOF's. These are shown in table 5.

Table 6

RESULTS FOR OTHER ECONOMIES (p.p.)

References	Year	Country	δ	$\theta_t - \theta_{t-1}$	Bias
Crawford	1993	Canada	10	0.80	< 0.10
Saglio	1995	France	30	0.75	0.20
Boskin et al.	1996	USA	-	-	0.10
Cunningham	1996	UK	-	-	< 0.20
Moulton	1996	USA	13	0.3	< 0.10
Shapiro e Wilcox	1996	USA	-	-	0.10
Lequiller	1997	France	-	-	< 0.15
Hoffmann	1998	Germany	< 15	< 1.00	< 0.15

In general, the rates calculated using the budget surveys are lower or approximately equal to those calculated according to the CPI.

As a curiosity, it should be noted that the annual average growth rate of the prices of all products common to both budget surveys is 7.98 per cent when calculated using the Laspeyres average prices index, and 7.76 per cent using the Paasche index of the same average prices. These results can be used to estimate the bias due to the substitution effect as the difference between the values obtained according to the Laspeyres index and the geometric mean of the Laspeyres and Paasche index (i.e., the Fisher index). The estimate for this kind of bias is 0.11 p.p., which is coherent with the results of Neves and Sarmiento (1997). For further details on the methods of calculation of this kind of bias, and comprehensive results for the Portuguese case, see Diewert (1998) and Neves and Sarmiento (1997).

c) International comparisons

Finally, we compare the results obtained for the Portuguese economy with those reported in similar studies, which are summarised in table 6. These studies can be divided into two groups, according to the methodologies used. Some of these studies follow exactly the methodology exposed in section 2, and are based on estimates of δ (which is assumed to be constant over time) and of the change in θ_t . The remaining analyses, though implicitly using the same methodology, do not use

direct information on the values for δ and θ_t , being based upon more or less arbitrary estimates for these parameters.

The results obtained in European countries for the value of the CPI outlet substitution bias range from 0.1 p.p. to 0.20 p.p. (Saglio, 1995; Cunningham, 1996; Lequiller, 1997; and Hoffman, 1998). The figures for North America stand close to 0.1 p.p. (Crawford, 1993; Boskin et al., 1996; Moulton, 1996; and Shapiro and Wilcox, 1996). Since over the course of the periods to which these studies refer to the distribution circuits in North America underwent less changes than in European economies, it comes as no surprise that the results for the outlet substitution bias are larger in the latter case. Taking into account the vast changes retail trade underwent in Portugal over the last decade, it also seems natural that the results for our country are somewhat higher than those obtained for the remaining European economies.

5. CONCLUSIONS

This work uses microdata to study the existence and size of the CPI outlet substitution bias. The first part of this analysis used the methodology traditionally adopted in this kind of research, adjusted to the type of data available. The results obtained according to this approach cannot be very satisfactory since price differentials are calculated using the data on which the CPI is based. Hence the data shares some drawbacks inherent to this price index. The second part of this article ex-

plored an alternative method using data on the average prices implicit in the Household Budget Surveys carried out by INE. The two methodologies lead to results that, despite quantitatively different, are not in disagreement.

According to the results, the CPI growth rate bias due to outlet substitution averaged 0.5 percentage points per year early in the 1990s, and is estimated to have decreased to about one half of this value more recently. It is believed that the major cause of this bias was the fast expansion of hypermarkets and supermarkets during the period considered here. Naturally, the expansion of this kind of stores will eventually slowdown, hence decreasing the potential of this kind of bias. However, it should be noted that this analysis did not take into account sectors where distribution circuits have undergone important changes recently, and which may bring persistence to this kind of phenomenon. These include, for instance, the growing presence in the Portuguese market of discount stores, stores linked to large international chains trading several kinds of products (clothing, foodstuffs, audio and video, etc.), the introduction of generic drugs, the forthcoming deregulation of the telecommunications sector, and even electronic commerce.

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THE RELATIONSHIPS BETWEEN FIRMS AND BANKS: CHOOSING BETWEEN SINGLE AND MULTIPLE BANK RELATIONSHIPS

*Lúisa Farinha***

There is evidence that firms borrow for the first time from a single bank, but soon afterwards some of them start borrowing from two or more banks simultaneously. Our results suggest that firms explore the advantages of an exclusive relationship with one bank, but also take into account that the resulting information monopoly of the single informed bank may result in income losses to firms.

1. INTRODUCTION

Most firms depend greatly on their self-financing capacity to finance investment projects. When firms need to resort to external funding sources, most of them choose bank lending and only a few opt for issuing bonds or shares in the stock market. This hierarchy of financial decisions results from characteristics specific to financial markets, as its functioning is more affected by information asymmetries between participants than other markets. For instance, if a firm borrows from a bank to finance an investment project, at start it holds more information than the bank about its own ability to meet the debt service or about the project return and risk. The costs of gathering this information can be quite high, especially if firms are small. Under these circumstances, the interest rate reflects not only the opportunity cost of using internally generated funds, but will be accrued by a premium. Thus these firms may face a higher cost of financing than they would be willing to take, meaning that they face liquidity constraints.

This situation attributes a special role to banks. These will specialise in gathering, compiling and using afterwards specific information on firms. In this case, an exclusive and lasting relationship between a firm and a bank may contribute to con-

trary the effect of information asymmetries in the lending markets.

However, empirical evidence shows that in some countries firms will tend to raise funds from two or more banks⁽¹⁾. This may be because most studies use data on large firms. Indeed, firms' attributes — namely size — appear to be crucial to the choice between keeping a single bank relationship or switching to a multiple bank one.

