

THE PORTUGUESE ECONOMY IN 2001

1. INTRODUCTION

In 2001 real Gross Domestic Product (GDP) growth in Portugal is likely to stand between 1½ and 2 per cent, which represents a deceleration vis-à-vis 2000 (3.5 per cent) (Table 1.1). The economic growth in the “Spring Projection” published in the June 2001 issue of the *Economic Bulletin* has been revised downwards by approximately ½ percentage point (p.p.) in the current projection.

In the course of 2001 labour market developments are characterised by the continuing strong employment growth, between 1¼ and 1¾ per cent, albeit possibly with a slight deceleration from the previous year (1.7 per cent), and by a halt in the downward trend of the unemployment rate, which will stand between 4 and 4¼ per cent of the labour force. Notwithstanding the slight nominal acceleration in wage settlements within the scope of centrally negotiated agreements, effective wages are likely to have grown at a similar rate to that of 2000. Real wages seem to have increased above apparent productivity growth for the fourth consecutive year.

As in 2000, the composition of economic growth in 2001 reflects a reduction in the contribution of domestic demand to growth, as well as an increase in the contribution of net external demand. Developments in domestic demand are likely to result from the significant deceleration in all its components, and in particular in private consumption, given its weight in overall expenditure. The slowdown in this component will probably be more marked than envisaged in the “Spring Projections” and reflects the continued deterioration of consumer confidence and the need for debt servicing reflecting the increase in indebtedness in recent years. The slowdown in private consumption took place for most of its classes, although it is

Table 1.1

MAIN ECONOMIC INDICATORS
Percentage rates of change

	2000	2001	Memo:
			2001
			EB June 2001
Private consumption	2.8	¾ ; 1¼	2 ; 2½
Public consumption	3.5	1.9	1.7
GFCF	4.7	-1 ; 1	-1 ; 1
Domestic demand	3.1	¾ ; 1¼	1½ ; 2
Exports	7.9	4¼ ; 5¼	5½ ; 6½
Overall demand	4.1	1½ ; 2	2½ ; 3
Imports	5.5	1¼ ; 3¼	3 ; 5
GDP	3.5	1½ ; 2	2 ; 2½
Current account + capital account (% of GDP)	-8.6	-8¾ ; -7¾	-7¾ ; -6
HICP	2.8	4.2 ; 4.4	3.9 ; 4.5

more noticeable in the purchase of durable goods, especially cars, which reflect, in addition to the aspects already mentioned, tax changes introduced in the State Budget for 2001. Gross fixed capital formation (GFCF) and public consumption also show evidence of a sizeable slowdown, albeit of a similar magnitude to that expected in the Spring exercise. Regarding the former, both investment in equipment and investment in construction decelerated strongly, except for the public works segment, which recorded a clear acceleration.

As a result of the behaviour of domestic demand, which was less buoyant than in 2000 and also than in the Spring forecasts, with strong deceleration in the components with a higher import content, real import growth is likely to slowdown significantly to lower levels than those previously projected. In turn, exports will also decelerate more than expected in the Spring projection al-

though less markedly than imports, which will result in an improved contribution from net external demand to GDP growth. In the first half of the year, real growth of exports of goods is expected to have reached around 9½ per cent. This buoyancy was partly influenced by a base effect in the first half of 2000, due to the temporary reduction in the volume of exports of a large production unit of the car industry. However, in addition to this base effect, the market share for the exports of Portuguese goods experienced an overall good behaviour, i.e., a positive differential vis-à-vis developments in the external demand relevant for the Portuguese economy, far more favourable than in recent years. The explanations for this phenomenon are far from evident, and may possibly be associated with both an interruption in the process of delocalisation of export companies from traditional sectors to other countries with cheaper labour cost and/or the redirection of sales to external markets, in a context of weakening domestic demand. Projections for the year as a whole foresee, for the second half, a sizeable deceleration in real export growth, due to the unwinding of the aforementioned base effect and to the marked slowdown expected for external demand. However, a continuation of gains in export market share was assumed similarly to what seems to have occurred in the first half of the year.

The expected real growth rates for exports and imports of goods and services, as well as the probable slight gains in the terms of trade due to developments in international fuel prices are likely to bring about an improvement in the trade deficit of approximately 1 p.p. vis-à-vis 2000. This will probably be partly offset by an increase of around ½ p.p. in the income account deficit, mainly due to the strong widening of the deficit of income related with the recent external financing of Portuguese banks. Therefore, in 2001, the joint deficit of the current plus capital account is expected to stand between 7¾ and 8¾ per cent of GDP, compared with 8.6 per cent in 2000. This projection for the joint deficit corresponds to an upward revision vis-à-vis the Spring forecasts, where a deficit between 6 and 7¾ per cent of GDP was expected. This is chiefly a result of the downward revision of more than 1 per cent of GDP of net public transfers, in line with the revision of the values of these flows included in the report of the proposal for the

2002 State Budget submitted to Parliament (*Assembleia da República*) on 15 October 2001.

The joint deficit of the current plus capital account reflects the external borrowing requirements of the Portuguese economy or, in other words and not taking statistical discrepancies into account, corresponds to the sum of the financial savings of the various residential institutional sectors (households, corporate sector and general government). In 2001, one should stress the improvement of households' financial savings, both through the increase in their savings and through the strong deceleration in housing investment. It should be noted that the rise in the households' savings ratio will take place in a context of strong buoyancy of their nominal disposable income, which will grow at a rate only slightly below that estimated for 2000 (7.2 per cent). This underpinning of the nominal growth of disposable income will be due to significant increases in labour compensations, corporate and property income and transfers to households. The rise in the savings ratio will probably reflect both a phenomenon of higher savings for precautionary purposes, within a framework of less favourable expectations on the future economic developments, and the need to reserve an increasing part of disposable income to meet debt repayments, specifically as a result of the high level of housing investment in recent years.

In 2001 annual average rates of change in the Consumer Price Index (CPI) and the Harmonised Index of Consumer Prices (HICP) will likely stand in the range of 4.2 to 4.4 per cent (as against 2.9 per cent for the CPI and 2.8 per cent for the HICP in 2000). In September 2001, the annual average rates of change in both indices reached 4.3 per cent, stress being laid on the fact that the corresponding year-on-year rates of change recorded levels below the average rates since August, which did not occur since March 2000. In September, these rates stood at 4.0 per cent for the CPI and 4.1 per cent for the HICP. In the coming months year-on-year inflation is expected to continue to decline gradually, reflecting inter alia the progressive fading of the increase caused by the anomalous growth of prices of some foodstuffs.

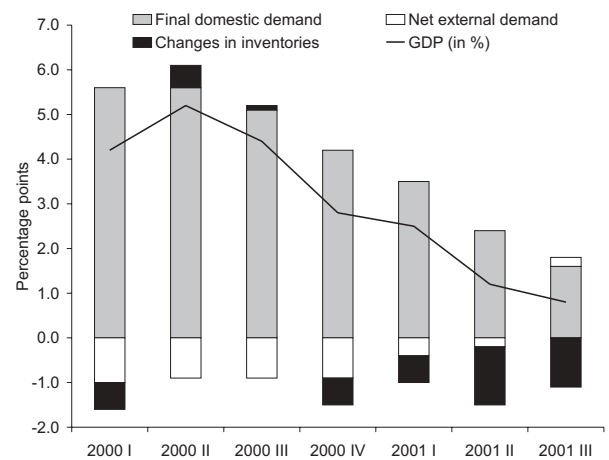
2. MONETARY POLICY

In late 2000 the signals of strong deceleration in the North-American economy, the increased uncertainty as to the recovery of the Japanese economy and the greater instability in financial markets contributed to a deterioration of the growth prospects for the world economy in 2001, which would be confirmed during the first three quarters of the year.

In the United States (US), gross domestic product decelerated sharply from the first half of 2000 onwards, reaching, at end-2000 and early 2001, the lowest growth rates seen since 1995 (the year-on-year rate of change moved from 5.2 per cent in the second quarter of 2000 to 2.5 per cent in the first quarter of 2001) (Chart 2.1). These developments took place in a context of high and systematically higher-than-expected oil price levels, less favourable financing conditions in the wake of the changes in the US monetary policy since 1999 and a more marked downward adjustment trend of the stock market from the third quarter of 2000 onwards (Chart 2.2). Domestic demand, which had been sustaining the strong growth pace of activity, saw a strong deceleration (its contribution to the year-on-year output growth declined from around 6.0 p.p. in the second quarter of 2000, to approximately 3.0 p.p. in the first quarter of 2001). As a response to this, in January 2001 the Federal Reserve changed its monetary policy stance, and started a downward cycle for official interest rates (the target for the federal funds rate moved from 6.5 per cent in the beginning of 2001 to 4.5 per cent on 18 April).

Economic developments in Japan were also less favourable than previously expected, and it became clear in early 2001 that there would be no sustainable recovery of the economy. In an attempt to respond to the deterioration of the economic situation, the Bank of Japan took several measures. First, in early February, it introduced a number of operational changes in monetary policy intended to improve the supply of liquidity to the market. Later, at end-February it reduced the target for the overnight call rate (from 0.25 per cent to 0.15 per cent) and on 19 March it changed the operational target for monetary policy, replacing the overnight call rate by the amount of deposits held by monetary financial institutions with the central bank.

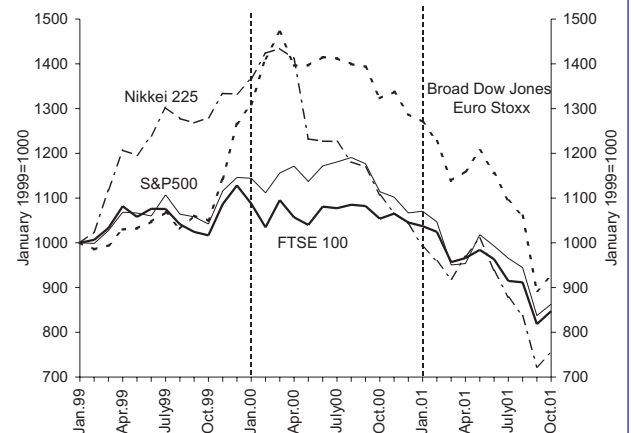
Chart 2.1
CONTRIBUTIONS TO YEAR-ON-YEAR
GDP GROWTH IN THE US



Source: Eurostat.

Note: Figures for the third quarter of 2001 refer to the first estimate of national accounts disclosed on 31 October.

Chart 2.2
STOCK PRICE INDICES
In national currencies

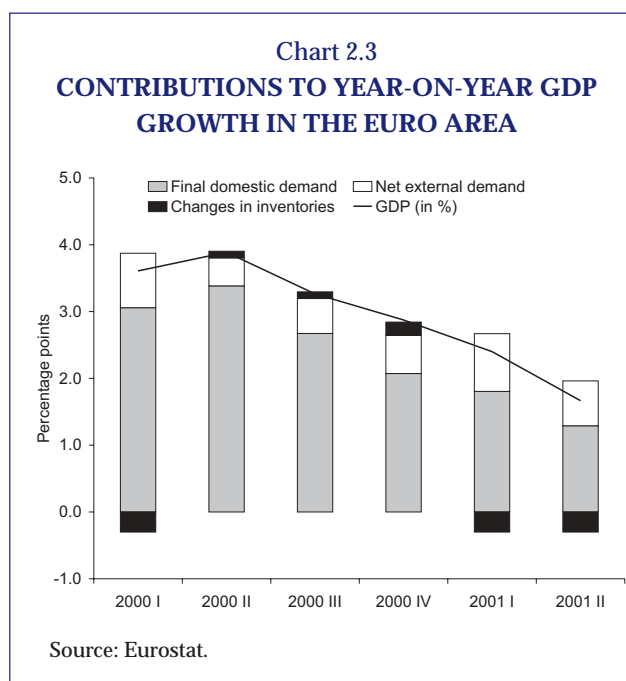


Source: Bloomberg and Banco de Portugal.

The deceleration in the US and the Japanese economies brought about a deterioration in the outlook for emerging economies in Asia and Latin America, which had been recovering throughout 2000.

Reflecting the weakening world demand, and especially a deceleration in domestic demand, to a large extent determined by the increase in the oil prices in 2000, economic activity in the euro area also showed signs of moderation from mid-2000 onwards (the year-on-year rate of change in gross

domestic product declined from 3.9 per cent in the second quarter of 2000 to 2.4 per cent in the first quarter of 2001) (Chart 2.3). However, in the first months of 2001 several factors suggested that the growth pace of economic activity in the euro area in 2001 would be close to or above the growth trend of potential output. In fact, in a context of a high capacity utilisation and employment growth, household and business confidence remained at high levels. In addition, a slight acceleration was expected for domestic demand in the second half of 2001, associated with a higher growth of private sector disposable income, in the wake of cuts in taxes and more favourable developments in inflation. Against this background, in the first months of the year output growth forecasts in 2001 were subject to significantly less downward revisions for the euro area than for the United States (moving from approximately 3.0 per cent at end-2000 for both economies to around 2.5 per cent for the euro area, and below 2.0 per cent for the United States in April/May 2001) (Tables 2.1 and 2.2). This revision of relative growth expectations in both economies is also highlighted by the develop-



ments in the long-term interest rate differential (Chart 2.4).

The expected behaviour of economic activity in the euro area thus suggested that, although risks to medium-term price stability had become more

Table 2.1

DEVELOPMENTS IN GDP GROWTH AND INFLATION FORECASTS FOR THE EURO AREA

	Growth			Inflation ^(a)		
	2000	2001	2002	2000	2001	2002
IMF						
Oct. 2000.....	3.5	3.4	-	2.1	1.7	-
May 2001.....	3.4	2.4	2.8	2.4	2.3	1.7
Oct. 2001 ^(b)	3.5	1.8	2.2	2.4	2.7	1.7
OECD						
Nov. 2000.....	3.5	3.1	2.8	2.2	2.3	2.0
May 2001.....	3.4	2.6	2.7	2.2	2.2	1.9
European Commission						
Nov. 2000.....	3.5	3.2	3.0	2.3	2.2	1.9
Apr. 2001.....	3.4	2.8	2.9	2.3	2.2	1.8
Consensus Forecasts						
Dec. 2000.....	3.3	3.0	-	2.2	2.0	-
Mar. 2001.....	3.3	2.7	2.9	2.2	2.1	1.8
June 2001.....	3.4	2.3	2.7	2.2	2.5	1.9
Sep. 2001 ^(b)	3.4	1.9	2.4	2.2	2.7	1.9
Oct. 2001.....	3.4	1.7	1.8	2.2	2.7	1.8
Eurosystem						
Dec. 2000.....	3.2-3.6	2.6-3.6	2.5-3.5	2.3-2.5	1.8-2.8	1.3-2.5
June 2001.....	3.4	2.2-2.8	2.1-3.1	2.4	2.3-2.7	1.2-2.4

Sources: IMF World Economic Outlook, OECD Economic Outlook, European Commission Economic Forecasts and Consensus Economic Forecasts.

Notes:

(a) IMF and Consensus Economic Forecasts: consumer prices; OECD: private consumption deflator; European Commission: HICP.

(b) Forecasts made before the attacks in the United States on 11 September.

Table 2.2

GDP GROWTH FORECASTS

	2000	2001	2002
World			
IMF			
Oct. 2000	4.7	4.2	-
May 2001	4.8	3.2	3.9
Oct. 2001 ^(a)	4.7	2.6	3.5
United States			
IMF			
Oct. 2000	5.2	3.2	-
May 2001	5.0	1.5	2.5
Oct. 2001 ^(a)	4.1	1.3	2.2
Consensus Forecasts			
Dec. 2000	5.1	3.0	-
Mar. 2001	5.0	1.9	3.4
June 2001	5.0	1.8	3.0
Sep. 2001 ^(a)	4.1	1.6	2.7
Oct. 2001	4.1	1.0	1.2
Japan			
IMF			
Oct. 2000	1.4	1.8	-
May 2001	1.7	0.6	1.5
Oct. 2001 ^(a)	1.5	-0.5	0.2
Consensus Forecasts			
Dec. 2000	2.1	2	-
Mar. 2001	1.7	1.2	1.7
June 2001	1.5	0.6	1.5
Sep. 2001 ^(a)	1.5	-0.1	0.5
Oct. 2001	1.5	-0.5	-0.4

Sources: IMF World Economic Outlook and Consensus Economic Forecasts.

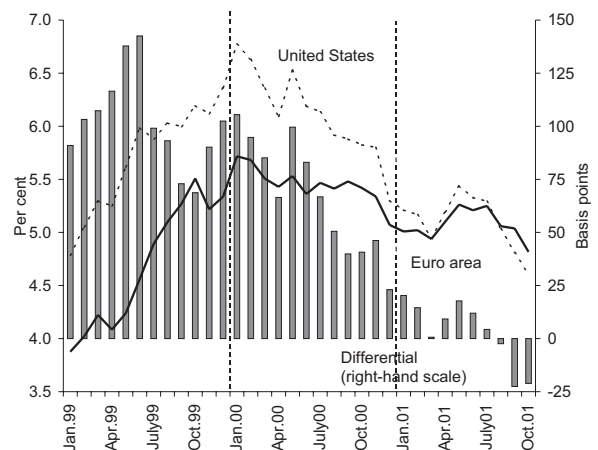
Note:

(a) Forecasts made before the attacks in the United States on 11 September.

balanced, when compared with end-2000, some upward risks had persisted associated with second-round effects on wages deriving from previous price increases. Reflecting the more favourable behaviour of the oil price and the appreciation of the euro exchange rate at end-2000 and in early 2001⁽¹⁾ (Chart 2.5), the year-on-year inflation rate, as measured by the HICP, stood between 2.4 and

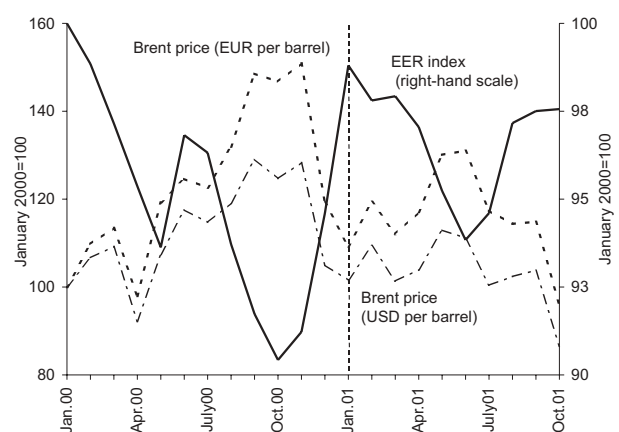
(1) After having declined significantly between late November and December 2000 (from around 33 USD per barrel to around 24 USD per barrel), the oil price reversed this trend in 2001, ranging from 24 to 30 USD per barrel up to mid-September, to fall subsequently to approximately 22 USD per barrel. In turn, the euro appreciated between late October 2000 and mid-January 2001 by 11 per cent in effective terms and by 12 per cent against the USD, subsequently depreciating up to early June, by 7 per cent and 10 per cent respectively.

Chart 2.4
TEN-YEAR GOVERNMENT BOND YIELDS



Source: ECB.

Chart 2.5
OIL PRICE AND EURO EXCHANGE RATE^(a)



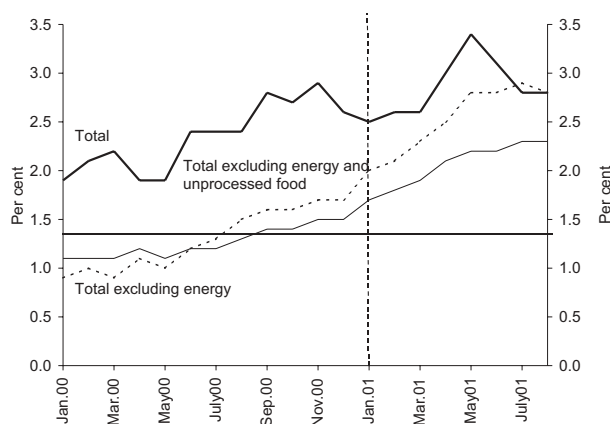
Sources: ECB and Thomson Financial Datastream.

Note:

(a) An increase denotes an effective appreciation of the euro.

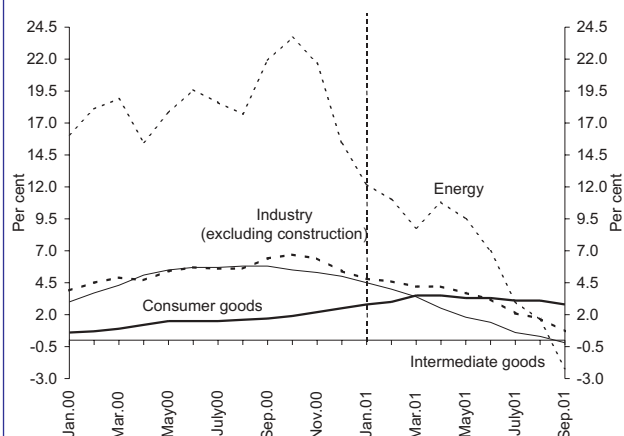
2.6 per cent in the first quarter of 2001, i.e. significantly above 2 per cent, albeit below the 2.9 per cent peak reached in November 2000 (Chart 2.6). Inflation did not decline more markedly in early 2001, since the increase in consumer prices in this period was exacerbated by increases in indirect taxes and administered prices, by the acceleration in unprocessed food prices associated with concerns on public health (regarding meat consumption) and by lagged indirect effects from the increase in import prices. Excluding energy and unprocessed food, the year-on-year rate of change in the HICP thus continued an upward trend in the

Chart 2.6
HICP IN THE EURO AREA
Year-on-year rate of change



Source: Eurostat.

Chart 2.7
PRODUCER PRICE INDICES IN THE EURO AREA
Year-on-year rate of change



Source: Eurostat.

first quarter of 2001 (moving from 1.5 per cent in the fourth quarter to 1.8 per cent). In addition, developments in producer prices pointed to the maintenance of inflationary pressures in the following months (Chart 2.7).⁽²⁾

Reflecting the interest rate increases decided by the European Central Bank (ECB) between November 1999 and October 2000, in the first quarter of 2001 the M3 maintained the moderation path

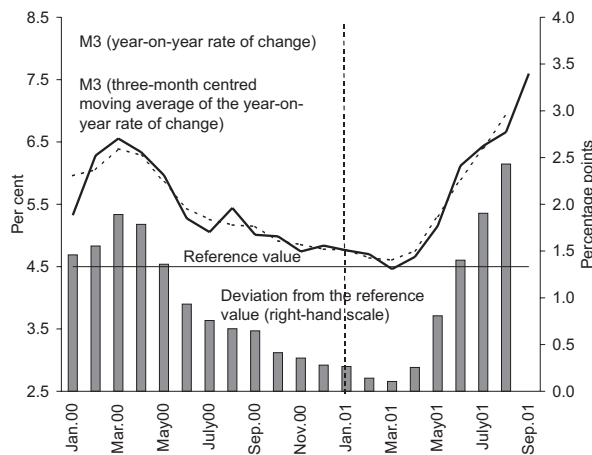
(2) Producer prices of consumer goods continued to accelerate in early 2001, the year-on-year rate of change moved from 2.6 per cent in December 2000 to 3.6 per cent in May 2001.

seen since spring 2000, although continuing to show a growth pace above the 4.5 per cent reference value (according to the data disclosed in the April 2001 issue of the ECB Monthly Bulletin, the average of the annual rates of growth of M3 in the first quarter stood at 4.8 per cent). Credit to the private sector also continued to slow down, albeit with year-on-year growth rates still close to 10 per cent. On the basis of this information, in the first four months of 2001 the Governing Council of the ECB decided to keep the interest rates unchanged at the levels set in early October (4.75 per cent for the minimum bid rate on the main refinancing operations and 5.75 per cent and 3.75 per cent respectively for the interest rates on the marginal lending facility and the deposit facility).

In May the collection of more precise data on the upward distortion of M3 associated with non-euro area resident holdings of negotiable instruments included in the aggregate showed distortion figures significantly higher than previously assessed. According to the new data, the share of non-euro area resident holdings of money market fund units had become more significant in recent months, standing at around 0.5 p.p. of the year-on-year growth rate of M3 in March. There were also further indications that the distortion determined by non-euro area resident holdings of other negotiable instruments (on which no precise information was available as yet) was also attaining a non negligible value (Chart 2.8). Thus, according to the ECB, monetary developments assessed on the basis of the adjusted M3 did not point to any risks to price stability. Also taking into account information recently made available on wage developments in the euro area and on prospects for external environment developments, which pointed to a reduction of the pressures on medium-term prices, the Governing Council of the ECB, at its meeting on 10 May, decided to lower the key interest rates by 25 basis points (Table 2.3).

During the following months and up to late August, forecasts for world economic growth became gradually more unfavourable. In the United States, latest data showed a higher than expected slowdown of economic activity in the second quarter of 2001 (year-on-year growth rate of GDP of 1.2 per cent, against 2.5 per cent in the previous quarter). A significant break in investment, some deceleration in private consumption, and a weak-

Chart 2.8
MONETARY AGGREGATE M3^(a)



Source: ECB.

Note:

(a) Adjusted for seasonal and end-of-month calendar effects as well as for non-resident holdings of money market fund shares/units.

ening of external demand relevant for the US economy seem to have been behind this behaviour. As a result, forecasts for real GDP growth in 2001 and 2002 were gradually revised downwards. Taking into account the uncertainty surrounding short-term economic developments, specifically the continued downward risks with regard to the behaviour of corporate investment, the Federal Reserve pursued the policy of official interest rate cuts (the target for the federal funds rate fell from 4.5 per cent at end-April to 3.5 per cent on 21 August).

In Japan the economic situation continued to worsen, and the broadly based weakening of domestic demand increased downward pressures on prices. In the second quarter of 2001 real GDP recorded a negative year-on-year rate of change of 0.7 per cent, compared with a positive figure of 0.2 per cent in the first quarter. In the other Asian economies, economic activity also deteriorated significantly, reflecting the strong reduction of US corporate investment in these countries, as well as the contraction of exports associated with information and communication technologies.

The gradual deterioration of the euro area external environment, the negative impact on real disposable income of consumer price increases which were not totally anticipated, as well as the

Table 2.3
INTEREST RATES OF THE EUROPEAN
CENTRAL BANK

Per cent

Decision date	Deposit facility	Main refinancing operations ^(a)	Marginal lending facility
	Percentage points		
4 Nov. 1999	2.00	3.00	4.00
3 Feb. 2000	2.25	3.25	4.25
16 Mar. 2000	2.50	3.50	4.50
27 Apr. 2000	2.75	3.75	4.75
8 June 2000	3.25	4.25	5.25
31 Aug. 2000	3.50	4.50	5.50
5 Oct. 2000	3.75	4.75	5.75
10 May 2001	3.50	4.50	5.50
30 Aug. 2001	3.25	4.25	5.25
17 Sep. 2001	2.75	3.75	4.75

Source: ECB.

Note:

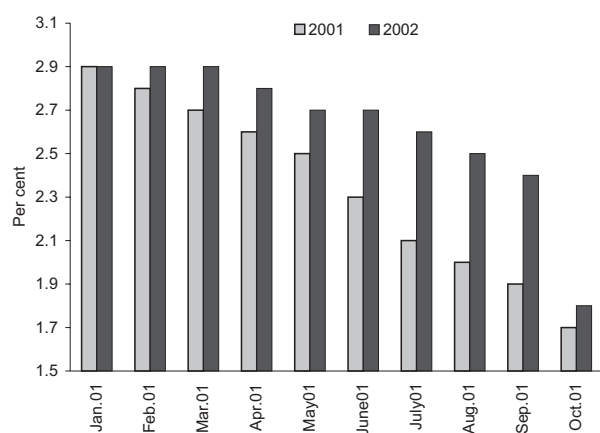
(a) Minimum bid rate in variable rate tenders starting from the operation on 28 June 2000. Announcement made on 8 June 2000.

reduction in the confidence of economic agents, determined a stronger than expected slowdown of economic activity in the euro area. The year-on-year rate of change in GDP in the second quarter of 2001 was 1.7 per cent (2.4 per cent in the first quarter). Reflecting a less favourable assessment of the general economic situation and of the outlook for labour market developments, in more recent months, consumer confidence weakened gradually during the second and third quarters of 2001. In the same vein, industrial confidence continued to show a downward trend, standing, from July onwards, below the average level recorded over the last ten years. In this context, forecasts for the growth of economic activity in the euro area were revised downwards, pointing to values below potential output growth in 2001 and to rates of change around 2.2-2.4 per cent in 2002 (Chart 2.9).

From June onwards, and following the significant increases seen in recent months (the year-on-year inflation, as measured by the HICP, stood at 3.0 per cent in April and 3.4 per cent in May⁽³⁾), inflation in the euro area started to de-

(3) This trend of inflation was chiefly due to the direct effects of the increase in unprocessed food and energy prices caused by the depreciation of the euro and the rise in the international oil price.

Chart 2.9
FORECASTS MADE DURING 2001 FOR THE GDP GROWTH RATE IN THE EURO AREA



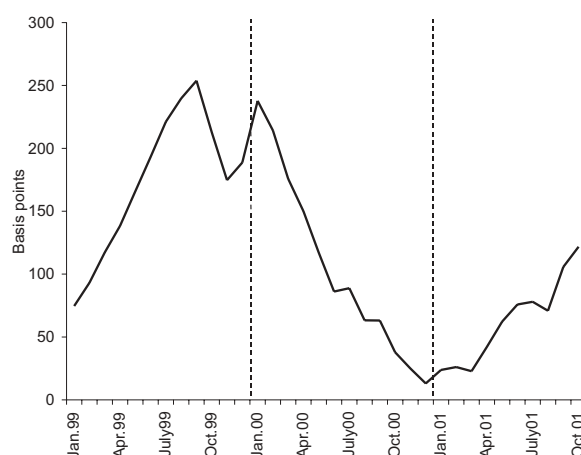
Source: Consensus Economics Forecasts.

cline. The year-on-year rate of change in the HICP declined to 3.1 per cent in June, to stand at 2.5 per cent in September. This trend was due not only to the behaviour of the most volatile components (energy and unprocessed food), but also to the discontinuance of the acceleration in non-energy industrial goods and services prices. It should be noted that, from June onwards, the oil price in euro reversed, to a large extent, the increase seen early in the year, chiefly reflecting the appreciation of the euro in that period. Between June and August, the euro appreciated by 2.0 per cent in effective terms and by 3.0 per cent against the dollar, on monthly averages.

The year-on-year growth of M3⁽⁴⁾ for the euro area recorded an upward trend from the middle of the second quarter onwards, thereby discontinuing the downward trend seen since the spring of the previous year. The three-month average of the year-on-year growth rates of M3 reached 6.9 per cent in the period between July and September. It should be noted that this aggregate is skewed to the upside due to non-euro area resident holdings of money market paper and debt certificates issued with a maturity of up to two years. According to the ECB, M3 growth does not seem, how-

(4) Adjusted for seasonal and end-of-month calendar effects, as well as for non-euro area resident holdings of money market fund units.

Chart 2.10
SPREAD BETWEEN THE TEN-YEAR EURO AREA GOVERNMENT BOND YIELD AND THE THREE-MONTH EURIBOR



Source: ECB.

ever, to signal any risks to price stability. The gradual decline in the slope of the yield curve during 2000 (Chart 2.10) and the weakness of international stock markets⁽⁵⁾ have contributed to a greater preference for short-term deposits and shorter-term securities.⁽⁶⁾

Within a framework of a less favourable outlook for economic developments in the euro area, and considering that the risks of inflationary pressures were dampened, specifically those resulting from second-round effects on wages, on 30 August the Governing Council of the ECB decided to lower the official interest rates by 25 basis points (setting the minimum bid rate on the main refinancing operations and the interest rates of the marginal lending facility and the deposit facility at 4.25 per cent, 5.25 per cent and 3.25 per cent respectively).

The most recent period was marked by the terrorist attacks against the United States on 11 September, which have significantly intensified uncertainty and downside risks with regard to economic developments in the US and worldwide. In immediate terms, activity in a number of fundamental

(5) Between end-2000 and end-September the broad Dow Jones Euro Stoxx fell by approximately 31 per cent and the Standard & Poor's 500 by around 22 per cent.

(6) In September, the M3 growth may have also reflected the reaction of investors to increased uncertainty, in the wake of the terrorist attacks against the United States.

sectors such as transports, insurance and tourism was significantly affected. In addition, the possibility of a broadly based fall in the confidence of economic agents, as well as the possible increase in financial markets' turbulence⁽⁷⁾ brought about increased downside risks regarding the growth of world economic activity.

The terrorist attacks in the US occurred in a context in which a number of indicators pointed to a more unfavourable than expected development of economic activity in the third quarter of 2001.⁽⁸⁾ Thus, and taking into account increased risks of a further weakening of the US economy, on 17 September and again on 2 October the Federal Reserve decided to lower the official rates by 50 basis points on each date (the target for the federal funds rate thus moved to 2.5 per cent).

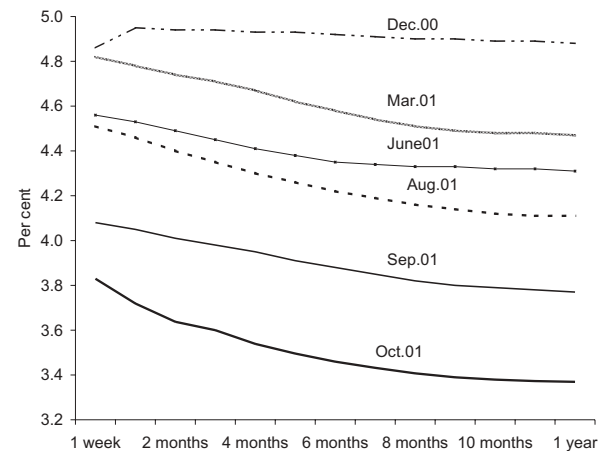
In conjunction with the Federal Reserve, the Governing Council of the ECB decided on 17 September to lower by 50 basis points the minimum bid rate on the main refinancing operations, as well as the interest rates on the marginal lending facility and the deposit facility (to 3.75 per cent, 4.75 per cent and 2.75 per cent respectively). The uncertainty surrounding developments in the international environment, as well as the possible negative impact on the confidence of economic agents, translated into a deterioration of output growth prospects in the euro area and caused inflationary risks to decline further.

These changes in the official rates of the Federal Reserve and the ECB triggered similar measures in other European Union central banks, namely the United Kingdom, Sweden and Denmark and in the central banks of Canada, Japan and Switzerland.

(7) Following the attacks, several central banks jointly decided to take measures to ensure the functioning and stabilisation of financial markets, namely through the exceptional injection of funds and the creation of swap lines to meet liquidity needs resulting from operations in US dollars. The Eurosystem conducted liquidity-supplying fine-tuning operations with a view to meeting liquidity needs in the euro money market. In addition, a swap agreement was made between the ECB and the Federal Reserve through which deposits in dollars were made available to the Eurosystem central banks in order to facilitate the European banking system transactions in dollars.

(8) Preliminary data of national accounts, published in late October, point to a year-on-year growth of 0.8 per cent in the third quarter, against 1.2 per cent in the second quarter.

Chart 3.1
EURO AREA MONEY MARKET YIELD CURVES
Monthly averages



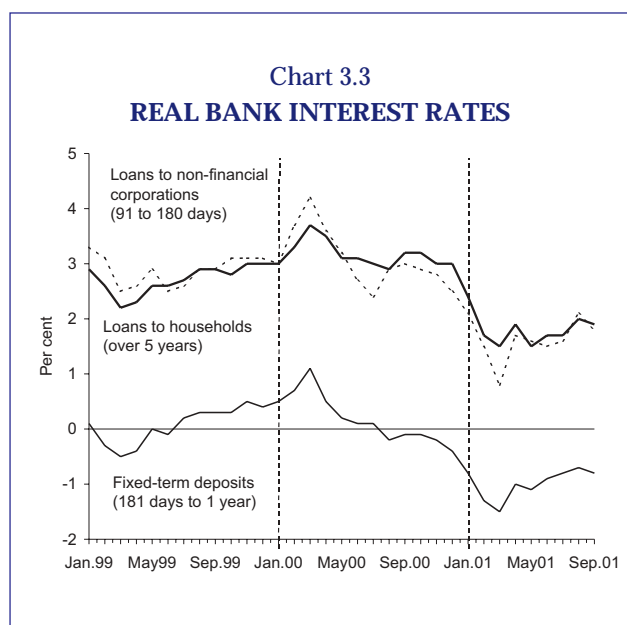
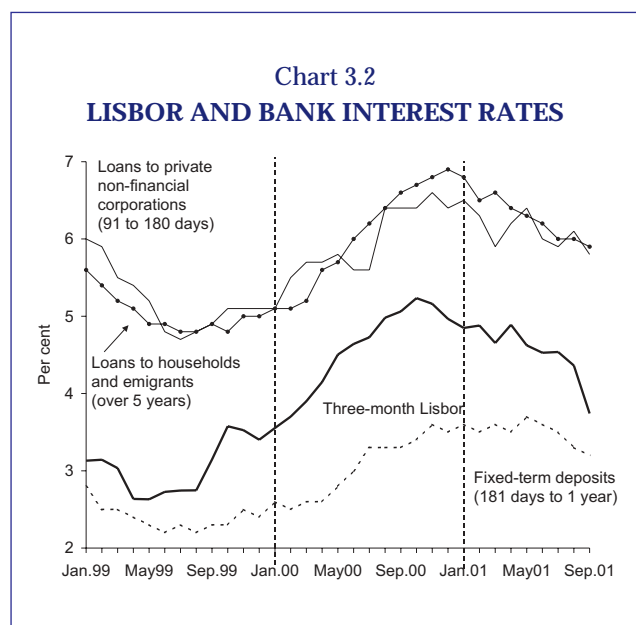
Source: ECB.

3. MONETARY CONDITIONS IN THE PORTUGUESE ECONOMY⁽⁹⁾

In the course of 2001, the euro money market yield curve remained negatively sloped and shifted downwards, reflecting the cuts made by the Governing Council of the ECB in official interest rates, as well as expectations of further reductions in the future. Between December 2000 and October 2001, three-month and twelve-month EURIBOR interest rates declined by 134 and 151 basis points respectively, standing in October, on average, at 3.6 per cent and 3.4 per cent respectively (Chart 3.1).

As a lagged reflection of developments in money market interest rates in the euro area, bank interest rates in Portugal maintained up to September 2001 the downward path started in the fourth quarter of 2000 (Chart 3.2). Thus, while three-month money market interest rates reached their high in October 2000, i.e. 5.23 per cent, having declined since then (reaching 3.70 per cent in September 2001), bank interest rates reacted later, with different lags for the various segments of cus-

(9) Deposits and credit aggregates analysed in this article are those published in the Monetary Financial Statistics of the Banco de Portugal, wherefore figures do not exactly correspond to those analysed in the article "The Banking System in the first half of 2001", also published in this *Bulletin*. For further details, see footnote no. 1 in the mentioned article.



tomor transactions. The interest rate with a smaller lag vis-à-vis the money market rate on operations with a similar maturity was that on new loans to non-financial corporations for 91 to 180-day operations, which reached its peak in November 2000, i.e. 6.6 per cent, declining to 5.8 per cent in September 2001. In turn, the interest rate on new loans to households (operations with a maturity of over 5 years) reached its peak in December 2000 – 6.9 per cent – declining to 5.9 per cent in September 2001. Deposit rates showed a longer lag, and the interest rate on fixed-term deposits (181 days to 1 year) reached a peak of 3.7 per cent in May 2001, declining to 3.2 per cent in September. It should be noted that the overall differential between lending and deposit interest rates, although declining somewhat during the first half of 2001, stood clearly above the troughs reached in mid-2000 (see the article entitled “*The Banking System in the first half of 2001*” in this issue of the *Bulletin*).

In parallel with the cut in nominal interest rates, it should be noted that during the first three quarters of 2001 real interest rates remained at extremely low levels (Chart 3.3).⁽¹⁰⁾ In fact, nominal bank interest rates reflect the trend of money market rates, quite similar for the euro area as a whole, while the Portuguese inflation is significantly higher than in the euro area on average. The

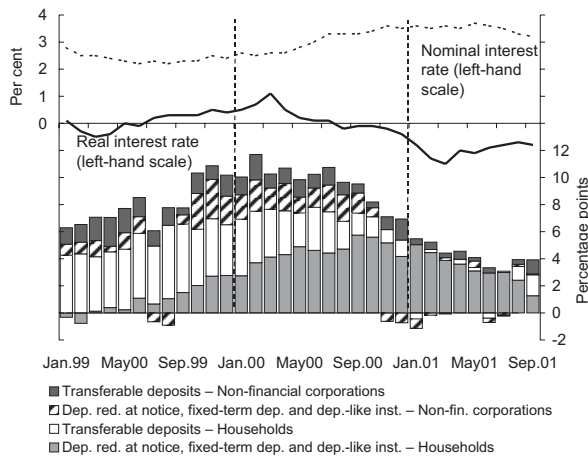
(10) The real interest rate is defined as the difference between the nominal annual interest rate and the year-on-year inflation rate.

strong acceleration in Portuguese prices between March 2000 and March 2001 led to a gradual reduction in real interest rates. From April onwards, the gradual reduction in the inflation rate led to a reversal of this trend, with a slight recovery of real interest rates from the minimum levels reached in March. Compared with the average levels seen in 2000, real interest rates associated with loans to households (operations with a maturity of over 5 years) and to non-financial corporations (91 to 180-day operations) fell (in average terms in the first three quarters of 2001) by around 1.4 p.p. (to 1.8 and 1.6 per cent respectively). On the other hand, the real interest rate associated with the collection of fixed-term deposits (181 days to 1 year) was negative throughout 2001 and reached, up to September, an average level of -1.0 per cent (compared with a 0.2 per cent average in 2000 and a minimum of -1.5 per cent in March 2001).

In the first three quarters of 2001 there was a clear deceleration in credit aggregates and aggregates of total deposits and deposit-like instruments. After recording a clear downward trend during the first half of 2001, the year-on-year rate of change in total deposits and deposit-like instruments of the non-financial private sector⁽¹¹⁾ stood at 3.9 per cent in September, compared with 6.2 per cent at end-2000 (9.5 per cent in average terms in 2000 – Chart 3.4). This deceleration may be

(11) This sector comprises households, emigrants and non-financial corporations.

Chart 3.4
INTEREST RATES ON FIXED-TERM DEPOSITS (181 DAYS TO 1 YEAR) AND CONTRIBUTIONS TO THE RATE OF CHANGE IN DEPOSITS AND DEPOSIT-LIKE INSTRUMENTS OF THE NON-FINANCIAL PRIVATE SECTOR

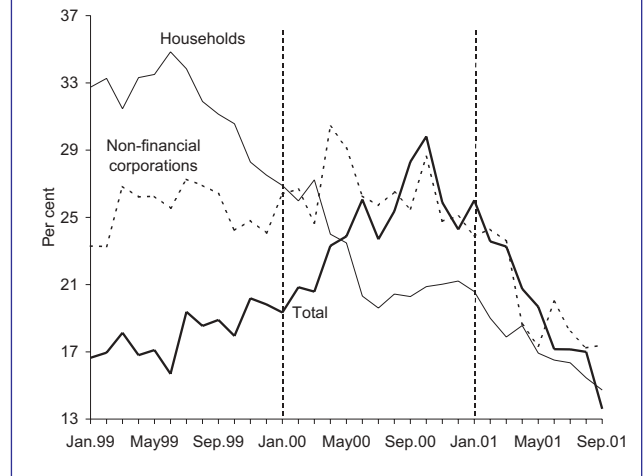


chiefly associated with developments in real interest rates on bank deposits. From the second half of 2000 onwards, the low level of real interest rates has clearly lowered the incentive for investments in this type of financial instrument. On the other hand, although the household savings ratio is estimated to increase further, following the rise recorded in 2000, this will be partly due to the need to meet the increase in debt repayments.

The main contribution to the deceleration in deposits and deposit-like instruments of the non-financial private sector was associated with the behaviour of households and emigrants. During the first three quarters of 2000, and coinciding with the rise in nominal interest rates, the collection of deposits redeemable at notice and fixed-term deposits to the detriment of transferable deposits was noticeable, while the rate of change in total deposits remained at around 9.0 per cent. From the last quarter of 2000 onwards, and as real interest rates on deposits declined to clearly negative values, transferable deposits virtually levelled off and growth rates on deposits redeemable at notice and fixed-term deposits declined gradually. In September 2001 this type of deposits grew at a rate of 2.1 per cent, 5.1 p.p. less than in December.

Throughout the first three quarters of 2001, bank credit to the non-financial private sector

Chart 3.5
DOMESTIC BANK CREDIT
 Year-on-year rate of change

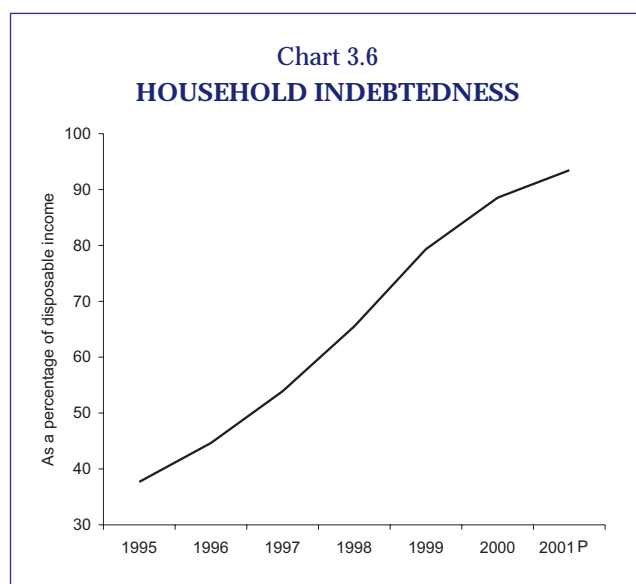


tended to decelerate (Chart 3.5), although it continued to record a rate of change much higher than that of nominal GDP. In September 2001, the year-on-year rate of change in this aggregate stood at 16.1 per cent, compared with 23.1 per cent in December 2000 (and 30.5 per cent in July 1999).

Credit to the non-financial private sector decelerated for both households and non-financial corporations. The rate of change in credit to households declined from 21.2 per cent in December 2000 to 14.7 per cent in September 2001. The deceleration occurred in both loans for house purchase (whose rate of change moved from 20.3 per cent in December 2000 to 15.9 per cent in September 2001) and loans for other purposes (which in September recorded a rate of change of 11.4 per cent, 12.7 p.p. less than at the end of 2000). In turn, the growth rate of credit to non-financial corporations⁽¹²⁾ declined from 25.1 per cent in December 2000 to 17.4 per cent in September 2001.

The reduction in the rate of change of credit to the non-financial private sector has taken place in a context of extremely low real interest rates. Thus, it probably reflects, on the one hand, the high indebtedness levels already reached, and on the other, a less positive trend of the remaining explanatory factors of credit demand, such as lesser buoyancy of economic activity, namely the deceleration in investment and consumption of dura-

(12) This aggregate comprises bank loans, commercial paper, shares and other equity.



ble goods, and expectations of a further deterioration of economic activity (as supported by the analysis of consumer and producer confidence indicators).⁽¹³⁾

Notwithstanding the deceleration observed, credit to households and non-financial corporations has been growing at rates far above household disposable income and nominal GDP, which have raised the indebtedness ratios of these institutional sectors. Available estimates suggest that at end – 2001 household indebtedness is likely to stand close to 93 per cent of their disposable income (88 per cent in 2000 – Chart 3.6), and that corporate indebtedness will probably reach around 91 per cent of GDP (83 per cent in 2000). In parallel with the increase in the household indebtedness level, a worsening of the respective debt burden is expected for 2001. This worsening will likely be caused, in particular, by the increase in interest associated with this stock. In fact, as a result of the rise in the interest rate implied in the debt,⁽¹⁴⁾ interest payments in 2001 will probably account for a share of disposable income slightly above 5 per cent, compared with around 3.5 per cent in 1999 and 4.1 per cent in 2000.

One of the factors sustaining the high rates of change in credit to non-financial corporations is related to the conduct of public works by entities not belonging to general government, such as road infrastructures with “shadow toll concession”, partly financed through recourse to credit with resident banks. It should be noted that the identification of other factors explaining the high rates of

change of credit to non-financial corporations is hampered by the fact that a substantial part of financing to these corporations is classified as credit to corporations of the services sector, reflecting the intermediation of non-financial holdings in the context of the financing of Portuguese economic groups. In addition, part of this credit may be also admittedly targeted at financing mergers and acquisitions of companies, as well as investments abroad.

In sum, the monetary and financial conditions of the Portuguese economy in 2001 have been characterised by a decline in nominal interest rates, while real interest rates have remained at the low levels reached in late 2000. In spite of this, there was a significant reduction in the rates of change in deposit and credit aggregates. As already noted, this trend chiefly reflects the slowdown in consumption and investment, the need to meet the high debt service levels reached in the meantime and the increasing climate of uncertainty which strongly limits expectations for economic developments in the near future. It should be noted, however, that in most recent months there seems to have been an interruption in the moderation trend of recourse to credit by the non-financial private sector. Although year-on-year rates of change have continued to decline, quarterly annualised rates of change calculated from seasonally adjusted data show that in most recent months there seems to have been a relative persistence in the growth of credit to non-financial corporations, and that credit to households appears to have reversed in August the deceleration trend it had been evincing (Chart 3.7).

(13) It should be noted that between December 2000 and September 2001, the nominal effective exchange rate index for Portugal appreciated by 0.6 per cent. In addition, the higher growth of unit labour costs against the major trading partners led to a 4.1 increase in the real effective exchange rate index, thereby contributing to less competitive Portuguese exports when compared with Portugal’s major trading partners.

(14) At any time, this rate is a weighted average of interest rates on credit granted in most recent months, thus reflecting the process of indexation of and periodical revision to bank credit interest rates, in line with the current practice of longer-term loans. Thus, it tends to exhibit a lagged pattern vis-à-vis rates on new loans.

Chart 3.7
CREDIT TO THE NON-FINANCIAL
PRIVATE SECTOR
Annualised quarterly rates of change

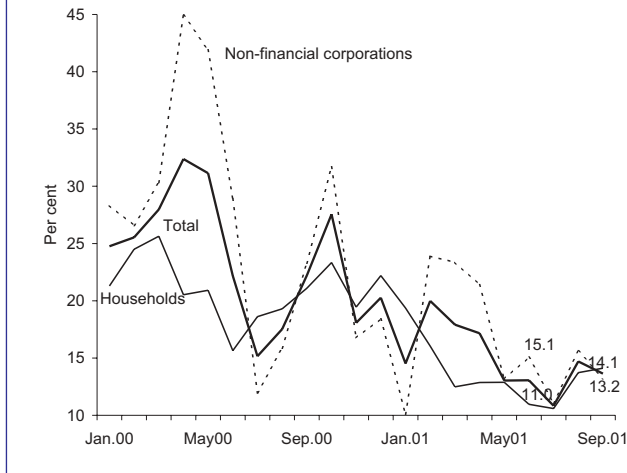
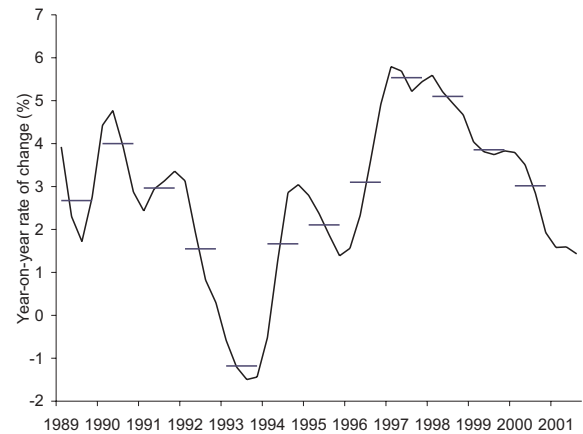


Chart 4.1
ACTIVITY COINCIDENT INDICATOR



Source: Banco de Portugal.

