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THE PORTUGUESE ECONOMY IN 2004

1. INTRODUCTION

In 2004 Portuguese GDP should grow between 1 and 1½ per cent in real terms, compared with a similar negative change (-1.3 per cent) in 2003 (Table 1.1). The current projection basically confirms the projection for GDP growth made in the June 2004 issue of the *Economic Bulletin* of the Banco de Portugal, corresponding only to a narrowing of the range and keeping the middle projection point at 1¼ per cent. However, the composition of growth has changed sizably in the current forecast.

Real changes in private consumption and exports will likely exceed the upper limits of the projection ranges released in June and the change in gross fixed capital formation (GFCF) should be in the upper section of the respective range. However, the main difference in the composition from the June economic scenario is related to the surprising performance of goods and services imports, which are likely to record a growth rate between 7 and 9 per cent in volume, i.e. almost the double of the figure projected in the June issue of the *Economic Bulletin*. Thus, although the projection for the GDP growth rate is confirmed, currently it is considered that domestic demand will make a relatively strong contribution to this growth and that the contribution of exports net of imports will be negative, notwithstanding the above-mentioned favourable performance of exports.

The change in the composition of growth will give rise to a significant deterioration of the combined current and capital account deficit, via the deterioration of the goods balance, which is also due to a loss in terms of trade, only partially associated with the rise in the international price of oil. Indeed, the combined current and capital account deficit is projected to stand between 4¼ and 5¾ of GDP, compared with 3.6 per cent in 2003[1]. Thus, notwithstanding the rather subdued growth of GDP, in 2004 the gradual and endogenous adjustment process of the aggregate financial situation of

Table 1.1

MAIN ECONOMIC INDICATORS

Percentage rates of change

	2003	2004	*Memo:* 2004
			EB June 2004
Private consumption	-0.7	1 ½ ; 2 ½	¼ ; 1 ¾
Public consumption	0.5	0.6	-0.6
GFCF	-9.6	¾ ; 2 ¾	-¼ ; 2 ¾
Domestic demand	-2.5	¾ ; 2 ¾	0 ; 2
Exports	4.1	7 ; 8	5 ; 6 ½
Overall demand	-1.0	2 ½ ; 3 ½	1 ; 3
Imports	-0.5	7 ; 9	2 ¾ ; 5 ¾
GDP	-1.3	1 ; 1½	¾ ; 1 ¾
Current account + capital account (%of GDP)	-3.6	-5 ¾ ; -4 ¼	-4 ; -2
Harmonized Index of Consumer Prices	3.3	2.4 ; 2.6	2.2 ; 3

the private sector, which had characterised developments in the Portuguese economy since 2001, was interrupted, hopefully temporarily. Considering that the net borrowing requirements of the general government are likely to remain broadly unchanged from 2003 (even abstracting the one-off operations that have favoured the Portuguese public accounts), the rise in the net borrowing requirements of the Portuguese economy reflects a decline in the net financing capacity of resident households and corporations. In 2003, for the first time since the mid-90s, the private sector showed a net financing capacity of approximately 1½ per cent, adjusted for the above-mentioned one-off operations. If the current projections of the Banco de Portugal for 2004 are confirmed, the net financing capacity of resident households and corporations as a whole will be virtually nil.

As regards households, another evidence of this evolution of the financial situation is the probable reduction of the respective savings rate by around ½ percentage point (p.p.) of disposable income in 2004. This fall in the savings rate is observed against a background of continued and significant expansion of the "forced" component of this saving related to the repayment of household debt, and of a clearly favourable performance of disposable income, which should have accelerated by approximately 2 p.p. in real terms, returning to a positive growth rate. However, the recovery of private consumption of resident households seems to have been even stronger, after a slight drop in 2003 and rather moderate growths in the two previous years.