This article analyses the issue from an empirical perspective, based on a database covering virtually all firms resorting to bank lending⁽²⁾. When borrowing for the first time, firms resort to a single bank, maintaining this exclusive relationship for some time. Afterwards, many of these firms switch to another bank or change to multiple bank lending relationships.

The following section summarises the main theoretical arguments about this issue. Section 3 displays the empirical analysis and section 4 concludes.

(1) See, for instance, the analysis of Steven Ongena and David Smith, "What determines the number of bank relationships? Cross-country evidence", Discussion Paper n° 4/1998, Norwegian School of Management, Department of Business Economics.

(2) For further details on references, methodology and results see the forthcoming *Working Paper*, "Choosing between single and multiple bank lending relationships", by Lúisa Farinha and João Santos.

* The opinions of the paper represent the views of the author, and are not necessarily those of the *Banco de Portugal*.

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2. SINGLE AND MULTIPLE BANK LENDING RELATIONSHIPS

Part of the literature on this subject focuses on showing the advantages of borrowing from a single bank which has privileged information on its customer. First, because relating with several banks involves multiplying costs, like operating costs of establishing a loan contract. Second, because in the case the firm faces financial problems — which can summit to its bankruptcy — debt re-negotiation is easier when one other than many creditors are involved.

Another aspect highlighted by literature deals with the behaviour of the firm in case financing is repeatedly required. If borrowing from the same bank, the latter gathers and accumulates information on the firm — especially concerning its capacity to meet the debt service, but also about the quality of its investment projects. The bank shall then use this information in its lending decisions. It seems reasonable to also admit that the production of information enjoys of economies of scale and that these are not easily transferred. Thus a bank holding more information on the firm can offer it better borrowing conditions, as more funds, lower interest rates or requiring less collateral. This can be crucial to smaller or younger firms, typically showing more difficulties in signalling their true quality to external investors. In general, these firms rely exclusively on bank lending to raise financing.

This exclusivity situation brings however some disadvantages. If the firm develops a single relationship with a bank, it may have to pay an additional premium to raise financing from a less informed bank. This bank will wonder why the firm has not required financing from its usual bank, doubting about the quality of the firm.

Furthermore, if scale economies exist in the production of information and it is not easily transferable between banks, an exclusive bank may acquire a monopoly of information on the firm, allowing it to raise rents.

Therefore, a single relationship between the firm and the bank is advantageous since the creation and reinforcement of such a relationship allows the firm to overcome some of the information problems inherent to financial markets. However,

it can also be costly because a single bank may develop an information monopoly on the firm.

Firms may develop specific strategies to lessen these drawbacks. Financing through the stock market or long-term contracting are two examples, which however are not available for all firms. Instead, firms may decide to switch banks frequently or to have a multiple bank relationship. In this context, choosing between a single or a multiple bank lending relationship should depend basically on:

- the value the firm attributes to a single bank relationship, and
- the expected cost of the firm becoming locked-in that relationship.

These aspects can be related to the firm characteristics. The value attributed to the exclusive relationship is above all linked to the incidence of information asymmetries: the greater the likelihood of information problems, the greater are the advantages the firm can draw from a single bank relationship. The expected cost of a firm becoming attached to a bank is higher for firms which are more prone to such a situation — more opaque firms, for instance, but also those where the value of appropriable rents are higher (e.g., greater and more profitable firms, above average growing or investing firms).

Some of theoretical literature focuses on the effect of bank characteristics, like size and liquidity, or that of competition in the banking market on the choice between a single and a multiple bank relationship. Some models show that small firms tend to borrow from smaller banks, hence engaging in more lasting relationships. Others argue that a firm can opt at start to borrow from more than one bank to avoid paying a very high premium if needing to resort to another bank due to a temporary liquidity shortage of its usual bank. Also changes in the structure of the banking system — as those resulting from merger or acquisition operations between banks — may condition firms' choice between single or multiple bank lending, since these events may affect the flow of information concerning firms.

Table 1

NUMBER OF BANKS ACCORDING TO FIRM SIZE — SUMMARY STATISTICS

	<10	10-49	50-99	100-199	>=200	Total
Mean	1.4	2.1	3.0	3.8	5.0	1.9
Median	1	2	3	3	4	1
Coefficient of variation.....	0.59	0.69	0.68	0.66	0.64	0.79
No. of observations	192264	146358	25151	11808	8937	384518
(as a share of total observations) ..	50.0	38.1	6.5	3.1	2.3	

3. EMPIRICAL ANALYSIS

3.1 Number of banks according to firm size and age

The data about the relationships between banks and firms presented in this analysis was drawn from a database joining information on the credit portfolio of virtually all banks operating in Portugal. The data on credit balances is monthly compiled by the *Banco de Portugal* with some detail. Indeed, for each debtor/bank pair it indicates the relative share of short-term and medium- and long-term credit, as well as the amount of credit classified as past due.

The sample we use covers the period January 1980-December 1996. The database comprised 14 banks in 1980, and 43 in 1996. Over 170 thousand firms were identified as to have resorted at least once to bank credit.

For our empirical analysis the sample was limited to circa 50 thousand firms for which size and age data were available⁽³⁾. The information about the number of bank relationships was broken down according to firm size and age. *Ceteris paribus*, smaller and younger firms tend to show greater difficulties in proving their quality to external investors.

According to this sample, firms tend to borrow on average from two banks. However, the median is one bank, meaning that most firms resort to only one bank for financing (table 1).

(3) Size was measured by the number of workers available in the *Quadro de Pessoal*, annually collected by the *Ministério do Trabalho e da Solidariedade*. This database contains since 1982 data on employment in firms with employees.