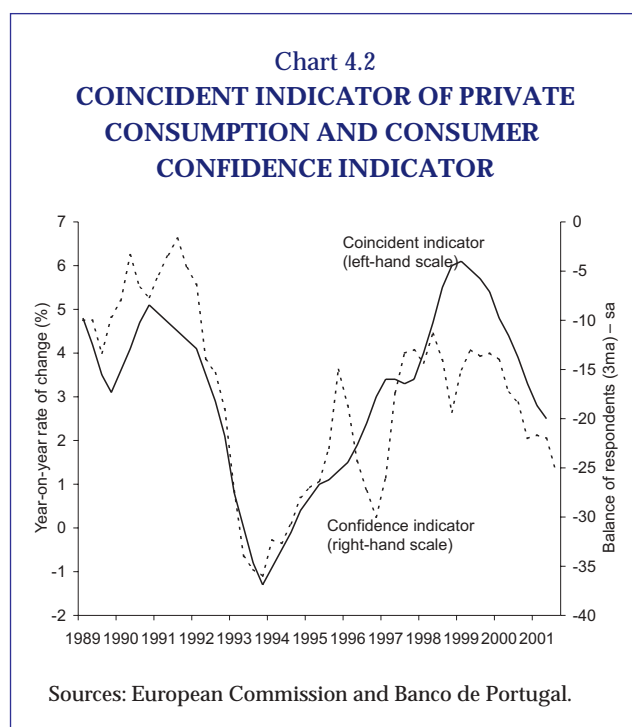
4. OUTPUT DEVELOPMENTS IN 2001

According to the estimates of the Banco de Portugal shown in this *Bulletin* (Table 1.1), the economic growth of the Portuguese economy will likely stand between 1½ and 2.0 per cent in 2001, reflecting a deceleration vis-à-vis growth in 2000, which stood at 3.5 per cent.⁽¹⁵⁾ The slowdown of economic activity shown in these estimates is also suggested by developments in the coincident indicator of the Banco de Portugal – which summarises information on the trade, industry and construction sectors – up to the third quarter, as can be seen from Chart 4.1.

(15) Economic growth in 1999 and 2000 was revised upwards an estimated 0.3 p.p. for each year. This revision occurs, on the one hand, due to new data disclosed on the public sector in early September, within the scope of the excessive deficit procedure, and, on the other hand, as a result of the publication by the National Statistical Office (INE) in early October of final figures for external trade in 2000. The nominal growth rate of exports and imports published in this final version for 2000 was 14.6 per cent and 15.3 per cent respectively, which indicates a revision from the 12.5 per cent and 14.4 per cent growth, calculated from the comparison of preliminary figures reported for the period from January to December. The revision of data on the public sector contributed to an upward revision of economic growth of 0.3 p.p. in 1999 and 0.1 p.p. in 2000. The computation of final results for external trade determined an upward revision of around 0.2 p.p. in 2000.

The composition of economic growth in 2001 will likely maintain the trend of the last two years, with a reduction of the contribution from domestic demand, only partially offset by the increased contribution from net external demand. In 2001 the contribution from domestic demand to the output growth rate is estimated to stand close to 1 p.p. (3.4 p.p. in the previous year), while the contribution from external demand is likely to stand slightly above ½ p.p. (compared with 0.2 p.p. in 2000). Developments in domestic demand are likely to result from a deceleration in all its components, stress being especially laid on the strong deceleration in private consumption and Gross Fixed Capital Formation (GFCF). The increased contribution from net external demand is likely to occur in spite of the deceleration projected for exports, due to a significant dampening of import growth. This behaviour of imports reflects not only the deceleration in exports and domestic demand, but also a change in the composition of the latter, with the negative trend of the components with a high import content, such as GFCF in equipment and consumption of durable goods.

The current GDP growth projection for 2001 revises downwards, by around ½ p.p., the “Spring Projection” published in the June 2001 issue of the *Economic Bulletin* (Table 1.1). This revision results from lower than expected increases in private consumption and exports, only partially offset by a higher than expected deceleration in imports. The



rates of change in public consumption and GFCF as a whole are expected to stand close to those projected in the spring.

Private consumption in 2001 is likely to stress the deceleration trend started in 2000, and its growth is likely to stand between $\frac{3}{4}$ and $1\frac{1}{2}$ per cent (2.8 per cent in 2000). These developments reflect an adjustment of consumption decisions, after the very high increases in 1998 and 1999 (7.2 and 5.3 per cent respectively). Developments in private consumption reflect a continued deterioration of consumer confidence. The consumer confidence indicator (Chart 4.2), which results from the average of several qualitative questions,⁽¹⁶⁾ has been declining since the first quarter of 2000. This trend is common to the several questions making up the indicator, and the balances of respondents move closer to the troughs recorded in the 90s as regards the questions related with the financial situation over the next twelve months and the general economic situation over that same period. The slowdown in private consumption is also illustrated by the path of the coincident indicator of private consumption (Chart 4.2).

(16) For details on recent methodological changes introduced in this indicator disclosed by the European Commission, see the September 2001 issue of the "Monthly Economic Indicators" of the Banco de Portugal.

The deceleration in private consumption essentially reflects expenditure on durable goods. Reference should be made to the strong fall in purchases of light passenger vehicles including off-the-road vehicles in the first quarter of the year (-17.3 per cent) largely due to a decline in the purchases of the latter (-41.1 per cent). These developments are related to changes in taxes on vehicles that were announced in 2000, leading to an anticipation of purchase decisions for that year. In 2001 real growth of private consumption excluding cars is likely to stand slightly above 2 per cent (3.1 per cent in 2000), which reflects the importance of this class of goods to developments in private consumption this year. Growth estimated for private consumption excluding cars results from the maintenance of significant growth rates in several classes of consumption of services by residents, in parallel with more moderate developments in the consumption of goods. In fact, the retail trade turnover index published by the *INE*, which excludes purchases of cars and services, grew by 3.9 per cent in nominal terms in the first eight months of this year, 0.2 p.p. less than the price index relevant for the classes of goods comprised in this indicator. In 2000 the nominal growth of this indicator was 5.5 per cent (3.6 p.p. more than the price index relevant in that period).

Deceleration in private consumption in 2001 is expected to be more marked than the slowdown in real disposable income, which will translate into a further rise in the household's saving ratio. Disposable income is likely to record a nominal growth rate only slightly below that recorded in 2000 (estimated at 7.2 per cent). Developments in the household's saving ratio in 2001 are characterised by a climate of increased uncertainty regarding economic prospects, as suggested by the consumer confidence indicator, and chiefly reflect the need to resume more sustainable levels of the saving ratio, in the wake of the strong reductions observed in previous years, associated with the transition to a new macroeconomic environment with lower interest rates.

According to the estimates of the Banco de Portugal based on official forecasts and available information on the budget outturn in 2001, public consumption will grow by 1.9 per cent in volume terms this year, i.e. slightly above the forecast published in the June issue of the *Economic Bulletin*

(Table 1.1) – following a 3.5 per cent increase in 2000. This deceleration will be accounted for by staff costs, with 1.8 per cent real growth (2.8 per cent in 2000) and by expenditure on goods and services, with 2.1 per cent real growth (5.4 per cent in 2000).

GFCF growth is likely to be virtually nil in volume terms in 2001, which will be especially accounted for by the trend of its equipment component (machinery and transport material). This component is estimated to decrease from 1 to 4 per cent in 2001, compared with a 4.5 per cent increase in 2000. This behaviour reflects, to a large extent, the trend of investment in transport equipment, which will admittedly show a strongly negative real growth rate (which had increased by 4.9 per cent in 2000) essentially due to changes introduced in taxes on light commercial vehicles in 2001. The pre-announcement of these changes in 2000 gave rise to an anticipation of purchase decisions and to an increase in sales in the last quarter of this year and in the first quarter of 2001. Developments expected in the course of 2001 imply a subsequent adjustment of the high growth recorded in this period. Investment in construction in 2001 will likely grow between 0 and 2½ per cent, which also reflects a significant deceleration from the previous year (5.0 per cent growth). This deceleration was largely determined by negative developments in housing construction, as shown by the negative trend of licences for house construction throughout 2000 and over the first half of this year (year-on-year rates of change of -8.4 per cent in the period from January to August 2001 and -4.3 per cent in 2000 as a whole, against increases of 9.7 in 1999 and 14.8 per cent in 1998) and by the deceleration in bank credit to households for house purchase (15.9 per cent growth in September 2001, compared with 20.3 per cent in December 2000) (Table 4.1). It should be noted that the difference between the balances on bank credit for house purchase at end-September 2001 and end-September 2000, which corresponds to the gross flow of new credit for house purchase less repayments of principal carried out in the meantime, recorded a negative nominal year-on-year change of 13.0 per cent. The two remaining construction sub-sectors, i.e. public works and non-residential buildings, are likely to show a relatively buoyant behaviour in 2001, in particular public works, as suggested by the opinion survey carried

out by the *INE* to the construction sector (Chart 4.3). The high pace of construction of road infrastructures and other public works will contribute to this result, even if these are not directly promoted by the general government.

Exports of goods and services are likely to grow between 4¼ and 5¼ per cent in 2001, following a 7.9 per cent increase in 2000, which represents a downward revision vis-à-vis the range showed in the June issue of the *Economic Bulletin* (between 5½ and 6½ per cent). This revision is chiefly related to the behaviour of exports of services, given that exports of goods are remarkably buoyant.

In the first half of 2001 exports of goods grew by 13.1 per cent in nominal terms, which corresponds to real growth of around 9½ per cent. This figure includes a special effect arising from the temporary reduction of exports from a major production unit in the car sector during the corresponding period of 2000. Excluding this effect, which seems to have contributed with approximately 1 p.p. to the above rate of change, there were nonetheless favourable developments in the Portuguese exports of goods, more than in the external demand relevant for the Portuguese economy. This gain in market shares, if confirmed, will interrupt the trend that has been recorded in the recent past. Indeed, some of the sectors which had contributed to the deterioration of market shares of Portuguese exports seem to be growing at a significant rate, such as textiles, clothing and footwear.

In intra-annual terms, exports of goods are likely to show a strong deceleration in the second half of 2001, estimated at around 7 p.p., chiefly as a result of developments in the international framework of the Portuguese economy. This estimate is based on the assumption that market shares will continue to follow the favourable trend recorded in the first half-year, leading the growth rate for the year as a whole to stand between 5 and 6 per cent (7.3 per cent in 2000).

Turning to exports of services, the deceleration in 2001, when compared to 2000, is likely to be more intense than that for goods, in particular due to developments in tourism services, whose demand in the latter months of the year will probably be strongly affected by the current international environment.

Table 4.1

DEMAND INDICATORS
Year-on-year rate of change

	1999	2000	2001 ^(a)	Last month	1999			2000			2001									
					1 st H	2 nd H	1 st H	2 nd H	1 st H	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3				
Private consumption																				
Retail trade turnover index	6.7	5.5	3.9	Aug.	6.1	7.2	6.7	4.4	4.0	7.6	4.7	6.6	7.8	7.1	6.4	5.4	3.6	3.1	4.8	
Retail trade turnover index - durable goods	6.8	4.2	-1.8	Aug.	5.2	8.3	7.9	0.9	-2.8	6.3	4.1	9.5	7.3	10.8	5.0	0.5	1.4	-4.5	-1.1	
Sales of light passenger vehicles, including off-the-road vehicles	11.4	-2.6	-9.6	Sep.	24.7	-1.9	-4.6	-0.1	-10.0	34.9	15.9	12.0	-14.5	-1.3	-7.8	-9.4	10.9	-17.3	-2.2	-8.8
Bank credit to households (excluding for house purchase)	23.2	21.5	13.0	Aug.	29.6	23.2	15.9	21.5	14.8	18.3	29.6	27.6	23.2	29.8	15.9	17.0	21.5	19.1	14.8	
Investment																				
Cement sales	3.1	3.2	-2.9	Sep.	2.1	4.0	7.1	-0.5	-4.5	-0.6	4.8	5.6	2.3	13.4	1.2	2.4	-3.7	-13	4.6	0.2
Public works contracted	1.2	61.5	16.9	Sep.	-31.9	46.4	72.3	54.7	18.6	-33.8	-29.6	8.0	96.3	100.4	39	32.5	70.5	-5.8	60.5	13.4
Public works promoted	94.9	2.3	12.6	Sep.	134.0	66.0	2.2	2.5	15.5	90.8	176.2	45.4	96.6	-1.5	4.7	17	-13.6	52.5	-8.0	7.6
Housing permits - new buildings - number of dwellings	9.7	-4.3	-9.1	July	13.5	6.2	1.1	-9.6	-10.8	16.9	10.5	6.1	6.4	9.3	-6.6	-9.9	-9.3	-18.2	-2.7	
Bank credit to households for house purchase	29.7	20.0	15.7	Aug.	36.9	29.7	22.6	20.0	16.1	36.5	36.9	32.5	29.7	26.3	22.6	21.9	20	17.3	16.1	
IPI of capital goods, excluding the manufacture of motor vehicles and vehicle bodies	-1.6	-2.6	-0.7	Aug.	-1.4	-1.9	-2.6	-2.6	-0.7	0.7	-3.4	-2.7	-1.1	-3.9	-1.3	-2.2	-2.9	-0.7	-0.7	
Imports of capital goods, excluding transport material ^(b)	6.5	12.2	8.3	July																
Exports of capital goods, excluding transport material ^(b)	9.0	15.6	24.6	July																
Sales of light commercial vehicles	1.3	17.9	-17.4	Sep.	5.2	-2.3	14.4	21.3	-22.4	-0.5	11.8	12.6	-12.5	17.3	11.4	-1.0	41.0	-32.0	-12.1	-5.6
Sales of heavy commercial vehicles	19.5	8.1	-5.3	Sep.	21.8	17.0	11.6	4.1	-2.1	10.9	35.2	34.0	3.6	19.0	4.0	2.5	5.7	-3.2	-0.7	-13.2
Registrations of heavy commercial vehicles	17.5	2.5	-6.4	Aug.	17.9	17.0	6.0	-1.3	-4.3	13.2	23.1	25.8	9.2	7.9	4.1	-2.2	-0.4	-4.8	-3.8	
External trade ^(b)																				
Total exports	3.5	14.6	12.2	July	0.5	6.6	12.7	16.3	14.1	0.9	0.0	4.3	8.9	14.6	10.9	15.7	17.0	12.9	15.5	
Total exports, excluding fuel	3.2	13.9	12.1	July																
Exports of consumer goods	2.0	7.3	9.6	July																
Exports of capital goods	3.9	13.6	27.7	July																
Exports of intermediate goods	4.4	22.6	1.6	July																
Exports of fuel	20.3	55.7	22.2	July																
Total imports	8.7	15.3	7.7	July	4.8	12.7	18.0	12.8	8.3	5.5	4.1	10.7	14.5	22.0	14.2	12.9	12.8	5.2	11.6	
Total imports, excluding fuel	7.0	11.0	6.7	July																
Imports of consumer goods	11.7	7.6	10.4	July																
Imports of capital goods	11.1	9.6	4.2	July																
Imports of intermediate goods	-0.5	15.6	7.1	July																
Imports of fuel	39.5	74.5	17.2	July																

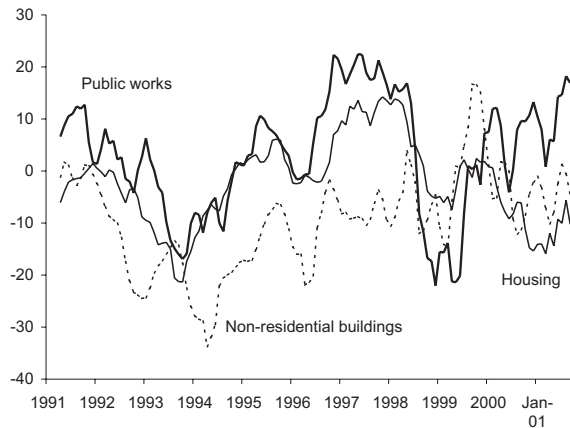
Sources: INE, Direção-Geral de Viação, ACAP, Cimpor, Secil and ANEOP.

Notes:

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

(b) The rates of change of exports and imports result from comparing final versions in 1999 and 2000, and from comparing preliminary figures for the period from January to June 2001.

Chart 4.3
ASSESSMENT OF ACTIVITY IN THE
CONSTRUCTION AND PUBLIC
WORKS SECTOR
Main sub-sectors



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

According to the estimates of the Banco de Portugal, imports of goods and services will admittedly grow between 1¼ and 3¼ per cent in real terms in 2001, compared with 5.5 per cent in 2000. This accounts for a significant downward revision of the projections published in the June issue of the *Economic Bulletin*. This deceleration affects imports of goods and, to a larger extent, imports of services, and is chiefly associated with the reduction in the consumption of durable goods and in investment in equipment, and with the reduction in the consumption of tourism services abroad by residents in Portugal.

The developments estimated for export and import deflators will result in a positive slight change in terms of trade between 0 and 1 per cent in 2001, compared with a negative change of -2.8 per cent in 2000. These gains in the terms of trade may be mainly associated with developments in international fuel prices.

5. EMPLOYMENT AND WAGES

According to the estimates of the Banco de Portugal, the unemployment rate in 2001 as a whole will likely stand between 4 and 4¼ per cent (4.0 per cent in 2000), thereby discontinuing the downward trend observed in recent years. In the first

half of 2001, according to data from the INE's Labour Force Survey, the unemployment rate stood at 4.1 per cent, i.e. the same level as in the corresponding period of 2000. The number of the unemployed increased somewhat, by 1 per cent, between the first half of 2000 and 2001. This change was due to a significant increase in the number of first-job seekers (14.4 per cent more), given that the number of unemployed workers seeking a new job (more than 85 per cent of the total) continued to decline (-0.9 per cent), albeit at a slower pace than in previous years. These developments in the number of the unemployed are to a large extent accounted for by the rise in the participation rate of young male workers, 1.1 p.p. more than in the first half of 2000.

Total employment in 2001 is likely to increase between 1¼ and 1¾ per cent, i.e. probably somewhat less than in 2000. According to data from the INE's Labour Force Survey, total employment increased by 1.8 per cent in the first semester. This growth was the result of a 1.7 per cent change in dependent employment and a 1.9 per cent change in all other types of employment, i.e. a qualitatively different increase vis-à-vis that recorded in 2000 (+2.5 and -0.4 per cent, respectively). The growth of dependent employment was mainly due to the increase in the number of temporary employees (7.1 per cent) and to the increase in the number of permanent employees (2.0 per cent), especially due to their large share in total employment. These developments are in contrast to those observed during the first half of 2000, when the contribution of permanent employment to total employment growth was much lower. This phenomenon may be explained by the progressive substitution of temporary contracts by permanent contracts.

In sectoral terms, there were sharp differences in employment growth in the first half of the year. In fact, the sector with the highest growth during the first half-year was agriculture (4.7 per cent), a contribution of 0.6 p.p. to total employment growth. In the same period, employment in industry and construction grew by 0.4 per cent (0.1 p.p. contribution to total employment growth). In the services sector employment grew by 2.0 per cent (1.1 p.p. contribution).

Employment in the first half of 2001 did not grow proportionally the increase in hours worked

in the economy. This was due to the continued downward trend of average working hours, as indicated by the *INE's* Labour Volume Index which grew by 1.1 per cent in the first half of 2001 vis-à-vis the corresponding period a year earlier, which is 0.7 p.p. less than the change in the number of employees. The growth differential in this period was thus equal to that already seen in 2000.

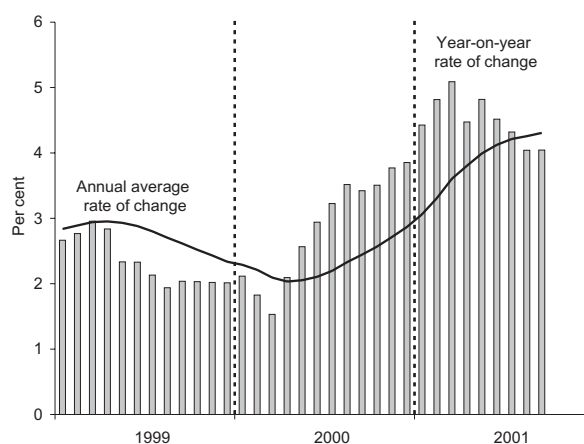
Nominal compensation per employee in the private sector is estimated to grow at nearly 5½ per cent in 2001, a rate similar to that estimated for 2000. On the basis of available data on changes in wage settlements in centrally negotiated agreements for the private sector up to August 2001, this figure sets the estimated wage drift at around 1½ per cent, i.e. approximately ½ p.p. below that estimated for 2000. Therefore, real wage growth underlying these forecasts stands at around 1 per cent, which, albeit less than in 2000, is still clearly above the estimate for the growth of apparent productivity per employee.

6. INFLATION

Inflation, as measured by the annual average rate of change of the CPI, increased from 2.9 per cent in 2000 to 4.3 per cent in September 2001 (3.6 per cent in March and 4.1 per cent in June). The increase in Portuguese inflation in 2001 was heavily influenced by a number of temporary factors, such as the sharp growth of prices of some foodstuffs. In addition, the strong growth of labour costs, above that recorded in the euro area countries as a whole, contributed to the resilience of pressures on prices in the course of this year, particularly on prices of some services.

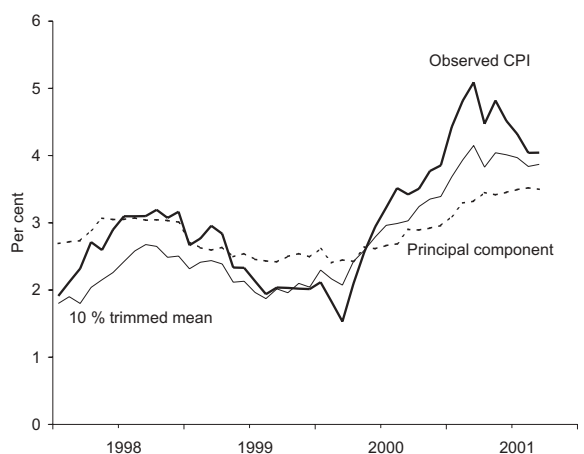
The year-on-year rate of change of the CPI recently resumed a downward trend, standing below the average rate of change in August and September, which had not occurred since March 2000 (Chart 6.1). Indeed, the year-on-year rate of change of the CPI declined to 4.1 per cent in the third quarter of 2001, compared with 4.6 per cent in the second quarter, on average, and 4.8 per cent in the first quarter of the year. The behaviour of the year-on-year change of the CPI in the course of the present year was largely affected by developments in unprocessed food prices and, particularly in first quarter, by the behaviour of energy. In effect, reflecting both the re-emergence of news on out-

Chart 6.1
CONSUMER PRICE INDEX
Year-on-year and average rates of change



Source: *INE*.

Chart 6.2
TREND MEASURES
Year-on-year rates of change



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

breaks of BSE and foot-and-mouth disease and particularly adverse weather conditions, the year-on-year rate of change of unprocessed food prices rose significantly, standing above 10 per cent up to the end of the first half-year. From that date onwards, the prices of this component started to decelerate, although still showing very high figures (7.8 per cent in September, compared with 11.1 per cent in June). Moreover, the strong increase of energy prices in the first quarter of 2001 reflected the effects of increases in fuel prices in March 2000 and January 2001, with a gradual deceleration in the prices of these goods as of April.

When analysing trend indicators of year-on-year inflation, i.e. the trimmed mean at 10 per cent and the principal component (Chart 6.2), these are noticeably below the year-on-year change of the CPI, thereby corroborating the importance of some temporary factors in explaining the intra-annual profile of Portuguese inflation.

In spite of the strong deceleration of private consumption in the course of the year, tensions still persist in the labour market, which have been translating into the maintenance of a high growth pace of wages, whose effects are particularly visible in the evolution of prices of a number of services. Indeed, services prices continued to grow strongly throughout 2001, particularly in the first half of the year, which translated into an annual average change of 4.7 per cent in the end September (4.2 per cent in the previous year as a whole).

In the June issue of the *Economic Bulletin*, it was published a projection for the annual average change of the HICP for 2001, pointing to figures between 3.9 and 4.5 per cent (see the box entitled “*The recent trend of unprocessed food prices: implications for inflation projections in 2001*” in the June 2001 issue of the *Economic Bulletin*). This projection compared with the increase of 2.8 per cent recorded in 2000. In September 2001 the annual average rate of change of the HICP stood at 4.3 per cent (4.2 per cent in June and 3.6 per cent in March) and will likely stand between 4.2 and 4.4 per cent at the end of the year. The projection shown in the June 2001 issue of the *Economic Bulletin* assumed a slowdown of the growth pace of consumer prices in the second half of this year. Recent developments in inflation have confirmed this intra-annual profile: the year-on-year rate of change in the HICP declined to 4.1 per cent in the quarter ended in September (4.7 per cent in the

second quarter average and 4.8 per cent in the first quarter of the year).

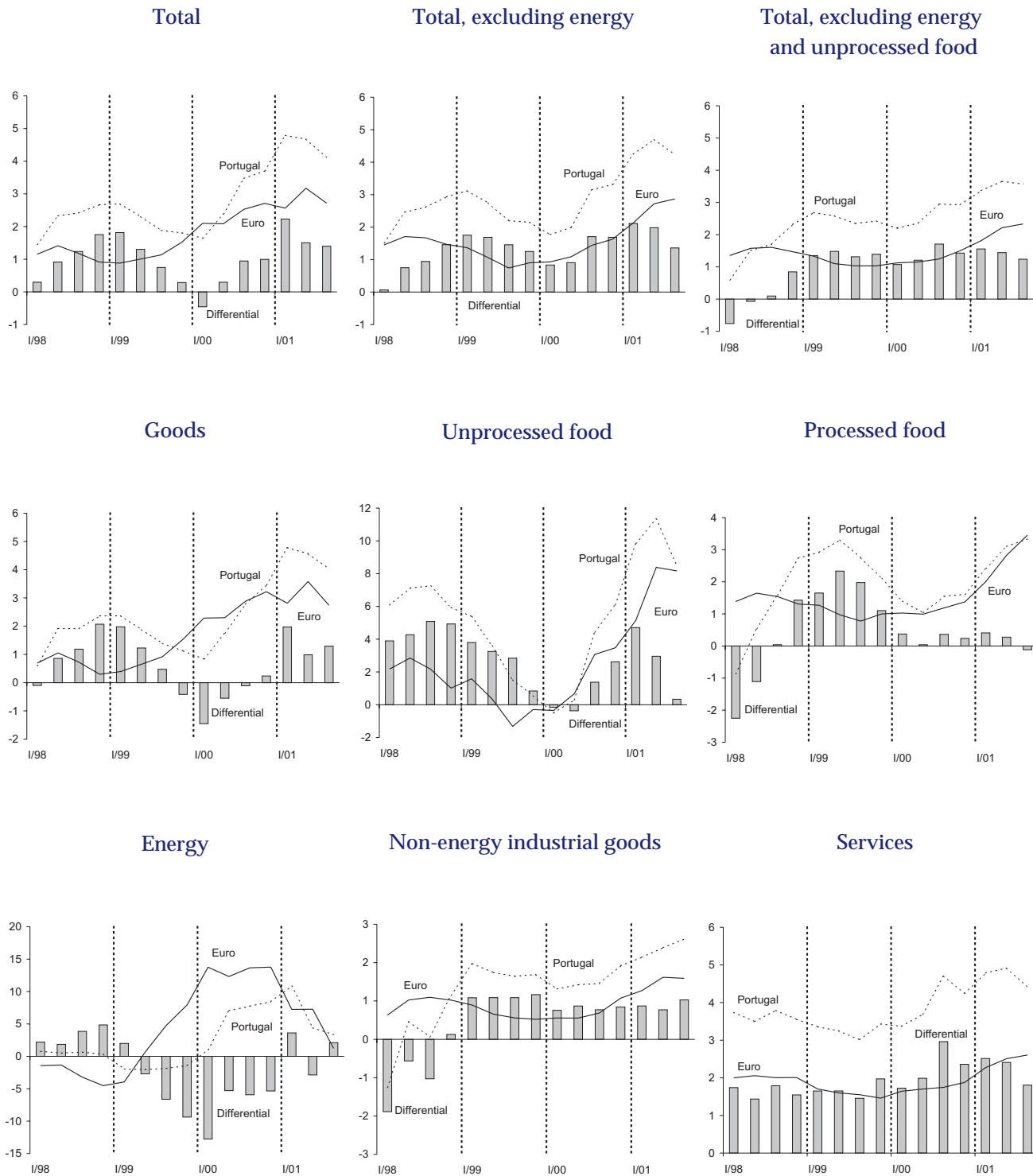
The differential between year-on-year rates of change of the HICP in Portugal and in the euro area as a whole,⁽¹⁷⁾ which stood at 1.0 p.p. in the fourth quarter of 2000, widened sharply to 2.2 p.p. in the first quarter of 2001, subsequently narrowing to 1.5 p.p. in the second quarter and to 1.4 p.p. in the third quarter (Chart 6.3). These figures were largely influenced by the different behaviour of unprocessed food⁽¹⁸⁾ and energy prices in Portugal and in the remaining euro area countries. In fact, the differential between the growth rates of the HICP excluding the prices of these two aggregates remained relatively stable during the last two years, between 1.1 and 1.6 p.p., which means that the acceleration of consumer prices in Portugal seems to have been similar to that observed in the remaining euro area countries, albeit at a higher inflation level. In the first two quarters of 2001, this differential excluding unprocessed food and energy stood at around 1.5 p.p., and subsequently narrowed to 1.2 p.p. in the third quarter. However, the year-on-year growth differential of services prices remained close to or above 2 p.p. in the course of 2001, indicating that the inflation differential between Portugal and Monetary Union countries as a whole is chiefly a result of structural factors,⁽¹⁹⁾ reinforced by other factors of a cyclical nature, which are reflected in the tightness in the labour market, stronger than in the euro area as a whole.

(17) In order to improve the coverage and standardisation of the measurement of consumer prices in the European Union, a number of methodological changes were introduced in the HICP from January 2001 onwards. The changes introduced translated especially into a further widening of the coverage of consumption expenditure, although its impact on the overall inflation rate for the euro area in 2001 is estimated to be quite limited. In addition, with the adoption of the single currency by Greece on 1 January 2001, from this month onwards this country was included in the HICP published for the euro area. For analytical reasons, the Eurostat also started to supply a series including Greece as from 1995. The analysis of the evolution of the differential in this *Bulletin* uses this latter series.

(18) It should be noted that in Portugal the effect of the irregular behaviour of this aggregate on overall developments in consumer prices is more significant, due to the higher weight of unprocessed food in the overall index (13.0 per cent in the HICP in Portugal, against 8.0 per cent in the euro area as a whole).

(19) In particular factors associated with the convergence of the cost of living, usually known as Balassa-Samuelson effects.

Chart 6.3
HARMONISED INDEX OF CONSUMER PRICES - TOTAL AND AGGREGATES
 Year-on-year rates of change and differentials



Source: Eurostat.

7. BALANCE OF PAYMENTS

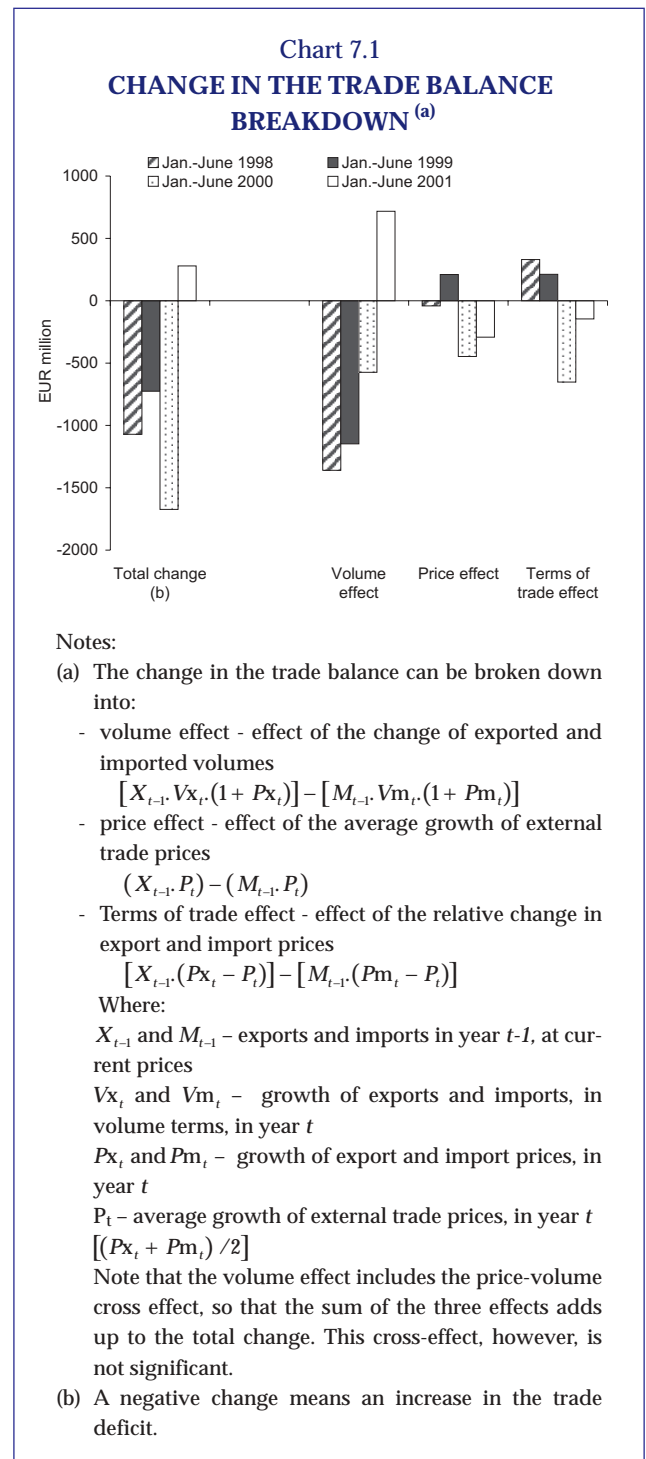
The borrowing requirements of the Portuguese economy, which correspond to the symmetric of the sum of the current plus capital account balances, are likely to decrease slightly to figures between 7¾ and 8¾ per cent of GDP in 2001 (8.6 per cent of GDP in 2000). This projection corresponds to an upward revision of the forecast range for the deficit presented in the June issue of the *Economic Bulletin* (Table 1.1).

The projected slight improvement in the deficit in 2001 compared with 2000 will reflect a narrowing of the goods and services account deficit by around 1 p.p., partially offset by a widening of around ½ p.p. in the income account deficit, mainly as a result of the strong increase in the deficit of income related to the financing of Portuguese banks with non-resident entities. The official transfer surplus (current and capital) is likely to decrease slightly from 2000, which corresponds to a significant downward revision (less 1.2 p.p. of GDP) vis-à-vis the Spring projection. This projection change is consistent with the flows recorded up to September and follows the revision of the figures presented in the report of the proposal for the 2002 State Budget submitted to Parliament on 15 October 2001.

In the first half of 2001, the deficit resulting from the sum of the current plus capital account balances decreased to 10.4 per cent of GDP⁽²⁰⁾ (10.9 per cent of GDP in the first half of 2000) (Table 7.1). This reduction was due to the behaviour of the current account, which recorded a deficit of 10.7 per cent of GDP in the first half of 2001 (11.6 per cent of GDP in the corresponding period of the previous year), reversing the deterioration trend observed since 1996. By contrast, in the first half of the year, compared with the corresponding period a year earlier, the capital account surplus declined by 0.5 p.p., to 0.3 per cent of GDP, as a result of the decrease in official transfers from the European Union (EU).

The reversal of the behaviour of the current account in the first half-year resulted essentially

(20) The calculation of the ratios of the several Balance of Payments items as a percentage of GDP in the first half of 2000 and 2001 was based on half-yearly estimates of nominal GDP calculated by the Banco de Portugal.



from a narrowing of the deficit in the trade of goods.⁽²¹⁾ In the first half of the year, when compared with the first half of 2000, the trade deficit decreased from 13.4 to 12.1 per cent of GDP. Exports of goods recorded a nominal acceleration

(21) It should be noted that exports and imports of goods used for the calculation of this trade balance correspond to estimates by the Banco de Portugal, which include adjustments to external trade data for the first half-year published by the INE in order to anticipate future revisions.

Table 7.1

BALANCE OF PAYMENTS

EUR million

	January-December 2000		January-June 2000			January-June 2001			Balance as a % of GDP	
		As a % of GDP	Debit	Credit	Balance	Debit	Credit	Balance	Jan.-Jun.00	Jan.-Jun. 01
Current account	-11 692.5	-10.1	28 979.9	22 356.4	-6 623.5	31 446.9	24 957.9	-6 488.9	-11.6	-10.7
Goods	-15 112.6	-13.0	20 981.7	13 341.2	-7 640.5	22 453.5	15 092.4	-7 361.0	-13.4	-12.1
Services	1 943.3	1.7	3 514.8	3 942.4	427.6	3 545.1	4 256.1	711.0	0.8	1.2
Transport	-683.1	-0.6	1 081.9	735.7	-346.1	1 169.1	793.3	-375.8	-0.6	-0.6
Travel	3 305.6	2.9	1 093.3	2 318.1	1 224.7	1 131.7	2 530.1	1 398.3	2.2	2.3
Insurance services	-39.9	0.0	51.4	27.5	-23.9	51.2	36.1	-15.1	0.0	0.0
Royalties and license fees	-252.5	-0.2	151.8	11.7	-140.1	150.2	12.3	-137.9	-0.2	-0.2
Other services	-234.1	-0.2	1 007.5	803.3	-204.2	926.1	827.0	-99.1	-0.4	-0.2
Government services	-152.7	-0.1	129.0	46.1	-82.8	116.7	57.3	-59.4	-0.1	-0.1
Income	-2 220.9	-1.9	3 429.5	2 296.1	-1 133.4	4 286.8	2 814.7	-1 472.0	-2.0	-2.4
Compensation of employees	28.7	0.0	63.2	71.7	8.5	80.6	74.3	-6.3	0.0	0.0
Investment income	-2 249.5	-1.9	3 366.3	2 224.4	-1 141.9	4 206.2	2 740.4	-1 465.8	-2.0	-2.4
Current transfers	3 697.6	3.2	1 053.9	2 776.7	1 722.7	1 161.5	2 794.7	1 633.2	3.0	2.7
Official transfers	199.1	0.2	723.3	897.0	173.7	741.5	726.0	-15.5	0.3	0.0
Private transfers	3 498.6	3.0	330.7	1 879.7	1 549.0	420.0	2 068.7	1 648.7	2.7	2.7
Capital account	1 667.3	1.4	68.8	496.5	427.7	110.0	322.0	212.0	0.8	0.3
Capital transfers	1 649.7	1.4	58.4	475.5	417.1	87.4	302.5	215.1	0.7	0.4
Official transfers	1 649.4	1.4	2.1	410.5	408.4	22.8	237.8	214.9	0.7	0.4
Private transfers	0.3	0.0	56.2	64.9	8.7	64.6	64.8	0.1	0.0	0.0
Acquisition/disposal of non-produced, non-financial assets	17.6	0.0	10.4	21.0	10.6	22.6	19.5	-3.1	0.0	0.0
Financial account	11 427.6	9.9	425 160.9	433 886.9	8 726.0	319 910.3	326 278.8	6 368.5	15.3	10.5
Direct investment	-952.3	-0.8	15 707.9	15 034.3	-673.6	14 428.9	12 174.1	-2 254.8	-1.2	-3.7
Portuguese investment abroad	-7 740.1	-6.7	6 403.4	2 277.3	-4 126.1	5 470.6	2 110.2	-3 360.4	-7.2	-5.5
Foreign investment in Portugal	6 787.8	5.9	9 304.5	12 757.0	3 452.5	8 958.3	10 063.9	1 105.6	6.1	1.8
Portfolio investment	-2 410.4	-2.1	81 423.9	80 396.3	-1 027.6	59 355.7	59 115.8	-239.9	-1.8	-0.4
Assets	-5 781.1	-5.0	28 707.3	25 896.5	-2 810.9	26 819.7	23 916.9	-2 902.7	-4.9	-4.8
Liabilities	3 370.7	2.9	52 716.5	54 499.8	1 783.3	32 536.0	35 198.8	2 662.8	3.1	4.4
Financial derivatives	349.3	0.3	2 055.3	2 255.4	200.2	1 702.6	1 922.1	219.6	0.4	0.4
Other investment	14 846.1	12.8	294 683.2	304 737.9	10 054.7	217 667.2	226 427.4	8 760.2	17.7	14.4
Assets	-10 922.6	-9.4	97 944.8	92 233.1	-5 711.7	110 583.0	109 636.3	-946.7	-10.0	-1.6
Liabilities	25 768.7	22.2	196 738.4	212 504.8	15 766.4	107 084.2	116 791.1	9 706.9	27.7	16.0
Reserve assets	-405.1	-0.3	31 290.6	31 462.9	172.4	26 755.9	26 639.4	-116.5	0.3	-0.2
Errors and omissions	-1 402.4	-1.2			-2 530.2			-91.6	-4.4	-0.2
<i>Memo:</i>										
Current Account + Capital Account	-10 025.2	-8.6	29 048.7	22 852.8	-6 195.8	31 556.9	25 279.9	-6 277.0	-10.9	-10.4

(increases of 13.1 per cent in the first half of 2001 and 12.7 per cent in the first half of 2000), while imports showed a nominal growth of 7.0 per cent (17.9 per cent in the corresponding period a year earlier). As can be seen from Chart 7.1, the decrease in the trade deficit resulted from a favourable volume effect, associated with the strong reduction of imported volumes and the real acceleration in exports (see section 4. *Output developments in 2001*). Thus, in contrast to recent years, changes in imported and exported volumes contributed to the narrowing of the trade deficit. The price effect continued to make a negative contribution to the change in this balance, albeit less marked than in the corresponding period a year earlier. The terms of trade effect, which was negative in 2000, made a close to zero contribution in the first half of this year.

The services surplus increased by 0.4 p.p. of GDP, reaching 1.2 per cent of GDP in the first half of 2001. In this period the balance on travel and tourism reached 2.3 per cent of GDP (2.2 per cent of GDP in the corresponding period a year earlier). Tourism revenue grew by 9.1 per cent in nominal terms, while expenditure on travel and tourism abroad by residents increased by 3.5 per cent, vis-à-vis the corresponding period a year earlier. The increase in the services surplus was also due to the behaviour of the balance on other services supplied by companies, namely architecture, engineering and other technical services.

The income account deficit stood at 2.4 per cent of GDP in the first half of this year (2.0 per cent in the corresponding period of 2000). This behaviour was due to the widening of the Other Investment income deficit (from 0.8 to 1.3 per cent of GDP), in line with the evolution of the financing of resident monetary financial institutions with non-resident monetary financial institutions, which has become more marked in recent years. In turn, direct and portfolio investment income deficits showed similar values to those recorded in the corresponding period of 2000 (0.8 and 0.4 per cent of GDP respectively).

The current transfers surplus decreased from 3.0 to 2.7 per cent of GDP, when comparing the first half of 2000 with the first half of 2001. This reduction resulted from developments in official transfers, in particular from lower inflows from the EU structural funds within the scope of the III

Community Support Framework. Particularly, inflows from the European Social Fund declined by 68.4 per cent vis-à-vis the same period a year earlier. In turn, the private transfers surplus, essentially comprised of emigrants' remittances, was similar to that recorded in the first half of 2000 (2.7 per cent of GDP).

The capital account surplus declined from 0.8 to 0.3 per cent of GDP between the first six months of 2000 and the same period in 2001. This evolution reflected the decrease in official transfers received by Portugal in this period, accounted for by the delay in inflows associated with the III Community Support Framework. Reference should be made, in particular, to the fact that inflows received within the scope of the ERDF declined by around 80 per cent in the first half of the year.

The financial account recorded a net inflow equivalent to 10.5 per cent of GDP in the first six months of 2001, compared with 15.3 per cent of GDP in the corresponding period a year earlier (Table 7.2 and Chart 7.2). Similarly to the previous year, deposits and loans operations carried out by monetary financial institutions⁽²²⁾ with non-resident entities were noticeably the major source of inflows into the Portuguese economy in the first half of 2001 (see the article entitled "*The Banking System in the first half of 2001*" in this issue of the Bulletin). In addition, financial operations on assets and liabilities of Monetary Authorities resulted in net inflows into the Portuguese economy, albeit far below those recorded in the corresponding period of 2000. Financial operations with abroad of the remaining resident institutional sectors resulted in net outflows in the first half of 2001.

The balance of direct investment operations between Portugal and abroad posted a net outflow in the first half of the year, corresponding to 3.7 per cent of GDP, i.e. above that recorded in the first half of 2000 (1.2 per cent of GDP). Foreign direct investment in Portugal declined sharply in the first half of this year (from 6.1 to 1.8 per cent of GDP). Around 48 per cent of the total was directed to the holding companies of several national economic groups. In this first half of the year, inves-

(22) According to the terminology of the Balance of Payments, the concept of "monetary financial institutions" does not include the *Banco de Portugal*.

Table 7.2

FINANCIAL ACCOUNT (a)

As a percentage of GDP

	2000	January-June 2000			January-June 2001		
	Net change	Change in liabilities	Change in assets	Net change	Change in liabilities	Change in assets	Net change
Financial Account	9.9	33.3	-18.0	15.3	19.4	-8.9	10.5
Direct investment	-0.8	6.1	-7.2	-1.2	1.8	-5.5	-3.7
Portfolio investment	-2.1	3.1	-4.9	-1.8	4.4	-4.8	-0.4
Financial derivatives	0.3	-3.6	4.0	0.4	-2.8	3.2	0.4
Other investment	12.8	27.7	-10.0	17.7	16.0	-1.6	14.4
Reserve assets	-0.3	-	0.3	0.3	-	-0.2	-0.2
By resident institutional sector:							
Monetary Authorities	3.5	9.0	-1.2	7.8	2.3	0.0	2.2
Portfolio investment	-0.5	-	-1.4	-1.4	-	0.1	0.1
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	4.3	9.0	-0.1	8.8	2.3	0.0	2.3
Reserve assets	-0.3	-	0.3	0.3	-	-0.2	-0.2
General Government	2.1	4.4	-0.4	4.0	-0.8	0.6	-0.2
Portfolio investment	2.0	4.3	-0.7	3.6	-0.1	0.0	-0.1
Financial derivatives	0.2	-0.1	0.3	0.2	-0.6	0.6	0.1
Other investment	-0.1	0.2	0.0	0.1	-0.1	-0.1	-0.2
Monetary Financial Institutions	11.8	18.1	0.6	18.7	15.3	2.1	17.3
Direct investment	0.1	3.8	-1.0	2.8	0.0	0.7	0.7
Portfolio investment	1.0	-0.7	2.8	2.0	3.1	-0.9	2.3
Financial derivatives	0.2	-3.2	3.4	0.2	-1.9	2.3	0.5
Other investment	10.4	18.2	-4.5	13.7	14.0	-0.1	13.9
Non-Monetary Financial Institutions	-2.5	-0.9	-6.3	-7.2	0.0	-6.3	-6.3
Direct investment	1.5	-0.2	-0.5	-0.7	0.1	-3.0	-2.9
Portfolio investment	-4.2	-0.7	-4.1	-4.8	0.1	-3.5	-3.5
Financial derivatives	0.0	-0.3	0.2	0.0	-0.1	0.1	0.0
Other investment	0.3	0.2	-2.0	-1.8	0.0	0.1	0.0
Non-Financial Corporations and Private Individuals	-5.0	2.7	-10.6	-7.9	2.7	-5.3	-2.6
Direct investment	-2.4	2.5	-5.7	-3.3	1.7	-3.3	-1.5
Portfolio investment	-0.4	0.2	-1.5	-1.3	1.3	-0.6	0.7
Financial derivatives	-0.1	-0.1	0.0	-0.1	-0.2	0.1	-0.2
Other investment	-2.1	0.1	-3.4	-3.3	-0.1	-1.5	-1.6

Note:

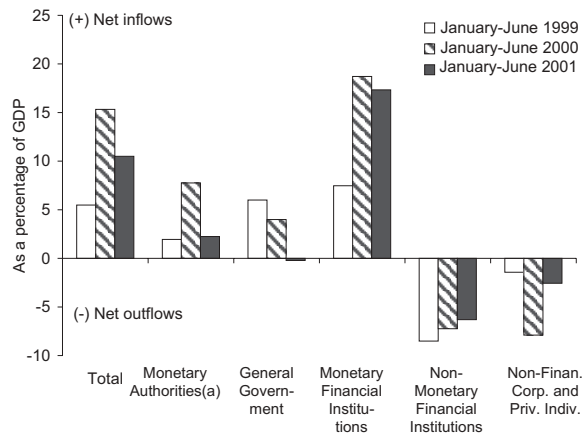
(a) A positive sign (+) indicates an inflow, i.e., an increase in foreign liabilities or a decrease in foreign assets

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

tors from euro area countries continued to account for more than 90 per cent of direct investment in Portugal. Portuguese direct investment abroad declined also from 7.2 to 5.5 per cent of GDP, and continued to be mostly conducted by holding companies of national economic groups. Given the predominant nature of intra-economic group financing, gross flows of foreign direct investment

and direct investment abroad lost most of their conventional meaning, and the analysis should chiefly focus on net direct investment flows. As already noted, in the first half of 2001 the trend of net direct investment outflows seems to be more marked, in contrast to the typical behaviour seen up to recent years.