It may be argued that there are statistical uncertainty factors that may cause some over-estimation of resident households' consumption, counterbalanced by an under-estimation of the consumption of non-residents, who travelled to Portugal for tourism purposes. With the introduction of the euro banknotes and coins, it became particularly difficult to identify as tourism revenue the amount of euro banknotes and coins spent by non-residents, particularly given the holding of the European Football Championship in 2004. It should be noted that this uncertainty does not have a bearing on GDP estimates, affecting only the estimate of the breakdown of expenditure in the territory into resident and non-resident expenditure and, hence, also other variables such as the household savings rate and the goods and services account. Anyway, even if there is some over-estimation of resident consumption and a corresponding under-estimation of the savings rate, the quantitative expression of this phenomenon seems to be relatively reduced and cannot give rise to a qualitative change in developments projected for the aggregate financial situation of Portuguese households.

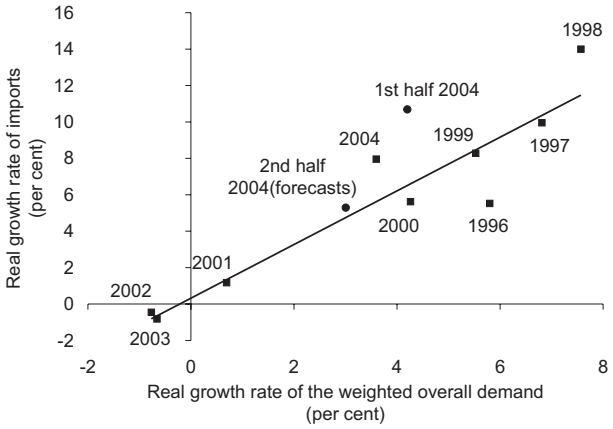
As mentioned, the projected rate of change of GFCF was revised to the upper section of the projection range released in June, with the central projection being revised upwards by ½ p.p. A real positive growth between ¾ and 2¾ per cent is now projected, after reductions of 4.9 and 9.6 per cent in 2002 and 2003 respectively. By main types of goods, only GFCF in construction should still record a negative real change, while other components are expected to recover to positive growth rates, with emphasis on the strong increase, between 6 and 10 per cent, of investment in machinery and metallic products.

In the June 2004 issue of the *Economic Bulletin*, risk factors had been clearly identified related to the fact that the performance of private and public domestic demand in 2004 could turn out to be stronger than expected; however, the magnitude of this revision was not anticipated nor, mainly, its effect on import growth, which basically prevented that the higher buoyancy of overall demand was fully passed through to output growth. Chart 1.1 illustrates the anomalous nature of the observed real growth of goods and services imports in the first half of 2004. It can be seen that the real rate of change of imports is well above the one implied by the average relation between this variable and the weighted overall demand, in which the rates of change of the various components of domestic demand and exports are weighted by their respective percentage of average import content.

According to the monthly coincident indicator of the Banco de Portugal (Chart 1.2), the year-on-year change in GDP reached its most negative figure at the end of the first half of 2003, picking up subsequently up to the second quarter of

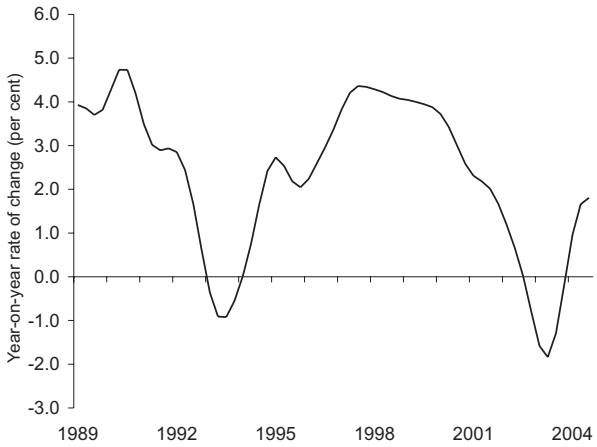
(1) In the *Annual Report* of 2003 and in the June 2004 issue of the *Economic Bulletin*, the estimate for the deficit in 2003 was of 3.0 per cent of GDP; this figure was revised in September by the Banco de Portugal following a statistical revision of international trade released by the National Statistical Institute (*INE*) in August.

Chart 1.1
WEIGHTED OVERALL DEMAND AND IMPORTS OF GOODS AND SERVICES



Source: Banco de Portugal.