The number of banks per firm also varies according to firm size. Indeed, the average number of banks is 1.4 for very small firms (with less than 10 employees) and 5 for those with over 200 workers (table 1). Most of the latter borrow from 4 banks. Chart 1 suggest that the average number of banks grows sharply with firm size.

The same firm can also change its behaviour over time. The number of banks seems to reflect firm age as well, though contrasts are not as sharp between age classes as they are between the analysed size classes. Firms aged 2 years or less borrow on average from 1.4 banks, while firms older than 20 years resort to 2.5 banks. The bulk of firms with 10 years or less relate to only one bank (table 2 and chart 2).

Chart 3 also shows that the percentage of firms borrowing to a single bank drops sharply with firm size. Over 70 per cent of very small firms

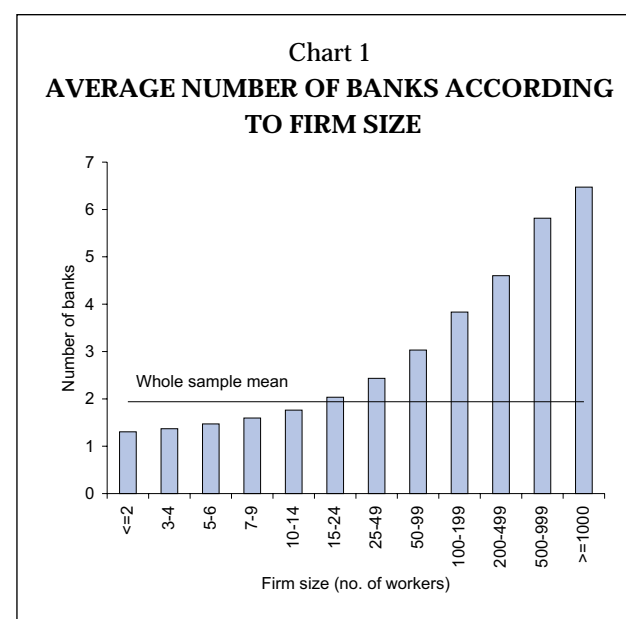


Chart 2
AVERAGE NUMBER OF BANKS ACCORDING TO FIRM AGE

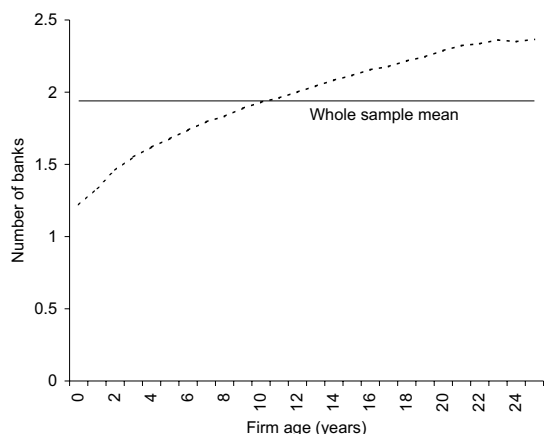
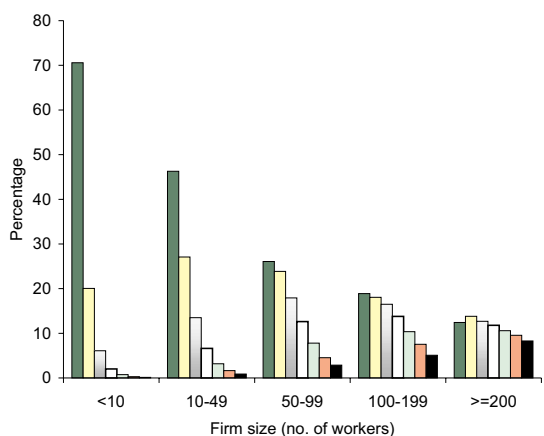
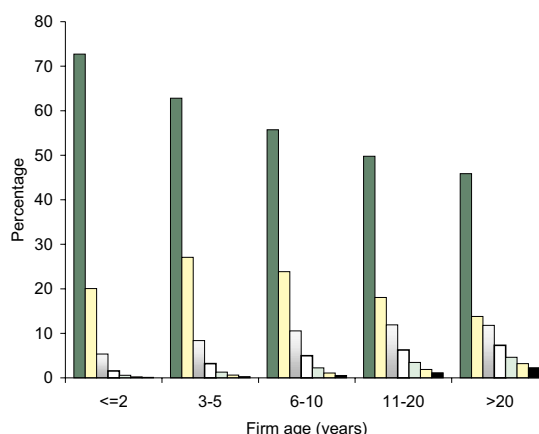


Chart 3
FIRMS THAT BORROW FROM 1, 2, 3, 4, 5, 6 OR 7 BANKS ACCORDING TO FIRM SIZE



have only one bank, while this percentage is marginally higher than 10 per cent for firms with 200 or more workers. The percentage of firms lending from two banks increases from the first to the sec-

Chart 4
FIRMS THAT BORROW FROM 1, 2, 3, 4, 5, 6 OR 7 BANKS ACCORDING TO FIRM AGE



ond size class, decreasing in the following classes; the share of firms maintaining 3 bank lending relationships peaks in the class of 50 to 199 workers. Also worth noting is that the distribution is more even within the class of firms with 200 or more workers. Firms with 7 bank lending relationships are almost as many as those relating to a single bank.

The share of firms holding a single bank lending relationship also decreases with firm age, though slower (chart 4). Over 70 per cent of younger firms maintain a single bank, while among those aged between 10 and 20 years old this share rises to around 50 per cent.