Chart 7.2
FINANCIAL ACCOUNT
Balances



Note:

(a) Includes international payments made by resident monetary financial institutions through the TARGET system, as of January 1999

In the first half of the year, net outflows from the Portuguese economy associated with portfolio investment operations declined from 1.8 per cent of GDP in first half of 2000 to 0.4 per cent of GDP. Foreign portfolio investment in Portugal increased from 3.1 to 4.4 per cent of GDP, while portfolio investment abroad was similar, as a percentage of GDP, to that recorded in the corresponding period of 2000 (4.8 and 4.9 per cent of GDP respectively). Foreign portfolio investment in Portugal continued to be essentially concentrated on long-term debt securities (4.2 per cent, vis-à-vis 4.3 per cent of GDP in the same period of the previous year). Conversely to recent years, in net terms, these investments by non-residents were chiefly channelled to securities issued by monetary financial institutions (2.4 per cent of GDP) and non-financial corporations (1.6 per cent of GDP), since portfolio investment in government bonds declined sharply in this period, reaching 0.1 per cent of GDP (5.1 per cent of GDP in the corresponding period of 2000). In turn, the relevance of Portuguese portfolio investment abroad, as a percentage of GDP, continued to be similar to that in the same period of 2000. Purchases of bonds and other long-term debt securities continued to be the most important segment. In fact, in the first half of the year there was an increase in net purchases of debt

securities (from 2.9 to 3.7 per cent of GDP) and a decrease in net purchases of equity securities (from 2.0 to 1.1 per cent of GDP). Portfolio investment abroad continued to be mostly carried out by resident non-monetary financial institutions, especially by insurance corporations and pension funds and by investment trusts, which seems to be related to portfolio diversification strategies of these institutions, benefiting from the Portuguese participation in the euro area.

As already noted, in the first half of this year operations included in Other Investment continued to give rise to significant net inflows into the Portuguese economy, although in a lower amount than in the same period of 2000, i.e. 14.4 and 17.7 per cent of GDP respectively. These inflows continued to result chiefly from loans and deposits operations with abroad conducted by monetary financial institutions (13.9 per cent of GDP in the first half of this year and 13.7 per cent in the first half of 2000 in net terms). A significant share of this external financing of monetary financial institutions corresponded to the transfer of funds obtained through bond issuance in international markets by branches abroad (see the article entitled "*The Banking System in the first half of 2001*" in this issue of the *Bulletin*). Changes in assets and liabilities of Monetary Authorities recorded under Other Investment, and essentially executed within the scope of the TARGET (Trans-European Automated Real-time Gross settlement Express Transfer) system, translated into lower inflows in the first half of 2001 (2.3 per cent of GDP, by contrast with 8.8 per cent of GDP in the same period in 2000). Conversely, operations included in Other Investment carried out by non-financial corporations and households resulted in lower net outflows (1.6 vis-à-vis 3.3 per cent of GDP in the first half of 2000). In particular, their short-term deposits in non-resident banks declined when compared with the corresponding period of 2000, from 2.8 to 0.7 per cent of GDP.

8. PUBLIC FINANCES

The target for the general government deficit in 2001, on a National Accounts basis (ESA 95), envisaged in the State Budget for 2001 and in the updated Stability Programme (January 2001) corresponded to 1.1 per cent of GDP. This figure still as-

sumed quite favourable macroeconomic developments, in line with the trend observed in the last few years, with real GDP growing by 3.3 per cent.

In the first months of the year there was a small increase in tax revenue, partly explained by the deceleration in economic activity, which was not foreseen in the State Budget for 2001. The Supplementary Budget presented by the Government at end-June tried to accommodate the expected loss in government revenue, without jeopardising the target for the deficit. Thus, relative to the initial budget, tax revenue was reduced by €748.2 million, which was offset by an identical decrease in the budgeted expenditure. Regarding tax revenue, the revision of the estimates was concentrated on indirect taxes (€-745.7 million), in particular the VAT (€-552.2 million), the Tax on Oil Products (€-99.8 million) and the Car Tax (€-124.7 million). In direct taxes there was essentially a re-distribution of revenue between the Personal Income Tax and the Corporate Income Tax, the former increasing by €231.4 million and the latter decreasing by €257.9 million. On the expenditure side, the changes introduced concerned almost exclusively current expenditure (€-735.2 million), particularly the expenditure on goods and services (€-156.1 million) and current transfers to other subsectors of general government (€-305.3 million).

According to the Supplementary Budget, the State tax revenue was expected to increase by 6 per cent in 2001, which already accounted for a significant deceleration compared with the growth observed in 2000. However, the latest data available on the State budget outturn, from January to September 2001, show a growth rate for tax revenue of only 1.9 per cent. It should be noted that, apart from the effect of the deceleration in economic activity on tax revenue, these developments might result from the tax relief considered in the income tax reform, in particular with regard to the personal income tax revenue. In turn, primary current government expenditure from January to September is still growing at a very strong pace (8.7 per cent).

The Report of the State Budget for 2002 published on October 15, includes a significant revision of the estimate for the deficit in 2001, from 1.1 to 1.7 per cent of GDP. This change can be essentially explained by the deceleration in economic

growth. Therefore, when comparing the macroeconomic scenarios of the State Budget for 2001 and the Stability and Growth Pact (SGP) with the one of the State Budget for 2002 there is a noticeable decline of around 1.3 p.p. in real GDP growth. Considering the sensitivity of the deficit relative to changes in the economy's real growth rate, the revision of the macroeconomic scenario, per se, would explain a widening of the deficit of around 0.6 p.p. of GDP. However, this deficit may prove difficult to reach, as seems to result from a mechanical reading of the data on the State budget outturn up to September.

With regard to the debt ratio the notification of excessive deficit notification of August points to 53.2 per cent of GDP at end-2001 (53.7 per cent at end-2000). This figure is considered again in the Report of the State Budget for 2002.

9. CONCLUSION

As repeatedly noted in the texts published by the Banco de Portugal, the last four years of the 1990s were characterised by the accomplishment of the nominal convergence process which allowed Portugal to become one of the founding countries of the euro. In this period Portuguese consumers and entrepreneurs have experienced a substantial change in the macroeconomic environment, which was translated in significant reductions in inflation and nominal and real interest rates. Most of these reductions were considered as of a permanent nature, since they were associated with a new price stability regime, which amplified their effects. The resulting stimulus was exacerbated by a pro-cyclical fiscal policy, translated in the significant reduction of the primary fiscal surplus, in a context of a cyclical position rather favourable to higher tax revenue. As a consequence, domestic demand, both private and public, went through a very strong expansion, and in particular on durable consumer goods and investment.

The private component of domestic demand growth was mostly financed through recourse to bank credit, which recorded rather high rates of change, thereby reflecting a sharp increase in the private sector's gross indebtedness. In relative terms, gross indebtedness of the Portuguese private sector moved from relatively low levels in the first half of the previous decade to one of the high-

est levels in the euro area. In order to finance the granting of credit and owing to the moderate growth of conventional funding resources in the form of customer deposits, resident banks gradually disposed of Portuguese public debt held in portfolio (selling it mostly to non-residents) and increasingly resorted to external funds, both in the form of indebtedness in the European interbank market and, especially in the most recent period, in the form of securitised debt issuance in European financial markets. The extent of this external financing was only possible due to the Portuguese participation in the single currency, which implied the disappearance of the exchange rate risk for loans in euros and a higher integration of money and financial markets at the European level.

The pace of growth of private domestic demand in the late 1990s reflected mainly the phenomenon of adjustment of the private sector behaviour to a new macroeconomic environment. It may also have resulted, to some extent, from more favourable expectations on the future growth of the Portuguese economy integrated in the wide economic area of the single currency. Thus, following a period of strong expansion of private domestic demand, a period of moderate growth of demand is inevitable, to allow for the stabilisation of the private sector's indebtedness levels.

Since the end of 1999 onwards there was an increasing evidence that an adjustment process was initiating, with a gradual deceleration in private domestic demand. Initially, and up to the fourth quarter of 2000, this process occurred along with a gradual rise in interest rates. The reduction in nominal and real interest rates in the second half of the 1990s fuelled the easing of liquidity constraints to which a number of resident economic agents were subjected, especially households. It is reasonable to admit that, despite the current lower levels of interest rates, the increased indebtedness over recent years seems to have placed once again a significant number of domestic economic agents in a position of active liquidity constraint, given the considerably higher level of debt servicing reached in the meantime. The process of moderation of private domestic demand continued, even when interest rates reversed the upward trend and gradually declined again in the course of 2001, as a lagged reaction to developments in interbank money market rates. These, in turn, responded to

the deterioration of the international macroeconomic environment, with consequences for inflation expectations. Even without considering a number of special factors resulting from the impact of changes introduced in car taxes in the State Budget for 2001, the available evidence presented in this article points to a significant slowdown in private domestic demand this year, against a background of some deterioration of expectations on future economic developments.

The Portuguese economic agents should not consider the recent declines in interest rates in the course of 2001 as an incentive to further indebtedness, but as an easing of liquidity constraints to meet possible unfavourable economic shocks in the near future, taking into account the current climate of worldwide uncertainty. In the same spirit, any economic stimulus to private expenditure through budgetary measures will be counterproductive for several reasons. On the one hand, because the slowdown in private demand has been gradual and corresponds to a desirable adjustment process. Its postponement can only worsen future adjustment problems of households and corporations. On the other hand, the situation of the Portuguese public finances is somewhat vulnerable, as it has not yet met a position "close to balance or in surplus", as required by the Stability and Growth Pact (see the box entitled "*The Stability and Growth Pact and the Operation of Budgetary Automatic Stabilisers*").

Over the past few years the Portuguese public deficit narrowed in parallel with a strong increase in primary current expenditure, enabled by the reduction of public debt interest payments and by the high growth of tax revenue, partly fuelled by the expansion of domestic demand. Fiscal consolidation was insufficient to address a reversal of the cyclical situation of the Portuguese economy. Moreover, a number of fiscal practices were created to promote the rigidity of public expenditure, and have become obstacles to the attempts targeted at controlling them. Thus, the existing inertia will tend, even without further discretionary stimulus from the fiscal policy, to exert an upward pressure on the public deficit, in an environment of subdued growth of the Portuguese economy, unavoidable in the course of the process of adjustment of the behaviour of private agents currently under way and the unfavourable interna-

tional environment. So as to avoid uncontrolled public accounts a serious and consistent effort is essential to restrain public expenditure, in particular as regards the important share of staff costs, which in recent years has been growing systematically close to or above 10 per cent per annum, an unparalleled situation in any other EU economy.

Strong wage moderation in the public sector is also advantageous in order to adequately signal wage negotiations in the private sector. Texts published by the Banco de Portugal have repeatedly pointed to the need for wage moderation in the private sector as a necessary condition to maintain the competitiveness of the economy. In recent years, real wages have been growing strongly, as a result of the tight labour market conditions. In the forthcoming wage negotiations it is important to discontinue the cycle of high increases in real compensation per employee, which are not sustained by increases in productivity, else that situation will promote a fast increase in unemployment in the near future.

The outlook for the Portuguese economy in the coming years will also depend on the rationality that entrepreneurs and workers show, at the wage settlement rounds, which will be decided within a

framework of showdown in inflation and deterioration of the external environment. In the past, the Portuguese labour market was characterised by a favourable flexibility of wages vis-à-vis macroeconomic conditions, which prevented rises in the unemployment rate such as those experienced in other European economies. This flexibility was observed in an environment of high inflation rates, associated with the exchange rate depreciation as an instrument to bring real wages back to levels that were consistent with the economy's competitiveness. It will be essential to preserve it in a regime of low inflation and in the context of the single monetary policy, so as to avoid excessive rises in the unemployment rate. Indeed, wage moderation plays a fundamental role in preventing a substantial increase in unemployment and its potential adverse consequences on households solvency. Finally, it is essential that ungrounded prospects on the growth of the economy do not take place and that fiscal policy does not act as an additional source of uncertainty liable to distort the decisions of economic agents'.

Completed with information available as at end-October 2001

**Box: THE STABILITY AND GROWTH PACT AND THE OPERATION
OF BUDGETARY AUTOMATIC STABILISERS**

Within the framework of the Economic and Monetary Union, in which fiscal policies continue to fall within the national competence of the different Member States, a regulatory mechanism is needed in order to avoid unnecessary tensions between the single monetary policy and national fiscal policies. In this vein, as laid down in the Treaty on European Union, the Member States committed themselves to avoid excessive budget deficits,⁽¹⁾ in order to ensure the objective of price stability and to create a macroeconomic environment favourable for growth. This commitment was reiterated by the European Council on June 17 1997, when the Stability and Growth Pact (SGP) was approved.⁽²⁾

The requirement of medium-term budget balances close to balance or in surplus in the SGP⁽³⁾ allows the stabilising function of fiscal policy to be consistent with the requirement established in the Treaty on European Union of a general government deficit not exceeding 3 per cent of GDP. The existence of a ceiling for the budget deficit makes it necessary to adopt a “safety margin” allowing for the full operation of automatic stabilisers and the accommodation of shocks that may negatively affect the budget balance.⁽⁴⁾ Within this framework, fiscal policy may be used with a view to easing national cyclical divergences vis-à-vis the euro area as a whole, both through the operation of automatic stabilisers and possibly through counter-cyclical policies, which reinforce the effects of automatic stabilisers.

When the output gap is positive, tax revenue is higher than it would have been if the economy stood at the level of potential output. Conversely, when the output gap is negative, tax revenue is lower than it would have been if output stood at the potential output level. Some types of expenditure, in particular on unemployment benefits, have an inverse relationship with the output gap.⁽⁵⁾ This behaviour of revenue and public expenditure, usually known as budgetary “automatic stabilisers”, contributes to smooth fluctuations in the disposable income of households and employment. In contrast to this stabilising effect in income stands a higher volatility of the budget balance, which tends to decrease in the troughs of the business cycle and to increase in the peaks. Governments may decide to mitigate or amplify the effects of these automatic stabilisers by means of discretionary fiscal measures (e.g. changes in tax rates or in public investment amounts). Discretionary measures which involve amplifying the effects of automatic stabilisers are usually known as counter-cyclical policy measures.⁽⁶⁾ Correspondingly, discretionary measures which mitigate the effects of automatic stabilisers are referred to as pro-cyclical policy measures.

The higher the budgetary sensitivity to cyclical developments in the economy, the higher must be the average balance throughout the cycle so that automatic stabilisers have a safety margin to operate without compromising the 3 per cent of GDP reference value required for the budget deficit. In turn, if the government debt-to-GDP ratio is high, the safety margin will have to be widened so as to prevent unanticipated shocks on the interest rate. In ad-

(1) Article 104-C. The Protocol on the excessive deficit procedure established 3 per cent of GDP as the reference value.

(2) In this context, the European Council underlined “...the importance of safeguarding sound government finances as a means to strengthening the conditions for price stability and for strong sustainable growth...”.

(3) Resolution (97/C 236/01) of the ECOFIN Council of 17 June 1997.

(4) On 10 July 2001 the ECOFIN Council accepted an Opinion of the Economic and Financial Committee, where it referred “...the Committee (...) takes the present Commission services’ cyclical adjustment method as a useful approach for assessing the budgetary position. Using that method, the Commission estimated “minimal benchmarks” to allow for a sufficient cyclical margin under the 3% reference value”. In the annex to the Opinion of the Economic and Financial Committee reference is made to the fact that “... the time frame to interpret the medium term would be the length of the business cycle.”, adding that “The medium-term budgetary position which respects the close to balance or in surplus rule of the Stability and Growth Pact has to take account of several elements, such as the possibility to deal with adverse cyclical developments and other unforeseen risks...”.

(5) Output gap is defined as the deviation of actual from potential output.

(6) It should be noted that counter-cyclical policies raise a number of problems, such as the evident difficulty in synchronising the effects of the decisions with the stages of the cycle which are to be countered. Also well-known is the difficulty of annulling decisions to increase expenditure taken in the trough of the cycle, when the economy is moving again close to trend.

Table 1

	Sensitivity of the balance to the cycle (1)	Objectives of the Stability and Growth Programmes		Current forecast for the output growth rate ^(b) (4)	Minimum balance not reflecting a structural budget deterioration vis-à-vis the Stability Programme ^(a) (5)
		Budget balance ^(a) (2)	Output growth rate (3)		
Belgium	0.56	0.2	2.5	1.8	-0.2
Germany	0.45	-1.5	2.8	0.9	-2.3
Greece	0.38	0.5	5.0	3.7	0.0
Spain	0.40	0.0	3.6	2.7	-0.4
France	0.53	-1.0	3.0	2.0	-1.5
Ireland	0.42	4.3	8.8	5.5	2.9
Italy	0.48	-0.8	2.9	1.9	-1.3
Luxembourg	0.33	2.6	5.2	-	-
Netherlands	0.69	0.7	4.0	1.3	-1.2
Austria	0.47	-0.7	2.8	1.8	-1.2
Portugal	0.50	-1.1	3.3	1.9	-1.8
Finland	0.55	4.7	4.2	2.1	3.5

Notes

(a) As a percentage of GDP and excluding proceeds from the sale of UMTS licences.

(b) Consensus Forecasts, October 2001.

dition, the safety margin must be widened if fiscal authorities wish to pursue counter-cyclical policies that reinforce the operation of automatic stabilisers.

The size of the country is also a relevant feature within the framework of the Economic and Monetary Union. In fact, monetary policy decisions are taken centrally and take into account the situation in the Economic and Monetary Union as a whole, instead of the developments in each of the economies it comprises. However, inasmuch as it affects Economic and Monetary Union as a whole, a specific shock in a large country will be more likely to trigger a response from monetary policy. In addition, the higher and more open the economy is, the smaller will the effects of the fiscal policy's discretionary measures admittedly be. For these reasons, smaller countries should have a wider budgetary safety margin.

For Member States which have not yet reached a budgetary position with a sufficient safety margin during the "high" stage of the cycle, a deceleration in activity may lead to a deficit close to or even above the 3 per cent limit. While they do not reach a safe budgetary position Member States must limit the operation of automatic stabilisers and give priority to the fiscal consolidation process. This may lead to the conduct of pro-cyclical fiscal policies within a context of economic slowdown (e.g. rises in tax rates or discretionary cuts in expenditure), which generate a further cut in household income and employment.

Table 1 illustrates the impact of automatic stabilisers on the budget balance in the different euro area Member States in 2001. Column (1) shows estimates for the semi-elasticities of budget balance relative to the business cycle.⁽⁷⁾ Columns (2) and (3) show the objectives for the budget balance and the output growth forecasts for 2001 considered in the several Stability Programmes submitted at end-2000 and early 2001, in a context of a more favourable than current economic outlook. Column (4) shows the current forecasts from private sector forecasters for output growth in the different countries in 2001 (October 2001 Consensus Forecasts). The balances shown in column (5) result from the Stability Programmes' objectives adjusted for the effect of the revision of growth rates vis-à-vis the figures assumed in these Programmes. In other words, given the deterioration of economic growth, if

(7) Semi-elasticities were taken from Bouthevillain et al. "Cyclically adjusted budget balances: An alternative approach", Working paper no. 77, ECB, September.

pro-cyclical measures are not taken, the budget balance will worsen as a result of the operation of automatic stabilisers. The values in column (5) should thus be seen as the minimum balance which does not imply a “structural or discretionary budget deterioration”. As can be noted, in six countries, including Portugal, the target for the adjusted deficit would exceed 1 per cent of GDP and the margin for automatic adjustment would thus be particularly narrowed, even assuming that in 2001 there will be no structural deterioration.⁽⁸⁾ In such cases, it seems prudent for national authorities to limit the operation of automatic stabilisers by means of pro-cyclical discretionary measures, so as to prevent budget deficits from moving close to the 3 per cent limit, should a more pronounced or protracted deceleration occur. The remaining countries that have conducted a timely consolidation of their public finances and have a wider budgetary safety margin, can allow for the free play of automatic stabilisers, with the corresponding benefits of a dampened cyclical fluctuation of income and employment.

⁽⁸⁾ *The situation in the Netherlands illustrates the overall need of countries with increased budget balance cyclical sensitivities to create more leeway. It should be noted, however, that budgetary procedures in the Netherlands seem to somewhat limit the operation of automatic stabilisers.*

THE BANKING SYSTEM IN THE FIRST HALF OF 2001

1. INTRODUCTION

In the first half of 2001, the degree of concentration of the Portuguese banking system⁽¹⁾⁽²⁾ was slightly lower than six months earlier, in terms of total assets, deposit-taking and credit granted and there were no mergers or acquisitions. This period was marked by a slowdown in activity at the level of both credit to customers – whose rate of expansion stood slightly below 20 per cent⁽³⁾ for the first time since 1996 – and resources from customers.

The deceleration in credit granted to the private sector reflects the slowdown in economic activity and expectations of its continuation, taking into account the strong deceleration in private consumption and investment and the lower growth of external demand of Portuguese manufactures.

The overall delinquency rate of the loan portfolio stabilised at historical lows in the first half of 2001, while credit to residents fallen due for less than one year as a percentage of credit granted to residents, after having stabilised during most of 2000, increased slightly in the first half of 2001.

In the period under review, in line with a lower growth of bank credit, there was a relative reduction in provisions for credit, which, measured as a percentage of credit fallen due and excluding country-risk provisions, declined from 142.7 per cent in December 2000 to 135.6 per cent in June 2001.

The recourse by banks to financing through the money and capital markets continued to rise in the first half of 2001, in a context in which resources from customers (chiefly deposits) continued to abate in line with a slowdown in economic activity, low and falling nominal (and real) interest rates and a sizeable increase in inflation. Amongst the financing sources referred to above, note that in the first half of 2001, medium and long-term securities issuance (subordinated and non-subordinated, with particular emphasis on the former) increased sharply. There was thus a lengthening of the average maturity of the funds raised by banks, as well as a higher diversification of financing sources.

The net income of the banking system, on an individual basis, dropped by 7.2 per cent in the first half of 2001 compared with the same period a year earlier. However, when figures are adjusted for the selling of some participations, which gave rise to a significant extraordinary gain in the first half of 2000, but did not translate into the consolidated income of financial groups, the increase was of 10 per cent. Although interest rate differentials

(1) Except where otherwise stated, the aggregate considered in the present section for the Portuguese banking system refers to all banks, the *Caixa Geral de Depósitos* and the *Montepio Geral* Savings Bank, excluding banks having their head office in Madeira off-shore, carrying on their activities chiefly with non-residents and with a low correspondence with domestic economic conditions. Branches of credit institutions having their head office in another European Union Member State are also considered as banks and included in this aggregate, except those that are not classified as monetary financial institutions. In addition, data refer to the overall activity, encompassing activities carried on in domestic and foreign agencies, including off-shore activities. This universe corresponds to what is referred to in the text as data on an individual basis. These are distinct from data on Monetary and Financial Statistics, since they only consider domestic activity of all monetary financial institutions, i.e. they also include other savings banks and the mutual agricultural credit banks and exclude branches abroad.

(2) In this article the analysis is made on an individual basis, except for the solvency ratios, which have been calculated on a consolidated basis. On an individual basis, each institution is taken individually, and the accounts of the banks belonging to the same financial group are not consolidated.

(3) Except where otherwise stated, the growth rates referred to in the text are year-on-year rates of change.

Table 1.1

BANKING SYSTEM – SUMMARY TABLE

On a individual basis*

Balance sheet

As a percentage of total assets

	1996	1997	1998	1999		2000		2001
	Dec.	Dec.	Dec.	June	Dec.	June	Dec.	June
Cash and demand deposits in the <i>Banco de Portugal</i>	1.6	1.5	1.0	1.3	2.3	1.5	2.0	1.2
Credits over credit institutions (net of provisions) ^(a)	33.2	33.3	32.2	28.2	27.8	25.6	21.9	22.0
of which: In the <i>Banco de Portugal</i> Deposits of Certificates	4.2	2.8	2.2	2.1	1.6	1.5	1.2	1.2
Credits over credit institutions abroad	15.8	16.5	15.1	12.7	11.1	11.6	11.1	11.6
Credits to customers (net)	34.5	36.9	42.3	45.6	46.9	49.3	53.7	55.1
of which: Credit to non-resident customers (net)	2.6	2.7	3.1	3.0	2.9	3.3	3.7	3.6
Investments in securities (net)	20.8	18.1	14.9	14.3	12.3	12.2	11.5	10.7
Financial fixed assets (net)	2.8	2.9	2.9	2.8	2.7	3.7	3.5	3.3
Other assets	7.2	7.3	6.7	7.8	8.0	7.8	7.5	7.6
Resources from credit institutions	32.1	33.1	35.6	33.1	35.0	34.2	32.7	32.1
of which: Resources from credit institutions abroad	19.5	20.5	22.5	20.4	20.4	22.6	24.5	24.8
Resources from customers	53.7	52.0	48.9	49.4	46.5	46.9	47.3	45.6
of which: Deposits from non-resident clients (except emigrants)	4.2	5.1	4.6	5.2	4.3	5.8	5.0	6.6
Liabilities represented by securities	2.2	2.6	3.4	4.0	4.8	5.3	6.6	7.7
Other liabilities	3.0	3.3	2.7	3.6	4.0	3.2	3.1	3.5
Subordinated debt	1.8	2.2	2.2	2.8	2.9	3.0	3.4	4.0
Provisions	0.8	0.7	0.7	0.7	0.8	0.8	1.0	1.1
Equity capital ^(b)	6.4	6.1	6.6	6.4	6.2	6.7	6.0	6.1
<i>Memo:</i>								
Credit overdue ^(c)	1.9	1.5	1.2	1.2	1.1	1.0	1.0	1.0
Provisions for overdue credit ^(d)	1.2	1.0	0.8	0.8	0.7	0.6	0.6	0.6
Total assets (EUR million)	166370.8	190135.1	213042.8	221965.0	244544.3	259457.3	263806.1	277465.2
Total assets adjusted for interbank activity (EUR million)	103354.3	127118.6	142266.6	156537.0	170841.5	189253.3	200889.3	212897.4
Number of institutions	50	58	58	63	62	59	63	64
Number of branches	3859	4216	4481	4514	4 883	4 882	4 926	5080
Number of employees	60653	60736	58 234	56 865	59 389	59 526	55 250	54504

(a) Includes liquid assets held in credit institutions and other credits over credit institutions.

(b) Includes capital, reserves, results carried forward and net income for the year.

(c) Includes only overdue credits in operations with customers.

(d) Includes only provisions for overdue credits in operations with customers.

Profit and loss account ^(e)

As a percentage of average total assets

	1996	1997	1998	1999		2000 ^(f)		2001
	Dec.	Dec.	Dec.	June	Dec.	June	Dec.	June
Interest income	8.43	7.08	6.12	5.25	5.00	5.55	5.75	6.55
Interest expenses	6.29	5.03	4.22	3.38	3.31	3.88	4.12	4.74
Financial margin	2.14	2.06	1.90	1.87	1.70	1.67	1.63	1.82
Other current income	1.12	1.14	1.11	1.13	1.09	1.11	0.89	0.86
Gross income	3.25	3.19	3.00	3.00	2.79	2.78	2.53	2.67
Administrative expenses	1.84	1.70	1.56	1.51	1.45	1.39	1.38	1.37
of which: Staff costs	1.16	1.08	0.94	0.92	0.86	0.84	0.81	0.79
Overall gross income ^(g)	1.42	1.49	1.44	1.49	1.34	1.40	1.15	1.31
Extraordinary income	0.09	0.12	0.06	0.09	0.09	0.05	0.11	0.02
Depreciation for the year	0.24	0.22	0.21	0.20	0.20	0.17	0.17	0.16
Provisions for the year (net of replacement of provisions)	0.52	0.55	0.49	0.48	0.52	0.46	0.51	0.32
Income before taxes	0.75	0.84	0.80	0.90	0.72	0.82	0.57	0.83
Net income for the year	0.59	0.66	0.63	0.74	0.60	0.65	0.45	0.67
Average total assets (EUR million)	151978.6	178937.3	201811.2	217496.8	234424.4	251351.3	268156.5	268515.5
<i>Memo:</i>								
As a percentage of average total assets adjusted for interbank activity								
Financial margin	3.02	3.00	2.76	2.73	2.42	2.34	2.22	2.36
Other current income	1.58	1.66	1.61	1.64	1.56	1.57	1.21	1.11
Gross income	4.60	4.66	4.36	4.37	3.98	3.91	3.43	3.48
Overall gross income	2.00	2.18	2.09	2.18	1.91	1.96	1.55	1.70
Net income	0.84	0.97	0.91	1.07	0.86	0.92	0.61	0.87

* See footnotes 1 and 2.

(e) Half-year return figures have been annualised so that a comparison can be made with annual figures.

(f) In 2000, the sale of participations, although giving rise to extraordinary gains on an individual basis, had no reflection on the consolidated gains of the banks they concern. For this reason, these gains were deducted from the aggregates shown in this table and therefore the items "extraordinary income", "income before taxes" and "net income" have been adjusted accordingly.

(g) Overall gross income defined as income before tax, provisions, depreciations and extraordinary income.

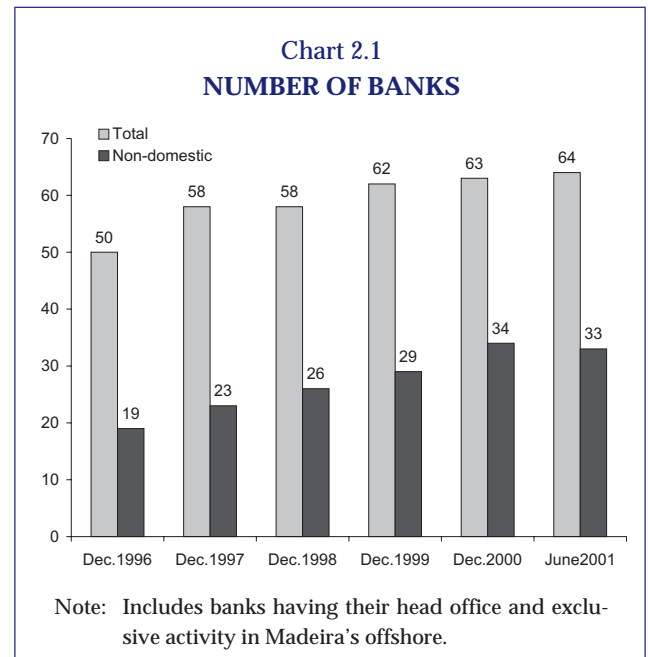
widened, the financial margin in terms of average assets adjusted of interbank activity remained broadly stable.

In the period under review, banks have increased significantly their own funds, both base own funds and complementary own funds, which together with the sharp deceleration in own funds requirements, chiefly reflecting the deceleration of credit, led to an increase in the solvency ratio, which stood at 11.0 per cent in June 2001.

2. MARKET STRUCTURE

At the end of the first half of 2001, there were 64 banks operating in the Portuguese banking system, of which 33 were non-domestic banks⁽⁴⁾ (Chart 2.1). During this period one non-domestic bank ceased its activity, being incorporated in another foreign group. Alongside, two new banking institutions belonging to two of the largest financial groups of the Portuguese system started to operate.

In June 2001, the degree of concentration in the banking system, except for the branches network, was slightly lower than in December 2000 and, for some variables, it was also lower than in June 2000 (Table 2.1). Thus on an individual basis, the aggregate, of banks belonging to the five largest banking groups accounted for 81.2 per cent of total assets of the banking system at the end of the first half of 2001, while its share in credit to customers stood at 82.8 per cent. The figure for customers' re-



sources stood at 82.4 per cent, i.e. far below the 85.0 per cent reached in December 2000. This reduction was due to the loss of market share of some commercial banks belonging to the groups referred to above. In June 2001 the five largest banking groups held 82.4 per cent of the branches network, a figure somewhat higher than in December 2000, but far below comparing to the corresponding period in 2000 (86.5 per cent). The decreases in the market share of the largest groups were outweighed by significant increases in the market share of non-domestic banks operating predominantly with non-residents, in particular in the variables total assets and resources from customers.

Figures for June 2001 on the importance of non-domestic banks (Table 2.2) do not differ substantially from those recorded a year earlier, considering that the large increase in market share of

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

Table 2.1

MARKET SHARE OF THE FIVE MAJOR BANKING GROUPS

	1996	1997	1998	1999	2000		2001
	Dec.	Dec.	Dec.	Dec.	June	Dec.	June
Credit to customers	79.6	77.3	76.9	75.0	82.6	83.2	82.8
Resources from customers	84.9	82.8	81.7	80.3	84.9	85.0	82.4
Assets	83.0	78.1	77.1	75.1	83.0	83.3	81.2
Branches	78.3	76.0	76.5	75.9	86.5	81.8	82.4

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

Table 2.2

MARKET SHARE OF NON-DOMESTIC BANKS

	1996	1997	1998	1999	2000		2001
	Dec.	Dec.	Dec.	Dec.	June	Dec.	June
Credit to customers.	7.6	8.3	8.8	11.2	19.3	18.0	17.7
Resources from customers . .	4.9	6.2	6.2	6.8	17.3	16.7	18.9
Assets	7.6	11.7	11.6	12.8	20.6	20.7	22.5
Branches	7.2	7.2	7.1	6.7	15.9	15.8	15.8

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

these banks occurred in the first half of 2000, in the wake of acquisitions by one non-domestic banking group. In the course of the first half of 2001, however, the importance of non-domestic banks increased somewhat in terms of resources from customers and total assets. In contrast, the participation of these institutions in credit to customers declined marginally from December 2000 to June 2001, while their share in terms of branches remained unchanged during the six months under review.

3. BANKING ACTIVITY⁽⁵⁾

In the first half of 2001 banks' activity, as measured in terms of total assets adjusted for inter-bank activity, increased at a rate of 12.5 per cent, thus slowing down by 5.1 percentage points (p.p.) from December 2000. Compared with June 2000, the deceleration was of 8.4 p.p. This was reflected in the slowdown in the main items of both assets and liabilities (Tables 3.1A and 3.1B).

Developments in the activity of Portuguese banks were conditioned by the macroeconomic environment in which they carried on their activity. Following the trend already observed in the last few months of 2000, the first half of 2001 was marked at the international level by the deceleration of the major economies, with the deterioration in growth prospects, together with increased instability in financial markets. Albeit less markedly than the US economy, the euro area economy

also recorded a higher-than-expected slowdown. These developments in the international economic conjuncture were adversely reflected in the growth of the Portuguese economy, which continued to be conditioned at the domestic demand level by the high indebtedness levels of the private sector already reached. Thus, in line with the situation in 2000, the household saving rate is estimated to recover again in 2001, partly reflecting the need to meet debt service as well as the precautionary rise in savings, on account of the unfavourable prospects regarding future earnings. The rise in savings, together with the lower investment rate by households, is expected to drive the borrowing requirements of this sector from around 1 per cent of GDP in 2000, to a marginally positive financing capacity in 2001.

3.1 Credit

The slowdown of credit to customers, which started in the second half of 1999, persisted in the first half of 2001. The year-on-year rate of change of this variable stood at 19.6 per cent in June 2001, significantly below the 23.6 per cent recorded at the end of 2000 and, for the first time since 1996, slightly below the 20 per cent threshold. This figure represents a slowdown of virtually 7 p.p. from a year earlier. However, the growth of credit remained far higher than that of nominal GDP and, despite the deceleration, its share in the assets structure of banks (adjusted for interbank activity) continued to increase, reaching 71.9 per cent in June 2001.

Credit to resident customers, which accounted for 67.2 per cent of the total assets of the banking system (adjusted for interbank activity), went up at a slightly higher pace (19.9 per cent) than that

(5) Credit and deposit aggregates considered in Tables 1.1, 3.1A and 3.1B and analysed in this section differ from those published in the Monetary and Financial Statistics – see footnotes 1 and 2. The analysis by institutional sector however will be made on the basis of Monetary and Financial Statistics data.

Table 3.1A

SUMMARY BALANCE SHEET

On a individual basis*

EUR billion

	1997	1998	1999	2000		2001
	Dec.	Dec.	June	Dec.	June	Dec. June
1. Cash and liquid assets in central banks.	2907.7	2236.3	2884.6	5733.5	3877.3	5157.6 3429.9
2. Credits to credit institutions (net)	63220.1	68539.9	62543.4	67969.2	66326.7	57759.2 61138.0
2.1. In the country	31824.5	36449.1	34280.9	40882.8	36301.9	28485.7 29053.8
2.2. Abroad	31395.5	32090.8	28262.5	27086.5	30024.9	29273.5 32084.1
3. Credit to customers (net)	70170.3	90098.7	101160.9	114582.7	127928.0	141593.7 152990.0
3.1. Credit to residents (net)	65094.5	83518.3	94578.4	107441.4	119262.8	131947.8 143024.1
3.2. Credit non-residents (net)	5069.3	6569.8	6570.0	7133.2	8655.8	9639.4 9955.8
3.3. Credit and interest overdue	2902.9	2628.0	2640.9	2579.2	2549.5	2615.0 2815.5
3.4. Provisions for overdue credit	1939.8	1724.4	1744.9	1705.3	1676.4	1694.8 1678.9
4. Investment in securities (net)	34357.5	31684.1	31822.4	30130.3	31618.7	30328.8 29641.7
5. Financial fixed assets (net)	5551.3	6140.5	6169.7	6648.4	9519.3	9205.6 9093.2
6. Non-financial fixed assets (net)	3532.7	3810.8	3685.1	3745.8	3641.9	3617.5 3609.8
7. Other assets (net) and sundry accounts.	10395.5	10532.5	13699.0	15734.3	16545.3	16143.8 17562.6
8. Total assets	190135.1	213042.8	221965.0	244544.3	259457.3	263806.1 277465.2
1. Resources from credit institutions	63016.5	75761.4	73413.7	85494.0	88728.5	86157.4 89142.2
1.1. In the country	24001.6	27727.8	28165.3	35721.9	30054.0	21575.8 20315.3
1.2. Abroad	39014.9	48033.6	45248.5	49772.1	58674.6	64581.6 68826.9
2. Resources from customers	98836.9	104167.0	109729.4	113699.6	121677.0	124674.5 126416.9
of which:						
2.1. Deposits.	95977.7	101516.5	107967.2	111486.7	118660.9	121903.5 123118.6
2.1.1. General government	4613.1	5559.0	5978.5	6347.2	6668.2	7774.6 6537.2
2.1.2. Other residents.	68385.1	73605.6	77538.1	82990.1	85387.9	89514.7 86131.1
2.1.3. Emigrants	12737.5	11853.6	12223.5	10863.5	10856.2	10465.6 11220.4
2.1.4. Other non-residents.	9676.7	9877.7	11564.5	10588.2	15007.3	13321.4 18350.5
2.1.5. Other deposits	565.3	620.6	662.7	697.7	741.3	827.2 879.4
3. Liabilities represented by securities.	4994.5	7244.4	8902.9	11615.9	13730.9	17368.3 21289.4
4. Other liabilities and sundry accounts	6292.0	5706.4	7937.8	9680.3	8184.8	8230.1 9782.2
5. Provisions	1263.6	1472.0	1558.1	1890.9	2117.5	2655.6 2948.3
6. Subordinated debt	4181.2	4708.3	6121.6	7061.4	7745.2	8839.5 10994.6
7. Equity capital	11550.4	13983.3	14301.6	15102.2	17273.3	15880.7 16891.6
of which: 7.1. Net income	1188.9	1270.1	802.3	1410.9	971.6	2040.5 901.3
<i>Memo:</i>						
Assets adjusted for interbank activity	127118.6	142266.6	156537.0	170841.5	189253.3	200889.3 212897.4
Demand deposits of customers.	30491.7	34800.4	38064.4	41105.1	42810.3	43299.3 41962.9
Deposits redeemable at notice of customers.	55.0	67.2	64.2	53.5	48.0	51.5 48.0
Time deposits of customers.	47176.3	47149.1	50108.3	49538.7	55516.7	58570.3 61971.7
Savings deposits of customers	16874.0	17616.8	17888.3	18718.5	18558.9	17005.1 16196.4

* See footnotes 1 and 2.

Table 3.1B
SUMMARY BALANCE SHEET
On an individual basis*

	Structure - as a percentage of total assets							Year-on-year rate of change				
	1997	1998	1999		2000		2001	1999	1999	2000		2001
	Dec.	Dec.	June	Dec.	June	Dec.	June	June	Dec.	June	Dec.	June
1. Cash and liquid assets in central banks.....	1.5	1.0	1.3	2.3	1.5	2.0	1.2	19.8	156.4	34.4	-10.0	-11.5
2. Credits to credit institutions (net).....	33.3	32.2	28.2	27.8	25.6	21.9	22.0	-2.8	-0.8	6.0	-15.0	-7.8
2.1. In the country.....	16.7	17.1	15.4	16.7	14.0	10.8	10.5	-3.3	12.2	5.9	-30.3	-20.0
2.2. Abroad.....	16.5	15.1	12.7	11.1	11.6	11.1	11.6	-2.3	-15.6	6.2	8.1	6.9
3. Credits to clients (net).....	36.9	42.3	45.6	46.9	49.3	53.7	55.1	29.7	27.2	26.5	23.6	19.6
3.1. Credit to residents (net).....	34.2	39.2	42.6	43.9	46.0	50.0	51.5	31.3	28.6	26.1	22.8	19.9
3.2. Credit non-residents (net).....	2.7	3.1	3.0	2.9	3.3	3.7	3.6	9.9	8.6	31.7	35.1	15.0
3.3. Credit and interest overdue.....	1.5	1.2	1.2	1.1	1.0	1.0	1.0	-8.7	-1.9	-3.5	1.4	10.4
3.4. Provisions for overdue credit.....	1.0	0.8	0.8	0.7	0.6	0.6	0.6	-8.4	-1.1	-3.9	-0.6	0.1
4. Investment in securities (net).....	18.1	14.9	14.3	12.3	12.2	11.5	10.7	-11.5	-4.9	-0.6	0.7	-6.3
5. Financial fixed assets (net).....	2.9	2.9	2.8	2.7	3.7	3.5	3.3	0.0	8.3	54.3	38.5	-4.5
6. Non-financial fixed assets (net).....	1.9	1.8	1.7	1.5	1.4	1.4	1.3	-0.5	-1.7	-1.2	-3.4	-0.9
7. Other assets (net) and sundry accounts.....	5.5	4.9	6.2	6.4	6.4	6.1	6.3	8.8	49.4	20.8	2.6	6.1
8. Total assets.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	9.2	14.8	16.9	7.9	6.9
1. Resources from credit institutions.....	33.1	35.6	33.1	35.0	34.2	32.7	32.1	6.1	12.8	20.9	0.8	0.5
1.1. In the country.....	12.6	13.0	12.7	14.6	11.6	8.2	7.3	4.7	28.8	6.7	-39.6	-32.4
1.2. Abroad.....	20.5	22.5	20.4	20.4	22.6	24.5	24.8	7.0	3.6	29.7	29.8	17.3
2. Resources from customers.....	52.0	48.9	49.4	46.5	46.9	47.3	45.6	7.4	9.2	10.9	9.7	3.9
of which:												
2.1. Deposits.....	50.5	47.7	48.6	45.6	45.7	46.2	44.4	10.7	9.8	9.9	9.3	3.8
2.1.1. General government.....	2.4	2.6	2.7	2.6	2.6	2.9	2.4	24.8	14.2	11.5	22.5	-2.0
2.1.2. Other residents.....	36.0	34.5	34.9	33.9	32.9	33.9	31.0	12.8	12.7	10.1	7.9	0.9
2.1.3. Emigrants.....	6.7	5.6	5.5	4.4	4.2	4.0	4.0	-0.8	-8.4	-11.2	-3.7	3.4
2.1.4. Other non-residents.....	5.1	4.6	5.2	4.3	5.8	5.0	6.6	4.2	7.2	29.8	25.8	22.3
2.1.5. Other deposits.....	0.3	0.3	0.3	0.3	0.3	0.3	0.3	11.0	12.4	11.9	18.6	18.6
3. Liabilities represented by securities.....	2.6	3.4	4.0	4.8	5.3	6.6	7.7	35.4	60.3	54.2	49.5	55.0
4. Other liabilities and sundry accounts.....	3.3	2.7	3.6	4.0	3.2	3.1	3.5	17.6	69.6	3.1	-15.0	19.5
5. Provisions.....	0.7	0.7	0.7	0.8	0.8	1.0	1.1	14.9	28.5	35.9	40.4	39.2
6. Subordinated debt.....	2.2	2.2	2.8	2.9	3.0	3.4	4.0	45.0	50.0	26.5	25.2	42.0
7. Equity capital.....	6.1	6.6	6.4	6.2	6.7	6.0	6.1	10.3	8.0	20.8	5.2	-2.2
of which: 7.1. Net income.....	0.6	0.6	0.4	0.6	0.4	0.8	0.3	18.2	11.1	21.1	44.6	-7.2
<i>Memo:</i>												
Assets adjusted for interbank activity.....	66.9	66.8	70.5	69.9	72.9	76.2	76.7	-23.0	20.1	20.9	17.6	12.5
Demand deposits of customers.....	16.0	16.3	17.1	16.8	16.5	16.4	15.1	21.4	18.1	12.5	5.3	-2.0
Deposits redeemable at notice of customers.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.6	-20.4	-25.2	-3.8	0.1
Time deposits of customers.....	24.8	22.1	22.6	20.3	21.4	22.2	22.3	6.4	5.1	10.8	18.2	11.6
Savings deposits of customers.....	8.9	8.3	8.1	7.7	7.2	6.4	5.8	4.7	6.3	3.7	-9.2	-12.7

* See footnotes 1 and 2.

recorded by total credit to customers and decelerated less markedly. Turning to the analysis by institutional sector and taking as a basis Monetary and Financial Statistics data, it can be seen that this reflects the trend of loans to non-financial corporations, whose year-on-year rate of change declined from 24.1 per cent in December 2000 to 22.7 per cent in June 2001, since bank loans to households decelerated by 4.7 p.p., to 16.5 per cent in the first half of the year (Table 3.2). The share of these two segments in total bank loans to the non-financial private sector is similar. Developments in credit to households are in line with expectations taking into account their main determinants, while regarding loans to non-financial corporations a higher deceleration might have been expected, pointing to the existence of special factors which appear to have been underlying the trend of credit to this sector.

3.1.1 Households

The slowdown in credit to households represents a gradual but persistent adjustment to the indebtedness levels already reached, reflecting the need to meet increasing debt service (principal and interest), while unfavourable prospects for future earnings also appear to have driven the trend observed.

The deceleration in credit to households reflected the trend of both housing credit – which represents around 75 per cent of the total and whose growth rate declined by 3.9 p.p. in the first six months of the year, to 16.4 per cent – and credit for purposes other than housing, whose growth rate fell by 7.2 p.p. (16.9 per cent in June 2001). Data available for September 2001 confirm these developments, revealing a further reduction in these two aggregates to 15.9 per cent and 11.4 per cent, respectively.

The year-on-year deceleration in credit to households in the first half of 2001 is confirmed by the annualised three and six-month growth rates derived from seasonally adjusted figures (Charts 3.1A and 3.1B), in line with the deterioration observed in the consumer confidence indicator (Chart 3.2). However, in the third quarter growth recovered somewhat. This may be reflecting the fall in nominal interest rates, which together with a lower growth of house prices, boosted the

affordability conditions of households to the housing market with recourse to borrowing in the first half of 2001 (Chart 3.3). A similar conclusion can be drawn from the fact that the number of mortgage contracts increased from the first to the second quarter of the year, for the first time since the fourth quarter of 1999 (Chart 3.4).

The easing of the financing conditions of households associated with falling nominal interest rates and the recent maintenance of the growth of credit are likely to be temporary, given the constraints stemming from the high indebtedness level already reached, as well as unfavourable prospects for future household earnings.

The growth rate of house prices dropped by 2.6 p.p. in the first half of 2001, to 3.9 per cent (Chart 3.5), in contrast to the relative stability recorded in the course of 2000.⁽⁶⁾ According to data available, this deceleration became much stronger in July and August, with the growth rate standing at 2.7 per cent in August.

As referred to above, the slowdown in credit to households for house purchase, in a context of improved mortgage affordability, as well as of credit for other purposes, is justified by the indebtedness level already reached which is estimated to stand close to 93 per cent of disposable income at the end of 2001, as well as by the above mentioned deterioration of consumer confidence in terms of future earnings prospects. Thus, according to Banco de Portugal estimates, the debt burden of households associated with debt service (principal and interest) is likely to have continued to rise in 2001. The estimated growth of debt service, despite the recent fall in interest rates, results from the high indebtedness level already reached and from the lagged effect of the rise in interest rates in 2000.

3.1.2 Non-financial corporations

The slowdown in credit to non-financial corporations in the first half of 2001 continued to be more moderate than to households. The informa-

(6) The growth rates of housing prices result from the construction of a price index calculated on the basis of data disaggregated by geographical region, published by “Newsletter – *Confidencial Imobiliário*” according to the methodology explained in the Box entitled “Prices in the housing market and the business cycle”, published in the June 1999 issue of the *Economic Bulletin* of the Banco de Portugal.

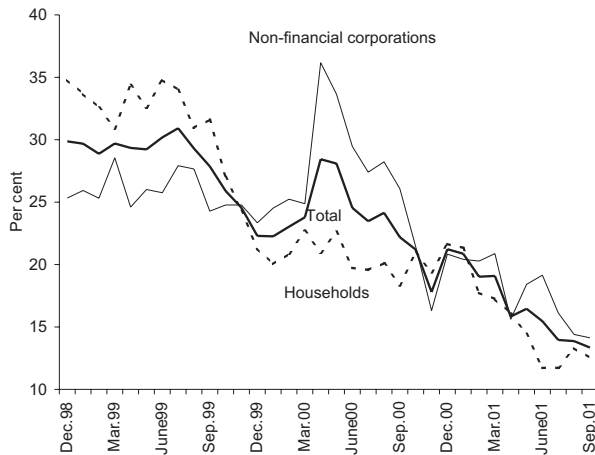
Table 3.2
BANK LOANS TO THE NON-FINANCIAL PRIVATE SECTOR
Year-on-year rate of change – per cent

	Loans to households and non-financial corporations												Total households and non-financial corporations
	Households			Non-financial corporations									
	By purpose			By sector of activity									
	Total	Housing	Other purposes ^(a)	Total	Agriculture, live-stock, forestry and fishing	Mining	Manufacturing	Production and distribution of electricity, gas and water	Construction	Services			
Total										of which:	Real estate activities		
									Other business services				
Dec- 1998.....	31.4	34.6	23.5	22.9	4.6	3.1	15.6	23.1	33.3	24.4	35.6	25.5	27.3
Mar - 1999.....	31.5	34.5	23.6	27.5	15.8	19.3	15.1	42.2	30.5	32.4	55.4	30.9	29.6
Jun - 1999.....	34.9	37.6	27.9	26.7	16.3	41.1	14.6	66.9	29.0	29.5	60.2	32.3	31.0
Sep - 1999.....	31.2	32.6	27.4	28.0	30.2	41.9	13.4	52.0	33.7	31.2	91.1	33.4	29.7
Dec- 1999.....	27.6	30.1	20.9	26.6	24.8	37.1	13.5	41.9	31.6	29.8	74.5	41.8	27.1
Mar - 2000.....	27.3	28.4	23.9	27.2	10.0	10.8	16.7	33.1	40.9	28.1	62.9	42.6	27.2
Jun - 2000.....	20.4	22.2	15.0	26.6	10.8	16.9	20.9	16.5	41.0	25.9	52.4	38.9	23.2
Sep - 2000.....	20.3	22.2	15.1	26.3	4.1	-1.9	20.4	26.0	39.4	25.9	45.3	44.0	23.1
Dec- 2000.....	21.2	20.3	24.1	24.1	5.3	6.1	14.6	40.5	39.9	22.7	42.2	30.5	22.6
Mar - 2001.....	17.9	17.5	19.0	23.0	-0.8	7.4	11.9	6.0	32.2	26.3	64.8	32.1	20.3
Apr - 2001.....	18.6	18.1	20.2	18.3	4.4	2.7	11.9	5.5	30.3	18.3	24.5	29.8	18.4
May - 2001.....	16.9	16.7	17.7	18.2	-0.7	-1.6	10.2	15.9	29.8	18.5	22.0	33.3	17.5
Jun - 2001.....	16.5	16.4	16.9	22.7	4.4	0.6	8.9	5.7	30.1	27.6	69.9	40.2	19.4
Jul - 2001.....	16.4	16.2	17.0	20.8	2.7	10.0	9.6	1.1	26.3	25.3	68.7	36.7	18.5
Aug - 2001.....	15.5	15.9	14.1	20.8	4.3	10.0	8.4	3.2	29.8	24.2	67.4	36.1	18.0
Sep - 2001.....	14.7	15.9	11.4	20.3	0.8	12.7	8.3	0.8	28.4	23.9	71.2	36.6	17.4
<i>Memo:</i>													
Percentage of total loans to the non-financial private sector in September, 2001.....	51.4	39.0	12.4	48.6	0.6	0.4	9.0	1.4	9.8	27.3	5.9	5.6	100.0

Source: Monetary and Financial Statistics.