Chart 1.2
ACTIVITY COINCIDENT INDICATOR



Source: Banco de Portugal.

2004. In the course of the third quarter, the year-on-year growth of GDP remained relatively stable. The projections for 2004 as a whole presented in this *Bulletin* assume that later in the year the growth of domestic demand, and to a lesser extent GDP growth, will moderate somewhat, as signalled by some more recent economic indicators. In this sense, it was admitted that part of the buoyancy of domestic demand and imports was temporary and that there will be a progressive return to a more balanced growth pattern. In fact, if the performance of the domestic demand indicators, in particular private consumption, and imports were simply extrapolated for the year as a whole, the deterioration of the external deficit and of the net lending/net borrowing capacity of households and corporations would be even stronger. However, the anomalous nature of the behaviour of some aggregates in the first half of the year suggests that is reasonable to consider them, at least in part, as temporary. Obviously, this implies a higher degree of uncertainty than usual regarding Portuguese economic developments in the present and in the near future. Anyway, uncertainty is concentrated in the composition of growth and in the financing of this growth, rather than in the GDP rate of change.

In line with the recovery in output in the first half of 2004, total employment, assessed by the Employment Survey of the National Statistical Institute (*INE*), virtually stabilised compared with a year earlier, recording a slightly positive change. The analysis in constant sample shows that these developments result from a net creation of employment associated with the self-employed without employees and with the employees on a temporary labour contract, which more than offset the net loss of jobs with a permanent labour contract. The unemployment rate has also remained relatively stable since 2003, standing at 6.3 per cent in the second quarter of 2004, i.e. only slightly above the rate recorded in the corresponding quarter of 2003. The virtual stagnation of the unemployment rate reflected a strong deceleration of the year-on-year growth of the number of unemployed, which fell from 26.5 per cent in 2003 as a whole (41.7 per cent in the first half of the year) to 2.4 per cent in the first half of 2004. It should be noted however that there is currently a strong growth of long-term unemployment. On the other hand, similarly to developments in recent years, the number of the unemployed benefiting from unemployment subsidy rose again more than the total number of the unemployed. These developments are confirmed by the rise in the coverage rate of the unemployment subsidy among the unemployed, which rose from 43 to 47 per cent between the first half of 2003 and the first half of 2004.

According to estimates of the Banco de Portugal, in 2004 compensations per employee in the private sector of the economy (i.e. excluding the general government) increased by 3.7 per cent, on average, representing a ½ p.p. point rise from 2003.

Turning to unit labour costs, the slight wage acceleration was more than offset by a rise of approximately 1 per cent in apparent labour productivity, reversing the drop recorded in 2003. Thus, unit labour costs in the private sector should have increased between 2½ and 3 per cent, representing a slowdown of 1 to 1½ p.p. from 2003. However, the positive differential of around 1½ p.p. between the growth of this indicator for Portugal and the corresponding indicator for the euro area as a whole remained virtually unchanged. Thus, despite the greater wage moderation in the recent past, the persistent positive differential in the growth of unit labour costs vis-à-vis the euro area, as well as the continued growth of real wages above productivity, show that wage restraint efforts must be pursued in order not to additionally jeopardise the competitiveness conditions of the Portuguese economy.

In 2004 the annual average inflation, as measured by the Harmonised Index of Consumer Prices (HICP) is likely to stand between 2.4 and 2.6 per cent, reflecting a drop from 2003 (3.3 per cent). Compared with the projection range disclosed by the Banco de Portugal in the June 2004 issue of the *Economic Bulletin* (Table 1.1), the middle point of the range disclosed in this issue is slightly below the middle point of the previous range (2.5 instead of 2.6 per cent). Despite the reduction projected for the annual average rate, the intra-annual pattern of the year-on-year rate of change in the HICP remained relatively stable between 2.1 and 2.4 per cent from the end of 2003 until May. In the Summer months, and particularly in June, there was a marked increase, to 3.7 per cent, in the year-on-year change, associated with a strong rise in hotel prices during the European Football Championship. This anomalous rise was unwound throughout the Summer and in September the year-on-year rate of change had fallen to 2.1 per cent. As it might be expected, the disturbance associated with hotel prices affected less the Consumer Price Index (CPI) than the HICP[2]. Bearing in mind this difference between the two indices, it is understandable that the year-on-year rate of change in the CPI reached a peak of 2.8 per cent in the Summer, falling subsequently to 2.1 per cent in September and that the average rate in 2004 will be slightly lower than the corresponding HICP rate. According to the projections of the Banco de Portugal, the annual average rate of the CPI will stand 0.1 p.p. below the HICP rate, i.e. between 2.3 and 2.5 per cent (3.3 per cent in 2003).