3.2 Exclusivity duration

To follow the behaviour of firms since the first time they resort to bank lending, the sub-sample of firms starting business after 1980 was used in

Table 2

NUMBER OF BANKS ACCORDING TO FIRM AGE — SUMMARY STATISTICS

	<=2	3-5	6-10	11-20	>20	Total
Mean.....	1.4	1.6	1.8	2.1	2.5	1.9
Median.....	1	1	1	2	2	1
Coefficient of variation.....	0.58	0.66	0.70	0.77	0.85	0.79
No. of observations.....	42884	72489	93439	101447	74259	384518
(as a share of total observations) .	11.2	18.9	24.3	26.4	19.3	

Table 3
**MEAN AND MEDIAN OF SOME FIRM CHARACTERISTICS
 AT DIFFERENT RELEVANT MOMENTS^(a)**

	Borrowing for the first time	Bank switching	Changing to multiple bank borrowing	End of the sample period
	1	2	3	4
Duration (months)				
Mean	-	24.8	24.1	38.1
Median	-	22	22	37
Age (years)				
Mean	3.2	5.3	4.7	6.7
Median	3	5	4	6
Size (workers)				
Mean	30.9	27.3	54.1	13.5
Median	8	9	14	6
Sales growth (%)				
Mean	39.2	30.3	45.7	21.3
Median	8.9	10.0	11.6	6.4
Investment/Assets (%)				
Mean	10.2	10.1	9.3	11.0
Median	4.0	4.7	4.1	4.8
Tangibles / Assets (%)				
Mean	59.8	54.1	53.6	63.0
Median	39.2	40.3	36.7	39.3
Cash-flow / Assets (%)				
Mean	11.2	11.6	10.0	11.7
Median	9.8	10	8.2	10.7
Bank loans / Assets (%)				
Mean	13.1	11.0	13.8	11.8
Median	8.6	7.1	10.0	6.4
Long-term credit ^(b)				
Mean	0.086	0.054	0.13	0.046
Median	0	0	0	0
Number of firms	1577	295	707	870

Notes:

(a) In columns 2 and 3, all variables except duration and age refer to the year prior to that recording the bank switch or the change to multiple banks.

(b) Dummy variable; equals 1 if the firm has long-term credit and 0 otherwise.

this part of the study. We observe that most of these (over 90 per cent) resort to a single bank when borrowing for the first time, and hold this exclusive relationship for a while. Afterwards, some of these firms switch banks and maintain a single relationship with another bank. Others change to a multiple relationship some time later.

Since the time running between these events varies from firm to firm, we tested the hypothesis of a link between the length of this period and the attributes of firms or of the lending banks. The results of this analysis should also allow to draw some conclusions about the empirical validity of some of the assumptions on the single relationship/multiple relationship dichotomy suggested by theory.

This analysis was confined to firms that resort to a single bank for the first time they borrow. To relate the information on the firm-bank relationship with other firm attributes, the sample was reduced to firms also included in the Central Balance Sheet database in the relevant periods. Therefore, a much broader set of information is available, though for a much smaller number of firms (1,577 firms). The data available for banks' balance sheets was also used.

Table 3 displays the mean and median of some of the most important variables analysed, at four relevant moments. In column 1 variables were computed for all firms in the sample the first time these resort to bank lending. The figures in column 2 and 3 refer respectively to firms switching

the usual bank for another single bank, and firms changing to multiple bank lending relationships⁽⁴⁾. There is also a set of firms that kept the single bank relationship up to the end of the sample period. For these firms, column 4 exhibits the variable means and medians, calculated for the last period available in the sample⁽⁵⁾.

Table 3 shows that the average firm resorts to bank lending for the first time about 3 years after starting business (column 1). At this moment, firm size averages 31 workers. However, it should be noted that the median number of workers — which is less influenced by extreme observations — is 8. The average of the growth rates of sales per firm in the sample is 39 per cent at this moment, and the median is 8.9 per cent.

Variable “duration” measures in months the time elapsed from the first bank loan to the moment it switches to another single bank relationship (column 2) or to multiple banks (column 3). Average and median duration displayed in column 4 refer to the number of months running from the first bank loan up to the end of the sample period, for the set of firms which always borrow from a single bank.

The table shows that some firms in the sample switch to another bank on average 25 months after. Others wait 24 months on average until they borrow from multiple banks simultaneously. The size, the sales growth rate and the share of bank financing — especially long-term financing — are greater for firms changing to multiple banks than for those moving to another single relationship. Firms that maintain the single bank relationship up to the end of the sample period are among the smallest and those growing less. They are also those holding a greater share of colateralisable assets and lower levels of long-term credit.

We used duration analysis to measure the impact of each firm characteristic on the probability of changing from a single to multiple bank relationship.

(4) Exception made for age and duration, all variables refer to the year before that when swapping or switching to multiple banks occurred. Note that some firms switching to multiple banks had swapped banks previously.

(5) Observations corresponding to these firms (“censored” observations) are also taken into account when estimating the duration model.

3.3 Results of the duration models

Duration analysis aimed at finding answers for the following questions:

- Could it be the case that younger firms — those worst known — take advantage of a single relationship but later they increase the number of banks because they expect to become locked in a relationship?
- Do bank attributes and the competition situation in the banking market also determine the change to multiple bank lending relationship?