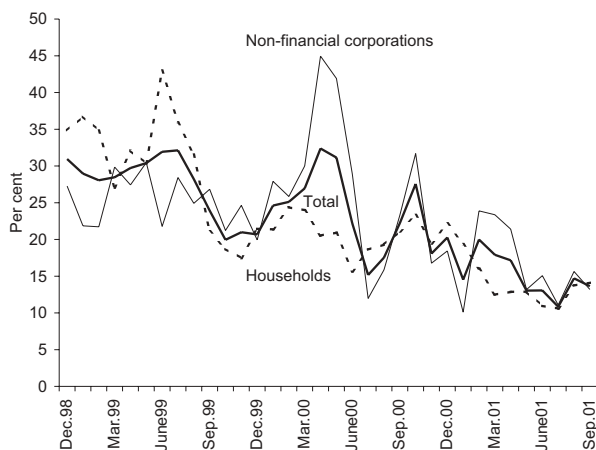
Note: (a) Includes all credit granted to households for purposes other than housing, namely consumer credit.

Chart 3.1A
CREDIT GRANTED TO THE RESIDENT
NON-FINANCIAL PRIVATE SECTOR
 Annualised six-month growth rates over
 seasonally adjusted figures



Note: Includes loans and commercial paper held by banks.

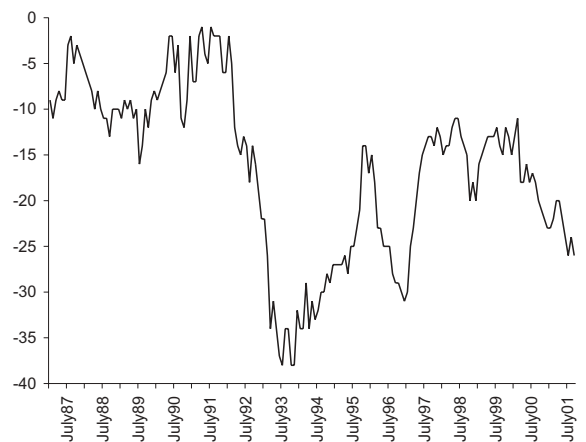
Chart 3.1B
CREDIT GRANTED TO THE RESIDENT
NON-FINANCIAL PRIVATE SECTOR
 Annualised three-month growth rates over
 seasonally adjusted figures



Note: Includes loans and commercial paper held by banks.

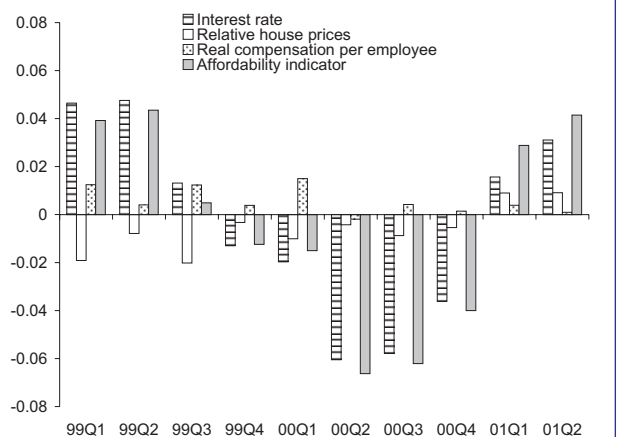
tion available suggests that resident non-financial corporations continued to resort to syndicated loans in very significant amounts (in particular borrowing by the private sector for the construction of road infrastructures), thus sustaining the growth of bank credit to this sector (Table 3.3).

Chart 3.2
CONSUMER CONFIDENCE
INDICATOR - PORTUGAL



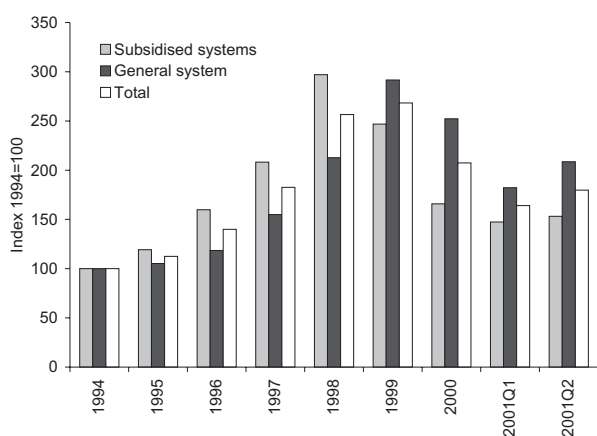
Source: INE.

Chart 3.3
HOUSING MORTGAGE AFFORDABILITY AND
DETERMINANTS
 Quarter-on-quarter rates of change



Indeed, annualised three-month growth rates computed over seasonally adjusted stocks points to persistently high growth of credit to non-financial corporations in the most recent months. However, taking into account that the indebtedness of the corporate sector as a percentage of GDP has been gradually increasing – at the end of 2001 it is estimated to stand at around 90 per cent (82.6 per cent in 2000 and 73.5 per cent in 1999) – and the unfavourable prospects for economic activity in the future, the sustained growth of credit to this sector in recent months is expected to be temporary.

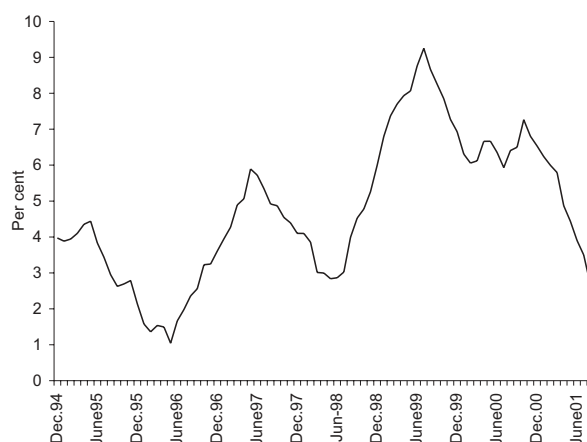
Chart 3.4
NUMBER OF NEW MORTGAGE LOANS



Source: *Direcção-Geral do Tesouro*

Note: The quarterly values for 2001 were annualised.

Chart 3.5
HOUSING PRICES
Year-on-Year rates of change



Source: Newsletter - *Confidencial Imobiliário*.

The breakdown by sectors of activity, shows that one of the factors underlying the continuing growth of credit to non-financial corporations appears to have been the evolution of credit granted to corporations in the real estate services sector,⁽⁷⁾ which represents approximately 11.5 per cent of credit to non-financial corporations. This type of

credit was very buoyant, accelerating from 30.5 per cent at the end of 2000 to 40.2 per cent in June

(7) Includes real estate development activities carried out by other than the building company, the activities of trading and renting real estate on own account, real estate agency activities and property management on behalf of third parties.

Table 3.3

INTERNATIONAL SYNDICATED LOANS TO RESIDENT NON-FINANCIAL CORPORATIONS IN PORTUGAL (a)

EUR million

	1996	1997	1998	1999	2000	2000	2001
					1st half-year	1st half-year	1st half-year
Total	1335.9	2260.4	3596.3	2676.6	4542.8	6342.7	3492.0
of which:							
For the acquisition of corporations	0.0	0.0	2731.4	25.0	2778.7	3083.7	1725.0
Financing of road infrastructures (namely projects with "shadow toll concessions")	24.6	208.7	419.0	1262.5	1414.2	2559.2	1072.0
Amount estimated of the involvement of Portuguese banks							
Total	310.6	444.7	1612.3	1127.9	1017.6	1412.7	301.1
of which:							
For the acquisition of corporations	0.0	0.0	1480.0	5.0	424.8	601.7	60.1
Financing of road infrastructures (namely projects with "shadow toll concessions")	8.2	0.0	147.9	812.5	510.9	729.2	227.5

Source: Capital Data Loanware.

Note:

(a) The amounts presented refer to new loans granted each year. Note that part of these loans is related to credit facilities; therefore they may be translated on actual credit granted on later dates than the respective contracting date.

Table 3.4

**AGGREGATE EXPOSURES OF PORTUGUESE
BANKS VIS-À-VIS EMERGING MARKETS**

	As a percentage of total assets adjusted for interbank activity				
	1998		2000		2001
	Dec.	Dec.	June	Dec.	June
Total (Latin America, Eastern Europe and Asia)	1.8	2.6	1.6	1.6	1.5
of which: Brazil	1.4	2.1	0.9	0.7	0.9

Note: Only the banks with effective exposure in the mentioned emerging markets are taken into account.

2001 (36.6 per cent in September 2001). Credit to the construction sector, which albeit slowing down, continued to record high year-on-year rates of change (28.4 per cent in September 2001, 30.1 per cent in June 2001, and 39.9 per cent in December 2000). The fact that the financing of Portuguese non-financial groups is usually centralised in the respective holding companies makes it difficult to analyse in greater detail credit to non-financial corporations by sectors of activity. Indeed, according to the Monetary and Financial Statistics, credit granted to the aforementioned holding companies, classified in the sector “other business services”, has risen sharply (Table 3.2).

Taken together, the share of loans related to the real estate sector, i.e. those for housing purchase, for the construction sector and for the real estate services sector, increased further as a percentage of total bank loans to the non-financial private sector (which is an indicator of the overall exposure to these sectors) from 53.0 per cent in December 2000 to 53.3 per cent six months later and to 54.4 per cent in September 2001.

3.1.3 Exposure to emerging markets

The aggregate exposure of Portuguese banks with exposures in emerging markets⁽⁸⁾ represented 1.5 per cent of total assets adjusted for interbank activity in June 2001 (Table 3.4), compared with 1.6 per cent a year earlier (similar to the figure recorded in December 2000). The reduction in the importance of this exposure, which in the Portu-

guese banking system corresponds only to a small fraction of that recorded by most European banking systems, has been gradual since the Asian crises in 1997/1998 and the subsequent financial crises in Russia and Brazil. This may correspond to a more cautious approach followed by Portuguese banks when assessing risk exposure in emerging markets. The exposure to Brazil, which is the most significant, but still low compared with other banking systems, appears to have remained stable in June 2001, compared with June 2000 (0.9 per cent of average total assets adjusted for interbank activity).

3.1.4 Delinquency rates and credit provisioning

The manifestation of credit risk has a pro-cyclical behaviour although with some lag, i.e. the delinquency rate of credit portfolios tend to rise in the less favourable stages of the economic cycle. It is thus desirable that banks accumulate safety margins in the periods of higher economic expansion (which also correspond to stronger growth of credit granted and profits) through the building up of provisions or further increases in their own funds, so that they will be able to absorb losses in periods of less favourable economic activity.

Data on credit overdue over the last business cycle as a whole suggests that the delinquency rate of the credit portfolio of Portuguese banks has already hit a minimum, being likely to rise further. Indeed, the overall delinquency rate of credit to customers, as measured by the ratio of credit and interest overdue to (gross) credit to customers, in June 2001 was similar to December 2000 (1.8 per cent, i.e. lower than the 2.0 per cent recorded in June 2000), although some fluctuation in this ratio occurred in the course of the first half of 2001 (Chart 3.6). If this ratio is computed only for domestic credit overdue for a period of less than one year, it stands at 0.6 per cent at the end of the first half of 2001 up from around 0.5 per cent at the end of 2000.

The delinquency rate of non-financial corporations⁽⁹⁾ showed some volatility during the period under review (Chart 3.7), however in September,

(8) Considering only Latin America, Asia and Eastern Europe.

(9) The delinquency rates broken down by institutional sector were calculated on the basis of Monetary and Financial Statistics data (see footnotes 1, 2 and 5).

Chart 3.6
DELINQUENCY RATIOS IN CREDIT TO CUSTOMERS AND TOTAL CREDIT PROVISIONING
 As a percentage of gross credit granted

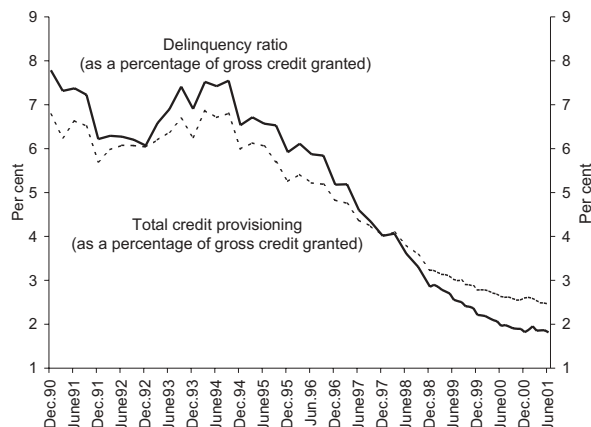
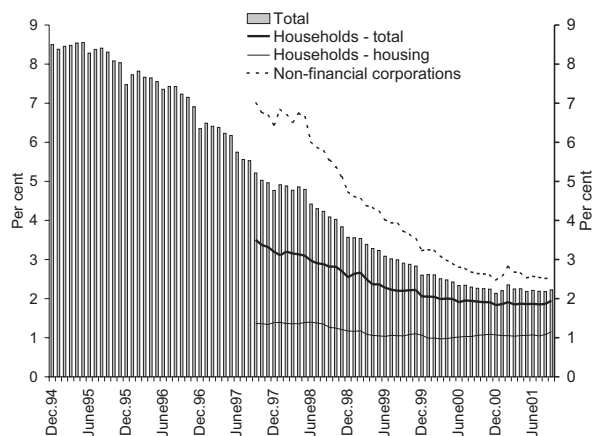


Chart 3.7
DELINQUENCY RATIOS IN CREDIT TO RESIDENT CUSTOMERS



Source: Monetary and Financial Statistics.

the most recent month for which data are available, it stood at 2.52 per cent, i.e. slightly higher than at the end of 2000. The delinquency ratio of households remained relatively stable, standing at 1.87 per cent at the end of June and at 1.95 per cent in September. The delinquency rate of housing credit stood at 1.15 per cent in September 2001, while in the segment of credit for purposes other than housing, this indicator stood at 4.43 per cent (Chart 3.8).

In the period under review, provisions for credit overdue, which according to the regulations

Chart 3.8
DELINQUENCY RATIOS IN BANK CREDIT

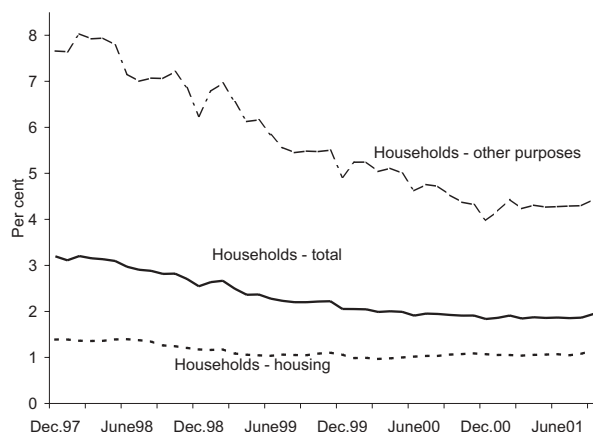
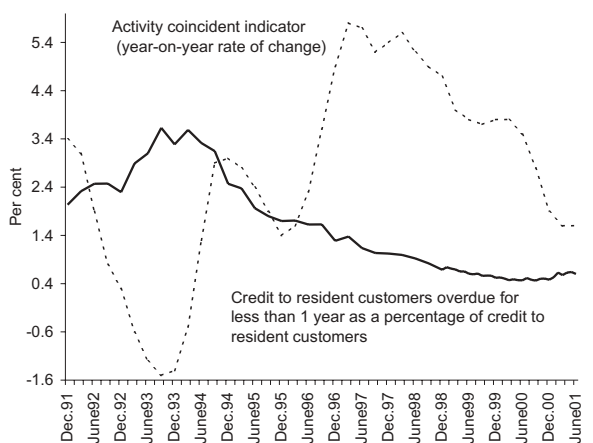
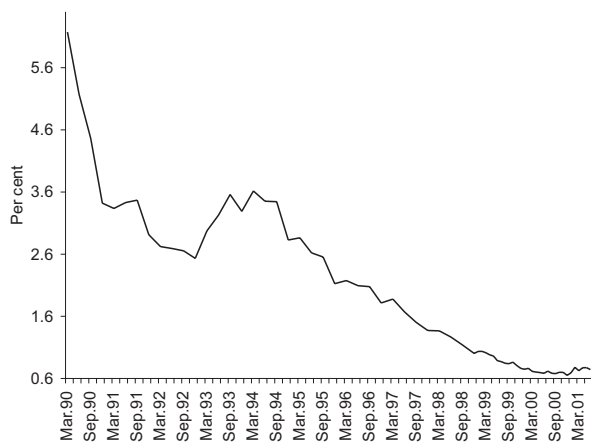


Chart 3.9
CREDIT OVERDUE AND ECONOMIC ACTIVITY



in force are built up as delinquency occurs and whose coverage rates increase according to the period elapsed after their identification (booked as a deduction from the credit granted, in banks' assets) showed a marginally positive year-on-year growth (0.1 per cent), which compares with a 10.4 per cent rise in credit and interest overdue, in the first half of 2000. Thus, the degree of coverage of credit and interest overdue by provisions for credit overdue decreased from 64.8 per cent in December 2000 (65.8 per cent in June 2000) to 59.6 per cent at the end of June 2001. The different trend of credit overdue and the respective provisions is consistent with the decline, in the credit portfolio, of the average period elapsed since credit is classified as overdue. This decrease results from the

Chart 3.10
CREDIT OVERDUE NET OF SPECIFIC PROVISIONS AS A PERCENTAGE OF TOTAL CREDIT NET OF SPECIFIC PROVISIONS



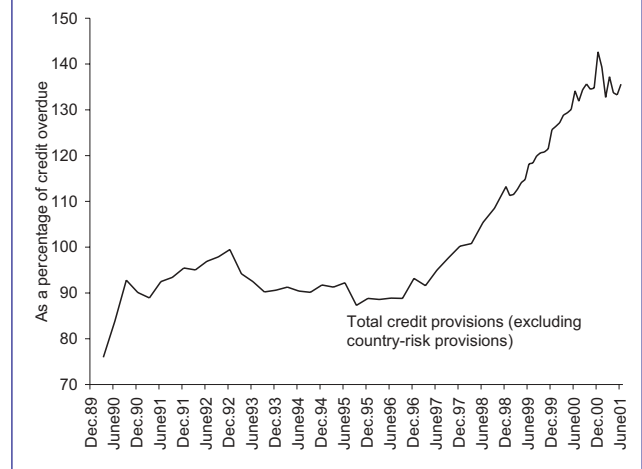
write-off of credit overdue for a longer period (fully provisioned), coupled with the accumulation of new delinquencies (only partially provisioned).

Credit and interest overdue net of provisions for credit overdue as a percentage of credit granted, also net of provisions, went up from 0.65 per cent at the end of 2000 to 0.74 per cent in June 2001, reversing the reduction posted until the end of 2000 (Chart 3.10).

During the first half of 2001 provisions booked in the liability side of the balance sheet (which are made before the materialisation of the risks incurred) kept growing strongly (39.2 per cent). Provisions for general credit risks, compulsorily built up as a percentage of credit granted and which account for more than two-thirds of total provisions, expanded sizeably (24.6 per cent). In turn, provisions for general banking risks, which represent more than one quarter of the total, more than doubled in the first half of 2001, compared with the corresponding period in 2000.

Total credit provisioning which, in addition to provisions for credit overdue, also includes provisions for general credit risks, stood at around 2.5 per cent of gross credit granted in June 2001, i.e. slightly below 2.6 per cent, the figure posted in December 2000 (see Chart 3.6). It is important to note however that since the last quarter of 1997, in contrast to the past, total credit provisioning has been consistently higher than the delinquency ra-

Chart 3.11
TOTAL CREDIT PROVISIONING
As a percentage of credit overdue



tio, meaning that the coverage ratio of credit overdue in relation to provisions for credit has been above 100 per cent since that date. The coverage ratio referred to above, after having increased substantially in 2000, dropped from 142.7 per cent at the end of this year to 135.6 per cent in June 2001 (Chart 3.11).

The lag between the intensity of default in credit portfolios and the slowdown in economic activity suggests the future increase in credit overdue. In this way, it is important that banks set up safety margins to make up for possible less favourable situations.

3.1.5 Securities portfolio

In the first half of 2001, banks' investment in securities resumed the declining trend interrupted in 2000, with a rate of change of -6.3 per cent. This was due to both the fixed-income portfolio and the variable-income portfolio, which declined by 1.6 per cent and 39.9 per cent, respectively. In terms of public issuers, there was a 19.2 per cent rise in banks' investments in securities issued by foreign issuers, associated with the geographical diversification of portfolios, catalysed by participation in the euro area. At the same time, there was a 9.7 per cent fall in banks' portfolio of Portuguese government debt securities, whose share in the total stood at 20.6 per cent in June 2001. The share of securities of public issuers as a whole increased in total securities portfolio during the period under

review, accounting for nearly 35 per cent of the total in June 2001.

In contrast to 2000, in the first half of 2001 the reduction in the variable-income portfolio can be attributable to a fall in both holdings of mutual funds units (as in 2000, albeit less markedly) and shares, with a year-on-year rate of change of -53.5 per cent (11.1 per cent at the end of 2000). Note that shares represent only 3.6 per cent of the banks' securities portfolio, reflected in a relatively limited exposure of banks to the price fluctuations of these assets. The reduction in the portfolio of shares was concentrated on the domestic issuers segment, which represents 84.7 per cent of total equity portfolio of the banking system, having declined by 57.5 per cent year-on-year in June 2001 (in particular in the investment portfolio). The fall in holdings of shares of domestic issuers appears to have been related to changes in the policies concerning strategic holding of stakes in non-financial corporations by banks (which are booked in financial fixed assets rather than in securities portfolios), in a context of a sharp fall in capital market prices.

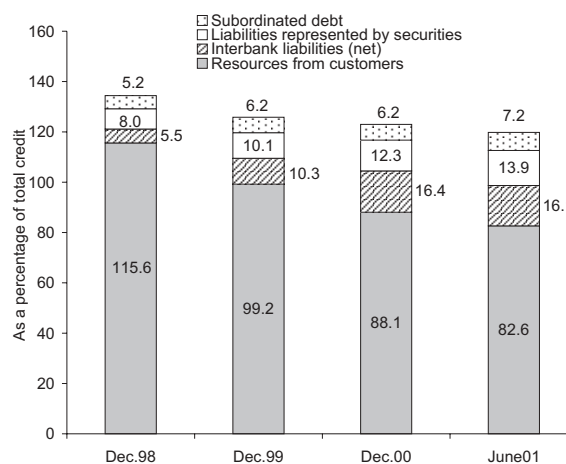
3.2 Resources

The deceleration observed in deposits, whose rate of change dropped by 5.6 p.p. in the first half of 2001, to 3.8 per cent at the end of June, is due to the virtual stabilisation of residents' deposits (including emigrants and excluding the general government), which posted a growth rate of 1.2 per cent. This performance is in line with the rise in inflation, the slowdown in economic activity and the low levels of (nominal and real) interest rates, although according to econometric projections and taking into account major determinants (GDP, inflation and interest rate), the deceleration in the first two quarters of 2001 could have been even stronger (see Box 1 entitled "Recent developments in bank deposits").

General government deposits, whose share in terms of resources from customers is very low (5.3 per cent of total customers deposits at the end of the first half of 2001), dropped 2.0 per cent in June 2001, against a 22.5 per cent increase at the end of 2000. Resources from customers as a whole continued to lose importance as a financing source, in terms of both the flow and the stock of credit

Chart 3.12A
FINANCING SOURCES OF PORTUGUESE BANKING GROUPS

On an individual basis
As a percentage of total credit



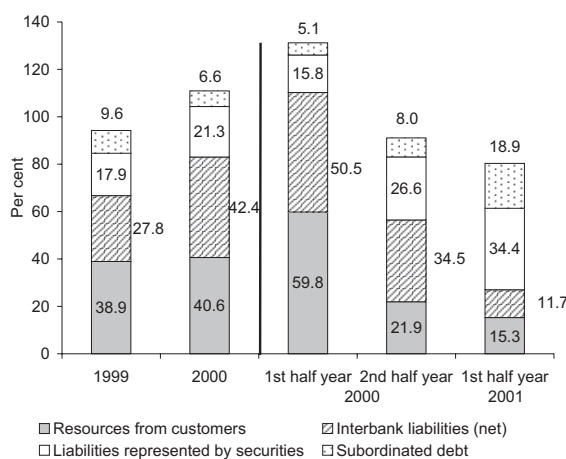
Note: Excludes banks having their head office in Madeira's off-shore.

Chart 3.12B

FINANCING SOURCES OF PORTUGUESE BANKING GROUPS

On an individual basis

Flows as a percentage of credit granted (flow)



Note: Excludes banks having their head office in Madeira's off-shore.

granted (Charts 3.12-A and B). Data available up to September, on the basis of Monetary and Financial Statistics, point to a slight recent recovery in deposits, in particular demand deposits of the non-financial private sector (including emigrants).

Underlying the deceleration in deposits as a whole were developments in both demand deposits, which represent approximately one third of the

total and which declined by 2 per cent in the first half of 2001, and time deposits (including saving deposits and deposits redeemable at notice), whose share is higher than 60 per cent and whose growth has decreased strongly (from 10.7 per cent in December 2000 to 5.5 per cent six months later).

The reduction in the pace of growth of resources from customers, associated with the maintenance of a significant growth of credit granted, led to a further increase in borrowing by banks from the money and capital markets in the first half of 2001. In the period under review, among these financing sources, stress should be laid on securities issuance and subordinated debt, which showed very sharp rises (Table 3.1A). Securities issuance was the main financing source of the credit flow between December 2000 and June 2001, although in terms of stock, resources from customers (predominantly deposits) continued to represent the main financing source (Chart 3.12A). It should be noted that although the share of interbank financing has declined, it is still reflecting securities issuance abroad through subsidiaries (see Box 2 entitled "*Financing of Portuguese banking groups through bond issuance by subsidiaries having their head office abroad*"). This change in the financing structure of banks had as a consequence a lengthening of the average maturity of bank resources, as well as a higher diversification of the financing sources, as the increased importance of financing from the securities market corresponded to a smaller recourse to the interbank money market (typically with short maturity), thus improving the liquidity position of the system.

Indeed, at the end of the 90s, interbank liabilities were the main financing source of banks in terms of flows, in a context of strong credit expansion, which was not matched by resources from customers, and an increased access to international markets, resulting from the participation in the euro area. More recently, interbank liabilities (net of interbank investments) have been losing importance and in the first half of 2001 they only covered 11.7 per cent of the credit flow (50.5 per cent in the first half of 2000).

Securities issuance, in turn, accounted for 34.4 per cent of the credit flow in the first half of 2001, which is far higher than the 15.8 per cent recorded in the first half of 2000. Subordinated debt recorded a similar trend and their contribution to

the credit flow rose from 8.0 per cent in the second half of 2000 to 18.9 per cent in the first half of 2001.

Equity capital⁽¹⁰⁾ in turn, decreased by 2.2 per cent over the same period, but this figure is influenced by the deduction of the capital of an institution due to its merger with another belonging to the same group, in the late months of 2000. Adjusted for this effect, the equity capital on an individual basis increased by 13.0 per cent. This later figure is the one which is used in the calculation of return on equity, on an individual basis, analysed below.

4. PROFITABILITY

Mergers and acquisitions in the Portuguese banking system influenced significantly the income statement on an individual basis, requiring taking into account in the profitability analysis several factors of a special nature. Thus, some corrections were made to the data in Tables 4.1A and B (profit and loss account of the banking system, in terms of value, year-on-year rate of change and as a percentage of average total assets), which are explained in the analysis below. It should be noted that data used in Charts 4.1, 4.2 and 4.9 have been adjusted for this type of effects.

It can be seen that, assessed on an individual basis, net income declined by 7.2 per cent in the first half of 2001, compared with the corresponding period in 2000. However, when these figures are adjusted for some operations involving the sale of participations in 2000, which albeit giving rise to an extraordinary gain on an individual basis, were not mirrored in the consolidated income of the financial groups, there was a 10.0 per cent increase.⁽¹¹⁾ This was reflected in the virtual stabilisation of the net return on assets (ROA), which rose from 0.65 per cent in the first half of 2000 to 0.67 per cent a year later (Chart 4.1).⁽¹²⁾ In terms of

(10) Equity capital is defined as the sum of the capital stock, reserves, results carried forward and income for the year.

(11) As explained below in greater detail, the fall in income on an individual basis is mainly attributable to the decrease in income from securities (namely, reduction of dividends), due to the merger of banks by incorporation of some subsidiaries in the parent bank.

(12) Half-year returns as well as the ratios of the profit and loss account items to average assets are calculated in annualised terms.

Table 4.1A

PROFIT AND LOSS ACCOUNT

On an individuals basis*

EUR million

						Year-on-year rate of change			
	1997	1998	1999	2000	2001	1998	1999	2000	2001
	June	June	June	June	June	June	June	June	June
1. Interest income	6266.6	6188.2	5711.6	6972.5	8799.3	-1.3	-7.7	22.1	26.2
2. Interest expenses	4473.1	4293.2	3676.2	4877.1	6361.9	-4.0	-14.4	32.7	30.4
3. Financial margin (1-2)	1793.5	1895.0	2035.4	2095.4	2437.4	5.7	7.4	3.0	16.3
4. Income from securities	125.6	208.7	389.9	353.8	213.6	66.2	86.8	-9.2	-39.6
5. Net commissions	323.5	412.0	493.6	613.7	606.6	27.3	19.8	24.3	-1.1
6. Income from financial operations	375.7	266.2	149.1	256.3	55.3	-29.1	-44.0	71.9	-78.4
7. Other operating income	165.8	191.3	194.9	177.3	273.5	15.4	1.8	-9.0	54.2
8. Other current income (4+5+6+7)	990.6	1078.3	1227.4	1401.1	1149.1	8.8	13.8	14.2	-18.0
9. Gross income (3+8)	2784.1	2973.3	3262.8	3496.6	3586.5	6.8	9.7	7.2	2.6
10. Staff costs	933.7	936.6	1003.8	1051.2	1055.4	0.3	7.2	4.7	0.4
11. Other administrative costs	508.5	588.3	634.6	690.6	778.3	15.7	7.9	8.8	12.7
12. Overall gross income (9-10-11)	1341.9	1448.3	1624.4	1754.7	1752.8	7.9	12.2	8.0	-0.1
13. Extraordinary income	51.6	61.6	97.2	216.1	20.7	19.3	57.8	122.4	-90.4
14. Depreciation for the year	186.1	199.1	216.7	217.1	218.4	7.0	8.9	0.2	0.6
15. Provisions for the year (net of replacement of provisions)	495.1	439.0	522.3	576.5	434.2	-11.3	19.0	10.4	-24.7
16. Income before taxes (12+13-14-15)	712.3	871.8	982.5	1177.2	1120.9	22.4	12.7	19.8	-4.8
17. Income tax	166.3	193.0	180.3	205.6	219.6	16.1	-6.6	14.0	6.8
18. Net income for year (16-17)	546.0	678.8	802.3	971.6	901.3	24.3	18.2	21.1	-7.2

* See footnotes 1 and 2.

average assets adjusted for interbank activity, the net return on assets declined from 0.92 to 0.87 per cent over the same period (Chart 4.2). Gross return on assets, as measured by the ratio between overall gross income (income before income tax, provisions, depreciation and extraordinary income) and average assets, declined further from 1.40 per cent in the first half of 2000 to 1.31 per cent in the first half of 2001 (from 1.96 to 1.70 per cent, taking into account assets adjusted for interbank activity). In turn, net return on equity (ROE) declined slightly on an individual basis, from 14.1 per cent to 13.7 per cent over the same period.

The financial margin expanded sizeably in the first half of 2001, with a growth rate, on an individual basis, of 16.3 per cent, against 3.0 per cent

in June 2000, thus confirming the reversal of the declining trend already observed at the end of 2000. The financial margin, as a percentage of average assets adjusted for interbank activity, however, remained broadly unchanged from a year earlier, at 2.36 per cent (Chart 4.3).

The stabilisation of the financial margin, assessed as a percentage of average assets adjusted for interbank activity, resulted from effects with opposite sign. On the one hand, the widening of the differential between average deposit and lending rates (Chart 4.4), a situation, which had not been observed since 1997, had a positive impact on the financial margin. On the other hand, the changes in balance sheet structure and interest-equivalent gains on off-balance sheet operations

Table 4.1B

PROFIT AND LOSS ACCOUNT (a)

On an individual basis*

As a percentage of average assets

	1997	1998	1999	2000	2001
	June	June	June	June	June
1. Interest income	7.25	6.33	5.25	5.55	6.55
2. Interest expenses	5.17	4.39	3.38	3.88	4.74
3. Financial margin (1-2)	2.07	1.94	1.87	1.67	1.82
4. Income from securities	0.15	0.21	0.36	0.28	0.16
5. Net commission	0.37	0.42	0.45	0.49	0.45
6. Income from financial operations	0.43	0.27	0.14	0.20	0.04
7. Other operating income	0.19	0.20	0.18	0.14	0.20
8. Other current income (4+5+6+7)	1.15	1.10	1.13	1.11	0.86
9. Gross income(3+8)	3.22	3.04	3.00	2.78	2.67
10. Staff costs	1.08	0.96	0.92	0.84	0.79
11. Other administrative costs	0.59	0.60	0.58	0.55	0.58
12. Overall gross income (9-10-11)	1.55	1.48	1.49	1.40	1.31
13. Extraordinary income	0.06	0.06	0.09	0.17	0.02
14. Depreciation for the year	0.22	0.20	0.20	0.17	0.16
15. Provisions for the year (net of replacement of provisions)	0.57	0.45	0.48	0.46	0.32
16. Income before taxes (12+13-14-15)	0.82	0.89	0.90	0.94	0.83
17. Income tax	0.19	0.20	0.17	0.16	0.16
18. Net income for year (16-17)	0.63	0.69	0.74	0.77	0.67
Average assets (EUR million)	172974.6	195588.8	217496.8	251351.3	268515.5

Note: (a) Six-month figures have been annualised.

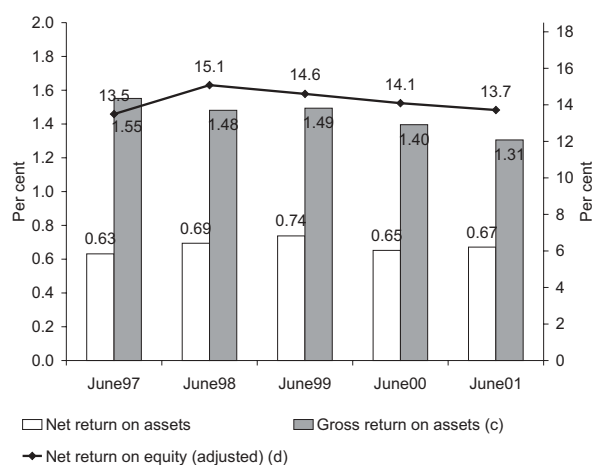
* See footnotes 1 and 2.

contributed to the reduction of the financial margin as a percentage of average assets adjusted for interbank activity. With respect to the changes in the balance sheet structure, the rise in the weight of credit in the assets structure (the assets with the highest average remuneration) was more than offset by the combined effect of the rise in the weight of securities issuance (subordinated and non-subordinated, more costly than other bank liabilities on average) on the structure of liabilities and the rise in the relative weight of interest-bearing liabilities (as compared with interest-bearing assets).

Charts 4.5A and 4.5B show developments in bank interest rate differentials applied to new (monthly) lending and deposit operations.⁽¹³⁾ The differential between lending and deposit rates (total differential) has narrowed since the beginning of the year, standing however above the historical lows recorded from the end of 1999 to early 2000.

(13) These differentials have been derived from Monetary and Financial Statistics data, and hence they consider the interest rates of the new credit operations of the non-financial resident sector (excluding the general government) and the interest rates of the new deposits of the non-monetary resident sector (excluding the general government).

Chart 4.1
RETURN ON ASSETS AND ON EQUITY
On an individual basis

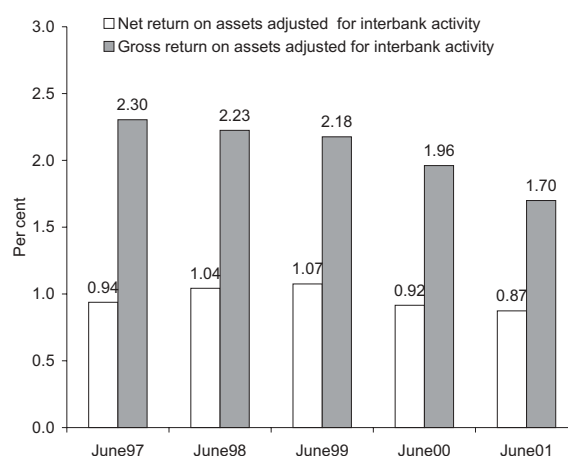


Notes:

- (a) Half-year return figures have been annualised.
- (b) In 2000 some equity selling operations, albeit giving rise to the registration of an extraordinary gain on an individual basis, had no reflection on banks' consolidated results to which they refer. Therefore, these gains have been deducted from the aggregates presented.
- (c) Gross return on assets defined as income before income taxes, provisions, depreciations and extraordinary income, as a percentage of total average assets.
- (d) This indicator differs from the ROE published in the chapter on the banking system in the *Annual Report of the Banco de Portugal* until 1999, due to the fact that participations in credit institutions in the country were deducted from equity capital. This adjustment, although not absolutely accurate, is intended to reduce the over-estimation of equity capital, which results from the aggregation of banks' individual accounts.

The narrowing of the total differential in the past few months chiefly reflected the narrowing of the margin that banks earn from deposit operations. This letter margin can be measured by the differential between money market interest rates and the average deposit rates. It should be noted that the narrowing of the margin of deposits shall be partly temporary, deriving from the fall in money market interest rates in 2001, which traditionally is passed on to bank operations with their customers with a lag of some months. In turn, the differential between the average rates of bank loans and money market interest rates remained relatively stable throughout the first half of the year, at a significantly higher level than the historical lows recorded in mid-2000. The relative stability of differ-

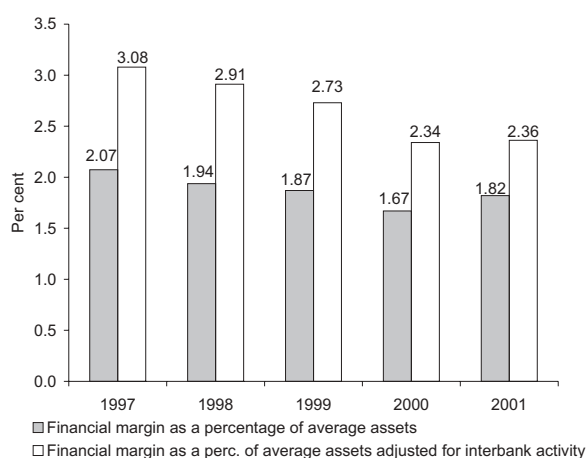
Chart 4.2
RETURN ON ASSETS ADJUSTED FOR
INTERBANK ACTIVITY (a) (b) (c)
On an individual basis



Notes:

- (a) Half-year return figures have been annualised.
- (b) Credits over credit institutions have been deducted from assets.
- (c) In 2000 some equity selling operations, albeit giving rise to the registration of an extraordinary gain on an individual basis, had no reflection on banks' consolidated results to which they refer. Therefore, these gains have been deducted from the aggregates presented.

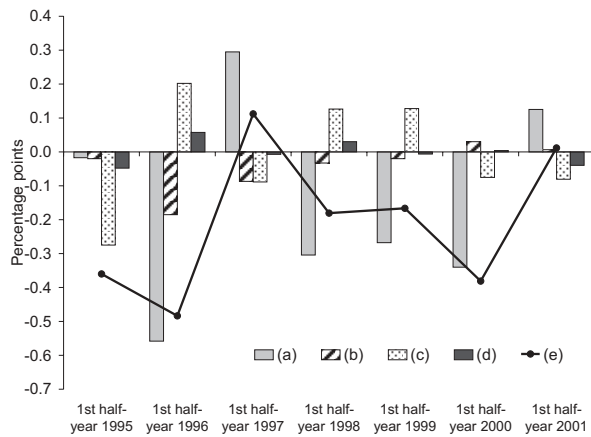
Chart 4.3
FINANCIAL MARGIN AS A PERCENTAGE
OF TOTAL AVERAGE ASSETS AND OF
TOTAL AVERAGE ASSETS ADJUSTED
FOR INTERBANK ACTIVITY



Note:

- (a) Half-year return figures have been annualised.

Chart 4.4
BREAKDOWN OF THE CHANGE IN THE FINANCIAL MARGIN AS A PERCENTAGE OF TOTAL AVERAGE ASSETS ADJUSTED FOR INTERBANK ACTIVITY
 On an individual basis



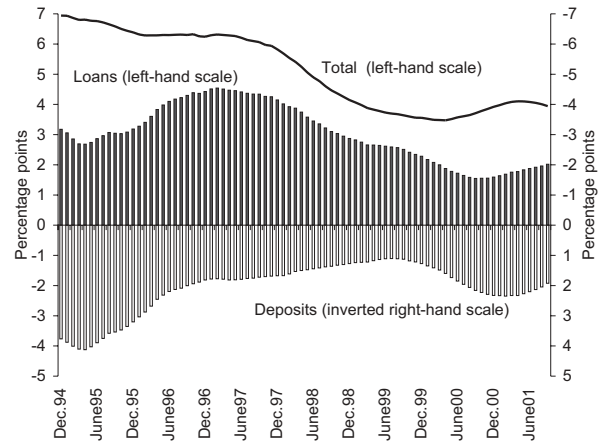
Notes:

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

entials between lending rates and money market interest rates was observed in both the segment of credit to non-financial corporations and credit to households (Charts 4.6 and 4.7), although at this more disaggregated level differentials showed a higher volatility.

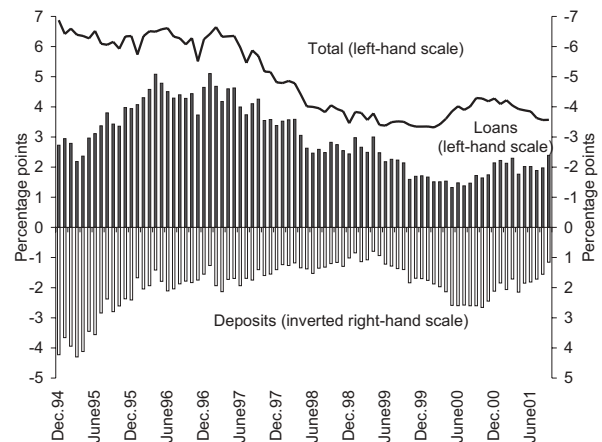
The recovery of the differentials in new lending and deposit operations vis-à-vis the historical lows recorded in mid-2000, was also accompanied by the widening of the differential between implicit average rates of return on credit and the average cost of deposits (calculated as the ratio between interest flows in the profit and loss account and the respective stocks in the balance sheet) from 3.37 p.p. in the first half of 2000 to 3.54 p.p. in the first half of 2001 (Table 4.2 and Chart 4.8). Covering a wider range of operations, the differential concerning total interest-bearing assets and liabilities, computed in the same manner, went up from 1.72 p.p. in June 2000 to 1.87 p.p. at the end of first half of 2001.

Chart 4.5A
DIFFERENTIALS BETWEEN BANK LOANS INTEREST RATES AND MONEY MARKET INTEREST RATES
 12-month averages



Note: Interest rates applied on new monthly operations.
 Last observation: September 2001.

Chart 4.5B
DIFFERENTIALS BETWEEN BANK LOANS INTEREST RATES AND MONEY MARKET INTEREST RATES



Note: Interest rates applied on new monthly operations.
 Last observation: September 2001.

As in the second half of 2000, other current income⁽¹⁴⁾ posted, on an individual basis, a sharp decline in the first half of 2001 (year-on-year rate of change of -18.0 per cent, compared with a 14.2 per cent growth in the corresponding period of 2000), which was due to a 39.6 per cent reduction in in-

(14) Includes income from financial operations, net commissions, income from securities and other operating income.

Chart 4.6

DIFFERENTIALS BETWEEN INTEREST RATES ON LOANS TO NON-FINANCIAL CORPORATIONS AND MONEY MARKET INTEREST RATES

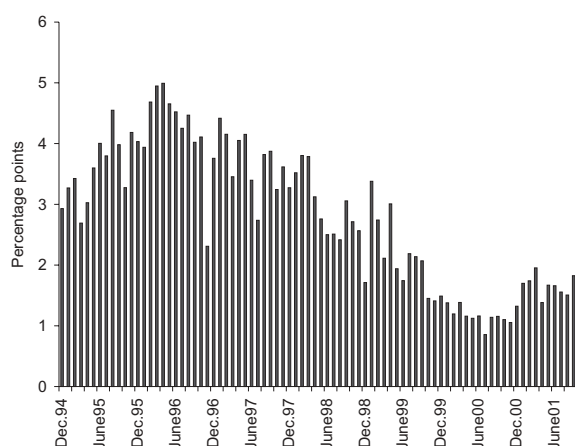
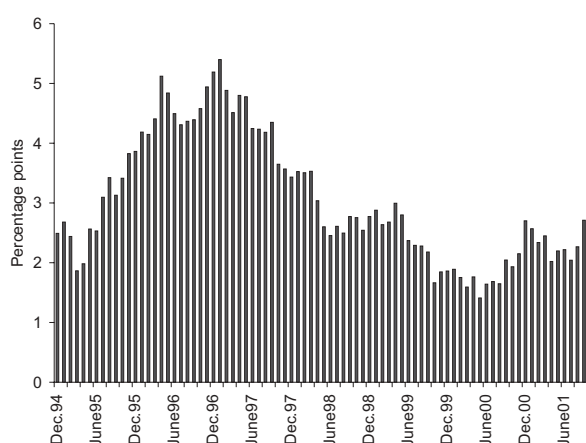


Chart 4.7

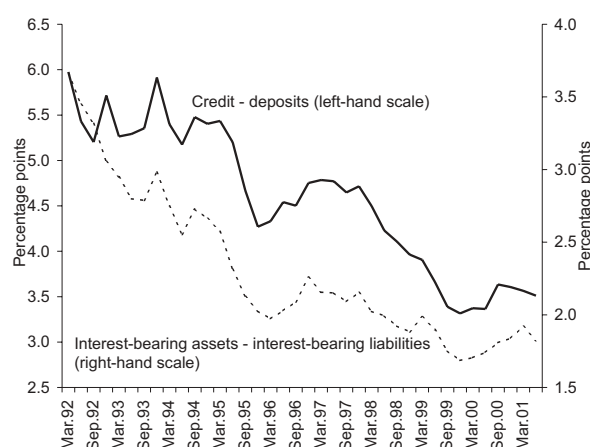
DIFFERENTIALS BETWEEN INTEREST RATES ON LOANS TO HOUSEHOLDS AND MONEY MARKET INTEREST RATES



come from securities, a 1.1 per cent decline in net commissions and a strong fall in profits from financial operations (78.4 per cent in net terms). Thus, on an individual basis, other current income as percentage of average assets declined from 1.11 per cent in June 2000 to 0.86 per cent a year later (taking the assets adjusted for interbank activity, the reduction was from 1.57 to 1.11 per cent). The fall in income from securities relates to a reduction in income associated with financial fixed assets. This was largely due to mergers between banks belonging to the system, occurred in 2000, according to which dividends paid to banks belonging to

Chart 4.8

DIFFERENTIALS BETWEEN AVERAGE IMPLICIT RATES OF RETURNS ON ASSETS AND LIABILITIES' COSTS



Note: Implicit interest rates computed as the ratio between quarterly interest flows and average of quarterly stock of the corresponding balance sheet item.

the same group, booked as income from securities in the first half of 2000, were discontinued in 2001.

In net terms, commissions dropped by 1.1 per cent in the first half of 2001, on an individual basis. This decrease was almost entirely due to the unfavourable performance of international capital markets, in particular, the stock markets. This was also felt in the Portuguese stock market, in terms of prices developments, turnover and of special stock exchange transactions (capital increases, initial public appearances and privatisations). In this context, commissions related to the securities markets (management and issuance fees and commissions from the redemption of investment funds and securities operations on behalf of third parties, which on the whole represented around 20 per cent of total net commissions) declined by 24.2 per cent year-on-year in the first half of 2001, after having more than doubled in 2000. The remaining commissions received from the provision of services, which represented around 40 per cent of total commissions – the most relevant of which are commissions received from the collection and transfer of funds, accounting for nearly 20 per cent of the total – also declined, albeit still recording a significant growth (rate of change of 17.9 and 10.9 per cent in the first half of 2000 and 2001, respectively). In turn, net commissions received from

Table 4.2

**IMPLICIT AVERAGE RATES OF RETURN
OF THE MAIN BALANCE SHEET ITEMS^(a)**

	1996	1997	1998	1999	2000	2001
	1st half-year	1st half-year	1st half-year	1st half-year	1st half-year	1st half-year
Interbank assets ^(b)	6.01	5.25	4.30	3.43	3.61	4.48
Non-interbank assets	9.78	8.31	7.00	5.62	5.37	6.21
Credit (gross)	10.58	9.17	7.76	6.09	5.65	6.59
Securities (gross)	9.11	7.08	5.70	4.63	4.97	5.45
Other assets	0.91	2.71	2.13	1.17	0.84	1.02
Interest-bearing assets	8.42	7.13	5.99	4.87	4.82	5.76
Interbank liabilities	6.72	5.47	4.65	3.68	3.91	4.78
Non-interbank liabilities	6.28	4.70	3.58	2.47	2.60	3.38
Deposits	6.14	4.40	3.40	2.31	2.28	3.05
Demand deposits	2.53	1.96	1.51	0.91	1.02	1.31
Time deposits	7.48	5.43	4.31	3.07	3.03	4.03
Other	3.18	3.04	2.24	1.86	1.39	1.55
Securities	8.22	8.07	5.33	3.29	4.20	4.50
Subordinated liabilities	8.93	6.87	5.73	4.61	5.29	5.79
Other liabilities	6.87	5.83	3.09	1.76	1.81	1.99
Interest-bearing liabilities	6.42	4.98	3.98	2.93	3.10	3.89
Differentials:						
Interest-bearing assets - liabilities	2.00	2.15	2.01	1.94	1.72	1.87
Non-interbank assets - non-interbank liabilities	3.50	3.62	3.41	3.15	2.77	2.82
Credit - deposits	4.44	4.77	4.36	3.78	3.37	3.54
Interbank assets - interbank liabilities	-0.71	-0.22	-0.35	-0.24	-0.30	-0.30

Notes:

(a) Implicit average rates of return calculated as a ratio between six-month interest flows and the average six-month stock of the corresponding balance sheet item.