The year-on-year rate of change in the CPI in September 2004 coincides with the rate of change of the index excluding the more volatile prices, typically unprocessed food and energy. This means that the contribution of the rise in energy prices (in September it reached 6.9 per cent in year-on-year terms, i.e. an acceleration of approximately 5½ p.p. from end-2003) is being fully offset by a rather favourable performance of unprocessed food prices (which in September recorded a negative year-on-year rate of -1.6 per cent, compared with a positive change of 2.5 per cent in December 2003). Another relevant factor in the analysis of recent developments in Portuguese inflation is the still very high level, compared with overall inflation, of the change in the prices of the services component. Since mid-2003, after the unwinding of the effects of the rise in the standard VAT rate, services inflation has remained close to 4 per cent (the year-on-year rate of change in September was of 3.8 per cent), without giving signs of a sustained decline. Abstracting from the above-mentioned temporary change in the prices of nights spent in hotels, the differential of the year-on-year changes vis-à-vis the euro area as a whole has remained stable since mid-2003, at a level slightly above 1 p.p. point, and cannot be explained by economic growth and productivity differentials.

2. INTERNATIONAL ENVIRONMENT AND MONETARY POLICY IN THE EURO AREA

2.1. Major international economic developments

The world economic activity continued to strengthen in 2004, in a context of strong trade expansion, the recovery of corporate investment and the maintenance of accommodative macroeconomic policies in the major economies. According to the latest forecasts of the International Monetary Fund (IMF), published in September, world GDP

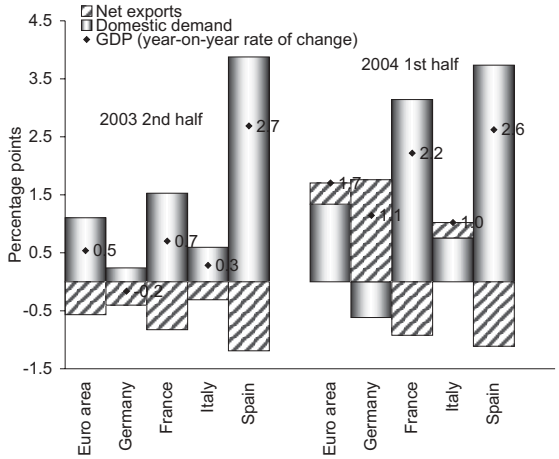
(2) The weights used to aggregate the elementary price indices reflect, in the case of the CPI, the expenditure structure of resident households, while the weighting structure underlying the HICP also takes into account expenditure in the national territory by non-residents (giving rise to a stronger weight as regards price developments in nights spent in hotels).

growth will reach approximately 5 per cent in the year as a whole, the highest growth rate in almost three decades. These projections reflect an upward revision of world growth compared with the April projections, suggesting that geopolitical tensions, the significant rise in oil prices and the persistence of major world imbalances, although affecting the outlook for 2005, will not significantly hurt world economic growth in 2004 (Table 2.1).

The pace of growth in the main economic areas continued to differ, although the differences are now less marked than in 2003. Growth has been particularly robust in the United States and in the Asian economies including Japan. The US and Japan will grow above 4 per cent in the year as a whole. In the Unites States, the expansion of activity intensified, benefiting in particular from strong corporate investment growth. Productivity continued to witness very high growth and the labour market has recovered somewhat. The maintenance of a strong activity growth led to a further deterioration of the current account balance, which may is expected to 5.4 per cent of GDP in 2004. In Japan, growth in 2004 will be significantly higher than expected at the beginning of the year, reflecting not only the strong expansion of exports, but also the favourable performance of corporate investment, amidst progress in the structural adjustment of the financial and corporate sectors. In China, GDP growth is likely to stabilise compared with 2003, at a level close to 9 per cent. The increasing signs of overheating led the Chinese authorities to adopt a set of administrative measures aimed at tightening the standards for the approval of credit for investment projects.