In the duration model, the dependent variable is given by the time period running from the first bank loan up to the moment it borrows from multiple banks (or up to the end of the sample period for censored observations). The results presented were obtained through a parametric estimation method, assuming a Weibull distribution function. Along with the exponential distribution, the Weibull distribution is the most widely used in duration analysis. Its advantage over the former is that it allows to test the effect of duration on the probability of exit (in this case, single relationship). Duration dependency may be positive or negative, depending on the value of parameter p in the distribution being significantly greater (or smaller) than one⁽⁶⁾.

The introduction of explanatory variables in the duration model is straightforward with the Weibull distribution. The sign of the estimated coefficients have a similar interpretation to the traditional regression. The estimated model relates duration with some firm and bank attributes aiming at conveying some of the aspects suggested by the theory. In the estimation, we assumed time-varying regressors.

Regarding firm attributes, we included those better reflecting the incidence of information asymmetries and/or some dependence on the banking system for raising resources (e.g., size, the integration or not in an economic group, the percentage of colateralisable assets and the percentage of non-fixed assets). Also included were the

(6) An estimated value for parameter p is also found as a result of the estimation.

Table 4
DURATION MODEL: RESULTS^(a)

	Estimated coefficient	T-ratio	
Firm characteristics			
Number of switches	-0.143	-2.328	**
Belongs to a conglomerate	-0.338	-1.703	*
Size (sales)	-0.209	-9.147	***
Sales growth	-0.001	-4.884	***
Liquidity/Assets	0.697	2.888	***
Intangibles/Assets	-0.821	-0.678	
Tangibles/Assets	0.046	1.081	
Cash-flow/Assets	-0.156	-2.014	**
Tangibles/Assets	0.585	2.129	**
Cash-flow/Assets	-1.650	-7.391	***
Bank Loans/Assets	-0.098	-0.612	
Long-term loans/Bank debt	0.127	1.107	
Past-due loans	-0.844	-4.311	***
p (H0: p<=1)	1.335	6.881	***
Median of the duration (interval of variation)	50.0 - 59.7		

Notes:

(a) The null hypothesis is rejected at: ***12, **5% and *10%.

(b) Dummy variable; equals 1 if the firm had (or has) a doubtful credit situation towards its first bank.

variables conveying the expected cost of a firm being locked-in (size, growth perspectives). The model also screens for other attributes: the auto-financing capacity (measured by liquidity, profitability, indebtedness, doubtful credit); the chances of a firm using alternative strategies to avoid becoming locked-in (like the fact of having or not long-term credit).

We consider in addition a set of variables to control for the effect of the bank and the banking market attributes on the variable under scrutiny ⁽⁷⁾. Finally, we include time dummies to control for conditions affecting all firms (such as macroeconomic conditions or institutional aspects).

The results are relatively robust to the choice of the model, the distribution and the sample. The results displayed in table 4 refer to a model that excludes bank and banking market variables, since none of the estimated coefficients was statistically

significant individually or as a group. This finding — seeming to indicate that both bank and banking market attributes do not influence firms' choice between single/multiple bank lending relationships — may be due only to the small variability this sample shows regarding these issues. Indeed, Portugal has had a quite homogenous banking system.

The estimated value for p is clearly greater than 1⁽⁸⁾. This result suggests that the probability of switching to multiple bank lending rises over time.

Other findings are the following: firms that previously switched banks more often are also those changing to multiple banks more rapidly⁽⁹⁾. Larger firms — those investing more and growing faster — also start raising funds from several banks faster. More profitable and more liquid firms tend to maintain a single bank for longer. Results also suggest that firms that are part of a conglomerate are more prone to shift more rapidly to multiple bank lending.

Finally, stress should be laid on the range of variation of median duration, estimated through the duration model that includes the effect of censored observations. As a result, the sample value of 24.1 months shown in table 3 was clearly surpassed.

The results appear to be consistent with the models explaining the single/multiple bank lending choice as an outcome of firms' weighting of the advantages of a single and lasting relationship — greater availability and a potentially lower cost of credit — and its costs — basically resulting from the information monopoly the bank may achieve. Indeed, the results suggest that smaller or independent firms — to which greater information problems are usually associated — tend to hold a single relationship. Meanwhile, firms that would incur in a greater loss if remaining locked in — the

(7) The following variables of banks are included: size, age, growth, liquidity, profitability and a measure of risk exposure. Market variables are the number of banks in the constituency of the firm and a variable indicating if the usual bank is or not a local bank.

(8) When this parameter is greater than 1, the probability of a situation ending in moment t , given that it lasted up to t , increases with its duration.

(9) For example, an estimated positive coefficient indicates a positive effect on the duration — i.e., a negative effect on the probability of swapping banks or switching to multiple banks.

larger, more growing and more investing firms — tend to end exclusivity earlier. Unfortunately, the results did not allow to confirm that the opaque firms (i.e., exhibiting a higher share of intangible assets), apparently those with a greater chance of becoming locked-in, tend to shift faster to multiple banks. The parameter has the expected sign, but is not significant as regards the effect of variables “percentage of intangible assets” and “percentage of tangible assets”.

4. CONCLUSIONS

The existence of imperfect information in the financial markets conditions monetary policy transmission. From an aggregate point of view, this happens because the additional cost due to existing information asymmetry tends to change accordingly with the interest rates, thus magnifying the effect of monetary policy. From a microeconomic perspective, monetary policy tends to yield different impacts on firms showing distinct financial behaviours.

Some models show that a single and lasting relationship between a firm and a bank can diminish the effects of asymmetric information in the lending market. The bank may gather over time information on the firm, unavailable to other creditors-to-be.