(b) Includes: cash, demand deposits with the *Banco de Portugal*, liquid assets held in credit institutions and other credits over institutions.

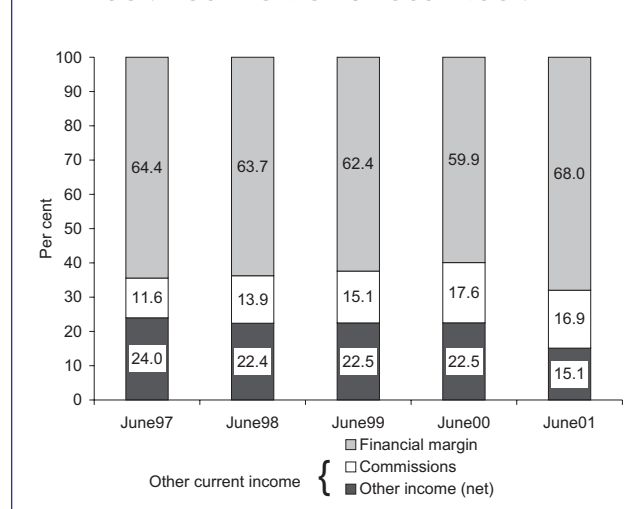
guarantees and commitments vis-à-vis third parties, which represented around 17 per cent of the total, remained broadly unchanged in the first half of 2001 (rate of change of 0.1 per cent), compared with a 29.0 per cent rise in 2000, likely associated with the slowdown in economic activity and the associated reduction in the growth of bank credit.

As a result of the strong fall in other current income, gross income slowed down sharply in the first half of 2001, from a growth of 7.2 per cent in June 2000 to 2.6 per cent a year later. Thus, gross income, of average total assets declined from 2.78 to 2.67 per cent in the period under review, and from 3.91 to 3.48 per cent when average assets are adjusted for interbank activity.

In turn, the share of other current income in the gross income declined by around 8 p.p. (chiefly due to the reduction of the share of other income), representing 32.0 per cent in June 2001, outweighed by an equal increase in the share of the financial margin (Chart 4.9).

Administrative costs increased at a rate of 5.3 per cent in June 2001, i.e. 1 p.p. less than in the same period in 2000. This deceleration was entirely due to the slowdown in staff costs, which expanded by only 0.4 per cent in the first half of 2001, against an expansion of 4.7 per cent in the first half of 2000, and given that other administrative costs have accelerated from 8.8 to 12.7 per cent, in the period under review. However, due to the slowdown in the gross income, the ratio of ad-

Chart 4.9
COMPOSITION OF GROSS INCOME



ministrative costs to gross income (cost-to-income ratio) rose by 1.3 p.p., to 51.1 per cent in June 2001. As a percentage of total average assets, administrative costs reduced from 1.39 to 1.37 per cent (taking as a reference total average assets adjusted for interbank activity, they fell from 1.95 to 1.78 per cent).

Underlying the smaller growth of staff costs was a 0.3 per cent reduction in regular wages (accounting for 48.5 per cent of total staff costs), followed by a 4.2 per cent rise in additional compensation per employee (with a share of 20.9 per cent in total staff costs). The deceleration in staff costs appears to have been related to the fall in the number of employees (7 per cent, reflecting the ongoing internal reorganisation processes of banks), which together with the 7.1 per cent rise in the branches network, gave rise to a further reduction in the number of workers per branch; in June 2001 this indicator stood at 10.7 (12.4 and 11.2 in June and in December 2000, respectively).

In the past few years the evolution of other administrative costs has been largely associated with the internal reorganisation processes of banks, resulting from the mergers and acquisitions, as well as from an effort to modernise the provision of services. Stress should be laid again on the strong pace of expansion, albeit decelerating, of hired specialised services, which represent more than 40 per cent of other administrative costs, and contributed 46.3 per cent to their change. Another important contribution was given by costs with advertis-

ing campaigns, which increased by more than 50 per cent in the first half of 2001 (approximately 30 per cent in the first half of 2000), in a context in which, in the wake of mergers/acquisitions in 2000, banking groups had to promote/reposition their brand names.

5. SOLVENCY

In June 2001, the overall adequacy ratio of own funds,⁽¹⁵⁾ on a consolidated basis, stood at 11.0 per cent, compared with 10.4 per cent in December 2000 and 10.8 per cent in June 2000 (Table 5.1). The same ratio calculated taking only into account base own funds stood at 8.5 per cent in June 2001 (8.3 per cent in June and December 2000).

The own funds requirements, chiefly intended for the coverage of credit risks, decelerated sharply in the first half of 2001 (growth rates of 23.8 and 13.3 per cent, respectively in December 2000 and June 2001), in line with the slowdown recorded by credit in the first half of 2001. The increase in own funds requirements was more than offset by a rise in own funds net of deductions, with a year-on-year rate of change of 15.3 per cent in June 2001 (9.0 per cent in December 2000).

6. CONCLUSION

In the first half of 2001, banking activity was marked by a continued slowdown in credit granted, confirming the trend started in mid-1999. Taking into account the high indebtedness levels reached by the private sector, as well as the unfavourable prospects for economic activity, confirmed by the deterioration of consumer and business confidence, it is expected and desirable that the deceleration trend in credit will persist in the near future. Thus, recent signs of some persistence in the growth of indebtedness of the private sector vis-à-vis the banking system must be of a temporary nature, without jeopardising the process of adjustment of this variable to levels which are more consistent with the growth of nominal income.

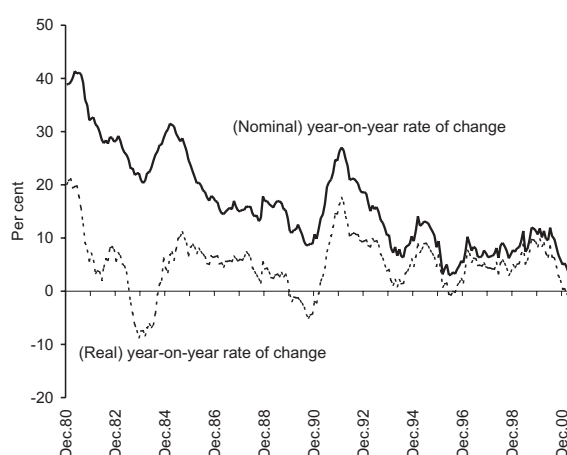
(15) Includes banks having their head office in Madeira off-shore. Excludes subsidiaries of banks having their head office in other European Union countries.

Box 1: RECENT DEVELOPMENTS IN BANK DEPOSITS

According to Monetary and Financial Statistics data, bank deposits of the resident non-monetary sector (excluding general government) slowed down sharply from mid-2000 onwards, having reached in June 2001 the lowest year-on-year nominal rate of change since comparable statistics have become available (January 1980) (Chart 1). In real terms, the year-on-year rate of change was negative between March and August 2001, a situation which over the past 20 years has only occurred in 1983/1984 and in 1990/1991 (and on occasion between June and September 1996). Some evidence that recent developments in bank deposits are in line with developments in economic activity and in nominal and real interest rates is presented below. In addition, mention is made to the role played by competition among banks, through the interest rates on deposits, in the explanation of the different behaviour of this aggregate in the main banking groups with a significant retail activity, although other explanatory factors should not be disregarded, as explained below.

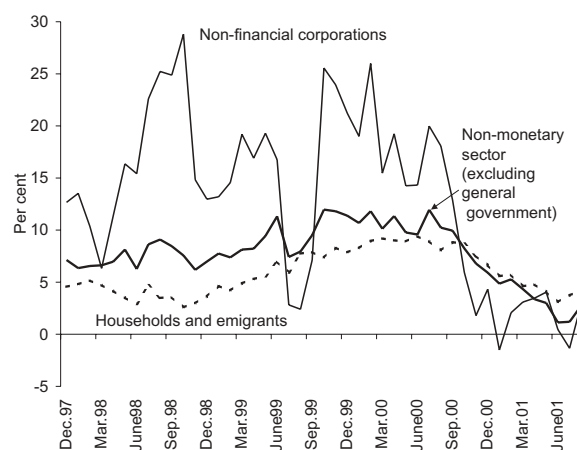
Bank deposits of the non-monetary sector (excluding general government) recorded a sustained slow-down between July 2000 and June 2001. Over this period, the year-on-year rate of change of these deposits fell by 10.9 p.p. from 11.9 to 1.0 per cent. Note however a slight recovery in August 2001, when these deposits increased at a rate of 2.9 per cent year-on-year (Chart 2). This deceleration occurred simultaneously in household (and emigrants) deposits and in non-financial corporations deposits, albeit significantly more marked in the latter sector (between July 2000 and June 2001, the year-on-year rate of change of household and emigrants' deposits fell by 5.8 per cent while the rate of change of non-financial corporations deposits dropped by 19.5 p.p.). Note however that the share of household and emigrants' deposits (76.3 per cent of total deposits in August 2001) is far higher than the share of non-financial corporations deposits and therefore their contribution to the deceleration in deposits seems to have been substantially higher (Chart 3). This deceleration is confirmed by the analysis of data on a consolidated basis, which also include resident deposits abroad, provided that they are open with banks belonging to the perimeter of consolidation of Portuguese banking groups. Considering that the savings rate of households is estimated to rise further in 2001, following developments in 2000 and despite the fact that this is largely due to the need to meet increasing debt service, it should not be excluded the possibility of a certain degree of substitution of deposits by other financial instruments.

Chart 1
DEPOSITS AND DEPOSIT-LIKE INSTRUMENTS OF THE RESIDENT NON-MONETARY SECTOR
Excluding general government
Year-on-year rate of change



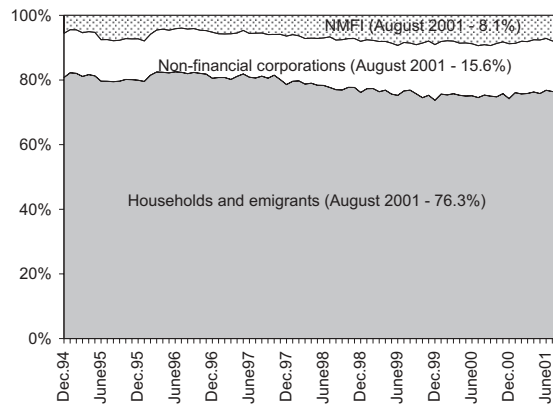
Source: Monetary and Financial Statistics.

Chart 2
DEPOSITS OF THE NON-MONETARY SECTOR
Excluding general government
Year-on-year rate of change



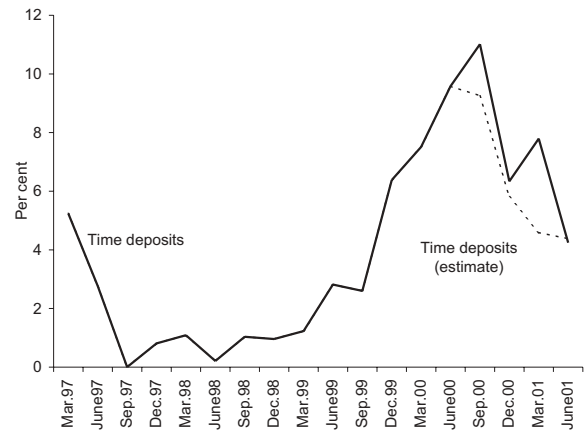
Source: Monetary and Financial Statistics. Latest figure - August 2001.

Chart 3
STRUCTURE OF DEPOSITS OF THE
NON-MONETARY SECTOR
Excluding General Government



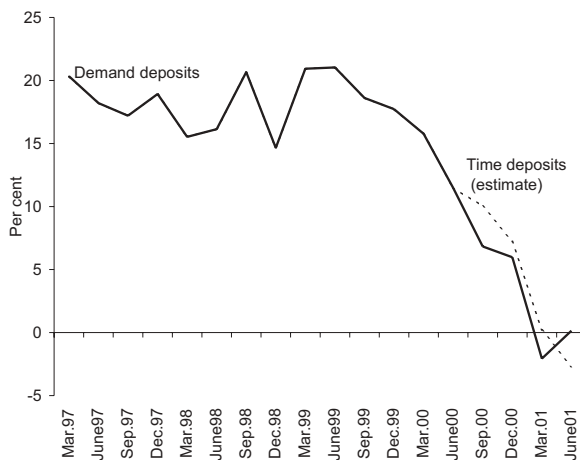
Source: Monetary and Financial Statistics.

Chart 5
TIME DEPOSITS OF THE RESIDENT
NON-FINANCIAL PRIVATE SECTOR
Year-on-year rate of change



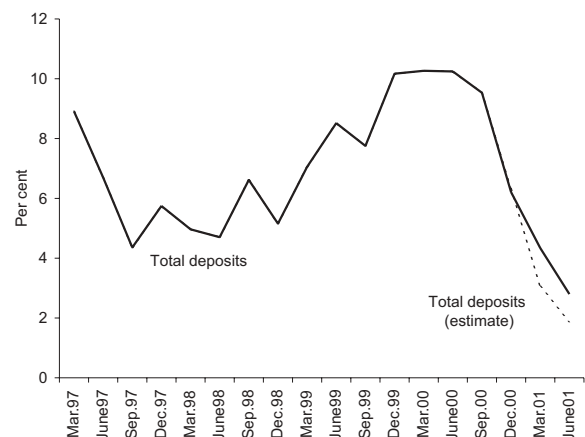
Note: Model estimated with data up to 2000 - Q2.

Chart 4
DEMAND DEPOSITS OF THE RESIDENT
NON-FINANCIAL PRIVATE SECTOR
Year-on-year rate of change



Note: Model estimated with data up to 2000 - Q2.

Chart 6
TOTAL DEPOSITS OF THE NON-FINANCIAL
PRIVATE SECTOR
Year-on-year rate of change



Note: Aggregation of estimates of the models for demand and time deposits, estimated with data up to 2000 - Q2

This box focuses on whether recent developments in bank deposits are in line with expectations, in a context of ongoing deceleration in economic activity, real interest rates at historically low levels and sizeable rise in inflation. Equations on demand deposits and time deposits of the non-financial private sector⁽¹⁾ have been estimated separately, so that some conclusions can be drawn. For this purpose, quarterly data on output, nominal interest rates and inflation have been used, with data available until the second quarter of 2000. These equations, when freely projected with data available until the second quarter of 2001 forecast a deceleration in line with the actual developments (actually, the deceleration forecast is even stronger than what has been observed – Charts 4, 5 and 6).

(1) The non-financial private sector includes households (including emigrants) and non-financial corporations.

Chart 7

COMPETITIVE POSITION AND CHANGE IN THE MARKET SHARE OF TIME DEPOSITS

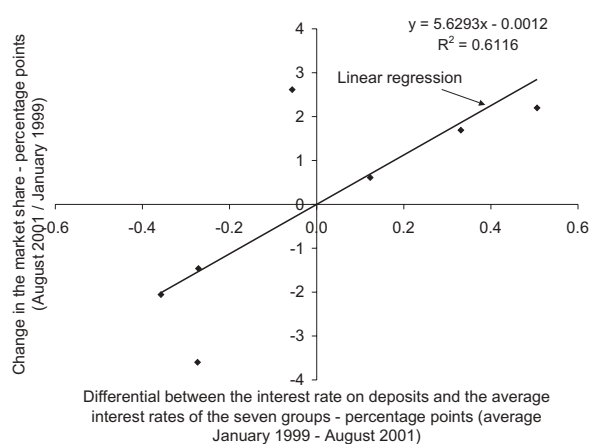
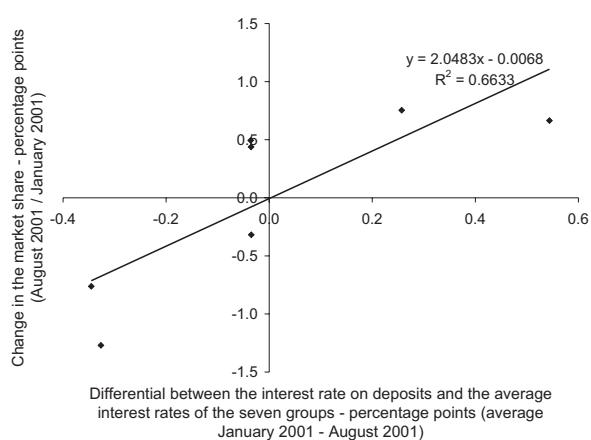


Chart 8

COMPETITIVE POSITION AND CHANGE IN THE MARKET SHARE OF TIME DEPOSITS



The slowdown in bank deposits from the second half of 2000 onwards was chiefly observed in the main banking groups (among the six largest banking groups, only one did not record a slowdown in this period); overall, the deceleration was not apparent in small retail banks. One of the reasons behind the different performance of deposits in the various banking groups can be the different interest rates applied by institutions. In a context in which economic barriers for a customer to switch bank are not too high,⁽²⁾ differences between the deposit interest rates should give rise to an increase in the institutions' market shares (those offering the higher rates increase their market share and those offering comparatively lower rates see a decline in the respective market share). Note that in addition to the differences in interest rates, other characteristics of the products, such as commission levels, product quality, advice on capital market investments or structural changes (for instance, the impact resulting from mergers and acquisitions⁽³⁾) can strengthen the price effect.

To illustrate the previous argument, a measure was built of the relative position of the interest rate on deposits of each of the six largest banking groups and of an aggregate of eight small-sized banks, which albeit not belonging to a banking group, have a significant presence in the retail market through a branch network.⁽⁴⁾ For each maturity and group the differential between the average interest rates applied in this maturity and group and the simple average of the interest rates of the seven groups has been calculated. Afterwards, for each banking group, the differentials of the rates of the different maturities have been aggregated, weighted by the structure of the gross flows of the group's deposits and maturities. For this measure, an average has been calculated for the period from January 1999 to August 2001 and for the most recent period from January 2001 to August 2001. These average

(2) These barriers (switching costs) might be apparent by the fact that within banking markets, competition often occurs against a multi-product background, in which customers choose (or are contractually obliged, for the purpose of obtaining better conditions in a specific segment) a basket of products (such as credit card, bank overdraft, housing credit). Under these conditions, the consumer can disregard the specific price conditions of one of the products, if taken individually. Alternatively, there may be explicit restrictions to the transfer of funds to other institutions through the setting of prohibitive prices or rather adverse non-price conditions (such as too lengthy interbank transfers).

(3) After a merger, some customers holding an account with both institutions may wish to maintain more than one independent bank relationship, being prone to transferring part of the funds to other banks.

(4) This set of eight small-sized banks has been aggregated for comparison purposes with the six largest banking groups and is treated as only one homogeneous banking group. This option resulted from the fact that developments in deposits and in interest rates are similar in each of the eight banks taken into consideration; therefore they can be considered equivalent in terms of the strategies adopted in the deposit market.

figures have been compared with the change in the market share of each group in time deposits of the non-monetary sector (excluding general government)⁽⁵⁾ (Charts 7 and 8).

The observation of Charts 7 and 8 points to the existence of a positive relation between the change in the market share of each banking group and the average differential of interest rates vis-à-vis the average interest rate of the seven groups taken together. Persistently positive differentials in relation to the average interest rate, i.e. comparatively more attractive remuneration rates of deposits, corresponded in both periods to gains in the market share of the respective banking groups, suggesting that competition in the setting of interest rates can be accountable for a large share of the differences in the behaviour of bank deposits in the main retail banking groups. However, other factors should not be disregarded as referred to above.

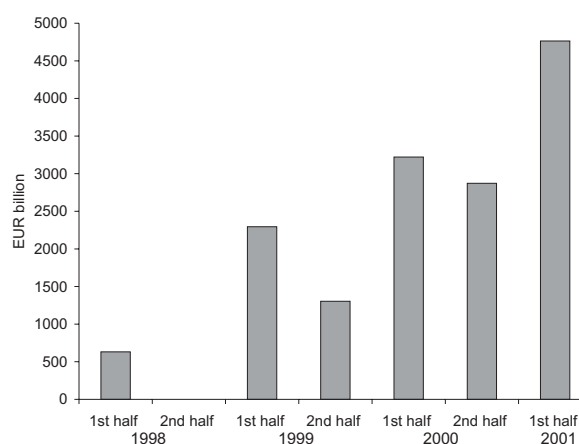
(5) Market share calculated taking as a reference the aggregate of the seven groups referred to above and Monetary and Financial Statistics. Both measures (differential and market share) have been calculated for the whole period taking as a reference the current structure of each group, i.e. when there were acquisitions in the sample period, acquired institutions have been considered as belonging to the acquiring groups even in the pre-acquisition period.

Box 2 : FINANCING OF PORTUGUESE BANKING GROUPS THROUGH BOND ISSUANCE BY SUBSIDIARIES HAVING THEIR HEAD OFFICE ABROAD

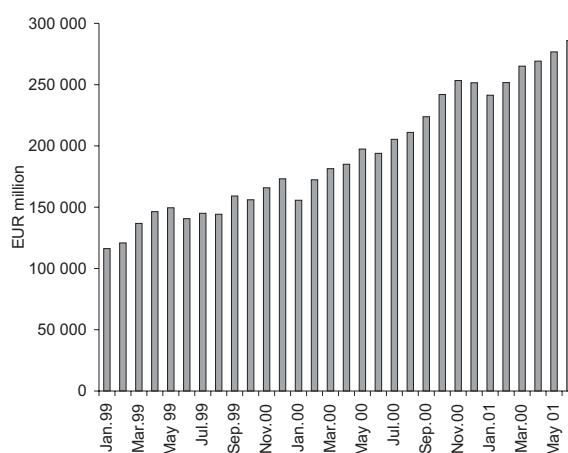
The strong growth in bank credit in the second half of the 1990s gave rise to financing requirements on the part of banks which could not be met by resources from customers. In this context, Portuguese banks resorted intensively both to reductions in their portfolio of Portuguese government debt securities in order to raise funds and to borrowing from money and bond markets. Until 1998, banks borrowed chiefly from money markets, typically with short maturities, and almost exclusively in currencies which would become denominations of the euro. Bond issuance in international markets was almost negligible. As from 1999, the issuance of debt securities in international markets started to account for a growing share of the financing needs of the Portuguese banking groups (Chart 1).⁽¹⁾ Indeed, according to data collected from two databases (“Capital Data Bondware” and “Bloomberg”), in the first half of 2001, international bond issuance by subsidiaries of Portuguese banking groups having their head office abroad totalled EUR 4,764.3 million, which compares with EUR 2,872.1 million in the second half of 2000 and EUR 3,220.8 million in the first half of the same year.

It should be noted that the buoyancy in this market is not only related to growing financing needs of the Portuguese banking groups, but also with a recent growth in the medium and long-term bond and debt securities markets in the euro area and in other international markets. The creation of the Monetary Union in the beginning of 1999 gave rise to particularly favourable conditions to the development of these markets, due mainly to the decline in transaction costs and exchange rate risks, boosting the growth in the issuance of debt securities mainly by (financial and non-financial) corporations. At the same time, the background of low interest rates and the depreciation of the euro is also likely to have positively contributed to the development of these markets. The “Euro Medium Term Notes” (EMTN) market emerged and evolved in this context. In this market, issuance is carried out through permanent financing programmes targeted at international investors, enabling the continuous issuance of securities and in

**Chart 1
INTERNATIONAL BOND ISSUANCE BY PORTUGUESE BANKS THROUGH SUBSIDIARIES HAVING THEIR HEAD OFFICE ABROAD**



**Chart 2
AMOUNT OUTSTANDING OF EURO MEDIUM-TERM NOTES ISSUED^(a)**



Source: Euroclear.

Note:

(a) Includes resident and non-resident issuers in the euro area and issuance in all currencies.

(1) International bond issuance is carried out mainly by subsidiaries of Portuguese banking groups having their head office abroad. These subsidiaries are not comprised in the universe considered when data are taken on an individual basis, but are included whenever consolidate accounts are used.

low-amount tranches. Bonds issued within the scope of these programmes may show differentiated features regarding their maturity or coupons, allowing them to be better tailored to the specific preferences of each investor. In these markets it is therefore possible to obtain medium and long-term financing in a flexible way and with lower average financing costs. The volume of EMTN issuance has been growing rapidly (Chart 2), having increased 32.6 per cent in June 2001 year-on-year (which compares with a year-on-year rate of change of 29.3 per cent in December 2000 and 26.1 per cent in June 2000). Portuguese banking groups have frequently resorted to this market and around 80 per cent of the bond issuance carried out through subsidiaries having their head office abroad in 2000 and in the first half of 2001 corresponded to EMTN programmes (which compares with around 65 per cent of the issuance volume in 1999).

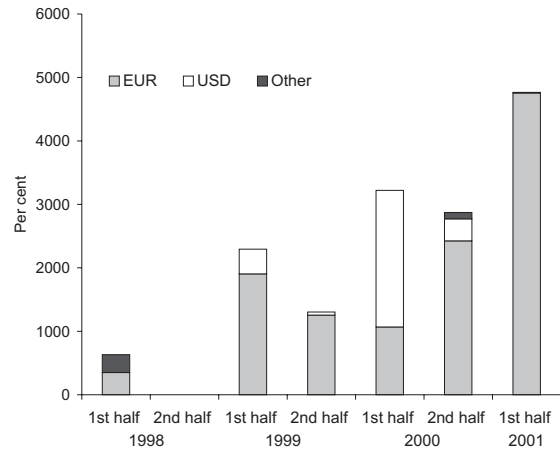
It should be mentioned that the bulk (more than three quarters) of bond issuance by subsidiaries of Portuguese banks is denominated in euro (Chart 3). Therefore, total issuance does not account for a significant increase in the exchange rate risk for the banking system taken as a whole.

Traditionally, Portuguese banks issued mostly floating rate notes (Chart 4). However, in the first half of 2001, this segment reduced its share, as the volume of fixed rate issuance increased. It should be noted that a persistent growth in the relative importance of this type of bonds would represent an approximation to the structure observed in the aggregate of monetary financial institutions in the euro area, which conduct mostly fixed rate issuance.⁽²⁾

It should also be stressed that an important share of international bond issuance by the Portuguese banking groups includes subordination clauses (14.9 per cent of the amount issued in 2000 and 29.9 per cent in the first half of 2001). Thus, these securities can be recorded as complementary own funds for the coverage of own funds requirements. Subordinated issuance tends to involve, on average, somewhat higher amounts in each operation, compared with non-subordinated issues.

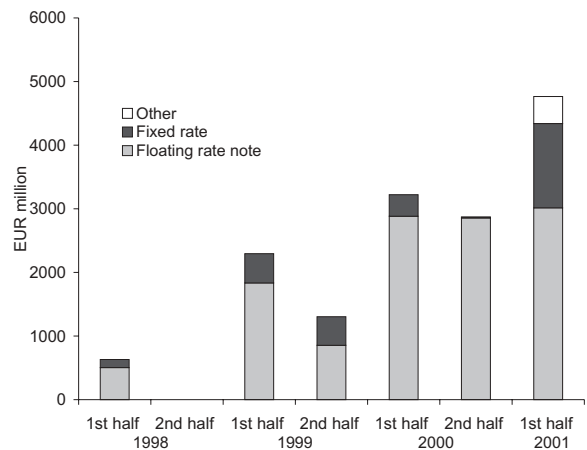
Bond issuance in international markets by subsidiaries of Portuguese banking groups is chiefly targeted at obtaining medium and long-term financing from a wider range of investors than in the domestic market. Against this background, bond issuance with a maturity of up to 2 years accounts only for a residual share of total issuance, being virtually inexistent up to the first half of 2000 and having been intensified as from the second half of

Chart 3
INTERNATIONAL BOND ISSUANCE BY PORTUGUESE BANKS THROUGH SUBSIDIARIES HAVING THEIR HEAD OFFICE ABROAD, BY ISSUING CURRENCY



Source: Capital Data Bondware and Bloomberg.

Chart 4
INTERNATIONAL BOND ISSUANCE BY PORTUGUESE BANKS THROUGH SUBSIDIARIES HAVING THEIR HEAD OFFICE ABROAD, BY TYPE



Source: Capital Data Bondware and Bloomberg.

(2) See box entitled "Securities issued by MFIs and other financial corporations" in "The Euro Bond Market", European Central Bank, July 2001.

the same year. The bulk of securities issued is concentrated in the maturities from 3 to 5 years (more than two thirds of the total issuance volume carried out by subsidiaries since 1998) and over 6 years (around one fourth of the issues), the latter having increased their relative weight in the first half of 2001. Considering total borrowing from the international bond market by Portuguese banking groups through subsidiaries having their head office abroad since 1998, it can be seen that most securities will mature between 2003 and 2005 (45.5 per cent) or from 2006 onwards (39.7 per cent).

The recent growth in medium and long-term securities issuance in international markets has direct implications in the financing structure of the Portuguese banking groups, since the growth of this type of financing has been matched by a reduction in the net recourse to money markets, in which financing is typically at the short term. Thus, there has been a widening of the average maturity of the banks' liabilities and increased diversification of the financing sources. This should lead to improvements in the liquidity of the banking system and to more stable liabilities, without a significant increase in the exchange rate risk associated, as issues are mainly denominated in euro.

MAIN DEVELOPMENTS IN THE PORTUGUESE FOREIGN EXCHANGE AND DERIVATIVES MARKETS IN 2000⁽¹⁾

1. INTRODUCTION

In 2000, similarly to the past years, two half-yearly surveys of foreign exchange and derivatives market activity were carried out. Developments in these markets and the need to monitor them at the domestic level, led to a more comprehensive collection of data by the Banco de Portugal surveys. The new model followed closely the format proposed by the Bank for International Settlements (BIS) in the international triennial surveys.

With respect to turnover data, the survey continued to cover spot transactions and foreign exchange and interest rate derivatives traded over-the-counter (OTC), or exchange-traded. With a view to better characterising the functioning of these markets, data started also to be collected on the way how transactions are conducted: by automated dealing, through the conventional brokers' system or by electronic broking.

As to the notional amounts and gross market values outstanding, in addition to foreign exchange and interest rate derivatives, data started to be collected on equity, commodity and credit derivatives.

Overall, 2000 was featured by some slowdown in derivatives market activity, against a background of some uncertainty and risk aversion, which have been induced by some instability in several emerging markets.

Likewise, mergers and acquisitions between the main financial institutions of the Portuguese market, by eliminating operations between these entities, led to a reduction in both turnover and

amounts outstanding, mirrored by a decrease in the share of the interbank market.

It should also be noted that foreign exchange developments in the course of 2000 appear to have magnified the contractions observed. The broadly based depreciation of the currencies vis-à-vis the US dollar brought about by itself a reduction in dollar-denominated amounts.⁽²⁾

Analysing total data collected, the following main developments should be highlighted:

- strong reduction in both foreign exchange and interest rate derivatives turnover;
- significant reduction in interest rate derivatives outstanding in parallel with a relative stabilisation of the amounts outstanding of foreign exchange derivatives;
- continued predominance of the euro, in terms of both turnover and amounts outstanding, considerably more marked in the interest rate derivatives segment;
- maintenance of the role of non-resident financial institutions as the main counterparties;
- maintenance of a considerable asymmetry in the distribution of the amounts traded, both in currency and interest rate derivatives, and in spot transactions, with a high concentration in the lowest values;
- average value of transactions continued to be clearly lower in spot transactions than in the derivatives segment and within the latter, amounts were lower in foreign exchange transactions than in interest rate derivatives;

(1) The preliminary results of the triennial survey (see Box "Foreign exchange and derivatives market activity co-ordinated by the BIS in 2000 are also presented").

(2) See sections 2.1 and 2.2.

- residual weight of amounts outstanding of equity, commodity and credit derivatives, with only a reduced number of participants in the survey reporting activity in these segments;
- reduction in organised markets turnover – exclusively in foreign stock exchanges, in a context in which the 3-month LISBOR and the 10-year Treasury bonds futures contracts of the Lisbon and Oporto Stock Exchange were definitively discontinued – with transactions continuing to be confined to interest rate futures;
- increase in the degree of concentration of trading volumes, in terms of the market shares of reporting institutions, in particular in the interest rate derivatives market.

2. OTC MARKET

2.1. Turnover⁽³⁾

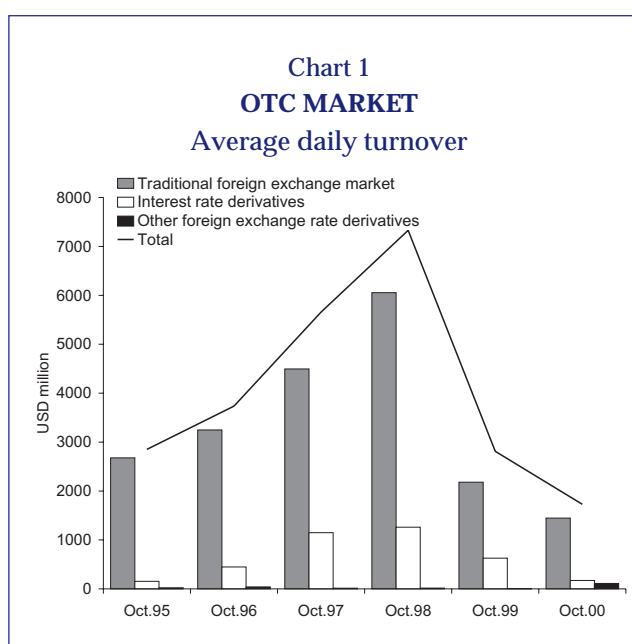
The average daily turnover of transactions in the OTC market fell by approximately 38%⁽⁴⁾ between October 1999 and October 2000, after having dropped by more than 60% in the previous year, in the wake of the creation of the euro.

The reduction of the US dollar-denominated turnover, adjusted for exchange rate movements was smaller (-31%), due to the broadly based appreciation of the US currency in the course of 2000.

In the interest rate derivatives market, turnover declined (-73%⁽⁵⁾) more markedly than in the traditional foreign exchange market⁽⁶⁾ (-34%⁽⁷⁾), conversely to 1999. As a result, traditional foreign exchange operations strengthened their dominant position in the global turnover of the OTC market.

Transactions of other foreign exchange derivatives (currency swaps and options) have been reported by a very limited number of institutions. As a result, some of the erratic movements that occurred have no true statistical significance. Although data from the April 2001 survey don't confirm the trend, the October figure shows a significant growth in the transactions of these instruments, which increased approximately twenty fold, and acquired, for the first time, significance in total turnover (Chart 1).

In the **traditional foreign exchange market**, the average daily turnover dropped to USD 1,446 mil-



lion, i.e. virtually half the amount recorded in October 1995. There were reductions in the turnover of all instruments. The drop was more sizeable in foreign exchange swaps, which seem to have continued to lose their traditional importance as a “funding” instrument, in favour of the direct recourse to the money market. It should be noted that the impact of this change, associated with the elimination of the need of cross operations through the dollar in transactions between euro legacy currencies, has been reflected in a drop in the volume of foreign exchange swaps by approximately 85% since October 1998, when the last pre-euro survey was conducted (Table 2).

The less marked drop in the turnover of spot transactions was further reflected in the strengthening of their position as the most actively traded instrument, starting to represent nearly 60% of the total. The share of outright forwards stood at 9% (Chart 2).

With respect to the **type of counterparty** involved in the transactions, the most significant

(3) Data on transactions will always be referred to in terms of average daily turnover, adjusted for double-counting resulting from transactions carried out in the domestic interbank market.

(4) Unless otherwise provided for, percentages refer to October 2000 and intertemporal comparisons to the period between October 1999 and October 2000.

(5) At constant exchange rates, the change was of -66%.

(6) The traditional foreign exchange market comprises spot transactions, outright forwards and foreign exchange swaps.

(7) At constant exchange rates, the change was of -27%.

Table 1
OTC MARKET
AVERAGE DAILY TURNOVER

USD million and as a percentage of the total

	Total	Traditional foreign exchange market	%	Other foreign exchange rate derivatives	%	Interest rate derivatives	%
1995							
Apr.	2457	2382	97	14	1	61	2
Oct.	2851	2677	94	21	1	153	5
1996							
Apr.	3028	2715	89	22	1	291	10
Oct.	3736	3249	87	39	1	448	12
1997							
Apr.	5006	3484	70	21	0	1501	30
Oct.	5657	4495	80	13	0	1149	20
1998							
Apr.	5434	4398	81	38	1	998	18
Oct.	7330	6054	83	16	0	1260	17
1999							
Apr.	2635	2099	80	3	0	533	20
Oct.	2812	2180	78	5	0	627	22
2000							
Apr.	2418	1978	82	59	2	381	16
Oct.	1728	1446	84	110	6	172	10
Change(%):							
Oct.98/Oct.99	-61.6	-64.0		-68.8		-50.2	
Oct.99/Oct.00	-38.5	-33.7		2100.0		-72.6	

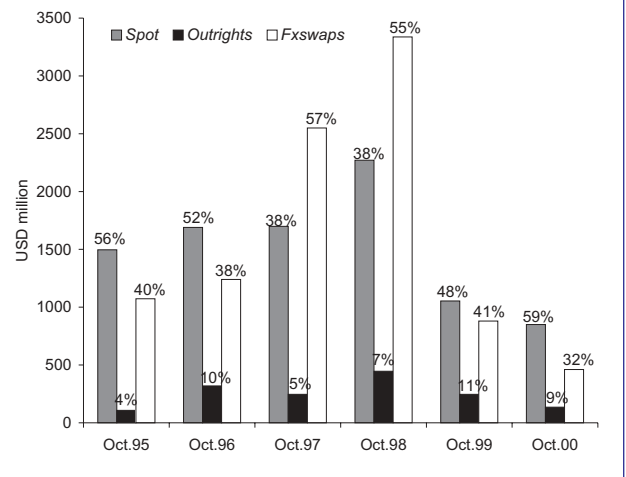
Table 2

PORTUGUESE TRADITIONAL FOREIGN
EXCHANGE MARKET
Average daily turnover

USD million

	Spot	Outright forwards	Fx. swaps
1995			
Apr.	1379	126	877
Oct.	1496	108	1073
1996			
Apr.	1465	184	1066
Oct.	1690	319	1240
1997			
Apr.	1957	223	1304
Oct.	1699	246	2550
1998			
Apr.	1834	337	2227
Oct.	2271	446	3337
1999			
Apr.	1151	255	693
Oct.	1054	246	880
2000			
Apr.	925	185	868
Oct.	850	135	461
Change(%):			
Oct.98/Oct.99	-53.6	-44.8	-73.6
Oct.99/Oct.00	-19.4	-45.1	-47.6

Chart 2
TRADITIONAL FOREIGN EXCHANGE MARKET
Breakdown by instrument



change was the very strong reduction in transactions with resident financial institutions, which basically cover the so-called interbank market. This movement was reflected in a significant loss in the share of this type of counterparty, to less than 5%

Table 3

TRADITIONAL FOREIGN EXCHANGE MARKET
Breakdown by counterparty

As a percentage of the total

	1998	1999	2000
	Oct.	Oct.	Oct.
Financial institutions	85	85	78
Resident.	13	10	4
Non-resident.	72	75	74
Non-financial customers	15	15	22
Resident.	12	14	20
Non-resident.	3	1	2
	100	100	100
Total – Resident.	25	24	24
Total – Non-resident.	75	76	76

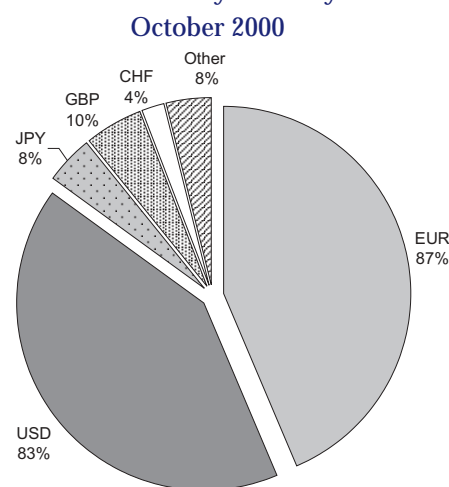
of total turnover. It should be noted that the increasing loss of importance recorded by the domestic interbank market since the creation of the euro, occurred in a context in which domestic credit institutions started to have access to a much wider money market than the escudo market. As a result of this reduction, the share of resident non-financial customers in the total increased to 20%, although in terms of turnover has recorded a reduction, like the remaining counterparties (Table 3).

Turning to the *breakdown by currency* there were no relevant movements, with the majority of the currencies having recorded reductions in turnover. As in 1999, the euro continued to be the most important currency, being involved in approximately 87% of the transactions in the traditional foreign exchange market, followed by the US dollar, with 83% (81% in 1999). The pound sterling and the Japanese yen were the third and fourth most important currencies, having only taken part in around 10% and 8% of total transactions (Chart 3).

The analysis by *instrument* shows some specific features of the type of business with which they are associated. Thus, in October 2000, *spot* transactions were chiefly carried out between the euro and the US dollar (60%), with non-resident financial institutions, through electronic broking systems or by direct telephone (Table 4).

It is important to note, furthermore, that with respect to transactions involving other currency pairs, the euro held the dominant position, while

Chart 3
TRADITIONAL FOREIGN EXCHANGE MARKET
Breakdown by currency^(a)



Note:

(a) In foreign exchange market the currency breakdown amounts to 200% of total transactions, since both currency sides of every transaction are counted separately.

the share of the US dollar was negligible (no currency pair accounted for more than 4%). In individual terms, only the total turnover between the euro and the Japanese yen, and the euro and the pound sterling had a share higher than 5%.

Turning to the analysis of the frequency⁽⁸⁾ of spot transactions, it can be seen that, since transactions ranged between amounts close to zero and a maximum amount of around EUR 215 million, there is a significant concentration in the lower values, with around 50% of the transactions being lower than EUR 4 thousand; it should be stressed that central amounts (between the 1st and the 3rd quartile) ranged between EUR 400 and EUR 100 thousand.

Amounts trading in *outright forwards* on average was higher than in spot transactions: the interval between the 1st and the 3rd quartile of the distribution ranged between EUR 60 thousand and EUR 1 million, with the median standing at EUR 235 thousand.

(8) In this type of analysis it was decided to use euro-denominated figures, since the amounts denominated in the new European currency are more relevant for the characterisation of the transactions.

Table 4

**CHARACTERISATION OF THE TYPE OF
BUSINESS BY INSTRUMENT**

October 2000

As a percentage of total turnover by instrument

	Spot	Outright forwards	Fx. swaps
Counterparties	100	100	100
Financial institutions.....	74	44	96
Resident.....	5	2	1
Non-resident.....	69	42	95
Non-financial customers.....	26	56	4
Resident.....	25	56	1
Non-resident.....	1	0	3
Currency pairs	100	100	100
EUR/USD.....	61	87	84
EUR/JPY.....	10	3	2
EUR/GBP.....	6	5	0
EUR/Other.....	10	2	0
USD/JPY.....	0	1	3
USD/GBP.....	4	1	5
USD/CHF.....	4	0	2
USD/Other.....	5	1	4
Other pairs.....	0	0	0
Maturities	100	100	100
[Up to 7 days].....	100	80	87
[7 days - 1 month].....	0	4	1
[1 month- 1]year.....	0	15	12
[1 year- 5]years.....	0	1	0
> 5 years.....	0	0	0
Conduction of transactions	100	100	100
Automatic dealing.....	13	3	72
Broker.....	5	1	10
Electronic broker.....	37	0	2
Other (including telephone)..	45	96	16

Turnover in outright forwards was chiefly concentrated in currency pairs involving the euro, with 87% of the turnover being in the EUR/USD pair. Conversely to the other foreign exchange market instruments, in which non-resident financial institutions are the most important counterparties, in outright forwards more than half of the transactions is carried out with resident non-financial customers. Transactions in their majority have a maturity of up to 7 days and are negotiated by telephone.

Foreign exchange swaps are typically transactions between the euro and the US dollar, with a short maturity, transacted in their majority with non-resident financial institutions, through automated dealing systems (which include the Reuters dealing system) traditionally used in this type of transactions between banks.

Table 5

OTC INTEREST RATE DERIVATIVES

Average daily turnover

USD million

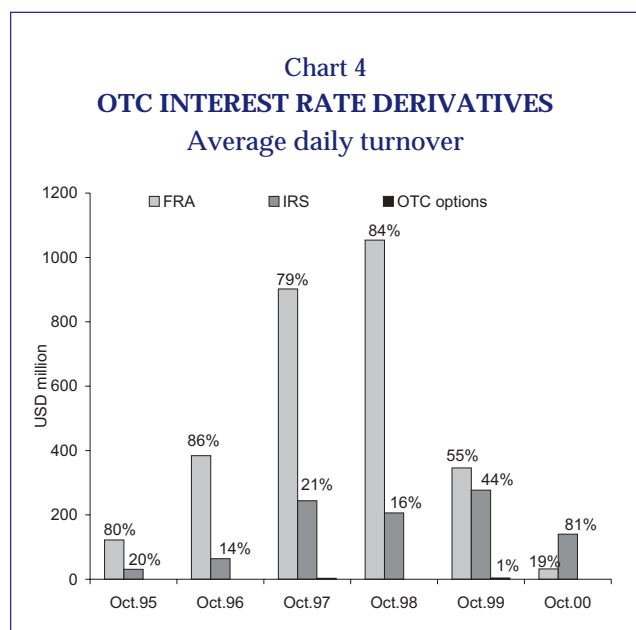
	Total	FRA	IRS	OTC options
1995				
Apr.	61	55	6	0
Oct.	153	122	31	0
1996				
Apr.	291	260	31	0
Oct.	448	384	64	0
1997				
Apr.	1501	1331	170	0
Oct.	1149	902	244	3
1998				
Apr.	998	801	157	40
Oct.	1260	1054	206	0
1999				
Apr.	533	345	186	2
Oct.	627	346	277	4
2000				
Apr.	381	225	156	0
Oct.	172	32	140	0
Change (%):				
Oct.98/Oct.99 .	-50.2	-67.2	34.5	
Oct.99/Oct.00 .	-72.6	-90.8	-49.5	

Foreign exchange swaps are significantly concentrated in the lowest values, but, on average, they reach clearly higher values than the remaining traditional market instruments. The median of this distribution stands at EUR 2 million, and the interval between the 1st and the 3rd quartile ranged between EUR 275 thousand and EUR 15 million.

In the **OTC interest rate derivatives market**, the average daily turnover recorded a further sharp fall (-73%), standing at USD 172 million in October 2000 (Table 5).

The instruments traded continued to be confined to forward rate agreements (FRAs) and to interest rate swaps (IRS), having both recorded sharp reductions in terms of turnover. IRS reversed the upward trend recorded in 1999, associated with the increase in EONIA transactions, and recorded a reduction of approximately 50%.

The decline in FRAs was much stronger (-91%), while the downward trend already recorded in 1999 became more marked; this trend had been associated to the elimination of arbitrage between the interest rates of the euro legacy currencies



(since the creation of the euro, FRA transactions have already declined by 97%). As a result of this reduction, the share of FRAs dropped to less than 20% (compared with more than 80% before 1999), while IRS started to be the most actively traded instrument (with 81%) (Chart 4).

Having a structure quite similar to that observed in 1999, around 80% of the interest rate derivatives was negotiated with non-resident financial institutions and focused on the euro interest rates (Table 6). It should be stressed that with respect to the reference currencies of the contracts, the dispersion of the underlying assets persisted and in October 2000 it was virtually confined to the euro interest rates and (91%) (Chart 5).

In a more detailed analysis by type of instrument, it is possible to identify some specific features associated with FRA and IRS transactions (Table 7).

Turning to **FRAs**, it should be noted that in the domestic market they were only transacted with non-financial counterparties; and apart from the euro, the pound sterling was the only currency used in the contracts; and 91% of the total trading volume was made through conventional broking systems.

After having been more actively traded between 7-day and 1-month in October 1999, FRAs started to be more actively traded in the maturity from 1 month up to 1 year in October 2000. In the analysis of FRAs it is however necessary to take into account that as these contracts are currently

Table 6

OTC INTEREST RATE DERIVATIVES
Breakdown by counterparty

As a percentage of the total

	1998	1999	2000
	Oct.	Oct.	Oct.
Financial institutions	98	87	95
Resident	44	4	5
Non-resident	54	83	90
Non-financial customers	2	13	5
Resident	0	6	5
Non-resident	2	7	0
	100	100	100
Total - Resident	44	10	10
Total - Non-resident	56	90	90

traded by a limited number of banks, the conclusions to be drawn in terms of structure may be biased due to the emergence of some market niches of a transitory nature. Likewise, the reduced number of observations advises against the analysis of the breakdown of the frequency of transactions in this instrument.

The share of financial counterparties in **IRS** was higher than in **FRAs**, the domestic interbank market accounting for 6% of the turnover. The US dollar was the only currency to have a somewhat significant share in negotiated contracts, in addition to those on euro interest rates.