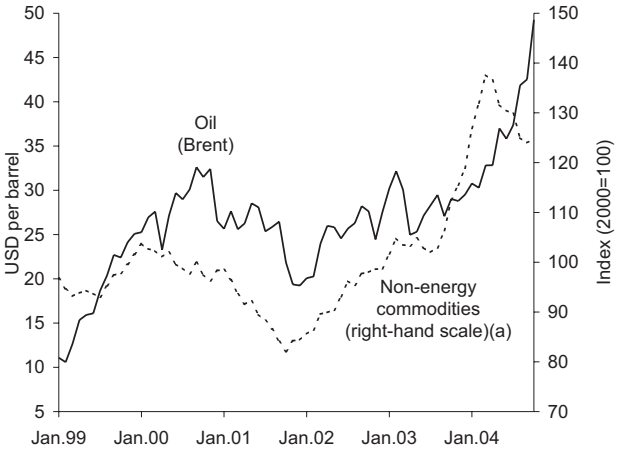
The euro area, which is the main destination of Portuguese trade, continues to show the worst performance among the developed economies. GDP growth is forecast to stand close to 2 per cent in 2004. GDP growth reached rates close to potential in the first half of the year, which are likely to persist in the second half-year. The recovery of activity in the euro area as a whole has been chiefly supported by the buoyancy of exports, which benefited from the strong growth of the world trade and, in particular, from the strengthening of the economies of its major trading partners. Domestic demand continued to show a moderate behaviour, reflecting, *inter alia*, the continuation of balance sheet adjustments by companies and uncertainty about the effect of the structural reforms, which are being implemented or need to be adopted in several countries, in particular as regards the labour market and social security. Developments in the euro area as a whole conceal significant differences across countries. In France and Spain, growth is more buoyant and has been chiefly supported by domestic demand. By contrast, the German economy — where growth in the first half of the year was exclusively driven by the favourable perfor-

Chart 2.1
CONTRIBUTIONS TO THE GDP YEAR-ON-YEAR RATE OF CHANGE



Source: *Eurostat* and *Thomson Financial Datastream.*

Chart 2.2
INTERNATIONAL COMMODITY PRICES
In US dollars



Sources: *Thomson Financial Datastream* and *HWWA*.
Note:
(a) Weights based on imports of the twelve countries participating in the euro area (from third countries) in the period from 1999-2001.