This article related the choice between a single and a multiple bank relationship with firms and banks' attributes, to test the empirical validity of some of the assumptions about the single/multiple relationship dichotomy suggested by theory. The data we use suggest that when resorting to bank lending for the first time, firms tend to prefer a single relationship, maintained for some time. Later, many firms switch to another single relationship or to multiple bank lending. It should be noted that, although some firms end the exclusivity of the relationship with their first bank, they continue profiting from the duration of that relationship. Indeed, two years after firms end the exclusivity, 54 per cent still borrow from the initial bank.

The results convey the importance of relationships established with banks. This is particularly evident as regards smaller firms, usually more subject to liquidity constraints. The results also appear to be consistent with the hypothesis that larger firms or firms with better growth perspectives also weight the disadvantages of the information monopoly developed by a single exclusive bank. As for other countries, the results point towards the relevance of size in explaining the diversity of behaviours among firms.

January*

7 January (Regulation no. 25/98 of the Stock Market Commission, Official Gazette no. 5/99, Series I, B)

Lays down a set of rules regarding the compulsory reporting and advertising of transferable securities transactions by the issuing companies to the managing companies of the respective market. Revokes Regulation no. 92/6 of 7 January 1993.

7 January (Executive Order no. 8/99, Official Gazette no. 5/99, Series I, B)

According to the provisions laid down in Decree-Law no. 138/98 of 16 May, on the rules to be complied with in the process of transition to the euro, fixes at 3.25 per cent the benchmark rate to which the aforementioned Decree-Law, article 10, no. 2 refers. This is an equivalent rate, which will replace the discount rate of the Banco de Portugal as of 1 January 1999.

11 January (Decree-Law no. 11/99, Official Gazette no. 8/99, Series I, A)

Introduces changes in the calculation basis of the annual base rate. This Decree-Law takes effect on the first day of the month following its entry into force.

15 January (Notice of the Banco de Portugal no. 1/99, Official Gazette no. 12/99, Series I, B)

Determines the operations included in no. 1 of Article 5 of Decree-Law no. 13/90 of 8 January, which defines the scope of foreign exchange operations, introducing the changes arising from the entry into force of the euro. Revokes Notice no. 6/93 of 15 October.

15 January (Executive Order no. 28/99, Official Gazette no. 12/99, Series II)

Under the terms laid down in no. 4 of Article 8 of Decree-Law no. 138/98 of 16 May, entrusts the Directorate-General of the Treasury with the powers to guarantee the exact correspondence between the daily cash flows arising from the global settlement of means of payment denominated in euro and the respective accounting records, on an item-by-item basis, both at the fiscal level and at the level of the Treasury accounts.

19 January (Regulation no. 3/99, Official Gazette no. 15/99, Series II)

Lays down the rules governing the use of derivative products by insurance companies operating in Portugal or abroad, which are subject to the supervision of the Portuguese Insurance Institute.

19 January (Regulation no. 4/99, Official Gazette no. 15/99, Series II)

Lays down the rules governing the use of derivative products in pension funds by the respective managing companies operating in Portugal.

26 January (Notice of the Banco de Portugal no. 2/99, Official Gazette no. 21/99, Series I, B)

In use of the powers conferred to it by Article 99 (e) of the Legal Framework of Credit Institutions and Financial Companies, approved by Decree-Law no. 298/92 of 31 December, introduces changes in the setting up of provisions for general credit risks by credit institutions and financial companies, taking into account the growth level of credit granted to individuals for consumption purposes, namely the ratio risk/profitability associated with it. Rewords nos. 3 and 7 and revokes nos. 20 and 21 of Notice no. 3/95 of 30 June.

28 January (Instruction no. 1, Official Gazette no. 23/99, Series II)

Lays down the general rules governing the operation of the primary and secondary markets of Treasury bills.

28 January (Decree-Law no. 22/99, Official Gazette no. 23/99, Series I, A)

Lays down several rules governing the registration and settlement of transferable securities of a monetary nature by the Banco de Portugal.

February

10 February (Executive Order no. 118/99, Official Gazette no. 34/99, Series II)

Under the terms laid down in no. 4 of Article 295 of the Companies Act (*Código das Sociedades Comerciais*) (legal reserve), stipulates that the provisions set forth in no. 2 of the aforementioned Act shall not be applicable to the companies subject to the supervision of the Banco de Portugal and the