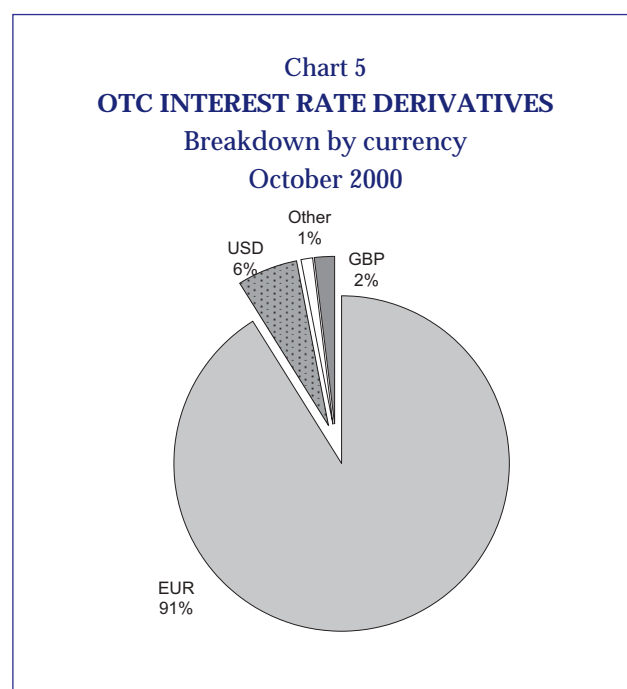


Table 7
**CHARACTERISATION OF THE TYPE
 OF BUSINESS BY INSTRUMENT**
 October 2000

As a percentage of total turnover by instrument

	FRA	IRS
Counterparties	100	100
Financial institutions	87	96
Resident	0	6
Non-resident	87	90
Non-financial customers	13	4
Resident	13	4
Non-resident	0	0
Currency	100	100
EUR	88	91
USD	0	8
JPY	0	0
GBP	12	0
CHF	0	0
Other	0	1
Maturity	100	100
[Up to 7 days]	34	49
]7 days - 1 month]	0	0
]1 month - 1 year]	66	39
]1 year - 5 years]	0	7
> 5 years	0	5
Conduction of transactions	100	100
Automatic dealing	0	69
Broker	91	11
Electronic broker	0	0
Other (including telephone)	9	20

The maturity of contracts decreased substantially, with 88% of the turnover being negotiated at maturities of up to 1 year. With these developments, which represented a shift from their traditional higher utilisation in longer maturities, the structure of the breakdown by maturity of FRA and IRS became more similar. In contrast to FRA transactions, swaps were chiefly conducted by automated dealing systems of the Reuters type (as was the case of foreign exchange swaps).

Turning to the analysis of the distribution of the frequency of IRS operations, it can be seen that similarly to the traditional foreign exchange market instruments, there is a concentration in the lowest values. However, on average, the amounts traded are clearly higher than those of foreign exchange swaps: the median of this distribution stands at EUR 10 million, with the interval be-

tween the 1st and the 3rd quartile of the distribution standing between approximately EUR 3 million and EUR 20 million.

2.2. Amounts outstanding

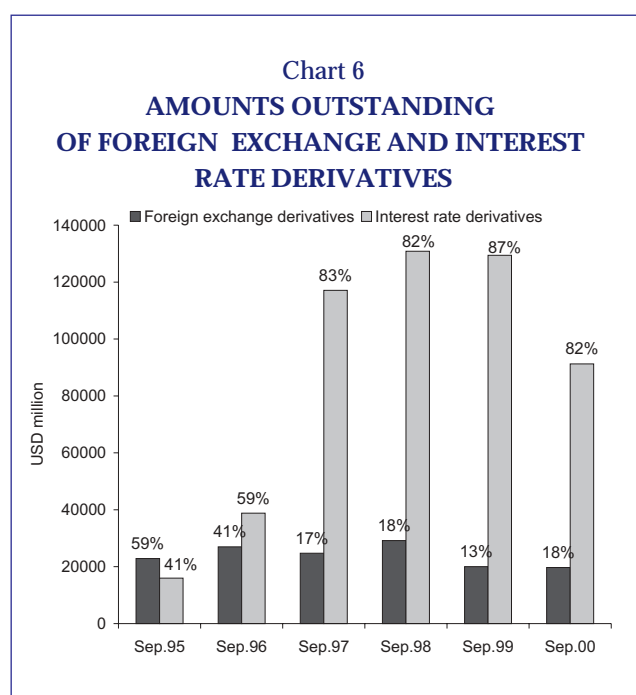
According to the results of the semi-annual surveys of the Banco de Portugal conducted in 2000, the notional amounts outstanding of OTC derivatives declined sizeably compared to the previous year. This was chiefly due to a significant reduction in the amounts outstanding of interest rate derivatives (approximately -30%); amounts outstanding of foreign exchange derivatives remained broadly unchanged (-1.6%).

Adjusted for exchange rate movements resulting from the broadly based appreciation of the US dollar in the course of 2000, the decrease in interest rate derivatives outstanding was considerably smaller (approximately -18%), while foreign exchange derivatives recorded an increase of 6.5%.

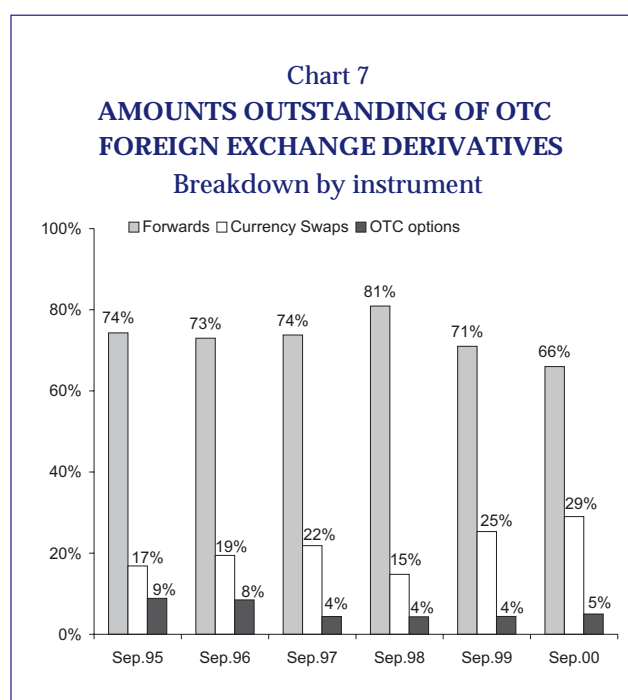
The amounts outstanding of equity, commodity and credit derivatives reported for the first time in the 2000 semi-annual surveys, show a residual weight (around 1% of the total amount outstanding), and only a reduced number of participants in the survey has reported activity in these segments. This may reflect either the non-existence of regular activity in these instruments by the reporting institutions, or that the booking of these positions was delocalised abroad (namely to London, where the majority of the most active institutions have their branches). Only equity and commodity derivatives segments have recorded some activity, while no activity have been reported in credit derivatives.

Turning to the analysis of the relative share of foreign exchange and interest rate derivatives, it can be seen that, as a result of the strong contraction of the amounts outstanding of interest rate derivatives, the share of these instruments in portfolios recorded some reduction (similarly to transactions), standing at approximately 82% in September 2000. However, and conversely to transactions, in reporting institutions portfolios interest rate derivatives have a clear predominance over currency derivatives (Chart 6).

Foreign exchange derivatives, after a significant reduction in the amounts outstanding in early 1999, have shown a relative stability. (Table 8).



Despite the reduction in the amounts outstanding of forwards, these continued to be the instruments accounting for the largest share in foreign exchange derivatives (66%). However, their reduction, together with the increase in the amounts outstanding of the remaining instruments, gave



rise to the maintenance of the trend – already observed in 1999 – of reduction of the share of forwards, followed by an increase in the share of currency swaps (which reached approximately 30% of the amounts outstanding of foreign exchange derivatives in September 2000).

Options continued to have a reduced share in total amounts outstanding (Chart 7).

With respect to the *breakdown by currency*⁽⁹⁾, there were no remarkable changes, both in absolute terms and in the relative share of each currency. The euro continued to have the dominant position, with 94% (broadly unchanged from 1999), followed by the US dollar with 73% (71% in 1999) and by the Japanese yen and pound sterling (with 15% and 12%, respectively) (Chart 8). It should be noted that the amounts outstanding in pound sterling and Japanese yen, had in their majority, the euro as a counterpart, wherefore around 92% of the amounts outstanding were concentrated in three currency pairs: EUR/USD, EUR/JPY and EUR/GBP.

The analysis of the *breakdown by counterparty* of the data collected, makes it possible to identify some changes, which largely represent a return to the structure recorded in 1998 and that have been

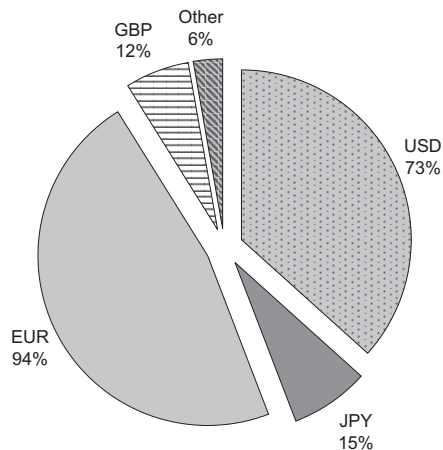
Table 8

AMOUNTS OUTSTANDING OF OTC
FOREIGN EXCHANGE DERIVATIVES

USD million				
	Total	Forwards	Currency Swaps	OTC options
1995				
Mar.	26955	20009	3595	3351
Sep.	22865	16987	3854	2024
1996				
Mar.	25238	19656	3507	2075
Sep.	26977	19445	5247	2285
1997				
Mar.	21910	16645	3430	1835
Sep.	24742	18256	5405	1081
1998				
Mar.	25336	18558	5049	1729
Sep.	29180	23611	4315	1254
1999				
Mar.	19549	14903	3012	1634
Sep.	20029	14073	5073	883
2000				
Mar.	20954	13357	5684	1913
Sep.	19709	12866	5787	1056
Change (%):				
Sep.98 / Sep.99.	-31.4	-40.4	17.6	-29.6
Sep.99 / Sep.00.	-1.6	-8.6	14.1	19.6

(9) In foreign exchange derivatives the currency breakdown amounts to 200% of total transactions, since both currency sides of every transaction are counted separately. When the breakdown is in terms of currency pairs, it sums to 100%.

Chart 8
AMOUNTS OUTSTANDING OF OTC
FOREIGN EXCHANGE DERIVATIVES
Breakdown by currency
September 2000



changed in 1999 (Table 9). On the one hand, there was an increase in the weight of non-resident counterparties, whose share in September 2000 (approximately 72%) returned to levels close to those seen in 1997. This strengthening of the relative position of non-residents reflects the absolute increase in amounts outstanding held by non-resident financial institutions (conversely to transactions), which was followed by a drop in the amounts outstanding of all other counterparties. In parallel, the share of financial counterparties in-

Table 9
AMOUNTS OUTSTANDING OF OTC
FOREIGN EXCHANGE DERIVATIVES
Breakdown by counterparty

As a percentage of the total

	1995	1996	1997	1998	1999	2000
	Sep.	Sep.	Sep.	Sep.	Sep.	Sep.
Financial institutions	75	77	79	71	57	70
Resident	13	11	7	11	7	3
Non-resident	62	66	72	60	50	67
Non-financial customers	25	23	21	29	43	30
Resident	24	19	20	21	32	25
Non-resident	1	4	1	8	11	5
	100	100	100	100	100	100
Total - Resident	37	30	27	32	39	28
Total - Non-resident	63	70	73	68	61	72

Table 10
AMOUNTS OUTSTANDING OF OTC
FOREIGN EXCHANGE DERIVATIVES
Breakdown by instrument

As a percentage of amounts outstanding by instrument

	Forwards	Currency Swaps	OTC options
Counterparties	100	100	100
Non-financial institutions	67	76	74
Resident	4	3	0
Non-resident	63	73	74
Non-financial customers	33	24	26
Resident	25	23	26
Non-resident	8	1	0
Currency pairs	100	100	100
EUR/USD	64	73	88
EUR/JPY	13	15	2
EUR/GBP	12	8	3
EUR/CHF	0	1	0
EUR/Other	3	0	2
GBP/USD	1	0	0
USD/JPY	2	3	0
USD/CHF	1	0	0
USD/Other	3	0	5
Other	1	0	0
Maturity	100	100	100
[Up to 7 days]	11	0	2
[7 days - 1 month]	18	0	15
[1 month - 1 year]	58	12	55
[1 year - 5 years]	7	65	0
> 5 years	6	23	28

creased to 70%, to the detriment of non-financial customers.

The developments described above occurred in a context of increasing integration of the euro market, in which resident financial institutions started to compete more directly with their kindred non-resident counterparties and in which the latter, due to their larger size, are able to offer more favourable conditions.

In a *breakdown by instrument* it can be seen that the bulk of foreign exchange positions is denominated in the EUR/USD pair, their major counterparty being non-resident financial institutions (Table 10). Divergences between the several instruments are only seen in terms of the maturity breakdown.

Outstanding forwards are concentrated in maturities of up to 1 year (in particular from 1 month up to 1 year), while outstanding currency swaps are, in their majority, at maturities over 1 year. In the case of OTC options there is a higher dispersion, with the maturities of up to 1 year holding

Table 11

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

USD million					
	Total	FRA	IRS	OTC options	Other OTC
1995					
Mar.	7552	2707	4845	0	0
Sep.	15968	7591	7947	430	0
1996					
Mar.	28488	17709	10293	486	0
Sep.	38805	24046	14282	477	0
1997					
Mar.	83853	63373	19472	1008	0
Sep.	117103	81229	33809	1664	401
1998					
Mar.	133178	84711	44773	3440	254
Sep.	130838	68420	57405	4821	192
1999					
Mar.	130574	66449	62424	1701	0
Sep.	129402	46470	78945	3511	476
2000					
Mar.	113297	29788	80558	2656	295
Sep.	91268	14904	73330	1787	1247
Change (%):.....					
Sep.98 / Sep.99 ..	-1.1	-32.1	37.5	-27.2	147.9
Sep.99 / Sep.00 ..	-29.5	-67.9	-7.1	-49.1	162.0

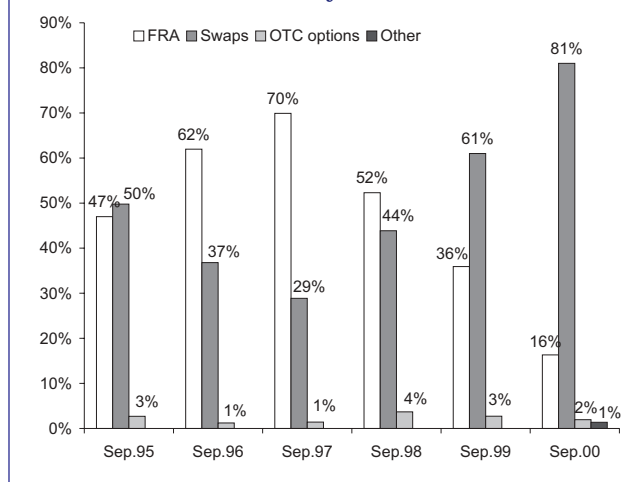
the largest share, although maturities over 5 years also have a considerable share.

In the **OTC interest rate derivatives** segment, following some stability in 1998 and 1999, there was a considerable reduction in the amounts outstanding in 2000, which returned in September 2000 to levels close to those recorded in 1997 (Table 11).

The reduction in this segment resulted largely from the very sharp drop (approximately 68%) in FRAs, although IRS have also declined (but only by 7%). These developments were reflected in a significant change in the relative weight of the different instruments, with a strengthening of the trend seen since 1998, i.e. a gain in the IRS share to the detriment of that of FRAs. IRS thus strengthened their position as the instrument with the largest share in institutions' portfolios, holding 80% of the positions. The remaining interest rate derivatives continue to show a residual weight (Chart 9).

With respect to the **breakdown by currency** and analysing the relative share of the interest rates of each currency, the main change recorded was an increase in the share of the US dollar interest rates (from 7% to 12%), outweighing a slight reduction

Chart 9
AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES
Breakdown by instrument



in the share of the remaining interest rates. However, euro interest rates clearly continued to hold the dominant position with 71% (73% in 1999) (Chart 10).

It should be stressed that regarding FRAs there was a very significant increase in the share of the pound sterling (to approximately 43%), despite the reduction of positions in absolute terms. This increase in the share of the pound sterling occurred to the detriment of the euro share (from 66% to

Chart 10
AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES
Breakdown by currency
September 2000

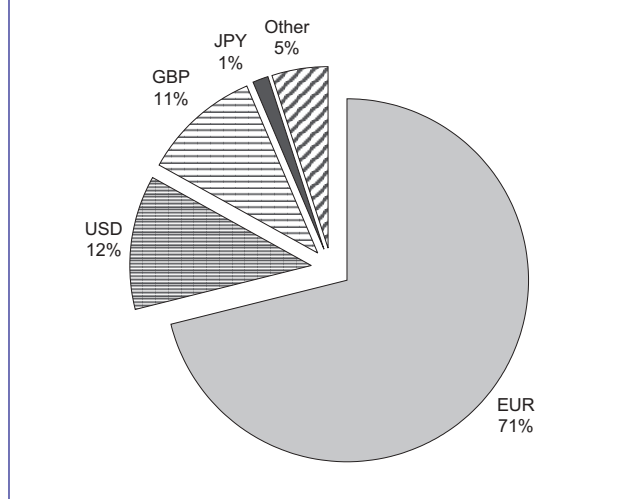


Table 12

**AMOUNTS OUTSTANDING OF OTC
INTEREST RATE DERIVATIVES**
Breakdown by counterparty

As a percentage of the total

	1995	1996	1997	1998	1999	2000
	Sep.	Sep.	Sep.	Sep.	Sep.	Sep.
Financial institutions	91	95	98	90	95	95
Resident	36	38	32	28	13	9
Non-resident	55	57	66	62	82	86
Non-financial customers	9	5	2	10	5	5
Resident	9	5	2	2	3	3
Non-resident	0	0	0	8	2	2
	100	100	100	100	100	100
Total - Resident	45	43	34	30	16	12
Total - Non-resident	55	57	66	70	84	88

45%), wherefore the relative weight of the two interest rates was similar in September 2000.

As to the *structure by counterparty* and similarly to the foreign exchange derivatives segment, it should be noted that there was a slight increase in the predominance of non-resident counterparties, due to the rise in the weight of financial institutions. All types of counterparty have recorded reductions in the amounts outstanding absolute values. However, as financial institutions showed the smallest reduction they continued to be the main counterparty (representing approximately 86%) (Table 12).

The disaggregated analysis by instrument shows some differences between IRS and FRAs (Table 13). Although both instruments are chiefly traded with financial institutions, FRAs are virtually exclusively traded with non-resident institutions; as to IRS, domestic institutions have some weight (albeit reduced). As mentioned above, in FRAs, the share of the pound sterling is virtually identical to that of the euro, while in IRS the euro interest rates are clearly dominant and the second currency with the largest share is the US dollar. As to the maturities of amounts outstanding, IRS are concentrated in maturities over 1 year, while FRAs are equitatively divided between the segment from 1 month up to 1 year and the segment from 1 year up to 5 years.

Table 13

**AMOUNTS OUTSTANDING OF OTC
INTEREST RATE DERIVATIVES**
Breakdown by instrument

As a percentage of amounts outstanding by instrument

	FRAs	IRS
	Counterparties	100	100
Financial institutions	97	96
Resident	2	11
Non-resident	95	85
Non-financial customers	3	4
Resident	1	2
Non-resident	2	2
Currency	100	100
EUR	45	75
USD	7	14
GBP	43	5
JPY	0	2
SEK	0	1
Other	5	3
Maturity	100	100
[Up to 7 days]	0	0
]7 days - 1 month]	0	1
]1 month - 1 year]	49	16
]1 month - 5 years]	50	52
> 5 years	1	31

3. ORGANISED MARKET

After the results of the surveys conducted in 1999 and in the first half of 2000 have suggested that the impact of the creation of the euro on organised markets activity had not changed the trend of gradual increase which had been recorded until then, the October 2000 survey revealed a reduction in turnover by approximately 20% (Table 14). This reduction was however smaller than that recorded by all non-traditional OTC derivatives (currency swaps, FRAs, IRS and options), whose total turnover dropped by 55%. Consequently, the relative importance of exchange-traded operations in the total of currency and interest rate derivatives transactions rose to 67% (Chart 11).

The average daily volume of exchange-traded currency and interest rate derivatives declined to USD 574 million and continued almost exclusively to be confined to interest rate futures. Foreign exchange futures were the other traded instruments, but their average daily turnover was lower than USD 1 million.

The decline in turnover was chiefly due to a fall of 80% in future contracts on euro interest rates,

Table 14

EXCHANGE TRADED DERIVATIVES

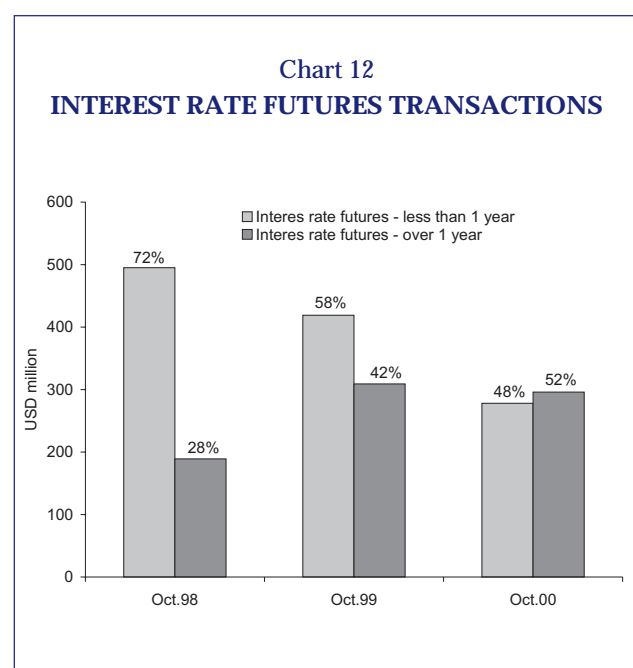
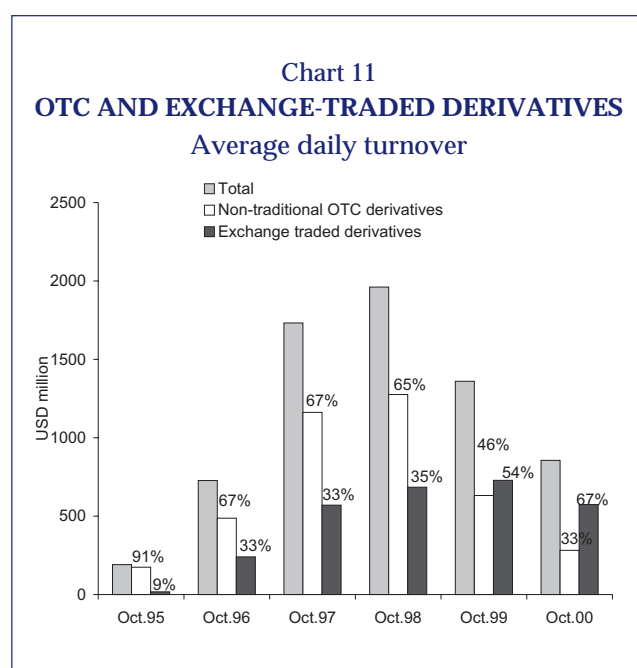
Average daily turnover

USD million

	Total	Non-traditional derivatives	Percentage	Interest rate derivatives	Percentage
1995					
Apr.	3	0	0.0	3	100.0
Oct.	17	0	0.0	17	100.0
1996					
Apr.	6	0	0.0	6	100.0
Oct.	240	0	0.0	240	100.0
1997					
Apr.	473	0	0.0	473	100.0
Oct.	570	0	0.0	570	100.0
1998					
Apr.	1055	2	0.2	1053	99.8
Oct.	685	1	0.1	684	99.9
1999					
Apr.	598	1	0.2	597	99.8
Oct.	728	1	0.1	727	99.9
2000					
Apr.	1158	1	0.1	1157	99.9
Oct.	574	0	0.0	574	100.0
Change (%):					
Oct. 98 / Oct. 99	6.3			6.3	
Oct. 99 / Oct. 00	-21.2			-21.1	

with a simultaneous increase in contracts on US dollar interest rates. Thus, the US dollar (78%) replaced the euro (20%) as the most important currency of denomination of futures contracts, while activity in other interest rates was confined to the pound sterling (2%).

Turning to the maturities associated with the underlying assets there was a change: futures contracts on interest rates over 1 year started to be dominant, due to the fact that they recorded a far less significant decline in turnover than interest



rate futures with a maturity of up to 1 year (Chart 12).

Regardless of the maturity of the underlying asset, futures have always been negotiated through conventional brokers.

With the definitive elimination of interest rate derivatives contracts from the Lisbon and Oporto stock exchange in 2000 (the 3-month LISBOR on 15 March, and the 10-year Treasury bonds on 15 September), all transactions were carried out in foreign exchanges.

4. DEGREE OF CONCENTRATION OF TRANSACTIONS VOLUMES IN FOREIGN EXCHANGE AND DERIVATIVES MARKETS

Data collected from the surveys conducted in 2000 suggest a significant increase in the degree of concentration of turnover. This increase is likely to have been associated with two types of factors: banking concentration and the impact of the creation of the euro. The development of the processes of banking concentration in the course of 2000, covering both new mergers and the elimination of banks, as well as in many other cases, treasury consolidation of institutions belonging to the same group, translated into an actual decrease in the number of banks reporting activity in the different segments under review.

On the other hand, the creation of the euro may have also led to an increase in concentration by bringing about, as mentioned above, a reduction in activity in products which were traditionally traded by a large number of banks, such as foreign exchange swaps and FRAs.

The combined share of the three and six more active financial institutions⁽¹⁰⁾ revealed a gradual increase in the degree of concentration in all mar-

Table 15
TURNOVER
Concentration indicators

	<i>n</i>	S3	S6
<i>Spot</i>			
Oct. 1996	30	54.3	85.1
Oct. 1997	29	62.8	85.2
Oct. 1998	28	56.3	82.4
Oct. 1999	28	67.1	85.2
Oct. 2000	27	70.0	87.1
Foreign exchange derivatives			
Oct. 1996	22	68.9	86.7
Oct. 1997	23	69.0	87.3
Oct. 1998	26	61.6	87.6
Oct. 1999	26	75.3	86.3
Oct. 2000	21	82.7	94.6
Interest rate derivatives			
Oct. 1996	11	67.5	92.9
Oct. 1997	14	69.7	93.2
Oct. 1998	15	71.6	96.1
Oct. 1999	13	68.6	92.4
Oct. 2000	10	85.0	99.2

ket segments, which was more marked in interest rates derivatives (Table 15).

Indeed, in terms of the shares of the three most active institutions, interest rate derivatives started to record the highest degree of concentration (85%, compared with 83% in foreign exchange derivatives and 70% in the spot segment).

It should be noted that the computation of market shares was based on turnover in both the OTC market and in the organised market (including options and futures).

Taking the six largest institutions together, there was also an increase in concentration and it should be noted that in the segment of interest rates derivatives, the number of institutions which reported activity dropped to ten, of which only six hold virtually 100% of the total turnover.

(10) In terms of the financial institutions intervening in the Portuguese market, two different realities were considered: i) that of banks belonging to Portuguese financial groups; and ii) that of banks intervening individually in the Portuguese market. In the share analysis, given the joint strategy usually adopted by each financial group, the combined weight of the different institutions comprised in the same group was taken into consideration and not their individual weight.

TRIENNIAL SURVEY OF FOREIGN EXCHANGE AND DERIVATIVES MARKET ACTIVITY,
CO-ORDINATED BY THE BIS, IN 2001

Preliminary results

Under the aegis of the Bank for International Settlements (BIS), a new triennial central bank survey of foreign exchange and derivatives market activity was carried out in 2001; central banks and monetary authorities of 48 countries (43 countries in 1998) participated in this survey. The 2001 survey, which had a similar format to the two previous ones, focused on over-the-counter (OTC) market operations, collected data on transactions carried out in the spot foreign exchange market and on currency and interest rate derivatives and amounts outstanding of derivative instruments. Taking as a basis the national survey results, which were jointly published on 9 October 2001, the BIS has released preliminary global data from the national surveys and associated to the disclosure. Survey results refer to transactions carried out in April 2001; data have been presented in terms of average daily turnover expressed in US dollars. This survey is particularly important since it is the first at international level that covers data on transactions after the introduction of the euro.

According to the results calculated by BIS, the average daily turnover of transactions in the **traditional foreign exchange market** (which includes spot transactions, outright forwards and foreign exchange swaps) declined by 19% over the last three years (Table 1). The main factors driving this fall were the introduction of the euro, namely the elimination of intra-euro currencies transactions, the development of the utilisation of electronic broking systems in spot transactions between banks (leading to a fall in dealing needs) and the continuation of the process of consolidation in banking industry (with a smaller number of banks reporting activity).

Table 1

FOREIGN EXCHANGE MARKET TURNOVER ^(a)
Results of the triennial surveys co-ordinated by the BIS

In USD billion and as a percentage

	1995		1998 ^(b)		2001	
	Value	% of the total	Value	% of the total	Value	% of the total
By instrument	1.190	100	1.490	100	1.210	100
Spot transactions ^(c)	520	44	590	40	400	33
Outright forwards ^(c)	105	9	135	9	135	11
Foreign exchange swaps ^(c)	565	47	765	51	675	56
By currency ^(d)		200		200		200
US dollar		83		87		90
Euro . . . . .		.		.		38
Deutsche mark		36		30		.
French franc		8		5		.
ECU and other EMS currencies		16		17		.
Japanese yen		24		20		23
Pound sterling		9		11		13
Swiss franc		7		7		6
Other currencies		17		23		30
By counterparty		100		100		100
Financial institutions		84		83		87
Non-financial customers		16		17		13
		100		100		100
Resident		46		46		42
Non-resident		54		54		58

Notes:

(a) Adjusted for double-counting resulting from transactions carried out in the domestic interbank market and transactions carried out in the interbank market between reporting countries.

(b) Revised figures.

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

(d) In the foreign exchange market, the breakdown by currency amounts to 200% of total transactions, since both currency sides of every transaction are counted separately.

Turnover declined by 32% in spot transactions and by 12% in foreign exchange swaps, while no substantial changes have been recorded in outright forwards. The steeper fall in spot transactions translated into their loss of importance in the traditional foreign exchange market in favour of a rise in the share of the remaining instruments - foreign exchange swaps increased their predominance (56%) and outright forwards increased their share (to 11%). With respect to the breakdown by currency, the US dollar strengthened its position as the most important currency, participating in approximately 90% of total turnover. The second most important currency was the euro (with 38%), which took the position previously held by the Deutsche Mark. The share of the euro was however lower than that held in 1998 by the euro legacy currencies taken together (52%), a fact which was associated with the mechanical impact of the introduction of the European currency. The Japanese yen maintained however the third position, having increased slightly its share to 23%, while the remaining currencies did not show sizeable changes in the respective share. As to the counterparties involved in transactions, the share of turnover with financial institutions increased to 87% of the total, while that with non-financial customers declined to 13%. The geographical distribution of trading appears not to have changed substantially, with the most important financial centres continuing to be located in the United Kingdom (31%) and in the United States (17%), with the turnover of the former continuing to correspond to approximately twice that of the second. The share of the five major financial centres, which in addition to these two countries continued to include Japan, Singapore and Germany, remained close to 70% (Table 4).

In **Portugal**, the reduction in the volume of transactions in traditional foreign exchange market instruments was quite significant (-61%), the decrease being more marked in outright forwards and foreign exchange swaps than in spot transactions, in sharp contrast to the international situation. Thus, while in the 48 countries inquired by BIS the prevailing trend was of an increase in foreign exchange swaps, in Portugal there was an increase in spot transactions (to 54%). The euro was the first currency in transactions (85%), replacing the position previously occupied by the escudo, although with a smaller share than that held in 1998 by the euro legacy currencies taken together. The US dollar (74%) and the Japanese yen (13%) ranked second and third. In sharp contrast to the international trend, the share of financial counterparties decreased, albeit continuing to be dominant (77%), while the share of non-financial customers increased to 23%.

The volume traded in the **OTC derivatives market**, including non-traditional foreign exchange derivatives (currency swaps, foreign exchange options and other foreign exchange derivatives) and interest rate derivatives contracts went up by approximately 53% in April 2001 compared with the results of the 1998 survey. This trend covers a divergent development of foreign exchange derivatives, whose turnover decreased by around 30%, and interest rates derivatives, which continued to record a significant growth rate (+85%). In this context, interest rate derivatives strengthened their dominant position, accounting approximately for 86% of the transactions carried out in derivative instruments (Table 2).

As to the breakdown by instrument, note the increased predominance of interest rate swaps (IRS), which represent around 58% of the trading volume of derivatives, whose turnover more than doubled relative to 1998 (+114%). The increase in IRS was chiefly recorded in dollar denominated contracts, but also in euro swaps (considering that the reduction in the turnover resulting from the elimination of the euro legacy currencies may have been offset by the creation of a larger and more liquid market). Likewise, FRAs (which represent 23% of the turnover) recorded a significant growth rate, albeit lower (+74%) than that of IRS, which was relatively homogenous between the interest rates of the different currencies. In this context, the interest rates of the euro continued to be the most widely used in interest rates derivatives (47%), followed by the US dollar interest rates (30%) (Table 3). In foreign exchange derivatives, the turnover of both currency swaps and options declined by approximately 30%. It should be noted that only options showed a representative activity and that the fall in these instruments having been chiefly concentrated in the USD/JPY pair. The US dollar however kept its dominant position, accounting for nearly 80% of transactions (vis-à-vis 42% for the euro).

In terms of total derivatives transactions, there was a sharper growth in non-resident counterparties turnover, which currently represent 58% of transactions. It should be noted that in terms of the breakdown into financial counterparty and non-financial customers, there were different developments in interest rate and cur-

Table 2

TURNOVER IN OTC DERIVATIVES MARKETS^(a)
Results of the triennial surveys co-ordinated by the BIS

USD billion and as a percentage

	1995		1998		2001	
	Value	% of the total	Value	% of the total	Value	% of the total
Exchange rate derivatives ^(b)	45	23	97	26	67	11
Currency swaps.....	4	2	10	3	7	1
Options.....	41	20	87	23	60	10
Other.....	1	1	0	0	0	0
Interest rate derivatives.....	151	75	265	71	489	86
FRA.....	66	33	74	20	129	23
Swaps (IRS).....	63	31	155	41	331	58
Options.....	21	10	36	10	29	5
Other.....	2	1	0	0	0	0
Adjustments ^(c)	4	2	13	3	19	3
Total.....	200	100	375	100	575	100

Notes:

(a) Adjusted for double-counting resulting from transactions carried out in the domestic interbank market and transactions carried out in the interbank market between reporting countries.

(b) Including all non-traditional foreign exchange rate derivatives (i.e. excluding outright forwards and foreign exchange swaps).

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

rency derivatives: the former clearly showed an increased predominance of financial institutions (to 95%), while in the latter the weight of these counterparties declined slightly (to 73%).

In the case of the Portuguese OTC derivatives market, developments in the total trading volume were opposite to those recorded by the BIS survey, with a 67% reduction having been recorded in April 2001 compared with the 1998 survey results. Similarly to developments at the international level, transactions of non-traditional foreign exchange derivatives recorded a fall (-68%), but in contrast to the countries participating in the BIS survey taken together, interest rate derivatives turnover declined (-67%).

In line with developments in international markets, interest rate derivatives in Portugal accounted for nearly 96% of the total derivatives turnover. Likewise, in the breakdown by instrument, the Portuguese pattern is similar to the structure of international markets; although it is important to note the most significant predominance of IRS, which represented 84% of transactions (followed by FRAs with 11% and by foreign exchange options with only 4%).

The predominance of the euro in interest rate derivatives is still more important in the Portuguese market, with these interest rates being utilised in 91% of transactions (compared with 9% in the case of the US dollar). With respect to foreign exchange derivatives, the breakdown by currency is different from that recorded internationally; the US dollar and the euro have a similar weight (approximately 88%). As to the breakdown by counterparty, the Portuguese

Table 3

TURNOVER OF THE OTC INTEREST RATE DERIVATIVES

Breakdown by currency and counterparty

As a percentage

	1995	1998	2001
By currency.....	100	100	100
USD.....	27	27	30
EUR.....			47
DEM.....	12	24	
FRF.....	0	9	
ECU and other EMS currencies.....	0	13	
JPY.....	23	10	6
GBP.....	0	6	8
Other.....	38	11	9
By counterparty.....	100	100	100
Financial institutions.....	89	90	95
Resident.....	40	44	39
Non-resident.....	49	46	56
Non-financial customers.....	11	10	5
Resident.....	8	6	3
Non-resident.....	3	4	2

market moves closely in line with the international pattern; it should be noted that the dominant role of non-resident counterparties is particularly significant in Portugal (approximately 90%).

According to BIS data, the geographical distribution of trading in non-traditional derivatives recorded some changes in terms of the relative positions of the several markets, with the United Kingdom and the United States holding the first and second positions, respectively. It should be noted that next to these countries rank Germany and France, which are the markets with the largest share, while Japan has recorded a significant contraction in its turnover, holding currently the seventh position (the fourth in 1998)(Table 5).

Table 4

TURNOVER IN TRADITIONAL FOREIGN EXCHANGE MARKET^(a)

Results of the triennial surveys co-ordinated by the BIS

USD billion and as a percentage

	1995		1998		2001	
	Value	% of the total	Value	% of the total	Value	% of the total
Countries						
Australia	40	2.5	47	2.4	52	3.2
Austria	13	0.8	11	0.6	8	0.5
Bahrain	3	0.2	2	0.1	3	0.2
Belgium	28	1.8	27	1.4	10	0.6
Brazil ^(b)	...	...	5	0.3	5	0.3
Canada	30	1.9	37	1.9	42	2.6
Chile	...	...	1	0.1	2	0.1
China ^(b)	...	...	0	0.0	0	0.0
Colombia	...	...	...	...	0	0.0
Czech Republic	...	...	5	0.3	2	0.1
Denmark	31	2.0	27	1.4	23	1.4
Finland	5	0.3	4	0.2	2	0.1
France	58	3.7	72	3.7	48	3.0
Germany	76	4.8	94	4.8	88	5.5
Greece	3	0.2	7	0.4	5	0.3
Hong Kong SAR	90	5.7	79	4.0	67	4.1
Hungary	...	...	1	0.1	1	0.0
India	...	...	2	0.1	3	0.2
Indonesia	...	...	2	0.1	4	0.2
Ireland	5	0.3	10	0.5	8	0.5
Israel	...	...	...	...	1	0.0
Italy	23	1.5	28	1.4	17	1.0
Japan ^(c)	161	10.2	136	6.9	147	9.1
Korea	...	...	4	0.2	10	0.6
Luxembourg	19	1.2	22	1.1	13	0.8
Malaysia	...	...	1	0.1	1	0.1
Mexico	...	...	9	0.5	9	0.5
Netherlands	26	1.7	41	2.1	30	1.9
New Zealand	7	0.4	7	0.4	4	0.2
Norway	8	0.5	9	0.5	13	0.8
Peru	...	0.0	...	...	0	0.0
Philippines	...	...	1	0.1	1	0.1
Poland	...	...	3	0.2	8	0.5
Portugal	2	0.1	4	0.2	2	0.1
Russia	...	...	7	0.4	10	0.6
Saudi Arabia	...	...	2	0.1	2	0.1
Singapore	105	6.7	139	7.1	101	6.2
Slovakia	...	...	...	...	1	0.0
Slovenia	...	...	...	...	0	0.0
South Africa	5	0.3	9	0.5	10	0.6
Spain	18	1.1	19	1.0	8	0.5
Sweden	20	1.3	15	0.8	27	1.5
Switzerland	87	5.5	82	4.2	71	4.4
Taiwan, China	...	...	5	0.3	4	0.3
Thailand	...	...	3	0.2	2	0.1
Turkey	...	...	...	...	1	0.1
United Kingdom	464	29.5	637	32.5	504	31.2
United States	244	15.5	351	17.9	252	15.7
Total ^(c)	1.572	100.0	1.958	100.0	1.619	100.0

Notes:

(a) Adjusted for double-counting resulting from transactions carried out in the domestic interbank market, but not for transactions carried out in the interbank market between reporting countries.

(b) Figures cover only spot transactions.

(c) Figures revised for 1998.

Table 5

TURNOVER IN NON- TRADITIONAL OTC DERIVATIVES MARKETS^(a)
Results of the triennial surveys co-ordinated by the BIS

USD billion and as a percentage

	1995		1998		2001	
	Value	% of the total	Value	% of the total	Value	% of the total
Countries						
Australia	4	1.5	5	1.1	12	1.6
Austria	2	0.7	4	0.8	5	0.7
Bahrain	4	1.5	0	0.0	0	0.0
Belgium	6	2.2	6	1.3	14	1.8
Brazil .....	...	...	...	...	1	0.1
Canada	5	1.9	7	1.5	13	1.7
Colombia .....	...	...	...	...	0	0.0
Czech Republic .....	...	...	...	...	0	0.0
Denmark	4	1.5	5	1.1	6	0.8
Finland	2	0.7	2	0.4	1	0.1
France	22	8.1	46	9.7	67	8.8
Germany	14	5.2	34	7.2	97	12.7
Greece	0	0.0	0	0.0	0	0.0
Hong Kong SAR	5	1.9	3	0.6	4	0.5
Hungary .....	...	...	0	0.0	0	0.0
India .....	...	...	...	...	0	0.0
Indonesia .....	...	...	0	0.0	0	0.0
Ireland	1	0.4	3	0.6	6	0.8
Italy	2	0.7	5	1.1	24	3.1
Japan	32	11.9	42	8.8	22	2.9
Korea .....	...	...	0	0.0	0	0.0
Luxembourg	2	0.7	3	0.6	5	0.7
Malaysia .....	...	...	1	0.2	0	0.0
Mexico .....	...	...	0	0.0	0	0.0
Netherlands	5	1.9	6	1.3	25	3.3
New Zealand	0	0.0	0	0.0	0	0.0
Norway	1	0.4	3	0.6	3	0.4
Poland .....	...	...	...	...	0	0.0
Portugal	0	0.0	1	0.2	0	0.0
Saudi Arabia .....	...	...	0	0.0	0	0.0
Singapore	18	6.7	11	2.3	6	0.8
Slovakia .....	...	...	...	...	0	0.0
South Africa	0	0.0	1	0.2	1	0.1
Spain	3	1.1	4	0.8	21	2.8
Sweden	2	0.7	5	1.1	4	0.5
Switzerland	4	1.5	16	3.4	15	2.0
Taiwan, China .....	...	...	0	0.0	1	0.1
Thailand .....	...	...	0	0.0	0	0.0
United Kingdom	74	27.4	171	36.0	275	36.0
United States	53	19.6	90	18.9	135	17.7
Total	270	100.0	475	100.0	764	100.0

Note:

(a) Adjusted for double-counting resulting from transactions carried out in the domestic interbank market, but not for transactions carried out in the interbank market between reporting countries.

WAGES OF CIVIL SERVANTS*

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1. INTRODUCTION

In Portugal, general government compensation of employees has been growing more than output, reaching approximately 15 per cent of gross domestic product in 2000 (see Table 1). This was the result, on the one hand, of the trend of employment in general government, education and health, which recorded unprecedented net changes vis-à-vis the other sectors of activity and, on the other hand, of the increase in wages of civil servants at rates above those recorded in the private sector of the economy.

Despite the significant impact that the decisions on the wages of civil servants have on public finance balances, no other studies have been developed so far on the determining factors behind the wages of general government employees. This paper will be a first approach to the analysis of this problem.

In the analysis of the wages of civil servants – in line with a long tradition of studies – the wage structure of workers in the private sector of the economy will be used as a comparison benchmark. In this context, the key issue will be measuring the wage differential between the public sector and the private sector. Given the specific nature of the public sector decision-making mechanisms, economists have attempted to analyse to which extent civil servant wages are isolated from the competition observed in the private sector. Or, in other words, is there a wage differential (a premium) favourable to general government employees?

This paper quantifies and analyses wage differentials between private sector and public sector workers. The following section briefly covers the specificity of the public sector labour market. The third section establishes international comparisons for wage differentials. The fourth section examines the determining factors behind public and private wages. Finally, the last section presents some conclusions.

2. THEORETICAL CONTEXT

In the public sector labour market the decision-makers, the nature of the goods and services produced and the decision evaluation mechanisms differ from those in the private sector. The understanding of the process of civil servants' wages formation requires a conceptual framework different from that considered for the private sector of the economy.

While the theoretical framework applied to the private sector implies an objective function characterised by profit maximisation (cost minimisation) of firms, with a clearly identified production function – in terms of both inputs and outputs –, the production of goods and services by the public sector is determined by distinctive principles (of the objective function of both policy makers and bureaucrats), with ill-defined production functions (in which the link between the utilisation of inputs and the measure of the output is ambiguous or, often, unknown). In addition to operating with different objective functions and technologies, the competitive environment of private corporations and public departments is also often different. The public sector provides public goods and services

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

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Table 1

GENERAL GOVERNMENT COMPENSATION OF EMPLOYEES IN THE EUROPEAN UNION

As a percentage of GDP

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	11.2	11.4	11.5	11.9	12.0	12.0	11.9	11.8	11.7	11.6	11.3
Germany	-	9.0	9.2	9.3	9.0	9.0	8.9	8.7	8.4	8.3	8.1
Greece	12.7	11.6	11.1	11.1	10.8	11.3	10.7	11.6	11.7	11.5	11.7
Spain	-	-	-	-	-	11.3	11.3	10.9	10.7	10.5	10.3
France	-	-	13.0	13.5	13.6	13.7	13.9	13.8	13.7	13.7	13.7
Ireland	10.4	11.0	11.3	11.4	11.0	10.2	9.6	9.2	8.8	8.3	7.9
Italy	-	-	-	-	-	11.2	11.5	11.6	10.7	10.7	10.5
Luxembourg	10.1	9.8	10.0	9.8	9.5	9.6	9.6	9.2	9.1	9.0	8.3
The Netherlands	-	-	-	-	-	10.8	10.4	10.2	10.2	10.2	9.8
Austria	11.7	11.9	12.2	12.6	12.6	12.6	12.3	11.4	11.4	11.5	11.3
Portugal	-	-	-	-	-	13.8	13.7	13.9	14.0	14.4	15.1
Finland	15.1	17.6	18.0	16.8	15.9	15.4	15.6	14.6	13.9	13.6	13.1
Denmark	17.7	17.7	17.8	18.1	17.5	17.3	17.3	17.2	17.4	17.3	17.1
Sweden	-	-	-	19.1	18.2	17.3	17.8	17.5	16.9	16.7	-
United Kingdom	12.0	12.2	12.3	11.1	9.4	8.8	8.3	7.8	7.4	7.4	7.5

Source: European Commission.

in monopoly that, given their specific nature, not only are not subject to the disciplinary device implied by competition, but also makes it impossible to carry out any type of performance comparison (Gregory and Borland, 1999).

It should be added that public sector ownership is dispersed among voters, providing weak incentives for collecting information and monitoring the performance of policy makers and bureaucrats. The elections, as an imperfect mechanism of control and discipline over politicians, tend to operate in the same line. In order to obtain a more clear perception of the developments over time of the wages of civil servants, other economic models of a political-electoral nature should perhaps be considered (Borjas, 1980).

3. WAGE NEGOTIATIONS

The Portuguese system of centrally negotiated agreements continues to be, after more than 25 years, strongly linked to the corporative structures of the previous political regime⁽¹⁾. Wage negotiations are chiefly conducted at a sectoral and re-

gional level. In the negotiation process, the union representation mandate is clear: every union represents its associate members. This form of representation involves four implications:

- Given the weak rate of union membership, an important share of the working population is not represented in the negotiations (except in sporadic negotiations at corporation level);
- Wages of most workers are, in this framework, defined through an extension of the signed agreements to the workers that are not represented in the negotiation process;
- Negotiations are frequently developed in an uncoordinated and often competitive manner among the different unions;
- In many situations, the representativeness of each union is not fully known. In other words, the representation mandate is often ambiguous.

In general terms, the institutional architecture of centrally negotiated agreements does not favour the claiming capacity of the unions. In effect, it can be said that, in Portugal, the power of the unions, i.e., their capability to gain advantages through the

(1) For a more detailed characterisation of the Portuguese wage negotiation system, see Bover *et al.*, 2000.

possibility of imposing costs on the employers (e.g., strikes) is, in relative terms, rather limited.

The formal right to wage negotiations was just recently recognised to general government employees. The calculation of their wages was chiefly considered as a result of political balances established among political parties in the approval of the *Orçamento do Estado* (OE) (State Budget). The major difficulty in replicating private sector negotiations results, on the one hand, from the non-existence of an arbitrator (a function usually performed by the Government), and, on the other hand, from the inadequacy of giving the Parliament the role of negotiator. Over recent years, formal negotiations between unions and government representatives have preceded the approval of the State Budget. In general, agreements have been reached with some union representatives on the rate of change applicable to the wage scales that are the reference base for calculating the wages of civil servants. Once an agreement has been established with some union(s), given the nature of the general government wage system, that agreement will determine the contractual conditions of all civil servants. From the industrial relations point of view, corporative agreements (“regular carrier upgrades”) established between professional unions and the government seem to be the most relevant.

4. INTERNATIONAL COMPARISONS

The recent availability of individual data from the European Union Household Panel, a harmonised survey led by the Eurostat, makes it possible to compare wages across European Union countries. Based on the individual observations of employees from the 1995 wave, two samples were built with 17,270 women and 25,969 men. The information obtained on individual hourly wages was made comparable and weighted by the purchasing power parity index.

According to this survey, Portuguese wages are the lowest in the European Union. Thus, for example, the average wage of a male (female) worker in Germany exceeds the average wage of a male (female) Portuguese worker by 112.8 per cent (66.7 per cent). When compared with the Portuguese wages, the average wage of a Spanish worker is

Table 2

INTERNATIONAL COMPARISON OF THE WAGES OF PRIVATE SECTOR WORKERS

Index Portugal = 1.000

Countries	Men	Women
Portugal	1.000	1.000
Germany	1.857	1.718
Denmark	1.934	2.117
The Netherlands . .	1.947	2.049
Belgium	1.782	1.911
Luxembourg	2.771	2.831
France	1.871	1.811
United Kingdom . .	1.852	1.849
Ireland	1.889	1.842
Italy	1.631	1.661
Greece	1.227	1.185
Spain	1.604	1.880
Austria	1.939	1.923

Source: European Union Household Panel, Eurostat (individual records).

Note: Values are computed from country fixed effects on a wage regression.

72.4 per cent higher for a male worker and 61.3 per cent higher for a female worker.

These differences, on the one hand, reflect an uneven distribution of qualifications of workers across the different countries and, on the other hand, are the result of the aggregation of the public and private sectors. Admitting that the level of education, professional experience, seniority, access to professional training and the type of contract have a similar influence on wage formation in every European Union Member States, it is possible to obtain an estimate of wages for an equal allocation of workforce qualifications. For instance, it is possible to establish a comparison between the wages of Portuguese and Spanish workers, assuming that they have the same level of education, the same professional experience, etc.

Such a comparison of wages clearly indicates that, in its essence, the gap between Portuguese and Spanish wages is not explainable by the qualifications deficit (particularly in the level of education) characterising the Portuguese labour market. In other words, the schooling level gap of Portuguese workers explains only a small fraction of the

Table 3

**WAGE DIFFERENTIAL BETWEEN
THE GENERAL GOVERNMENT
AND THE PRIVATE SECTOR**

Countries	Men	Women
Portugal.	0.376	0.646
Germany.	-0.008	0.137
Denmark.	-0.090	-0.071
The Netherlands	0.028	0.057
Belgium.	0.036	0.029
Luxembourg.	0.310	0.365
France.	0.077	0.147
United Kingdom	0.028	0.105
Ireland.	0.323	0.410
Italy.	0.103	0.258
Greece.	0.103	0.220
Spain.	0.197	0.348
Austria.	-0.023	0.119

Source: Source: European Union Household Panel, Eurostat (individual records).