Table 2.1

GROS DOMESTIC PRODUCT, INFLATION AND CURRENT ACCOUNT

	Weight in world GDP[a]	GDP				Consumer prices				Current account			
		Rate of change				Rate of change				As a percentage of GDP			
		2002	2003	2004	*2004 (rev. vis-à-vis Apr. 2004)*	2002	2003	2004	*2004 (rev. vis-à-vis Apr. 2004)*	2002	2003	2004	*2004 (rev. vis-à-vis Apr. 2004)*
World economy		3.0	3.9	5.0	0.3	3.5	3.7	3.8	0.3	-	-	-	-
Emerging market and developing economies	44.5	4.8	6.1	6.6	0.5	6.0	6.1	6.0	0.3	1.3	2.1	2.5	1.4
Developing Asian countries	23.8	6.6	7.7	7.6	0.2	2.1	2.6	4.5	0.5	2.9	3.1	2.2	0.5
China	12.6	8.3	9.1	9.0	0.5	-0.8	1.2	4.0	0.5	2.8	3.2	2.4	0.8
India	5.7	5.0	7.2	6.4	-0.4	4.3	3.8	4.7	0.4	1.0	1.1	0.5	0.3
ASEAN-4[b]	3.5	4.3	5.1	5.5	0.0	5.8	4.0	4.7	1.0	5.8	6.1	5.0	0.4
Latin America	7.6	-0.1	1.8	4.6	0.7	9.0	10.6	6.5	0.3	-1.0	0.3	0.5	0.9
Brazil	2.8	1.9	-0.2	4.0	0.5	8.4	14.8	6.6	0.7	-1.7	0.8	1.2	1.6
Argentina	0.8	-10.9	8.8	7.0	1.5	25.9	13.4	4.8	-1.9	9.0	6.2	1.1	-3.5
Mexico	1.8	0.8	1.3	4.0	0.8	5.0	4.5	4.4	0.1	-2.2	-1.5	-1.2	0.8
Community of Independent States (CIS)	3.7	5.4	7.8	8.0	2.0	13.8	12.0	9.9	-0.4	7.0	6.4	8.3	2.2
Russia	2.6	4.7	7.3	7.3	1.3	15.8	13.7	10.3	-0.9	8.9	8.3	9.9	2.0
Central and eastern Europe	3.3	4.4	4.5	5.5	1.0	14.8	9.2	6.9	0.0	-3.5	-4.2	-4.4	-0.6
Emerging market countries excluding Turkey[c]	2.3	3.0	3.9	4.9	0.6	5.3	3.8	5.3	0.2	-4.3	-4.6	-4.5	-0.4
Turkey	0.9	7.9	5.8	7.0	2.0	45.0	25.3	11.4	-0.6	-0.8	-2.9	-4.0	-1.0
Africa	3.2	3.5	4.3	4.5	0.3	9.7	10.3	8.4	-0.2	-1.5	-0.1	0.4	1.7
Middle East	2.8	4.3	6.0	5.1	1.0	7.5	8.0	9.2	0.3	4.5	8.1	12.7	6.7
Advanced economies	55.5	1.6	2.1	3.6	0.2	1.5	1.8	2.1	0.4	-0.8	-0.8	-0.8	-0.2
US	21.1	1.9	3.0	4.3	-0.3	1.6	2.3	3.0	0.7	-4.5	-4.8	-5.4	-1.2
Japan	7.0	-0.3	2.5	4.4	1.1	-0.9	-0.2	-0.2	0.2	2.8	3.2	3.4	0.3
Euro area	15.9	0.9	0.6	2.1	0.4	2.3	2.1	2.1	0.3	1.2	0.6	0.8	0.1
United Kingdom	3.2	1.8	2.2	3.3	0.3	1.3	1.4	1.4	-0.2	-1.7	-1.9	-2.0	0.1
Newly industrialized Asian economies[d]	3.3	5.0	3.0	5.5	0.2	0.9	1.4	2.4	0.3	5.8	7.6	6.8	0.6

Sources: International Monetary Fund, except for the United Kingdom and the euro area (European Commission).

Notes:

(a) Based on GDP valued at purchasing power parities.

(b) Indonesia, Malaysia, Philippines and Thailand.

(c) Ten countries that joined the EU in May 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia), Bulgaria e Romania.

(d) Korea, Hong-Kong, Taiwan and Singapore.

mance of exports — and the Italian economy continued to show significant weakness (Chart 2.1).

The economies of the remaining European Union countries continued to show a more buoyant behaviour than the euro area. In the United Kingdom, activity will strengthen again in 2004, reflecting the acceleration of domestic demand, while in the new Member States the continued buoyancy of the external sector and the strengthening of domestic demand continued to play an active role.

The strong expansion of the world demand continued to exert pressure on commodity prices. In the first quarter of 2004 the price of non-energy commodities continued the upward trend started in 2002, but declined slightly in the subsequent months, standing at the end of September close to the levels recorded at the beginning of the year (Chart 2.2). Turning to the oil market, the pressure of demand, the reduced spare capacity, the geopolitical tensions and the speculative movements translated into a very high increase in the Brent crude oil price, which was close to 50 US dollars per barrel at the end of September, corresponding to an increase of almost 60 per cent from the beginning of the year, both in US dollars and in euro (See the Box entitled "Recent developments in oil prices"). These developments led decisively to an upward revision of inflation projections (Table 2.1). Notwithstanding, inflation projected for the advanced economies as a whole will not significantly exceed 2 per cent in 2004. The pass-through of the rise in oil prices to the remaining prices will be limited, reflecting the stepping up of world competition, as well as the maintenance of the spare capacity and a high degree of credibility of the monetary authorities in these economies.