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

	<p>Portuguese Insurance Institute, as regards the reserves set up for the amounts referred to in paragraph a) of this Act. It further stipulates that reserves cannot be utilised for the payment of dividends or the acquisition of own shares.</p>
<p>11 February (Decision no. 2481/99, Official Gazette no. 35/99, Series II)</p>	<p>Stipulates the new amounts in euro for the issue of fixed rate and variable rate Treasury Bonds, following the process of redenomination to which Decree-Laws no. 138/98 of 16 May and no. 343/98 of 6 November refer, to take effect on 1 January 1999.</p>
<p>18 February (Instruction no. 2/99, Official Gazette no. 41/99, Series II)</p>	<p>Rewords Articles nos. 12, 16, 21, 22 and 23, and introduces other changes in Instruction no. 2-A/98 (Series II) of 22 December, as regards the rules governing the issue of Treasury bonds.</p>
<p>20 February (Regulation no. 3/99 of the Stock Market Commission, 4th Supplement to Official Gazette no. 43/99, Series II)</p>	<p>Rewords no. 5 of Regulation no. 94/4 of 20 June, governing the special market for wholesale transactions.</p>
<h3>March</h3>	
<p>2 March (Decree-Law no. 58/99, Official Gazette no. 51/99, Series I, A)</p>	<p>Regulates the setting up and operation of risk capital funds. Revokes Decree-Law no. 187/91 of 17 May, and Decree-Law no. 214/92 of 13 October.</p>
<p>8 March (Circular Letter of Banco de Portugal no. 16/DOC)</p>	<p>Informs credit institutions and financial companies that the rules governing operations on the primary and secondary markets of Treasury bills, through the SITEME (Electronic Market Transfer System) are laid down in Instruction No. 6/99.</p>
<p>10 March (Regulation no. 4/99 of the Stock Market Commission, Official Gazette no. 58/99, Series II)</p>	<p>Rewords paragraphs 2.3.2 – Accounting Principles – Valuation Criteria – Securities Portfolio - of Regulations nos. 95/14 and 96/16, adding a new paragraph, which will become effective on 1 January 2000.</p>
<p>12 March (Regulation no. 8/99 of the Portuguese Insurance Institute, Official Gazette no. 60/99, Series II)</p>	<p>Lays down a set of rules on the calculation and setting up of the solvency margin and of the guarantee fund of pension fund managing companies. Revokes Rule no. 3/98-R of 18 February, retaining no. 61 of Rule no. 298/91 of 13 November, previously revoked.</p>
<p>12 March (Regulation no. 9/99 of the Portuguese Insurance Institute, Official Gazette no. 60/99, Series II)</p>	<p>Lays down a set of rules governing the calculation and setting up of the solvency margin and guarantee fund of insurance companies. Revokes Rule no. 2/98-R of 18 February.</p>
<p>16 March (Decree-Law no. 75/99, Official Gazette no. 63/99, Series I, A)</p>	<p>Valuation of the gold of Banco de Portugal. Brings into line the gold valuation criterion with the one defined for the European System of Central Banks and harmonises the nomenclature and the meaning of the current “Gold revaluation reserve” with that adopted in the Chart of Accounts of the Banco de Portugal. Revokes Decree-Law No. 229-H/88 of 4 July, effective as of 1 January 1999.</p>
<p>22 March (Circular Letter of the Banco de Portugal no. 9/DSB)</p>	<p>Sends a copy of Instruction no. 8/99, to be published in the BNPB no. 4, of 15 April 1999, relating to the procedures to be adopted by credit institutions and financial companies, as regards their clients, in the conversions between the escudo and other euro area currencies.</p>
<p>30 March (Notice of Banco de Portugal no. 3/99, Official Gazette no. 75/99, Series I, B)</p>	<p>Provides for the flexibilisation of the procedures governing the setting up of country-risk provisions, enabling its adaptation by the Banco de Portugal to new situations, through the issue of instructions. Rewords no. 1 of no. 12 of Notice no. 3/95 of 30 June.</p>
<p>31 March (Decree-Law no. 102/99, Official Gazette no. 76/99, Series I, A)</p>	<p>Changes the legal system governing mutual agricultural credit and agricultural credit co-operatives. Rewords articles 28, 44, 50, 53, 66, 68, 74 and 80 and adds articles 81 and 82 to Decree-Law no. 24/91 of 11 January,</p>

amended by Decree Law no. 230/95 of 12 September and Decree-Law no. 320/97 of 15 November.

April

1 April (Official Journal of the European Communities no.94, Series C)

Interest rate applied by the European Central Bank to its repurchase agreements since 1 April 1999: 3.00%; euro exchange rates.

1 April (Executive Order no. 227/99, Official Gazette number 77, 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. 9-A/99, of 23 February, shall be added to the list published through Executive Order no. 377-A/94, of 15 June.

16 de April (Regulation no. 5/99 of the Stock Market Commission, Official Gazette no 89, Series II)

Lays down the general rules governing the setting of the fees to be paid by the issuing entity to the Association of the Lisbon Stock Exchange (Portuguese acronym: ABVL) for the services provided by the latter, regarding the listing and relisting of securities, as well as their maintenance in the spot exchange markets. Revokes nos. 7 to 9 of Regulation no. 91/12 and no. 9 of Regulation no. 91/14 of the Stock Market Commission. Amended by Regulation no. 11/99, of 19 April, Official Gazette no. 113, Series II, of 15 May 1999.

28 April (Circular Letter of the Banco de Portugal no. 24/DOC)

Informes that on 10 May 1999 a redenomination shall be made by the Banco de Portugal of the outstanding Certificates of Deposit, and explains the method to be used in the referred operation.

28 April (Executive Order no. 293/99, Official Gazette no. 99, Series B)

Under the terms laid down in no. 2 of Article 27 of Decree-Law no. 415/91, of 25 October, adapts to the euro the rules governing the application of pension funds. Revokes Executive Orders no. 1152-E/94, of 27 December, no. 195/97, of 21 March and no. 46/98, of 30 January.

30 April (Executive Order no. 299/99, Official Gazette no. 101, Series B)

Under the terms laid down in no.1 of Article 90 and in Article 187 of Decree-Law no. 94-B/98, of 17 April, adapts to the euro the rules governing assets representing the insurance companies' technical reserves. Revokes Executive Orders no. 1152-D/94, of 27 December, no. 194/97, of 21 March and no. 48/98, of 4 February.

30 April (Circular Letter of the Banco de Portugal no. 26/DOC)

Informes that the rate of return on Certificates of Deposit, Series B, was fixed at 2.35%, to prevail on the quarter started on 4 May 1999.

May

5 May (Notice no. 4/99, Official Gazette no. 104, Series I)

Fixes the contributions to the Agricultural Credit Guarantee Fund; lays down a transitional system to be applicable to the contributions of the Central Agricultural Credit Bank and the mutual agricultural credit banks, providing for their reassessment for the year 2000.