Nota: Values are computed from the coefficient of the interaction between country and general government dummy indicators.

wage differential between Portugal and other European Union countries. Even if identical qualification levels were assumed for both Portuguese and Spanish workers in the private sector of the economy, Spanish wages would be higher than Portuguese ones by 88 per cent in the case of women and by 60.4 per cent in the case of men (see Table 2). Similarly, the average wage of a German male (female) worker would be 85.7 (71.8) per cent higher than the wage of a Portuguese worker.

The same exercise makes it possible to estimate the wage differential between the private sector and the public sector in European Union countries. It is interesting to observe that Portugal is the country where the wage differential is wider. Considering identical worker's characteristics, a Portuguese woman working in the general government will receive an hourly wage approximately two thirds higher than that earned by a woman working in the private sector (see Table 3). The wage premium for men corresponds to just 37.6 per cent.

The countries where the wage differential is wider are, in addition to Portugal, Ireland, Luxembourg, Spain and Italy. In the opposite end of the distribution are Denmark, Belgium, Germany and Austria. Note also that the wage differential is almost always (except Belgium) more favourable to women than to men.

This is an indication that the wage gap of general government workers in Portugal and other EU countries is much smaller. For example, a general government female (male) worker in Germany will earn a wage 18.7 per cent (33.9 per cent) higher than the corresponding Portuguese worker, with similar observed characteristics. Interestingly enough, is the comparison with Greece. In this case, the relative position of Portuguese wages change, being higher than those of comparable Greek workers, 13.9 per cent for a female worker and 1.7 per cent for a male worker.

5. WHO ARE THE CIVIL SERVANTS?

It is possible to obtain a more exhaustive and updated characterisation of the wage structure of Portuguese workers using the micro-data of the "Inquérito ao Emprego" the Portuguese Labour Force Survey developed by the *Instituto Nacional de Estatística* (National Institute of Statistics). A sample of 126,233 individuals was obtained from individual data of the surveys carried out between the first quarter of 1998 and the fourth quarter of 2000. A significant advantage of the utilisation of this database is the precise identification of civil servants, based on the reply to a specific question on the nature of the employer. In a purely descriptive manner, this sample makes it possible to characterise the share of general government employees vis-à-vis corporate sector workers (Table 4), as being:

- more qualified (the share of graduate employees in general government is 17 per cent for men and 24.8 per cent for women, against 3.5 per cent and 5.1 per cent);
- more experienced (the average professional experience, measured by the number of years since the first job is 24.4 years for men and 20.7 years for women, which compares with 21.8 and 19 years in the corporate sector);

Table 4
DESCRIPTIVE CHARACTERISATION
Inquérito ao Emprego, INE, 1998-2000

	Private sector		General Government	
	Men	Women	Men	Women
Net hourly wages (in 1999 escudos)	544.727	459.154	795.034	834.126
Public corporations.	0.075	0.099		
=1 when the employee works in a public corporation				
Level of education				
Elementary education	0.628	0.575	0.461	0.296
=1 when the academic degree corresponds to elementary education				
Lower secondary education	0.159	0.512	0.160	0.145
=1 when the academic degree corresponds to lower secondary education				
Upper secondary education.	0.104	0.132	0.140	0.158
=1 when the employee has completed upper secondary education				
Technical education	0.012	0.030	0.043	0.135
=1 when the employee has completed technical education				
College education	0.035	0.051	0.170	0.248
=1 when the employee has completed college education				
Professional training	0.074	0.083	0.136	0.124
=1 when the employee has had professional training				
Hours usually worked.	41.141	38.016	37.077	34.260
Part-time.	0.014	0.076	0.016	0.034
Professional experience (in years)	21.838	18.953	24.581	20.713
Seniority in the job (in years)	9.802	8.980	13.673	13.428
Fixed-term contract	0.110	0.154	0.099	0.149
=1 when the employee has been hired for a fixed-term				
<i>Algarve</i>	0.122	0.130	0.144	0.134
=1 when the place of residence of the employee is located in the <i>Algarve</i>				
<i>Centro</i>	0.118	0.109	0.157	0.189
=1 when the place of residence of the employee is located in the <i>Centro</i> region				
Lisbon and <i>Vale do Tejo</i>	0.246	0.274	0.249	0.260
=1 when the place of residence of the employee is located in the Lisbon and <i>Vale do Tejo</i> region				
<i>Norte</i>	0.427	0.408	0.249	0.254
=1 when the place of residence of the employee is located in the <i>Norte</i> region				
<i>Alentejo</i>	0.087	0.079	0.201	0.163
=1 when the place of residence of the employee is located in the <i>Alentejo</i>				
Number of observations	59861	47364	8302	10698

Source: Individual records from "Inquérito ao Emprego" INE, the Portuguese Labour Force Survey.

- less users of hours (with an average weekly schedule of 37.1 hours for men and 34.3 hours for women, vis-à-vis 41.1 and 38 hours, respectively).
- better remunerated (the average net hourly wage for men is 795 escudos and for women 834 escudos, compared with 545 escudos and 459 escudos, respectively, in the private sector of the economy);
- more "female" (56.3 per cent women, compared with 44.2 per cent);
- more stable (with an average seniority of 13.7 years for men and 13.4 years for women, which compares with 9.8 and 9 years, respectively, in the private sector); and
- regionally unbalanced (note, in particular, the very strong presence of civil servants in the *Alentejo* region, wherefore the share of its representation in *Alentejo* is close to that in the Lisbon and *Vale do Tejo*).

Table 5

REGRESSION EQUATION OF WAGES BY GENDER

	Women	Men
Explanatory variables		
General government	0.235*	0.121*
=1 when the employee works in the general government	(0.004)	(0.004)
Public corporation	0.228*	0.147*
=1 when the employee works in a public corporation	(0.005)	(0.006)
Level of education		
Elementary education	0.117*	0.153*
=1 when the academic degree corresponds to elementary education	(0.007)	(0.006)
Lower secondary education	0.349*	0.372*
=1 when the academic degree corresponds to lower secondary education	(0.007)	(0.007)
Upper secondary education	0.526*	0.559*
=1 when the employee has completed upper secondary education	(0.008)	(0.007)
Technical education	0.999*	0.966*
=1 when the employee has completed technical education	(0.009)	(0.012)
College education	1.177*	1.195*
=1 when the employee has completed college education	(0.008)	(0.009)
Professional training	0.074*	0.099*
=1 when the employee has had professional training	(0.005)	(0.005)
Professional experience (in years)	0.019*	0.027*
	(0.0004)	(0.0004)
Professional experience squared	-0.00003*	-0.00004*
	(0.000008)	(0.000007)
Seniority in the job (in years)	0.012*	0.01*
	(0.0005)	(0.0001)
Seniority squared	-0.0001*	-0.0001*
	(0.00001)	(0.00001)
Fixed-term contract	-0.023*	-0.015*
=1 when the employee has been hired for a fixed-term	(0.004)	(0.007)
<i>Algarve</i>	0.028*	-0.034*
=1 when the place of residence of the employee is located in the <i>Algarve</i>	(0.006)	(0.006)
<i>Centro</i>	-0.033*	-0.046*
=1 when the place of residence of the employee is located in the <i>Centro</i> region	(0.006)	(0.006)
Lisbon and <i>Vale do Tejo</i>	0.052*	0.058*
=1 when the place of residence of the employee is located in the Lisbon and <i>Vale do Tejo</i> region	(0.005)	(0.005)
<i>Norte</i>	-0.024*	-0.087*
=1 when the place of residence of the employee is located in the <i>Norte</i> region	(0.005)	(0.005)
Constant	6.954*	7.0754*
	(0.009)	(0.008)
Number of observations	58061	68162
R square	0.653	0.497
Standard error	0.318	0.344

Source: Individual records from "Inquérito ao Emprego" INE, the Portuguese Labour Force Survey.

Note:

* Represents statistical significance at the 1 per cent level;

6. HOW MUCH DO CIVIL SERVANTS EARN?

Taking into account the observed characteristics of the workers, it can be estimated that, in Portugal, women working in the general government benefit from a wage differential of 26.5 per cent vis-à-vis private sector workers (see Table 5). The

corresponding differential for men is 12.9 per cent⁽²⁾. It is interesting to note that these differentials are of the same magnitude of additional earnings of public company workers. Similarly to other

(2) The figure 12.9 is the conversion of the instantaneous growth rate in its discrete counterpart ($12.9 = [\exp(0.121 - 1)] \times 100$).

Table 6

REGRESSION EQUATIONS OF WAGES BY GENDER AND EMPLOYMENT SECTOR

	Private sector		General government	
	Men	Women	Men	Women
Explanatory variables				
Public corporation	0.153*	0.245*		
=1 when the employee works in a public corporation	(0.006)	(0.005)		
Level of education				
Elementary education	0.153*	0.101*	0.124*	0.125*
=1 when the academic degree corresponds to elementary education	(0.006)	(0.007)	(0.023)	(0.024)
Lower secondary education	0.364*	0.320*	0.393*	0.410*
=1 when the academic degree corresponds to lower secondary education	(0.007)	(0.008)	(0.025)	(0.026)
Upper secondary education	0.55*	0.498*	0.593*	0.594*
=1 when the employee has completed upper secondary education	(0.008)	(0.008)	(0.025)	(0.026)
Technical education	0.954*	0.942*	0.948*	1.048*
=1 when the employee has completed technical education	(0.014)	(0.011)	(0.029)	(0.026)
College education	1.187*	1.140*	1.195*	1.233*
=1 when the employee has completed college education	(0.010)	(0.010)	(0.025)	(0.026)
Professional training	0.110*	0.080*	0.058*	0.058*
=1 when the employee has had professional training	(0.006)	0.005	(0.010)	(0.009)
Professional experience (in years)	0.027*	0.019*	0.024*	0.016*
	(0.0004)	(0.0004)	(0.001)	(0.001)
Professional experience squared	-0.0004*	-0.0003*	-0.0004*	-0.0003*
	(0.000008)	(0.00001)	(0.00002)	(0.00002)
Seniority in the job (in years)	0.009*	0.012*	0.013*	0.018*
	(0.0005)	(0.0005)	(0.001)	(0.001)
Seniority squared	-0.0001*	-0.0002*	0.0001*	-0.0004*
	(0.00001)	(0.00002)	(0.00004)	(0.00003)
Fixed-term contract	-0.011**	-0.009**	-0.049*	-0.064*
=1 when the employee has been hired for a fixed-term	(0.005)	(0.005)	(0.014)	(0.010)
<i>Algarve</i>	-0.039*	0.024*	-0.013	-0.008
=1 when the place of residence of the employee is located in the <i>Algarve</i>	(0.006)	(0.007)	(0.012)	(0.011)
<i>Centro</i>	-0.057*	-0.076*	-0.009	0.038*
=1 when the place of residence of the employee is located in the <i>Centro</i> region	(0.006)	(0.007)	(0.012)	(0.010)
Lisbon and <i>Vale do Tejo</i>	0.060*	0.059*	0.015	0.023*
=1 when the place of residence of the employee is located in the Lisbon and <i>Vale do Tejo</i> region	(0.006)	(0.006)	(0.011)	(0.010)
<i>Norte</i>	-0.099*	-0.041*	-0.003	0.011
=1 when the place of residence of the employee is located in the <i>Norte</i> region	(0.004)	(0.006)	(0.011)	(0.010)
Constant	7.091*	6.999*	7.151*	7.079*
	(0.009)	(0.009)	(0.028)	(0.036)
Number of observations	59860	47363	8301	10697
R square	0.433	0.537	0.650	0.716
Standard error	0.346	0.316	0.318	0.311

Source: Individual records from "Inquérito ao Emprego" INE, the Portuguese Labour Force Survey.

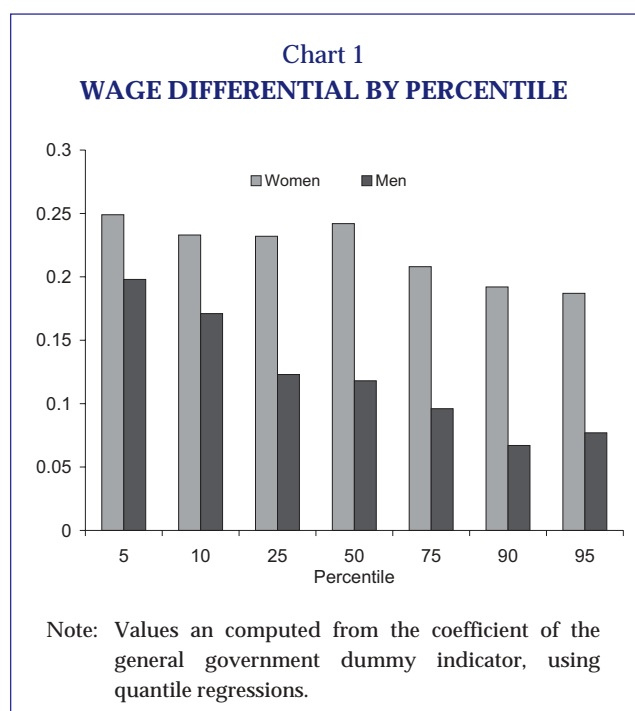
Notes:

* Represents statistical significance at the 1 per cent level;

** Represents statistical significance at the 5 per cent level;

studies on Portuguese wages, empirical evidence has been obtained that investment in formal education is remunerated at very high rates of return⁽³⁾. Therefore, a college graduate woman (man) obtains a remuneration that is 91.7 per cent (88.5 per cent) higher than a woman (man) with full secondary education. This result makes it clear that

- (3) The impressive magnitude of the coefficients of the variables measuring the level of education explains the fact that, in the international comparisons, the wage differential between general government employees and private sector employees is especially high in the Portuguese case. In most European countries the wage premium associated with college education varies between 30 and 40 per cent.



the Portuguese market continues to register a very high demand for qualified workers, in particular college graduate workers⁽⁴⁾. Finally, it is interesting to stress the similarity of most regression coefficients in the equations of wages by gender. Given the proximity of these estimates, the difference between the independent terms may be interpreted as a measure of gender discrimination in the private sector of the economy (12.9 per cent).

Assuming that the impact of wage determining factors may differ between the general government and the corporate sector, separate wage regression equations were estimated (Table 6). In general, there are no significant differences between the private sector and the public sector in the remuneration of human capital investment, at both the general level (measured by the level of education and professional experience) and specific level (measured by the seniority effect)⁽⁵⁾. However, there are three significant differences that are worth noting:

- (4) It is also possible that the intense recruitment of graduates by the general government is contributing to the increase in the level of wages paid to graduates in the private sector.
- (5) The chief distinction between general and specific human capital (or training) lies in the possibility of transferring that investment from one employer to another, i.e., the transferability of training. This comparison does not include any indication of the actual existence of professional training, since it probably indicates different contents of training in both sectors.

First, the wage penalty associated with fixed-term contracts is higher in the public sector (-6.2 per cent for women and -4.8 per cent for men) than in the private sector (-0.9 per cent and -1.1 per cent, respectively). This result may be due to the utilisation of fixed-term contracts with different purposes. While the private sector resorts to fixed-term contracts as a mechanism for the selection of workers (Varejão and Portugal, 2001), there are some signs of persistent utilisation of fixed-term contracts in the general government.

Second, the regional dispersion of wages is significantly lower in the general government. This results from the nation-wide uniform definition of the civil servants' wage scales. Therefore, while wage differences in the private sector between Northern regions and the Lisbon and *Vale do Tejo* correspond to approximately 17.2 per cent (men) and 10.6 per cent (women), in the public sector they reach 1.8 per cent and 1.2 per cent, respectively. This situation should not be interpreted as favourable, since it chiefly reflects the insensitivity of wages to local labour market conditions, introducing significant distortions in the allocation of resources.

And third, the distribution of wages in the private sector tends to show a higher dispersion than the corresponding distribution of wages of general government employees.

A more comprehensive characterisation of the distribution (dependent on the characteristics of the workers) of the wage differential between the public and the private sectors may be obtained through the estimation of a quantile regression. With this approach, it is possible to obtain the wage premium of general government employees in different points (percentiles) of the wage distribution, and thus determine whether the wage premium is lower or higher for better or worse paid workers. While the wage premium for women tends to equally favour both better and worse paid workers, in the case of men, the wage premium decreases as the wage level increases (Chart 1). Behind this situation may be the fact that alternative wages in the private sector are relatively higher for better-paid jobs, or that general government faces difficulties in competing for highly qualified workers.

7. CONCLUSIONS

In Portugal, the wages of general government employees, especially women, are significantly above wages of private sector workers with equal qualifications. The existence of a wage premium for general government employees is common to most European Union countries. The magnitude of such premium is indeed the most remarkable aspect in the Portuguese case. Amongst European Union countries, Portugal registers by far the highest wage differential between public sector and private sector workers.

There may be good economic reasons to expect higher wages for State employees. First, the tasks carried on in the public sector, by their nature, may require more stringent qualifications or heavier or riskier working conditions. Second, due to the need to avoid an excessive rotation of workers in some functions, public decision-makers may opt for a higher wage policy, thus ensuring a low rate of volunteer leaves. Third, governments may follow a strategy of "efficiency wages", offering wage levels above those in the market, in order to maintain a conscientious and diligent working force. And forth, taking into account the difficulty in monitoring a large number of workers (the State is almost always the biggest employer), it may be advantageous to offer wages above competition, in order to attract applications from more productive workers.

In turn, some arguments would lead to anticipate lower wages in the general government, i.e., negative wage differentials between the public and the private sectors. Due to less stressing working conditions, more flexible working schedules or extra-wage benefits (for instance, access to health services), according to the compensating differentials theory, wages should be lower, in order to re-establish labour market equilibrium. Similarly, a more generous pension system or a more advantageous employment protection framework should have as a counterpart lower wages. In view of these two different wage distributions, more productive workers will tend to choose, according to Roy's auto-selection model, the sector that permits to have access to higher wages (with lower wage compression), inducing higher average wages in this sector.

Nevertheless, there may be other reasons (less advisable) that may also tend to generate wage premiums and that seem to be equivalent to those mentioned above: rent extraction from tax-payers; bureaucratic behaviour of (budgetary) size maximisation of public departments; rent extraction due to monopoly situations; advantages obtained due to asymmetric information; obtaining electoral advantages, etc.

Although it is not possible to evaluate the influence of all these factors, it seems nonetheless safe to maintain the suggestion that the wage system of civil servants is more favourable than that of private sector workers. This conclusion is reinforced by the near non-existence of voluntary leaves of general government workers and by a very significant number of job applications whenever new vacancies are advertised in the general government.

Due to their size, decisions on the employment and wages of civil servants influence considerably the behaviour of the whole labour market. In certain circumstances, the definition of wage policy for the general government may determine the general development of wages. Taking into account the constraints affecting the general government wage policy, it might be sensible to consider the implementation of new mechanisms to determine general government workers compensation which make them not shielded to the evolution of the labour market.

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THE USE OF CYCLICALLY ADJUSTED BALANCES AT BANCO DE PORTUGAL*

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1. INTRODUCTION

The overall and primary balances do not constitute adequate indicators to assess the fiscal policy stance, since they are endogenous to the evolution of economic activity. Therefore, it is necessary to develop indicators that distinguish between changes in those balances that are due to the functioning of automatic stabilisers from those reflecting other factors (discretionary fiscal measures, temporary effects on the balances, or developments in structural components such as public expenditure on social security systems).

Overall and primary balances adjusted for the influence of cyclical effects are commonly used to assess the stance of fiscal policy. This note explains the new methodology used by the *Banco de Portugal* to estimate cyclically adjusted balances. One important feature of the new methodology is that it captures the impact on the revenues and expenditures of different growth patterns. This is an important aspect, as the composition of growth matters in the estimation of cyclical effects.

This paper is organized as follows. Section 2 describes the methodology previously used. Section 3 introduces the new approach. Tax elasticities

are obtained through the use of fiscal rules, drawing on fairly detailed information at the micro level. It also discusses the estimation of a reference path for the main macroeconomic variables, through the use of the Hodrick-Prescott filter. Section 4 presents estimates for the cyclically adjusted balances for the period 1995-2000. It also presents estimates for the sensitivity of the general government balances to the economic cycle. Finally, section 5 concludes.

2. THE METHOD PREVIOUSLY USED BY BANCO DE PORTUGAL

Since 1994, *Banco de Portugal* has published – in the *Annual Report* and occasionally in the *Economic Bulletin* – estimates of Cyclically Adjusted Balances (CABs). Given the well-known difficulties in the estimation of trend output, the analysis has been focused on changes of the CABs rather than on the CABs themselves. The change in the cyclically adjusted primary balance has been used as the main indicator of the fiscal stance⁽¹⁾. The methodological description of the procedure previously used by *Banco de Portugal* is presented in Centeno (1994) and Sarmiento (1999).

In general terms, the approach followed by *Banco de Portugal* is similar to the procedure used

* The views expressed in this article are those of the authors and not necessarily those of the *Banco de Portugal*. We would like to thank Cláudia Braz, Jorge Correia da Cunha, José Machado, Maximiano Pinheiro and Patrícia Silva for very useful comments and suggestions. This work has greatly benefited from technical discussions with fiscal experts from the European System of Central Banks. The authors are responsible for any remaining errors.

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(1) See, for instance, the box “Stance of Fiscal Policy”, in the *Annual Report* for the year 1993, *Banco de Portugal*. *Banco de Portugal* has been one of the very few Central Banks participating in the Eurosystem that published regularly estimates of the CABs.

by the European Commission (1995). The approach is described as the “tax elasticity plus gap” method, involving two main steps. In the first step, the Hodrick-Prescott filter is used in the estimation of trend output. The value of the Lagrange multiplier λ was set equal to 100. Cyclical fluctuations – or output gaps – are obtained by subtracting these trend output estimates from actual output.

The impact of these output gaps on the general government balances is calculated through the use of revenue and expenditure elasticities. As described in Centeno (1994), the tax elasticities are based on econometric estimations (tax receipts for the main taxes as a function of GDP). The following revenue items have been considered: direct taxes on households; direct taxes on companies; social security contributions; indirect taxes; other current revenue. The cyclical component of the budget item T_i is given by:

$$T_i^c = \eta_{T_i,G} \times gap \times T_i \quad (1)$$

where:

- T_i – budget item i ;
- T_i^c – cyclical component of the budget item i ;
- $\eta_{T_i,G}$ – budget component elasticity;
- Gap – output gap.

On the expenditure side, it was assumed that only unemployment benefits should be cyclically adjusted. The elasticity of this component of expenditure to economic conditions was obtained through the combination of an Okun relationship and an estimate of the average cost of unemployment benefits.

The cyclically adjusted budget balance is obtained through the deduction of these cyclical effects from the actual government budget balance. In this way, the actual budget balance can be decomposed into a cyclical and a (cyclically) adjusted component. The cyclical component shows by how much the economic cycle contributed to the level of the budget for a given year. The adjusted component – i.e. the CAB – corresponds to the budget balance which would have been observed if the economy was on its trend. When the output gap is positive (negative) – i.e. actual output exceeds (is smaller than the) trend output – the

cycle has a positive (negative) impact on the general government balance and, therefore, the cyclically adjusted balance is smaller (larger) than the actual balance.

3. THE NEW METHODOLOGY

This section describes the new approach used by the *Banco de Portugal* to obtain estimates of the CAB, following the methodology described in Bouthevillain *et al.* (2001). This methodology has been developed in a joint effort by the National Central Banks of the European Union Member-States and the European Central Bank.

Subsection 3.1 deals with the cyclical adjustment of general government revenue and expenditures. The methodology of Bouthevillain *et al.* (2001) has not been applied automatically to the Portuguese case. Subsection 3.2 highlights the main innovations of the Portuguese application. Finally, subsection 3.2 discusses the issue of trend output estimation.

3.1 Cyclical components of budget revenues and expenditures

Three main differences with respect to the methodology described in section 2 should be highlighted. First, as mentioned above, Centeno (1994) obtained the tax elasticities through econometric estimation. This procedure has severe drawbacks, as it fails to take into account the frequent changes in the tax system over the sample period. Therefore, the new approach – following closely the methodology proposed by van den Noord (2000) – obtains elasticities based on tax rules.

Secondly, the relative composition of the output gap is explicitly taken into consideration in the computation of the cyclical component of the budget. As such, the new tax elasticities are related to *proxies* of the tax bases and not to output, as in the previous approach. Thus, the cyclically adjusted budgets are not independent of the composition of GDP

Finally, it is explicitly considered that only private components of GDP are responsible for the cyclical movements of GDP. This assumption has implications for the cyclical adjustment of revenues since tax receipts also depend on public ex-

penditure. Thus, only tax revenues generated by private activity are cyclically adjusted.

The rest of this section discusses the procedures used in the estimation of the relevant budgetary elasticities.

a) Direct taxes on households

In Portugal, the personal income tax (*IRS*) accounts for almost all the fiscal receipts corresponding to direct taxes on households. For the purpose of this study, the *IRS* receipts can be divided in three main parts: the withholding final tax levied on almost all capital income received by families, the tax revenue generated by civil servants labour income and private sector labour income⁽²⁾.

The distinction between taxes on labour income and taxes on capital income is important, because only the first one is, according to the methodology, subject to cyclical fluctuation⁽³⁾. The distinction of taxes paid by civil servants on their labour income and other taxes on labour income is required given the assumption that only the private components have cyclical fluctuations. The *IRS* paid by employees in the non-public sector, between 1995 and 2000, corresponded to approximately 60 per cent of total direct taxes paid by households, according to information provided by the tax administration⁽⁴⁾

Total direct taxes on households (*DTH*) can be written as:

$$DTH = WT + LT^P + LT^G \tag{2}$$

being *WT* the withholding final taxes, and *LT^G* and *LT^P* public and private sector labour income taxes, respectively.

The sensitivity of labour income to cyclical fluctuations was estimated through the use of grouped data provided by the tax administra-

- (2) There are tax revenue from other sources of income (for instance rents), but they represent a very small amount when compared with labour income.
- (3) It is worth mentioning that this methodology assumes that cyclical fluctuations have no impact in the interest rate and, therefore, General Government interest payments or interest income received by households.
- (4) This proportion is affected, among other factors, by deposit interest rates. For instance, over the period 1995 to 2000 this ratio increased from 56.2 per cent to 63 per cent.

tion⁽⁵⁾. The average tax paid in each group is $t_i \left(\frac{W_i^P}{N_i^P} \right)$, being t_i the (average) per worker tax revenue in each group, expressed as a function of W_i , total wage income in that group, and N_i , the number of workers in that group. Therefore, tax receipts on private sector labour income are given by:

$$LT^P = \sum_{i=1}^n t_i \left(\frac{W_i^P}{N_i^P} \right) N_i^P \tag{3}$$

being W_i^P and N_i^P total labour income and the number of workers included in income class i , respectively. The total differential of LT^P is:

$$dLT^P = \sum_{i=1}^n \frac{\partial t_i}{\partial \left(\frac{W^P}{N^P} \right)_i} \left(\frac{dW_i^P N_i^P - dN_i^P W_i^P}{N_i^{P^2}} \right) N_i^P + \sum_{i=1}^n t_i dN_i^P \tag{4}$$

Rearranging one obtains⁽⁶⁾

$$\begin{aligned} \frac{dLT^P}{LT^P} &= \sum_{i=1}^n \frac{\partial t_i}{\partial w_i^P} \frac{w_i^P}{t_i} \frac{t_i N_i^P}{LT^P} \left(\frac{dW^P}{W^P} - \frac{dN^P}{N^P} \right) + \frac{dN^P}{N^P} = \\ &= \eta_{\frac{DTH}{N^P}} \times \left(\frac{dW^P}{W^P} - \frac{dN^P}{N^P} \right) + \frac{dN^P}{N^P} \end{aligned} \tag{5}$$

Where $\eta_{\frac{DTH}{N^P}} = \sum_{i=1}^n \frac{\partial t_i}{\partial w_i^P} \frac{w_i^P}{t_i} \frac{t_i N_i^P}{LT^P}$ is the tax elasticity with respect to the average wage, and w_i^P is the average wage of class i .

Using the data supplied by the tax administration⁽⁷⁾, it was obtained a tax elasticity equal to 1.69. This figure is lower than the one calculated by the OECD for Portugal⁽⁸⁾⁽⁹⁾.

The cyclical component of the tax on direct taxes on families is then:

- (5) The grouped data do not distinguish labour income (and taxes) of public and private sector employees. It was assumed that both income sources have the same distribution across households.
- (6) It is assumed that the new workers entering the labour force have the same distribution of those already there $\left(\frac{dN_i}{N_i} = \frac{dN}{N} \right)$. It is also assumed that the rate of change in wages is the same for all workers.
- (7) The tax administration supplied data on the number of taxpayers, total income and tax liability, distributed by 20 income classes, referring to the year of 1998. This type of data was analysed in Sarmento (1996).

$$DTH^C = LT^{P,C} = \left\{ \eta_{\frac{DTF}{N^P}} \times [gap(W^P) - gap(N^P)] + \right. \\ \left. + gap(N^P) \right\} \times LT^P \quad (6)$$

being W^P total labour income in the private sector and N^P total labour employment in the private sector.

b) Direct taxes on companies

In Portugal, corporations are required to make prepayments of the corporate income tax, equal to 75 or 85 per cent of the tax liability of the previous year. So, in a given year, the tax receipt is equal to the tax liability of the previous year minus the prepayments made in the previous year, plus the prepayments of the current year. However, a corporation can ask for a suspension of these prepayments when they estimate that the current year tax liability is equal to, or less than, the prepayments already made. Based on this rule and on the fact that the tax is proportional, the cyclical component of the corporate income tax is given by:

$$DTC^C = \left\{ \min[gap(OS_t); gap(OS_{t-1})] + \right. \\ \left. + \max[gap(OS_{t-1}) - gap(OS_{t-2}); 0] \right\} \times DTC \quad (7)$$

being OS the gross operating surplus and DTC the corporate income tax.

(8) The elasticity calculated by the OECD is 1.9 (see van den Noord (2000)). This difference is due, in part, to the fact that the OECD calculated the ratio between the marginal tax rate weighted by the income and the average rate weighted by income. In our case, it was used the tax liability as the weight, as follows from equation (4). Given that classes with higher levels of income are associated, on average, with smaller elasticities – and tax liability shares higher than income shares, given the progressivity of the tax system – the OECD approach leads necessarily to a higher elasticity.

(9) It is worth noting that both this estimate and the one presented by van den Noord (2000) exceed the OECD elasticities for countries that have a more progressive tax system than the Portuguese (for instance the Nordic countries have elasticities in the 1.3 to 1.5 range). There are, however, some explanations for this result. First, one should not neglect the fact that, in Portugal, the higher tax bracket starts at a considerable lower lever of income. Second, the average tax rate in Portugal is lower than in the Nordic countries. Finally, it should be noted that Sarmiento (1996), using 1993 data, showed that the tax table accounted only for 1/3 of the tax progressivity of the income tax.

c) Social security contributions

Social contributions of the private sector are roughly proportional to private labour income. So a tax elasticity of 1 with respect to private labour income was considered. Therefore, the cyclical component of social security contributions is given by:

$$SC^C = gap(W^P) \times SC \quad (8)$$

d) Indirect taxes

The receipts of taxes on goods and services can be presented as:

$$TGS = \sum_{i=1}^n t_i x_i \quad (9)$$

being x_i the expenditure on good i and t_i the corresponding tax rate. The total differential of the TGS , with relation to the total expenditure (x), is:

$$\frac{dTGS}{TGS} = \sum_{i=1}^n t_i \alpha_i \frac{\partial x_i}{\partial x} \frac{x}{TGS} \frac{dx}{x} = \sum_{i=1}^n t_i \alpha_i \eta_{x_i, y} \frac{x}{TGS} \frac{dx}{x} \quad (10)$$

$$IGS^C = \sum_{i=1}^n t_i \alpha_i \eta_{x_i, y} \frac{x}{TGS} gap(C^P) \quad (11)$$

where α_i is the share of commodity i on total consumption and $\eta_{x_i, y}$ the corresponding income elasticity. The complete set of income elasticities was obtained through the estimation of an *Almost Ideal Demand System* (AIDS) system of Engel curves, using data drawn from the Portuguese Family Expenditure Survey⁽¹¹⁾. The number of consumption categories considered was 25. In the computation of the tax rates both VAT and the excises duties were considered. This procedure produced an estimate of the tax elasticity with respect to consumption expenditure equal to 1.1. This figure means that, overall, taxes on goods and services have a progressive impact. This result is in line with previous findings by Albuquerque and Neves (1994).

(10) Note that $\sum_{i=1}^n t_i \alpha_i \eta_{x_i, y} \frac{x}{TGS}$ can be interpreted as the tax on goods and services elasticity with respect to the expenditure, since it corresponds to the coefficient between the marginal tax rate (of one unit of expenditure) and the average tax rate.

(11) The elasticities are drawn from Casimiro (1997).

e) Estimation of expenditure elasticities

On the expenditure side, it was followed the commonly used assumption that only unemployment benefits should be cyclically adjusted. In particular, it was assumed that the expenditure with unemployment benefits is proportional to the number of unemployed. There is some consensus in the literature on the Portuguese labour market that the natural rate of unemployment remained reasonably constant since the beginning of the eighties. This constitutes a marked difference between the working of the Portuguese labour market and the majority of other European countries.

The estimate of the natural rate of unemployment deserves further discussion. In 1998, the Employment Survey of the *Instituto Nacional de Estatística* underwent important methodological changes, resulting from the adoption of Eurostat guidelines aiming for greater statistical harmonisation. This gave rise to a break in the unemployment rate series between 1997 and 1998, with an estimated magnitude of approximately $\frac{3}{4}$ percentage points. Using series up to 1997, several studies produced estimates of the natural rate of unemployment in the range of 5.5-6.0 per cent⁽¹²⁾. Therefore, taking the statistical break into account, those estimates should be updated to around 5.0 per cent.

In the computation of cyclically adjusted expenditures, the gap of unemployment is simply obtained as the difference between actual unemployment and natural unemployment, as a percentage of natural unemployment.

3.2 Specific characteristics of the Portuguese application

The methodology proposed by Bouthevillain *et al.* (2001) has not been applied automatically to the Portuguese case. This subsection highlights the main innovations of the Portuguese application⁽¹³⁾.

In what concerns the estimation of fiscal elasticities, several approaches were pursued in Bouthevillain *et al.* (2001), in order to allow for country

specific features. In the Portuguese case, and drawing on past experience, the estimation of fiscal elasticities through time-series regression was completely ruled out. As mentioned before that option has severe drawbacks, as it is virtually impossible to account for the frequent changes of the tax system over the estimation period. Moreover, given the structural changes in the Portuguese fiscal system throughout the second half of the 80s⁽¹⁴⁾ – mainly affecting taxes on goods and services and income taxes – it is extremely difficult to obtain a reasonably long time-series for econometric estimation.

In the case of taxes on companies, the common practice corresponds to set the elasticity with respect to the operating surplus equal to one (see, for instance, van den Noord (2000)). This general feature is preserved in the Portuguese application, but only in the long run. In the short run, an asymmetric lag was introduced to take into account the effects on fiscal revenue of prepayments made by companies. This approach suits in a better way the characteristics of the Portuguese fiscal system.

In very general terms, the elasticity of indirect taxes is close to one, as indirect taxes are flat. Following a common practice in previous studies, for the large majority of European Union countries that elasticity was set equal to one. However, one can argue that a possible deviation from a unitary elasticity could arise from changes in consumer behaviour, as luxuries (necessities) tend to be taxed more (less) heavily. In this way, the elasticity for Portugal is consistent with the results of the estimation of a complete set of Engel curves, estimated at the household level.

For the large majority of countries, the cyclical component of unemployment has been obtained through the use of the Hodrick-Prescott filter. However, in the Portuguese case, it exists a broad agreement that the natural rate of unemployment remained stable since the beginning of the eighties. Therefore, the unemployment gap was estimated as the difference between actual and natural unemployment.

(12) See, for instance, Luz and Pinheiro (1993), Marques and Botas (1997), Modesto (1997), and Gaspar and Luz (1997).

(13) All the results for Portugal included in Bouthevillain *et al.* (2001) as well as the Portuguese country-section were prepared at *Banco de Portugal*, by Luís Morais Sarmiento.

(14) For a description of these changes see Cunha and Neves (1995).

3.3 Trend estimation methods

The definition of a reference (or trend) macroeconomic environment – given the approach described in 3.1. – is not based upon GDP only, but on a number of selected macro variables, which are assumed to exhibit a strong relation with the revenue and expenditure components that are affected by the cyclical positioning of the economy. Those variables are the following: private consumption (C^P), total compensation of private employees (W^P) and the gross operating surplus (OS^P), all expressed in real terms, and private employment (N^P) and the number of unemployed.

The reference (or trend) path for these variables is derived using the Hodrick-Prescott filtering technique (Hodrick and Prescott, 1981). This method is widely used as a simple technique for detrending economic time series. The Hodrick-Prescott filter requires the choice of the value of the smoothing parameter λ . A $\lambda = 0$ corresponds to a trend always equal to the original series (i.e. the cyclical component would not exist). By the contrary, for an infinite λ the trend corresponds to a straight line (i.e. a constant rate of growth). In the literature the choices of $\lambda=1600$ and $\lambda=100$ for quarterly and annual data, respectively, are fairly standard.

Some recent literature addresses the issue of the value of the parameter λ . Ravn and Uhlig (1997), for instance, suggest that a value of 1600 for quarterly data corresponds to a value of 6 to 8 for annual data. Pedersen (1998), on the basis of the minimisation of a loss function defined over the so-called *compression* and *leakage* effects, concluded that a value of $\lambda=4$ would be adequate for a critical length of 8 years for annual data. Finally, according to Maravall and Kaiser (1999), λ should be in the range of 6 to 8 if the critical length is 8 years⁽¹⁵⁾.

Chart 1 shows GDP trend growth rates for alternative choices of λ (10, 30, 100 and 400). Following Bouthevillain *et al.* (2001) this paper uses a value of λ equal to 30. Chart 2 presents the gaps for the macroeconomic variables relevant for the computation of the CABs, using a value of λ equal to 30.

The estimation of the CABs depends on the choice of λ , which is somewhat arbitrary. There-

(15) Correia *et al.* (1992) used an λ equal to 400.

Chart 1
GROWTH RATES OF TREND GDP

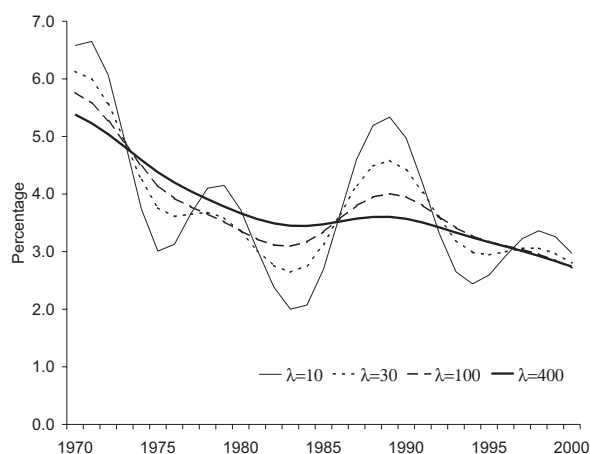
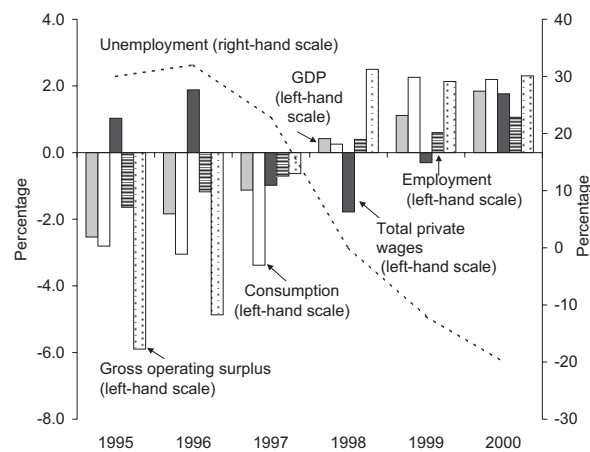


Chart 2
GAP'S OF MACROECONOMIC VARIABLES



fore, some sensitivity analysis is necessary, at least to have some idea about the magnitude of the uncertainty attached to the estimation of the gaps for the different macroeconomic bases. This type of analysis is presented in subsection 4.2 of this paper.

It is well-known that alternative methods can provide quantitatively distinct estimates for potential output⁽¹⁶⁾. Therefore, considerable uncertainty surrounds the measurement of the output gap (and the same applies to the gaps of the relevant tax bases), requiring a very special caution in the interpretation of the results. This results suggests that the estimates obtained should be compared

(16) See, for instance, the results of Botas *et al.* (1998) and Pinheiro (1998) for the *Portuguese economy*.

Table 1

CYCLICALLY ADJUSTED REVENUES AND EXPENDITURES^(a)

As percentage of GDP

	Cyclically adjusted revenues	Cyclically adjusted primary expenditures	Cyclically adjusted primary balance	Interests expenditure	Cyclically adjusted overall balance	Observed overall balance
1995	40.9	38.4	2.5	6.2	-3.8	-4.5
1996	42.1	39.9	2.1	5.4	-3.2	-3.9
1997	42.5	40.0	2.5	4.2	-1.7	-2.7
1998	41.2	40.1	1.1	3.4	-2.3	-2.4
1999	42.0	41.5	0.4	3.2	-2.7	-2.1
2000	41.8	41.3	0.5	3.1	-2.6	-1.8

Note:

(a) Excludes UMTS receipts.

with other quantitative indicators of the degree of utilisation of productive factors in the economy, like the unemployment rate or the rate of capacity utilisation in different sectors of the economy.

4. CABs ESTIMATES FOR PORTUGAL⁽¹⁷⁾

This section is divided in three subsections. The first presents the new estimates of the CABs. The second performs some sensitivity analysis on the value of the smoothing parameter of the Hodrick-Prescott filter. The last subsection deals with the issue of the sensitivity of the budget balances to the cycle.

The period considered is 1995-2000. The choice of this sample period reflects the fact that it is not available an ESA 95 database for the general government accounts prior to 1995.

4.1 CABs for Portugal

Table 1 presents the estimates of cyclically adjusted revenue and expenditure, as well as the estimated cyclically adjusted balances. Table 1 also shows the figures for actual balances. In 2000, the overall cyclically adjusted deficit was larger than the actual deficit⁽¹⁸⁾. This result reflects the fact

that, in 2000, the level of output was above trend. This is also confirmed by the evolution of other indicators. The rate of unemployment stood, in 2000, approximately 1 percentage point below the estimate of the rate of natural unemployment (this corresponds to a gap of about 20 percent in relation to the natural level of unemployment, as it is shown in Chart 2). The rates of capacity utilisation in some sectors of the economy (industry and construction, for instance) were also above historical averages.

Table 2 shows changes in the estimated CABs. The overall cyclically adjusted deficit decreased by approximately 1.1 percentage points from 1995 to 2000. The reduction in interest payments, made possible by the successful disinflation process, was the main explanatory factor. Indeed, interest rate payments decreased by 3.1 percentage points in the period. The cyclically adjusted primary balance decreased by 2.1 percentage points. The reduction has been particularly strong in 1998 and 1999. In this way, the stance of the fiscal policy was clearly expansionary⁽¹⁹⁾.

It is worth mentioning, at this stage, that the estimate of the levels (and to a minor extent of the changes) of the CABs is subject to a considerable uncertainty. Indeed, the results presented in table 1 depend closely on the procedures used in esti-

(17) The empirical results presented in the paper are consistent with the set of macroeconomic estimates and projections made public by *Banco de Portugal* in the current *Economic Bulletin*.

(18) Given the temporary nature and the important amount of the revenue associated with the sales of the UMTS licences, figures for 2000 do not include this revenue (approximately 0.35 p.p. of GDP).

(19) It is beyond the purpose of this paper to confront the (change of) the cyclically adjusted primary balance with the detailed evolution of revenues and expenditures of the General Government. For an explanation for the year of 1998 see, for instance, the box *Recent evolution of the fiscal policy*, in the *Economic Bulletin* of September 1998.

Table 2

CHANGES ON CYCLICALLY ADJUSTED REVENUES AND EXPENDITURES (a)

As percentage of GDP

	Cyclically adjusted revenues	Cyclically adjusted primary expenditures	Cyclically adjusted primary balance	Interests expenditure	Cyclically adjusted overall balance	Observed overall balance
1996	1.2	1.6	-0.4	-0.9	0.5	0.6
1997	0.4	0.0	0.4	-1.1	1.5	1.2
1998	-1.3	0.1	-1.4	-0.8	-0.6	0.3
1999	0.8	1.5	-0.7	-0.3	-0.4	0.3
2000	-0.1	-0.2	0.1	-0.1	0.1	0.3

Note:

(a) Excludes UMTS receipts. The changes shown can be different from the corresponded differences of the figures presented in table 1 due to rounding.

inating a reference path for the relevant macroeconomic variables as well as on the estimation of the tax elasticities. Drawing on the previous experience of Banco de Portugal in the analysis of this type of indicators, we suggest that a much stronger emphasis should be placed on the analysis of the sign (and magnitude) of the change in the CABs than on the corresponding estimates of CABs levels. Chart 3 (Chart 4) shows the changes in the actual and cyclically adjusted overall (primary) balance.

4.2 Sensitivity to alternative smoothing parameters

Given the arbitrariness of the choice of the smoothing parameter λ , it is useful to simulate the impact of the use of different smoothing parameters. Chart 5 and 6 present changes in the overall and in the primary cyclically adjusted balances, respectively, using two alternative choices for the smoothing parameter (equal to 30 and 100, respectively). There are no noticeable differences between the two alternative choices for λ , for this particular period. They provide the same indications on the stance of fiscal policy.

4.3 Sensitivity of the budget balances to the economic cycle

This section deals with the issue of the sensitivity of the budget balances to the cycle. Following the standard practice in the literature, this sensitivity – which corresponds to a semi-elasticity – is defined as the change in the budget balance (in per-

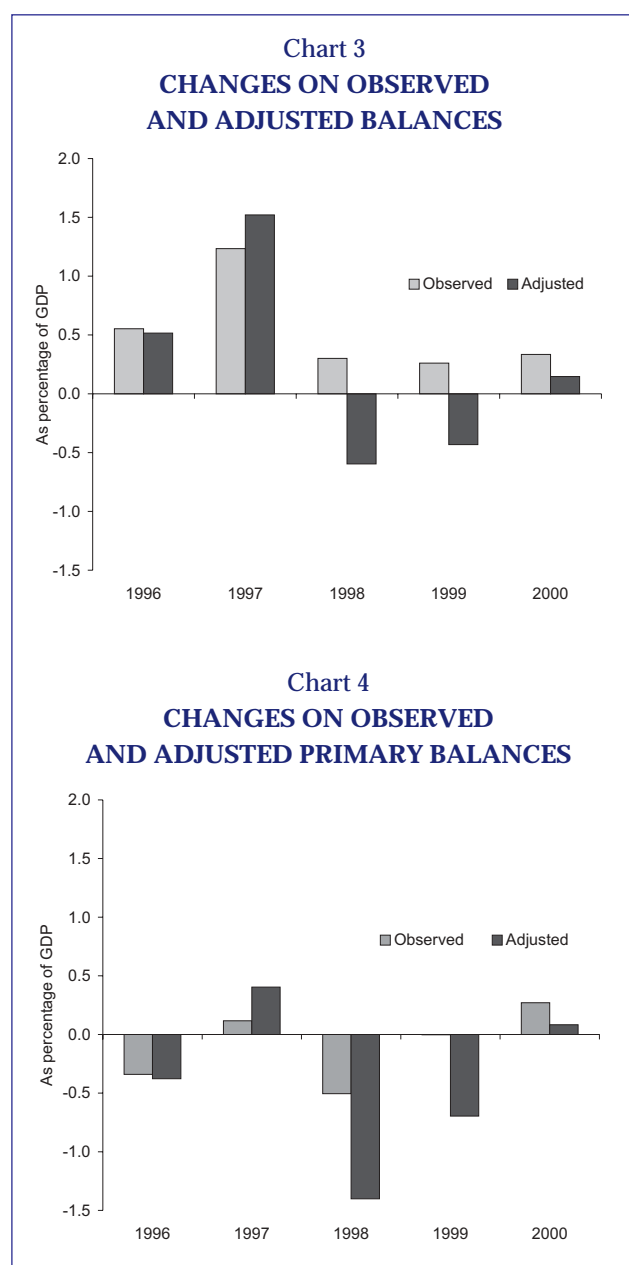


Chart 5
CHANGE ON ADJUSTED BALANCES

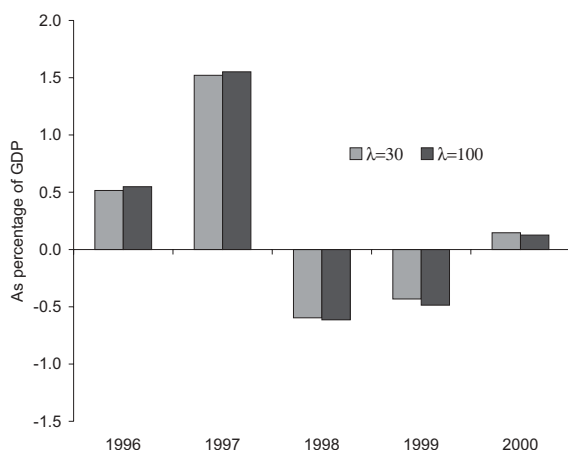
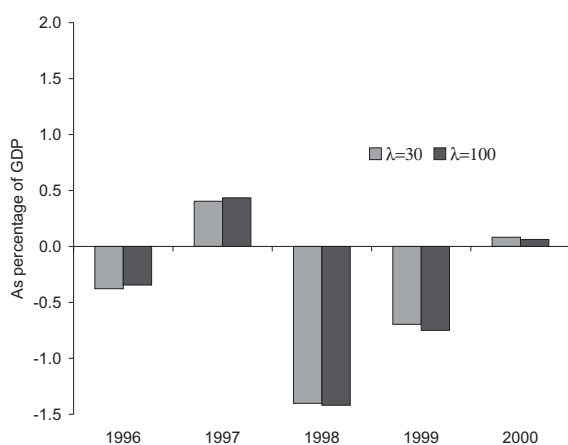


Chart 6
CHANGE IN ADJUSTED
ON PRIMARY BALANCES



centage points of GDP) resulting from a change of 1.0 percentage point in the output gap⁽²⁰⁾. Given the characteristics of the methodology, different compositions of aggregate demand – even if they add up to 1 per cent of GDP – will lead to different estimates of the semi-elasticity.