The acceleration of economic activity and the intensification of inflationary pressures, associated namely with a rise in oil prices, led the US and British monetary authorities to raise on several occasions the official interest rates (Chart 2.3). The Federal Reserve started at the end of the first half of the year a new cycle of interest rate hikes, after having announced in May that the risks to price stability had become balanced. The target for the Federal funds rate was raised in June, August and September, by a total of 75 basis points, to 1.75 per cent. In turn, the Bank of England, given the high rates of capacity utilisation and concerns about the significant increases in housing prices, raised the

Table 2.2

GENERAL GOVERNMENT

As a percentage of GDP

	2000	2001	2002	2003	2004	Change 2004-2000 (p.p)
US						
Fiscal balance	1.3	-0.7	-4.0	-4.6	-4.9	-6.2
Cyclically adjusted balance	0.5	-0.6	-3.3	-3.8	-4.4	-4.9
Cyclically adjusted primary balance	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross debt	57.1	56.6	58.6	60.5	61.5	4.4
Euro area						
Fiscal balance	0.1	-1.7	-2.4	-2.7	-2.9	-3.0
Cyclically adjusted balance	-1.7	-2.3	-2.4	-2.2	-2.5	-0.8
Cyclically adjusted primary balance	2.3	1.7	1.2	1.3	0.9	-1.4
Gross debt	70.4	69.4	69.4	70.7	71.1	0.7
Japan						
Fiscal balance	-7.5	-6.1	-7.9	-8.2	-6.9	0.6
Cyclically adjusted balance	-6.9	-5.1	-6.2	-6.9	-6.6	0.3
Cyclically adjusted primary balance	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross debt	139.3	148.8	158.4	166.2	169.6	30.3
United Kingdom						
Fiscal balance	3.8	0.7	-1.7	-3.3	-2.8	-6.6
Cyclically adjusted balance	0.8	0.3	-1.7	-2.9	-2.7	-3.5
Cyclically adjusted primary balance	3.5	2.7	0.3	-0.9	-0.7	-4.2
Gross debt	42.0	38.8	38.3	39.8	40.4	-1.6

Sources: International Monetary Fund except for the United Kingdom and the euro area (European Commission).
Note: Cyclically adjusted balances as a percentage of potential GDP; in the euro area and in the United Kingdom figures exclude proceeds from the sale of UMTS licences.

Table 2.3

FINANCIAL MARKETS

Daily data

	Averages			End of period		
	2002	2003	2004[a]	2002	2003	2004[a]
Stock market indices (change in percentage)						
S&P 500	-17	-3	16	-23	26	2
Nasdaq	-24	7	19	-32	50	-1
Nikkei 225	-16	-8	20	-19	24	1
FTSE 100	-17	-12	11	-24	14	3
Dow Jones Euro Stoxx	-23	-18	17	-35	18	4
10-year interest rates - public debt (per cent)						
United States	4.59	4.00	4.27	3.82	4.25	4.02
Japan	1.28	1.01	1.52	0.91	1.37	1.50
United Kingdom	4.87	4.48	4.93	4.37	4.80	4.74
Euro area	4.92	4.16	4.21	4.26	4.33	3.93
Nominal effective exchange rates (changes in percentage)						
US dollar	-1.1	-10.4	-6.3	-9.4	-12.8	-2.2
JPY	-5.2	-0.1	1.9	1.8	2.2	-0.5
Sterling	0.5	-4.8	4.4	-2.7	-3.4	1.2
Euro	2.9	12.0	3.4	9.7	12.2	-0.9
Spreads between private and government bond yields at 7 to 10 years (basis points)						
United States						
AA	77	21	15	54	14	5
Difference vis-à-vis the average (1998-2004)	12	-44	-50	-10	-50	-59
BBB	224	128	77	209	80	58
Difference vis-à-vis the average (1998-2004)	64	-33	-84	48	-81	-103
Euro area						
AA	48	40	34	49	31	31
Difference vis-à-vis the average (1998-2004)	2	-6	-12	3	-14	-14
BBB	209	132	86	194	92	77
Difference vis-à-vis the average (1998-2004)	58	-18	-65	43	-59	-74
Spreads between government bond yields issued in dollars by emerging market economies and US Treasury bonds (basis points)						
JP Morgan EMBI +	775	562	450	765	418	413
JP Morgan EMBI+ Latin America	995	724	552	1007	521	493

Sources: European Central Bank, Bank for International Settlements, *Bloomberg* and *JP Morgan*.