12 May (Circular Letter of the Banco de Portugal no. 28/DOC)

Informes that an amended credit-risk centralisation for January 1999 shall be disclosed, thereby cancelling the one issued on 22 April last.

16 May (Decision of the European Central Bank, of 1 December 1998 (1999/331/EC))

Decision on the national central banks' percentage shares in the key for the capital of the European Central Bank (ECB/1998/13). This decision replaces the ECB's Decision of 9 June 1998 (ECB/1998/1). The effects of this Decision are backdated to 1 June 1998. Pursuant to the provisions laid down in this Decision, the ECB's Executive Board is authorised to take all measures deemed necessary so as to make the adjustments to the amounts already settled by the NCBs, under the terms of the ECB's Decision of 9 June 1998, laying down the measures necessary for the paying-up of the capital of the European Central Bank.

20 May (Decree-Law no. 172/99, Official Gazette no. 117, Series I, A)

Lays down the legal system governing autonomous warrants issued, negotiated or traded in Portugal. Adds Article 157-A to the Stock Market Code, approved by Decree-Law no. 142-A/91, of 10 April, and rewords Article 3 of the Commercial Registration Code, approved by Decree-Law no. 403/86, of 3 December.

August

20 August (Decree-Law no. 329/99, Official Gazette no. 194, Series I, A)

Regulates the process relating to the minting, storage, safekeeping, payment and entry into circulation of current euro metal coins, intended to replace the escudo from 1 January 2002 onwards.

31 August (Decision no. 17704, Official Gazette no. 212, Series II)

Determines, pursuant to article 10 (1) of Decree-Law no. 349/98, of 11 November, that all credit institutions authorised to grant housing credit under the terms of the general system in force in Portugal may carry out the operations envisaged in subsidised housing credit schemes, provided that they are in a position to ensure the supply of the necessary information to the management, control and supervision of the subsidised credit granted, in compliance with the above-mentioned Decree-Law and respective legislation, as well as with the regulations published by the Directorate-General of the Treasury.

September

15 September (Decree-Law no. 357/99, Official Gazette no. 216, Series I, A)

Creates the education-saving schemes (Portuguese acronym: PPE), integrating registered certificates of an education-saving fund (Portuguese acronym: FPE), or registered certificates of a retirement/education-saving fund (Portuguese acronym: FPR/E), established expressly for the purpose or resulting from the adaptation of an already existing FPR, with the purpose of coping with the expenses with education in a professional or higher education course incurred by the participant or the member of his household, benefiting, with the adequate changes, from the fiscal system envisaged in article 21 of the Fiscal Incentives Statute, approved by Decree-Law no. 215/89, of 1 July.

16 September (Regulation of the Stock Market Commission no. 15/99, Official Gazette no. 228, Series II)

Establishes a set of regulations according to which the entities of stock market investment funds shall prepare a simple leaflet for each stock market investment fund, supplying all the major information in accessible and synthetic terms, enabling the investor to take a correct and informed investment decision.

21 September (Circular Letter no.20/99/DSBDR)

Recommends that, during the pre-contractual stage, the clients of credit institutions and financial companies shall be informed, in writing, of the impact that a 1 percentage point interest rate rise may have on the effective debt servicing of the corresponding loan, on the date the rate takes the form of a "variable" rate.

October

13 October (Decree-Law no. 394/99, Official Gazette no. 239, Series I, A)

Approves the legal system restructuring and reorganising the entities managing regulated and non-regulated stock markets and the entities supplying services related with the management of those markets. Articles 190, 192, 194 to 263 and 481 to 498 of the Stock Market Code, approved by Decree-Law no. 142-A/91, of 10 April, are hereby revoked, wherefore the current associations are converted into companies. Should this not occur, article 194 (3) and (4) and articles 250, 494 and 495 of the same Decree-Law shall remain in force.

(Related Decree-Laws) Executive Order no. 1182/99 (Series II), of 22 October 1999, published in the Official Gazette no. 257, Series II, of 4 November 1999. Executive Order no. 1183/99 (Series II), of 22 October 1999, published in the Official Gazette no. 257, Series II, of 4 November 1999.

**22 October (Executive Order no. 1183/99
Official Gazette no. 257, Series II)**

Creates the Public Debt Special Market (Portuguese acronym: MEDIP), which is a broker-dealer-activity on the Lisbon Stock Exchange specialising in gross operations of government book-entry securities. The management of this market is the responsibility of a public limited company, to be set up in compliance with Decree-Law no. 394/99, of 13 October, and with the regulations governing the Stock Market Committee.

**27 October (Circular Letter of the Banco
de Portugal no. 347/DMR)**

Informs that, in the wake of the decision to link the rate of return of the Certificates of Deposit, Series B, to the rate of return of the minimum reserves of the European System of Central Banks, the rate of return of the Certificates of Deposit, Series B, is fixed at 2,5%, to prevail on the quarter started on 4 November 1999.

November

**5 November (Decree-Law no. 453/99,
Official Gazette no. 258, Series I-A)**

Lays down the system governing credit transfers for the purpose of securitisation (credit securitisation), and regulates the setting up and operation of credit-securitisation funds, credit-securitisation companies and management companies managing such funds. For the purpose of securitisation, credits are considered to be transferred when the licensee is a credit securitisation fund or a credit securitisation company.

**9 November (Decree-Law no. 475/99,
Official Gazette no. 261, Series I-A)**

Regulates the setting up and operation of pension funds. Revokes Decree-Law no. 415/91, of 25 October. However, both the provisions relating to the investments of pension funds, and those laid down in the regulations already issued by the Portuguese Insurance Institute, shall remain in force.

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