The computation of this semi-elasticity is not straightforward, as this methodology requires the computation of gaps for several macroeconomic variables other than the GDP. Following Bouthevillain *et al.* (2001), we start with the analysis of a balanced shock, defined as a proportional

change of the private components of the aggregate demand that add up to one percent of GDP⁽²¹⁾.

The output gap can be expressed as a weighted average of the cyclical components of the expenditure items, as follows

$$\begin{aligned} gap(GDP^{PM}) = & \beta_C gap(C^P) + \beta_{I^P} gap(I^P) + \\ & + \beta_{I^G} gap(I^G) + \beta_G gap(G) + \beta_{NX} gap(NX) \end{aligned} \quad (12)$$

where GDP^{MP} is measured at market prices, C^P is private consumption, I^P and I^G are private and public investment, respectively, G is public consumption and NX stands for net exports. The betas are the weights of (the trend of) each demand component in GDP trend⁽²²⁾. According to the methodology presented above, the shock should not affect the public components of aggregate demand (public consumption and public investment). This corresponds to assume that, for the purposes of this exercise, $gap(G) = gap(I^G) = 0$. Henceforth, in order to produce a shock of 1 per cent of GDP, the gaps of the private components of expenditure should be rescaled appropriately (i.e. by more than one per cent).

The income approach to determine GDP also imposes some restrictions. GDP at basic prices is equal to GDP at market prices plus subsidies (S) minus taxes on products, which for the purpose of this exercise are assumed to have the same cyclical component as taxes on goods and services. Finally, national income is defined as labour income (W) plus the operating surplus (OS). Therefore, GDP at market prices can be expressed as

$$\begin{aligned} gap(GDP^{PM}) = & \beta_{W^P} gap(W^P) + \beta_{W^G} gap(W^G) + \\ & + \beta_{OS} gap(OS) - \beta_S gap(S) + \beta_{TP} TGS^C \end{aligned} \quad (13)$$

where $gap(W^G)$ and $gap(S)$ are assumed to be zero.

The sensitivity of the budget balances to the cycle can be derived in different ways. Following Bouthevillain *et al.* (2001), one possible way is to estimate the impact of a balanced shock in which the cyclical components of the private items of ex-

(20) The cyclical components of the global and the primary balances are the same, given that there is no cyclical impact on interest payments, according with this methodology.

(21) The implementation of this exercise raises very interesting technical issues. For a thorough discussion see Bouthevillain *et al.* (2001).

(22) For instance $B_C = \frac{C^*}{Y^*}$, where C^* and Y^* represent the trend values of the private consumption and GDP.

penditure (income) are equal and appropriately scaled in order to produce a gap of one per cent in GDP.

This approach produced a semi-elasticity of the fiscal balance with respect to GDP equal to 0.50 in the steady-state⁽²³⁾ (i.e. assuming that trend GDP is one percent above the baseline). This impact is neither constant throughout time nor independent on the sign of the change in the operating surplus gap, given the method selected to determine the cyclical component of the corporate tax. In the case of an increase in the operating surplus gap, the semi-elasticity is slightly below 0.50 in the first year, and slightly above in the second year, being equal to 0.50 thereafter. In the case of a negative change in the operating surplus gap, the semi-elasticity is always 0.5.

The estimated semi-elasticity is remarkable similar to the one presented in Centeno (1994), where a figure of 0.52 was obtained.

The characteristics of the new methodology allow us, as already said, to assess the impact on fiscal balances of unbalanced demand shocks. Let us take two extreme situations. In the first case, let us assume an increase in external demand directed to Portuguese exports such as that GDP increases, vis-à-vis the baseline, by one per cent, through the usual macroeconomic transmission mechanism: increase in exports, and then in investment, employment and private consumption. This type of shock will produce, of course, a positive impact on tax receipts. This effect, however, is smaller than the one corresponding to the same impact on GDP but with a stronger contribution of domestic demand. Let us then assume, as a second example, a decrease in nominal interest rates, such as that the total impact in GDP amounts to one per cent, vis-à-vis the baseline. The transmission mechanism is now characterised by a stronger deviation vis-à-vis the baseline of domestic demand, private consumption and gross fixed capital formation.

Through the use of a macroeconometric model, it is possible to estimate the impact on the relevant expenditure and income variables (i.e. tax bases) of the two shocks. The impact on fiscal balances is stronger in the interest rate shock, as tax bases are affected by a larger magnitude than in the external demand shock. The estimated semi-elasticities in

the steady-state are, respectively, close to 0.6 and close to 0.4.

5. CONCLUSIONS

This paper described the new approach adopted by *Banco de Portugal* to compute cyclically adjusted balances. The main conclusions are the following:

- a) The new methodology has clear advantages over the previous one. In particular the improvement in the procedures used in the estimation of budgetary elasticities and the possibility to have a different cyclical response of the budget for different compositions of GDP are worth mentioning.
- b) The semi-elasticity of the fiscal balance with respect to GDP is estimated to be approximately 0.5. Therefore, if GDP growth is revised upwards by 1.0 percentage point, public balances (overall and primary) are affected, on average, by 0.5 percentage points. This result is very much in line with previous work done at *Banco de Portugal* (Centeno 1994).
- c) Composition of growth matters for the estimation of cyclical effects. Evidence reported in this study indicates that the relevant semi-elasticity varies between, approximately, 0.4 to 0.6. These estimates correspond to the fiscal sensitivity to an increase in exports, in the first case, and to a decrease in nominal interest rates, in the second case, such as, in both cases, GDP increases, vis-à-vis the baseline by one per cent.
- d) The cyclically adjusted deficit was, in 2000, larger than the observed deficit. This result has consistently been obtained under different assumptions, reflecting the fact that observed output exceed, in 2000, trend output.

A final word of caution should be said on the interpretation of cyclically adjusted figures. Firstly, it should be mentioned that budgets are affected by other factors than cyclically developments, such as the impact of temporary effects, price changes and structural developments of the economy. Second, it is clear that a considerable uncertainty surrounds the estimation of the output

(23) Estimate obtained for the year of 1999.

gap and, therefore, the deviations of any macro variable vis-à-vis its trend. This is particularly the case due to the well-known end-point problem of the Hodrick-Prescott filter. Finally, fiscal elasticities may vary over time and, therefore, a continuous update process reflecting the changes in the fiscal system and the behaviour of economic agents is unavoidable.

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CONVERSION OF PRICES FROM ESCUDOS INTO EURO: QUANTITATIVE ESTIMATE OF ITS EFFECT ON THE CPI*

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*Teresa Nascimento**** and *Carlos Coimbra****

1. INTRODUCTION

The conversion into euro of prices expressed in their current national denominations has raised fears as to its effect on inflation in most Member States participating in the Monetary Union. In order to assess the extent to which these fears are warranted in the Portuguese case, the National Statistics Office (*INE*) and the *Banco de Portugal* have defined a set of simulations, making it possible to envisage three scenarios under which the impact of the conversion on the Consumer Price Index (CPI) can be analysed.

The simulations were conducted by the *INE*, taking as a basis the price sample from which the national CPI for January 2001 was computed. This monthly sample was chosen so as to ensure that simulations were affected by the same seasonal effects which will likely occur in January 2002, the month in which the new euro banknotes and coins will start being used.

This paper's aim was not estimate the probable change in the CPI in January 2002, or even to fully assess all the potential effects of conversion, all the more as it would be virtually impossible to thoroughly isolate, from among general price changes,

those exclusively attributable to the conversion of banknotes and coins from escudos into euro. It is even possible that conversion may sometimes be used as a pretext for a price change, which would inevitably occur whether or not there was a conversion. These price revisions essentially depend on the changes that companies face as regards production and market conditions. However, in addition to these key factors, price revisions can also be influenced by the so-called "menu costs". These costs basically correspond to expenditure related to the replacement of labels, of catalogues and, more generally, of the information on the prices charged. The existence of this type of costs tends to limit the frequency of price revisions. Considering that these changes are inevitable, the conversion of prices from escudos into euro, may lead to earlier price revisions. However, the fact that the dual display of prices has already started and that the conversion will last until the end of February 2002, is likely to smooth this type of effect. Actually, it should be noted that other types of factors are likely to have an opposite effect, in particular the potential beneficial effects on production costs and market operation brought about by the use of the same monetary unit in twelve European Union countries. These factors will tend to last over a far longer period than the first two months of 2002. In addition, the conversion may give rise, at least during these two transition months, to a higher sensitivity of consumers to differences among prices charged for the same goods in different retailers. The possibility of a strong negative

* The opinions expressed in this paper are those of the authors and not necessarily those of the respective institutions. The authors are grateful for the collaboration of Mr. José Figueiredo and Mr. Miguel Bastos from the National Statistical Office in the development and implementation of the computer applications for the algorithms used to prepare the alternative scenarios.

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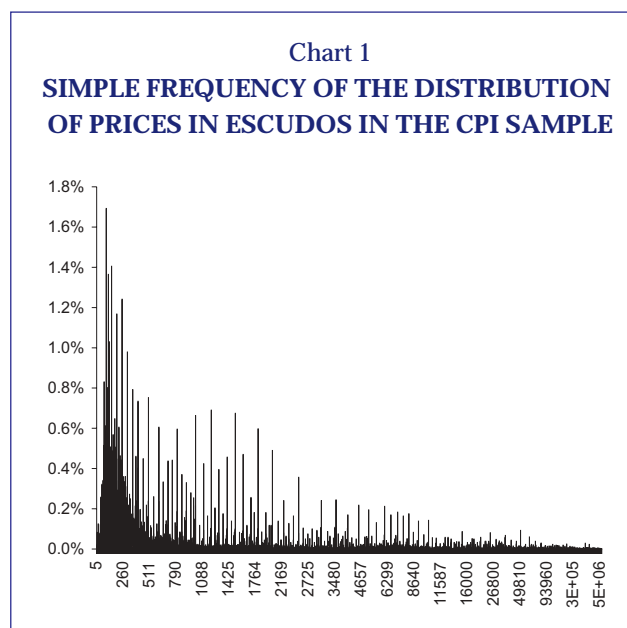
influence on the reputation enjoyed by companies among their customers, which in the case of competitive markets would result in the consequent reduction of the respective market share, associated with the setting of excessively high prices in euro, is likely to act as a deterrent against these practices.

Given that it is difficult to gauge how all these effects will be reflected on the CPI, a pragmatic approach has been adopted. Thus, by analysing the rounding rules and the factors typifying the distribution of the prices of goods included in the CPI reference basket, it will be possible to define the impact of the conversion, depending on assumptions on the behaviour of companies in setting prices in euro. Obviously, one of the scenarios envisaged corresponded to the assumption of a simple conversion of prices from escudos into euro, according to the rounding rules established, taking into account, *inter alia*, that the lowest monetary denomination of the euro is the cent.

The two other scenarios (“optimistic” and “pessimistic”) were drawn up taking into consideration a price-setting practice quite common in retail trade, i.e. the so-called “attractive” prices. From among these prices, two groups can be distinguished, i.e. the so-called “convenient” prices and “psychological” prices. “Convenient” prices are set to facilitate payments, taking into account the relative abundance and the nominal value of the various banknotes and coins in circulation. For this reason, many “convenient” prices correspond to those prices in which the last digits are nil. “Psychological” prices correspond to those which aim at inducing the consumer to undervalue the cost of a good, as is the case for prices with 9 or 90 as last digits, e.g. PTE 499 or PTE 4,990 instead of PTE 500 and PTE 5,000 respectively. Assuming that pricing in euro will also tend to reflect the “attractive” price practice, both scenarios were constructed so as to define a range within which the impact of this practice on developments in the CPI is likely to stand.

According to the results obtained, this range has a relatively reduced magnitude, suggesting that the impact of conversion will be negligible in the Portuguese case.

The remainder of this article is organised as follows: the following section shows a set of charts which allows us to characterise the distribution of



prices in escudos and to perceive the significant frequency of “attractive” prices in some of the categories making up the CPI; the third section handles the criteria underlying the preparation of alternative scenarios; finally, the last section provides the results and conclusions.

2. DISTRIBUTION OF PRICES

The distribution of prices is not independent from the currency “scale”. For example, it is natural that in Italy there are many more prices expressed in the monetary unit (lira) than in Germany (Deutsche marks). The “attractive” price practice will also give rise to some concentration of prices around specific values. In order to observe the distribution of the prices in escudos that make up the CPI, a set of charts has been prepared.

Chart 1 provides an initial overview of the distribution of prices in escudos in the CPI sample. The frequency distribution of these prices is not uniform, given that lower prices have a higher frequency. It should be noted, however, that the high frequency of very low prices not only reflects the existence of a high number of goods with low prices in the consumer basket, but also the fact that several prices of goods in the sample refer to very small units of measure.

“Attractive” prices were empirically identified by means of histograms of the last digits referring

Chart 2
SIMPLE FREQUENCY OF THE
DISTRIBUTION OF THE TWO LAST DIGITS
OF PRICES BELOW PTE 1,000

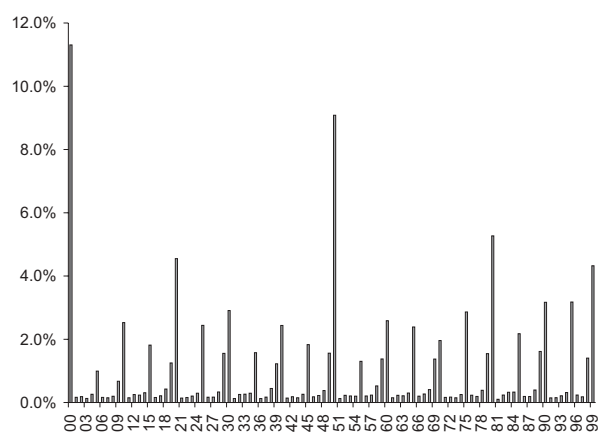


Chart 3
SIMPLE FREQUENCY OF THE DISTRIBUTION
OF THE TWO LAST DIGITS OF PRICES
FROM PTE 1,000 TO PTE 9,999

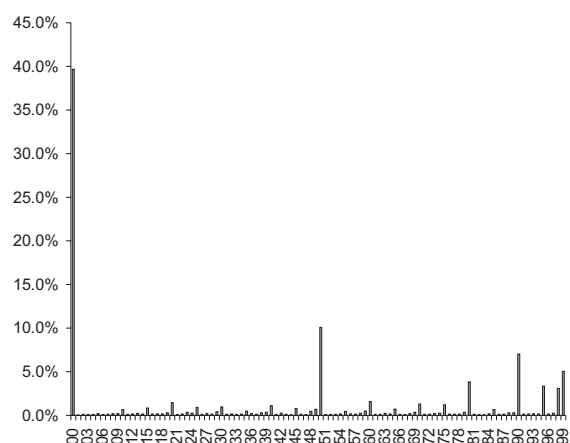


Chart 4
SIMPLE FREQUENCY OF THE DISTRIBUTION
OF THE THREE LAST DIGITS OF PRICES
FROM PTE 10,000 TO PTE 49,999

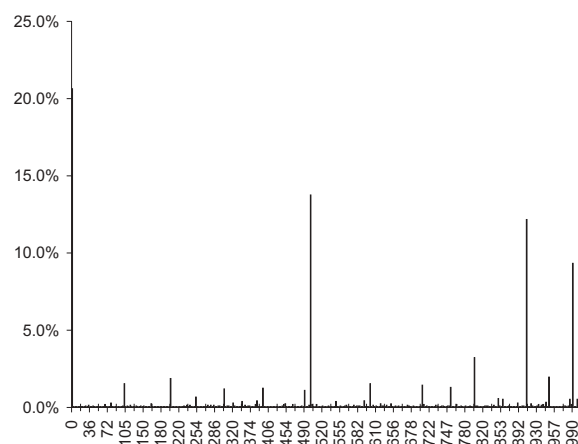
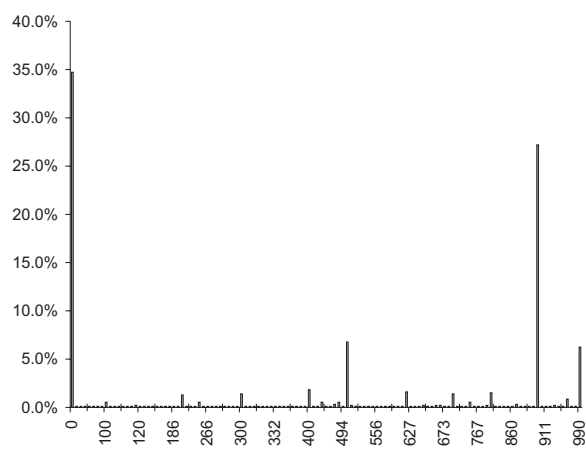


Chart 5
SIMPLE FREQUENCY OF THE DISTRIBUTION
OF THE THREE LAST DIGITS OF PRICES
FROM PTE 50,000 TO PTE 300,000



to different individual price ranges and also to different CPI categories. Thus, firstly the histograms of the last digits referring to four price ranges were constructed, corresponding to prices ranging from PTE 0 to PTE 999, PTE 1,000 to PTE 9,999, PTE 10,000 to PTE 49,999 and from PTE 50,000 to PTE 300,000 respectively, given that lower prices are more frequent (see Chart 1). This is also due to the fact that the higher the prices, the greater the distance between two consecutive prices. In addition, histograms for the last digits regarding the twelve CPI categories were also constructed. Charts 2 and 3 show the frequency of the distribu-

tion of the two last digits of prices for the first two ranges mentioned above and Charts 4 and 5 show the frequency of the distribution of the three last digits of prices for the two last ranges. As can be seen from these charts, the last digits are not evenly distributed and the highest frequencies are concentrated around “attractive” prices. For example, for prices up to PTE 1,000 (Chart 2) stress should be laid on prices ending in 00, 50, 80, 20 and 99, due to the frequencies reached. These results signal a high frequency of “convenient” prices, usually ending in 0, and to a lesser extent, of “psychological” prices, usually ending in 9.

Chart 6

SHARE OF “ATTRACTIVE” PRICES BROKEN DOWN BY CATEGORIES

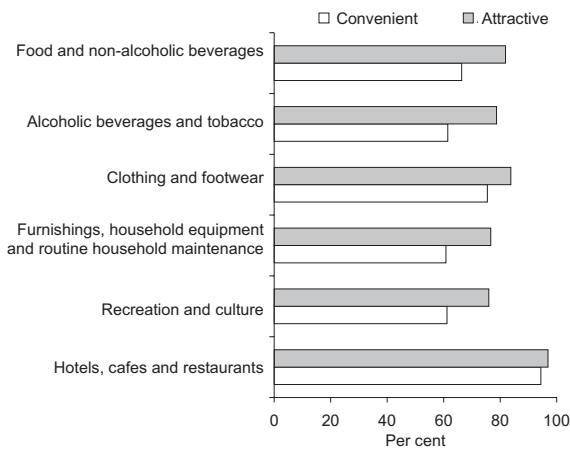


Chart 7

SIMPLE FREQUENCY OF THE DISTRIBUTION OF THE TWO LAST DIGITS OF PRICES OF THE “HOTELS, CAFES AND RESTAURANTS” CATEGORY

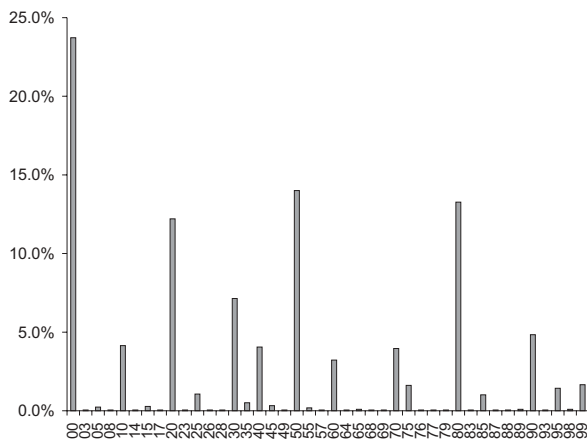


Chart 8

SIMPLE FREQUENCY OF THE DISTRIBUTION OF THE TWO LAST DIGITS OF PRICES OF THE “CLOTHING AND FOOTWEAR” CATEGORY

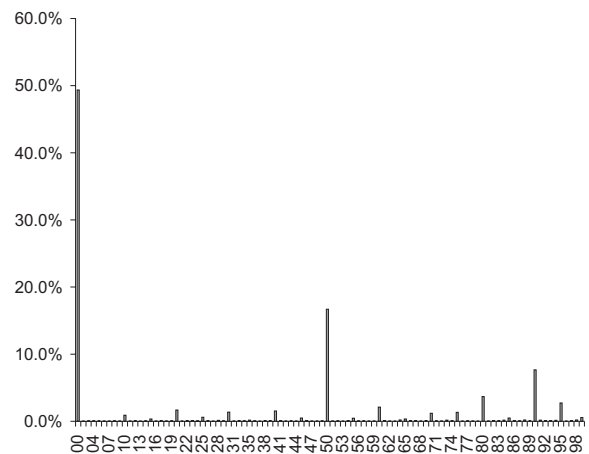
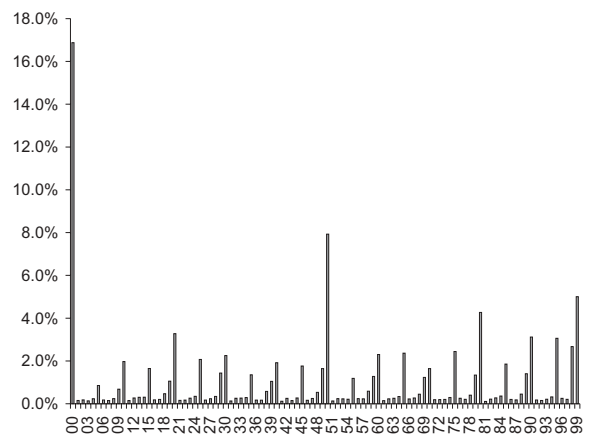


Chart 9

SIMPLE FREQUENCY OF THE DISTRIBUTION OF THE TWO LAST DIGITS OF PRICES OF THE “FOOD AND NON-ALCOHOLIC BEVERAGES” CATEGORY



However, it should be noted that the conditions which the last digits of prices in escudos must meet in order to be considered “psychological” or “convenient” should differ according to the price range considered. For example, Charts 4 and 5 respectively show that from PTE 10,000 to PTE 49,999 and from PTE 50,000 to 300,000 there is a strong frequency of prices ending in 000 and 500, which were considered “convenient” prices, and also of prices ending in PTE 900 and PTE 990, which were considered “psychological” prices on the same scale.

According to the classification adopted, Chart 6 shows the shares of “attractive” prices in the total number of prices for the six categories of the CPI with a higher proportion of these prices. Charts 7 to 9 show the frequency distribution of the two last digits of the prices for the three categories where “attractive” prices are more usual: “Hotels, cafes and restaurants”, “Clothing and footwear” and “Food and non-alcoholic beverages”. These charts show that the two types of “attractive” prices – “psychological” and “convenient” – are clearly noticeable in the “Food and beverages” cat-

egory. In the categories “Clothing and footwear” and “Hotels, cafes and restaurants” “convenient” prices are rather frequent, while “psychological” prices are less used. It should be noted, for example, that the share of prices ending in 00 is almost 50 per cent in the “Clothing and footwear” category, while in the “Food and beverages” category it does not reach 18 per cent.

3. ALTERNATIVE SCENARIOS

As already noted, one of the scenarios envisaged corresponded to the simple conversion of prices from escudos into euro, by applying the specific conversion rate of EUR 1 = PTE 200.482 and taking into account that the lowest denomination of the euro is the cent. According to the conversion rule established, when converting amounts in a national currency into amounts in euro to be paid or accounted, the result is rounded up to the nearest cent if it is exactly half-way or higher, and down to the nearest cent if it is lower.

For example: EUR 1.455 = EUR 1.46
 EUR 1.457 = EUR 1.46
 EUR 1.454 = EUR 1.45".⁽¹⁾

Thus, the price of one kilogramme of rice, currently PTE 185, will be 92 cents, corresponding to a downward rounding by 0,277610958 cents. The price of a pack of cigarettes which is currently PTE 370 will be 1,85 cents, corresponding to an upward rounding by 0,444778085 cents. These examples illustrate the type of impact of simple rounding on prices. While in the first case the conversion from escudos into euro gives rise to a decrease of 0.3%, the second implies an increase of 0.2%. These changes, which occur in particular in prices with a low unit value in escudos, result from the loss of accuracy caused by the rounding to two decimals.⁽²⁾ In the CPI as a whole, as will be seen below, these changes tend to balance each other out.

The two other alternative scenarios were drawn up considering that the simple conversion, in most cases, causes attractive prices in escudos to cease being attractive when converted into euro. Admitting that retailers will tend to maintain the same “attractive” price practice, it is natural that after the simple conversion, prices in euro are pro-

gressively adjusted so as to reproduce the same type of pricing practices. This adjustment can be made in two opposite directions. To the downside, when following the simple conversion from escudos into euro, the “attractive” price in escudos shifts downwards to the nearest “attractive” price in euro. To the upside, when after the simple conversion from escudos into euro, the price shifts upwards to the nearest “attractive” price. As a consequence, to simulate the effect of the attractive price practice in euro, two scenarios were drawn up, one which can be considered “optimistic” and which corresponds to the downward adjustment of the price, and a “pessimistic” scenario, with an inverse adjustment. For the preparation of the scenarios, the sample was divided into two sub-samples. One corresponds to the prices of a set of services in which “attractive” pricing practices are not representative, namely services associated with housing, health and communication, where prices in euro were considered to result from the simple use of official rounding rules after the conversion.⁽³⁾ The other sub-sample corresponds to approximately 81 thousand prices (out of approximately 104 thousand that make up the CPI), where the “attractive” price practice could occur.

The drawing up of these two scenarios made it possible to define the range of the impact of the conversion of prices in escudos to prices in euro, which is attributable to the “attractive price” practice.

(1) See the publication of the Banco de Portugal, “*O Euro de A a Z*”.

(2) Given the reverse relationship between the degree of inaccuracy caused by the rounding and the price level, for the conversion of prices whose unit value in the national denomination of the currency is low and requires a higher level of accuracy than allowed by the lowest monetary unit of the euro (e.g. one kWh of electricity, one minute of telephone conversation or one cubic metre of water), the European Commission suggests that Member States participating in Monetary Union should issue recommendations targeted at using the number of decimals deemed necessary to ensure a similar level of accuracy between prices expressed in national denominations and in euro (See “*The introduction of the euro and the rounding of currency amounts*”, Euro Paper No. 22, March 1998 (February 1999 update)).

(3) As already mentioned in this section, the rounding to the nearest cent can lead to significant inaccuracies in the case of low amounts. Thus, for some goods of the categories “Housing, water, electricity, gas and other fuels”, “Transport” and “Communication” use was made of prices converted into euro with more than two decimals.

4. RESULTS AND CONCLUSIONS

Table 1 shows the results corresponding to the three scenarios, assessed in terms of the impact on the percentage change of the monthly level of the CPI, taking into account the weightings with which the different prices are aggregated. The conclusion drawn is that, even if the “pessimistic” scenario is taken as a reference, the impact is relatively reduced.

Table 2 shows the results of the different scenarios considered relating to the CPI categories.⁽⁴⁾ The impact of the conversion is not likely to be homogeneous: in the pessimistic scenario it reaches a figure above 0.5 percentage points in the “Food and non-alcoholic beverages” category and around 0.4 percentage points in the categories “Alcoholic beverages and tobacco”, “Hotels, cafes and restaurants” and “Miscellaneous goods and services”. Thus, the most important contribution to a possible upward impact resulting from the conversion from escudos into euro will be probably

(4) It should be noted that, as a reflection of the criteria underlying the preparation of the scenarios mentioned above, in all of them the results are equal for the categories “Housing, water, electricity, gas and other fuels”, “Health”, “Communication” and “Education”.

Table 1

EFFECTS ON THE CPI IN DIFFERENT ROUNDING SCENARIOS^(a)

Scenarios	Effect as a percentage
(i) Simple conversion	0.00
(ii) Pessimistic scenario	0.23
(iii) Optimistic scenario	-0.26

Note:

(a) Results derived from price indices with two decimal places.

made by the “Food and non-alcoholic beverages” category, which can be accounted for not only by the high share of “attractive” prices included in this category, but also by the high frequency of significantly low prices and also by the higher weight of food in the overall index.

However, these results must be interpreted with caution, in particular because simulations assume that effects are concentrated in a single

Table 2

EFFECTS ON THE CPI CATEGORIES IN DIFFERENT ROUNDING SCENARIOS^(a)

Per cent

Scenarios	Weights categories (%)	(i) Simple conversion	(ii) Pessimistic scenario	(iii) Optimistic scenario
Food and non-alcoholic beverages	(22.7)	-0.04	0.54	-0.71
Alcoholic beverages and tobacco	(3.2)	0.10	0.43	-0.25
Clothing and footwear	(7.2)	0.00	0.06	-0.08
Housing, water, electricity, gas and other fuels	(10.1)	0.01	0.01	0.01
Furnishings, household equipment and routine household maintenance	(8.1)	0.00	0.15	-0.20
Health	(6.0)	-0.01	-0.01	-0.01
Transport	(21.2)	-0.01	0.04	-0.06
Communication	(2.5)	0.02	0.02	0.02
Recreation and culture	(4.2)	0.03	0.19	-0.19
Education	(1.6)	0.01	0.01	0.01
Hotels, cafes and restaurants	(9.2)	0.05	0.40	-0.27
Miscellaneous goods and services	(4.0)	-0.04	0.42	-0.50
Total	(100.0)	0.00	0.23	-0.26

Note:

(a) Results derived from price indices with two decimal places.

month, when in fact pricing in euro has already started and the conversion will take place during the first two months of 2002. It should also be noted that, as price increases at the beginning of the year are relatively common, the impact of the

conversion is likely to coincide with the impact of the price rises, as mentioned in the introduction, making it difficult for the consumer to understand the reasons behind the price changes at the beginning of the year.

January*

4 January (Instruction no. 1/2001, Official Gazette no. 14, Series II)

Pursuant to the provisions set forth in subparagraphs f) and g) of paragraph no. 1 of article 6 of the Statute of the Public Credit Management Institute, approved by Decree-Law no. 160/96 of 4 September, and in article 11 of Decree-Law no. 280/98 of 17 September, lays down the rules governing the issuance of Treasury bonds as well as the access conditions and the rights and obligations of financial operators in the primary market. Revokes Instruction no. 2-A/98 (Series II) of 17 December, to come into force as from 1 January 2001.

29 January (Circular Letter of the Banco de Portugal no. 2/DMR)

Following Circular Letter no. 347/DMR of 27 October 1999, fixes the rate of return of Deposit Securities, Series B, at 4.77%, for the quarterly interest rate calculation period to start on 4 February 2001.

30 January (Decree-Law no. 19/2001, Official Gazette no. 25, Series I, A)

Introduces changes in the legal framework of mutual guarantee companies, classifying them as credit institutions whose activity is restricted to the carrying out of financial operations and to the provision of related services, on behalf of small and medium-sized companies.

February

2 February (Notice of Banco de Portugal no. 1/2001, Official Gazette no. 34, Series I - B)

Amends Notice no. 1/93, of 8 June, concerning the calculation of the solvency ratio of credit institutions. Introduces changes, namely, in the risk weightings of some assets items (eg. loans secured by mortgages, real estate financial leasing operations and securities collateralised by mortgage loans), as well as in the calculation of the weighted value of off-balance sheet items related to (e.g. swaps, futures and options) contracts on interest rates, exchange rates, equities, precious metals and commodities, which are not traded in a recognised market.

15 February (Instruction of Banco de Portugal no. 1/2001, BNPB no. 2/2001)

Sets forth the procedure regarding the notification to the Banco de Portugal of the sale of credit within the scope of securitisation operations.

15 February (Instruction of Banco de Portugal no. 2/2001, BNPB no. 2/2001)

Amends Instruction no. 4/96 (Chart of Accounts for the Banking System), requiring the publication, in the Notes annexed to the annual accounts, information of securitisation operations.

16 February (Notice of Banco de Portugal no. 2/2001, Official Gazette no. 40, Series I - B)

Considering the drawing closer of the start of the physical circulation of the euro in 1 January 2002, encourages the utilisation of cheques denominated in euro, regulating some aspects concerning their utilisation.

March

2 March (Circular Letter of Banco de Portugal no. 4/01/DSBDR)

Makes known that Instruction no. 6/2001 - amending the scope of account "9203 - Irrevocable credit lines" of the Chart of Accounts for the Banking System - has been approved. In this conformity, within one month from the date of receipt of the above-mentioned Circular Letter, institutions must reclassify the credit lines and communicate to the Banco de Portugal the resulting change in the amount of the provisions for general credit risks.

20 March (Notice of Banco de Portugal no. 3/2001, Official Gazette no. 67, Series I, B)

In accordance with the provisions laid down in no. 4 of article 1 of Decree-Law no. 3/94, of 11 January, as worded by Decree-Law no. 53/2001, of 15 February, establishes the requirements to be complied with by exchange offices wishing to provide cash transfer services to and from abroad.

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

April

3 April (Notice of Banco de Portugal no. 4/2001, Official Gazette no. 79, Series I, B)

Adds no. 9-A and rewords nos. 5 and 8 of Notice no. 12/92, of 22 December, published in Official Gazette no. 299 Series II, 2nd Supplement, of 29 December 1992, which provides for the assets that can be included in the own funds of institutions subject to the supervision of Banco de Portugal and defines their characteristics. In particular, deductions from own funds shall include, for their purchasing price, the amount corresponding to securities, resulting from securitisation operations, held by entities that do not assign the underlying assets, when the latter, due to their characteristics, concentrate the credit risk of the said assets.

3 April (Regulation no. 5/2001 of the Stock Market Commission, Official Gazette no. 79, Series II)

Changes Regulation no. 24/98, of 28 December, with a view to simplifying and making more flexible the procedures regarding the execution of the redenomination methods approved. Rewords articles 11, 18 and 19 and revokes articles 8 and 17 of the above-mentioned Regulation, in which the reference to “*Central de Valores Mobiliários*” is replaced with “*Interbolsa*”.

17 April (Decree-Law no. 118/2001, Official Gazette no. 90, Series I, A)

Introduces changes in articles 4, 6, 39, 59, 64 and 65 of the Organic Law of the Banco de Portugal, approved by Law no. 5/98, of 31 January, in force since the date of adoption of the euro. Article no. 64 of the Organic Law, as worded by the mentioned Decree-Law, is effective as of 1 January 2001.

17 April (Decree-Law no. 117/2001, Official Gazette no. 90, Series I, A)

Regulates, on the monetary segment, the period for the double currency circulation from 1 January to 28 February 2001. It shall be incumbent on the Banco de Portugal to establish, by means of a Notice, the rules applicable to any regulation that may be deemed necessary. For a period of 20 years, from 28 February 2002 onwards, the Banco de Portugal shall receive and pay in euro the banknotes mentioned in article 2 submitted to it.

19 April (Notice of the Banco de Portugal no. 5/2001, Official Gazette no. 92, Series I, B)

Introduces changes in sub-section III of section B of the annex VI to Notice no. 7/96, of 24 December, taking into account the changes in the concept of over-the-counter derivative instruments envisaged in Directive no. 93/6/EEC, of 15 March, considering the entry into force of Directive no. 2000/12/EC of the European Parliament and of the Council of 20 March, and considering also the provisions laid down in articles 9 to 11 of Decree-Law no. 250/2000, of 13 October. As a result, the assessment of own fund requirements for the coverage of counterparty risk of any over-the-counter derivative instruments included in the trading portfolio shall be made according to the “mark-to-market” valuation.

23 April (Decision no. 8484/2001, Official Gazette no. 95, Series II)

Approves, pursuant Article no. 63 (1) of the Organic Law of the Banco de Portugal (Law no. 5/98, of 31 January) the adjustments introduced in the Chart of Accounts of the Banco de Portugal, as a reduced version.

23 April (Notice of the Banco de Portugal no. 6/2001, Official Gazette no. 95, Series I, B)

Adds an item c) to article 5 of Notice no. 8/94, of 2 November (which embodies provisions relating to supervision on a consolidated and sub-consolidated basis), widening the scope in which the Banco de Portugal may require supervision on a sub-consolidated basis.

24 April (Decree-Law no. 134/2001, Official Gazette no. 96, Series I, A)

Reviews the personal income tax withholding system. Introduces changes in a number of articles, adds an article 2-A and fully republishes Decree-Law no. 42/91, of 22 January, with the changes introduced by Decree-Laws no. 263/92, of 24 November, 95/94, of 9 April, 18/97, of 21 January, by Law no. 87-B/98, of 31 December, and by the present Decree-Law.

26 April (Regulation of Stock Market Commission no. 2/2001, Official Gazette no. 97, Series II)

Introduces changes in article no. 2 of Regulation no. 10/98, of 5 August, which lays down the rules governing repo operations and security lending, carried out on behalf of transferable securities investment trusts.

30 April (Circular-Letter of the Banco de Portugal no. 7/DMR)

Informs that, in the wake of Circular-Letter no. 347/DMR, of 27 October 99, the rate of return of the Certificates of Deposit, Series B, is fixed at 4,77%, to prevail on the quarter started on 4 May 2001.

May

7 May (Decision no. 9501/2001, Official Gazette no. 105, Series II)

Approves the final plan for the transition of financial administration to the euro, taking into account the proposal submitted by the working group created by Decision no. 15379/2000 of 28 July, and considering the provisions laid down in no. 2 of the Resolution of the Council of Ministers no. 170/2000, of 7 December.

11 May (Resolution of the European Council of 23 March 2001 (OJ C 138, 11.5.2001))

Resolution of the European Council on more effective securities market regulation in the European Union.

12 May (Regulation no. 3/2001 of the Stock Market Committee, Official Gazette no. 110, Series II)

Pursuant to the provisions set forth in paragraph 1 b) of article 353 of the Stock Market Code, and for the purposes of the provisions of articles 8 and 24 of Decree-Law no. 276/94, of 2 November, as worded by Decree-Law no. 323/99, of 13 August, lays down the rules according to which the entities managing mutual funds must publish in one of the stock market bulletins the disaggregated composition of the placements of each investment fund managed by them, the respective overall net value, the off-balance sheet liabilities and the number of equities outstanding. Revokes Regulation no. 7/98, of 25 June.

17 May (Circular Letter of Banco de Portugal no. 10/01/DSBDR)

Recommends for credit institutions and financial companies that resort to the Internet as a distribution channel for their services, a set of procedures to be followed within the framework of their internal organisation and control, in order to reduce the risks to which they are exposed, taking into account the increased use of electronic means in the provision of such services.

18 May (Circular Letter of Banco de Portugal no. 11/01/DSBDR)

Recommends that the clients of credit institutions who suffer damages due to delay in the settlement of debits unduly made for reasons imputable to such institutions, shall be compensated, at least, with the payment of an amount corresponding to the application of the official interest rate to the amounts in question, calculated between the date on which they should have been processed and the respective settlement date.

23 May (Circular Letter of Banco de Portugal no. 12/01/DSBDR)

Informs that considering the changes to be introduced in Notice no. 6/95, which are in course of preparation, and which are foreseen to take effect from the beginning of the second half of 2001 onwards, it is allowed, provided that some conditions are met, the registration against results carried forward of increases in liabilities arising from early retirements.

June

6 June (Notice of the Banco de Portugal no. 7/2001, Official Gazette no. 131, Series I, B)

Fixes at EUR 50,000 the value of the initial contribution to be delivered by credit institutions to the Deposit Guarantee Fund (Revokes Notice no. 8/95).

15 June (Instruction of the Banco de Portugal no. 10/2001, BNPB no. 6/2001)

Lays down the regulations governing the reporting to the Banco de Portugal of the composition of financial groups.

15 June (Instruction of the Banco de Portugal no. 11/2001, BNPB no. 6/2001)

Lays down the requirements to be complied with by credit institutions, when these promote among the public, by means of third parties, the carrying out of operations they are authorised to conduct.

15 June (Circular-Letter of the Banco de Portugal no. 10/2001/DSB)

Contains prudential recommendations on the provision of financial services through the Internet.

15 June (Circular-Letter of the Banco de Portugal no. 12/2001/DSB)

Authorises, up to the entry into force of the changes introduced in Notice no. 6/95 (on the coverage of liabilities in survivorship and retirement pensions) the exemption, against results carried forward, of liabilities accrued on account of early retirements.

21 June (Recommendation of the European Central Bank)

Recommendation of the European Central Bank on the statistical requirements of the European Central Bank related with balance of payments statistics, the institutional reserves model and the international investment position (BCE/2000/5). This Recommendation replaces Recommendation BCE/1998/NP21, pursuant to the rectifications to pages 4 to 6 included in the OJ, Series C, no. 179, of 23-06-2001.

July

3 July (Decree-Law no. 198/2001, Official Gazette no. 152, Series 1, A)

Approves the overall revision of the provision laid down in the Personal Income Tax Code, approved by Decree Law no. 442-A/88, of 30 November, in the Corporate Income Tax Code, approved by Decree-Law no. 442-B/88, of 30 November, and in the Statutes on Tax Incentives, approved by Decree-Law no. 215/89, of 1 July, and publishes, in attachment, the respective provisions. Revokes Articles nos. 5, 9 and 10 of the said Decree-Law no. 215/89, of 1 July.

4 July (Circular Letter of the Banco de Portugal no. 10/DMRPM/AR)

Sends diskette containing files with the lists of all institutions subject to and exempt from reserve requirements in the euro area on 28 June 2001.

6 July (Circular Letter of the Banco de Portugal no. 15/01/DSBDR)

Sends diskette containing an application with information reported on the maps of a prudential nature envisaged in the Instruction of the Banco de Portugal no. 25/97.

6 July (Directive no. 2001/34/CE, Official Gazette no. 184, Series A)

Adopts measures on the admission of securities to official stock exchange listing and on information to be published on those securities. The Member States shall communicate to the Commission the texts of the main laws, regulations and administrative provisions which they adopt in the field covered by this Directive. Directives 79/279/EEC, 80/121/EEC and 88/627/EEC are hereby repealed, as amended by the acts listed in Annex II Part A, without prejudice to the obligations of the Member States concerning the time-limits for transposition set out in Annex II Part B. The references to the repealed Directives shall be construed as references to this Directive and should be read in accordance with the correlation table shown in Annex III. This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Communities.

6 July (Circular Letter of the Banco de Portugal no. 16/01/DSBDR)

Sends diskette containing an application with information reported on the provisions maps envisaged in the Instruction of the Banco de Portugal no. 91/96.

18 July (Circular Letter of the Banco de Portugal no. 18/01/DSBDR)

Recommends that credit institutions and financial corporations should carefully examine the operations agreed with residents in or entities having their head office in countries or territories considered as non co-operating for the purposes of prevention and repression of money laundering.

19 July (Circular Letter of the Banco de Portugal no. 19/01/DSBDR)

Sends a new Instruction (to be published in the August issue of the "Boletim de Normas e Informações" (News and Information Bulletin)) on regular information on liquidity.

27 July (Accounting Directive no. 27 of the Ministry of Finance, Official Gazette no. 173)

Lays down the principles for reporting financial information by segments, so as to make its understanding more clear to users of financial statements.

27 July (Circular Letter of the Banco de Portugal no. 41/DPGDS)

Sends the schemes for the discontinuance of the escudo within the scope of the interbank clearing system (Portuguese abbreviation: SICOI), regarding the following subsystems and respective chronograms: Cheque Teleclearing, Commercial Bills, Direct Debits and Interbank Electronic Transfers.

30 July (Circular Letter of the Banco de Portugal no. 12/DMR)

Informs that, in the wake of Circular Letter no. 347/DMR, of 27 October 1999, the rate of return of the Certificates of Deposit, Series B, is fixed at 4,51%, to prevail on the quarter started on 4 August 2001.

August

2 August (Circular Letter of the Banco de Portugal no. 13/DMRPM/AR)

Sends diskette containing files with the lists of all institutions subject to and exempt from reserve requirements in the euro area on 30 July 2001.

2 August (Circular Letter of the Banco de Portugal no. 20/01/DSBDR)

Information to be supplied to customers by credit institutions, prior to the celebration of housing loan agreements - Communicates that the Recommendation of the Commission no. 2001/193/CE should be complied with by credit institutions.

20 August (Law no. 91/2001, Official Gazette no. 192, Series I, A)

Lays down the general and common framework provisions relating to the budget and accounts of all the sectors of the general government (Budgetary Framework Law).

September

17 September (Circular Letter of the Banco de Portugal no. 20/2001/DSB)

Recommends institutions to follow, without prejudice to the obligation to comply with the rules on transparency and information to be given to the public, Commission Recommendation no. 2001/193/EC of 1 March 2001 on pre-contractual information to be given to consumers by lenders offering home loans.

17 September (Notice of the Banco de Portugal no. 8/2001, Official Gazette no. 223, Series I-B)

Revokes, in the wake of the publication of Instruction no. 20/2001, which lays down a new framework for the regular monitoring of the liquidity levels of deposit-taking credit institutions, the Notice of the Banco de Portugal published in the Supplement no. 142 to the Official Gazette, Series II, of 20 June 1984.

25 September (Notice of the Banco de Portugal no. 9/2001, Official Gazette no. 231, Series I-B)

Introduces changes in Notice no. 1/93 of 8 June on the calculation of the solvency ratio of credit institutions, in the field of risk weighting of mortgage loans on the residential property of the borrower and of the procedures for the assessment of this property. Rewords paragraph 2 and adds a paragraph 4c to part I of the annex to the aforementioned notice.

25 September (Instruction of the Banco de Portugal no. 23/2001, BNP no. 10/2001)

Fixes the basic contributory rate to be applied in the calculation of the contributions relating to the year 2002 to be delivered to the Deposit Guarantee Fund by participating institutions.

25 September (Instruction of the Banco de Portugal no. 24/2001, BNP no.10/2001)

Fixes at 75 per cent the limit for the irrevocable payment commitment to be applied in contributions relating to the year 2002 to the Deposit Guarantee Fund.

28 September (Decree-Law no. 262/2001, Official Gazette no. 226, Series I-A)

Lays down the framework of brokers and dealers. Revokes Decree-Law no. 229-I/88 of 4 July.

October

4 October (Regulation no. 4/2001 of the Stock Market Commission, Official Gazette no. 247, Series II)

Pursuant to the provisions set forth in Articles 10 and 32 and in paragraph 3 of Article 34, paragraphs 3 and 4 of Article 35, and paragraph 2 of Article 36 of Decree-Law no. 394/99 of 13 October, establishes the legal framework of the bodies managing markets, central securities systems, securities settlement systems and services. Revokes Regulation no. 3/2000 of 2 February and Regulation no. 28/2000 of 1 August.

15 October (Circular Letter of the Banco de Portugal no. 35/01/DSBDR)

Clarifies that in the event of a reduction in the capital stock of a mutual agricultural credit bank belonging to the Integrated Mutual Agricultural Credit Scheme, in accordance to the provisions laid down in subparagraph c), of paragraph 3 of Article 17 of the Legal Framework of Mutual Agricultural Credit, the own funds to be considered shall be stripped of amounts that might lead to the breach of the relationship between basic and supplementary own funds or to the non-compliance with the ceiling fixed for medium and long-term subordinated loans.

17 October (Circular Letter no.36/01/DSB)

Advises credit institutions and financial companies to examine with particular caution operations negotiated with residents or with individuals established in countries and territories, which are considered non-cooperating, within the scope of the money laundering prevention. Revokes Circular Letter no. 18/01/DSBDR of 11 July.

29 October (Circular Letter no. 16/DMR)

Following Circular Letter no. 347/DMR of 27 October 1999, fixes at 3.76% the rate of return of the Certificates of Deposit, Series B, to prevail in the quarter started on 4 November 2001.

November

20 November (Notice of Banco de Portugal no. 11/2001, Official Gazette no. 269, Series I - B)

Taking into account the provisions set forth in subparagraph a) of article 4 of Decree-Law no. 166/95, of 15 July, introduces changes in the regulatory framework of payment cards. Revokes Notice no. 4/95, of 28 July, as well as Instruction no. 47/96, published in *Boletim de Normas e Informações* (Rules and Information Bulletin) of the Banco de Portugal, of 17 June 1996.

20 November (Notice of Banco de Portugal no. 10/2001, Official Gazette no. 269, Series I - B)

Establishes the regulatory framework, for prudential purposes, of credit and other assets securitisation operations carried out by credit institutions and financial companies. Introduces changes in paragraphs 8 and 9 of part I of the annex to Notice no. 1/93, of 8 June, in paragraph 9?A of Notice 12/92, of 29 December, and adds subparagraph d) to paragraph 11 of Notice no. 10/94, of 18 November. The Banco de Portugal will establish, by means of an Instruction, the date on which the transitional system envisaged in the Notice will end.

21 November (Regulation no. 5/2001 of the Stock Market Commission, Official Gazette no. 270, Series II)

Pursuant to the provisions set forth in subparagraph b) of article 242 of the Stock Market Code, introduces changes in article 50 of Regulation no. 10/2000, in order to make more flexible the preparation of the process regarding the approval of the prospectus for the listing in a regulated market of securities other than shares.

22 November (Executive Order no. 1303/2001, Official Gazette no. 271, Series I - B)

Pursuant to the provisions laid down in article 211 of the Stock Market Code, approved by Decree-Law no. 486/99 of 13 November, sets the rates to be paid to the Stock Market Commission, namely by the market managing entities, on the value of each buying and selling operation, both in normal and in special sessions, by the managing entities of central settlement systems and central securities systems, by investment fund managing entities and by selling entities of foreign collective investment undertakings; it also sets the rates to be paid on the transmission of securities negotiated in a regulated market and executed outside the regulated market. Revokes

Executive Orders no. 313-A/2000 (Series II) of 29 February and no. 1338/2000 (Series II) of 5 September.

26 November (Notice of Banco de Portugal no. 12/2001, Official Gazette no. 272, Series I - B)

Introduces changes in the regulatory framework of the coverage of liabilities arising from survivorship and retirement pensions that should be complied with by credit institutions and financial companies and adapts this framework to some internationally accepted accounting rules, namely IAS 19. Revokes Notice no. 6/95, of 21 September. The above-mentioned Notice enters into force on 31 December 2001, except for subparagraph 2c of paragraph 7, which enters into force on the date mentioned in the Instruction referred to therein.

December

5 December (Circular Letter of Banco de Portugal no. 49/01/DSBDR)

Clears doubts as to the accounts that should be used in the registration of fees charged on operations on derivatives traded in organised markets.

6 December (Circular Letter of Banco de Portugal no. 18/DMRPM/AR)

Sends a diskette containing files with the lists of all institutions subject to and exempt from reserve requirements in the euro area on 29 November 2001.

7 December (Guideline of the European Central Bank 2001/833/EC, OJ L310)

Introduces changes in Guideline ECB/2000/1 on the management of the foreign reserve assets of the European Central Bank by the national central banks and the legal documentation for operations involving the foreign reserve assets of the European Central Bank. The above-mentioned Guideline enters into force on 23 November 2001 (ECB/2001/12) and it is addressed to the national central banks of participating Member States.

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