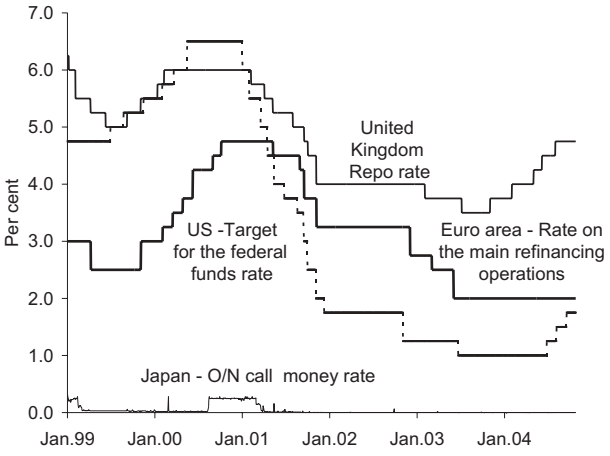
Note:

(a) Figures for 2004 refer to data available at end-October.

repo rate in February, May, June and August, to 4.75 per cent. In the euro area, the minimum bid rate on the main refinancing operations of the Eurosystem was kept unchanged at 2.0 per cent, reflecting a slower growth pace and the maintenance of favourable prospects for price stability in the medium term. Finally, in Japan, where deflation persists, the central bank pursued its money supply expansion policy, keeping the official interest rates at zero per cent.

Fiscal policies recorded mixed developments in the main economies. While in the United States and in the euro area, public accounts deteriorated further, in the United Kingdom and in Japan the fiscal position remained relatively stable or improved slightly (Table 2.2). The US fiscal policy stance continued to be clearly expansionary, despite the strong economic growth, thus contributing to the further deterioration of the US external accounts. In the euro area countries, the trend deterioration in the fiscal balance started in 2000 continued, with the public deficit rising to a level close to 3 per cent of GDP in 2004. The cyclically adjusted primary balance also deteriorated, contrasting with a stabilisation in 2003. The position of public accounts in the euro area would be even

Chart 2.3
OFFICIAL INTEREST RATES



Sources: *Bloomberg* and European Central Bank.

Table 2.4
INTEREST RATES OF THE EUROPEAN CENTRAL BANK

Per cent

Date of the decision	Deposit facility	Main refinancing operations[(a)]	Marginal lending facility
8 Jun. 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
8 Nov. 2001	2.25	3.25	4.25
5 Dec. 2002.	1.75	2.75	3.75
6 Mar. 2003.	1.50	2.50	3.50
5 Jun. 2003	1.00	2.00	3.00

Source: European Central Bank.
Note:
(a) Minimum bid rate at the variable tenders.

more unfavourable if the effects of the temporary measures were deducted, which in some countries continued to represent significant amounts. In Japan and in the United Kingdom, the behaviour of the cyclically adjusted balances showed some fiscal consolidation in 2004. However, these two economies have completely different situations as regards the sustainability of public accounts, as showed by the respective public debt ratios.

In the international financial markets, price fluctuations in the first ten months of 2004 were in general not very significant, unlike in the past few years (Table 2.3). Despite the strong expansion of the world economic activity, the main stock market indices stood at the end of September at levels very close to those seen at the end of 2003. Stock prices have benefited from the favourable behaviour of profits and from the continuation of balance sheet adjustments by companies, but have been negatively affected by the uncertainty about the impact of the rise in oil prices on activity and, hence on future corporate earnings. In the bond markets, long-term interest rates remain at historically low levels, in a context of persistently low official interest rates in the major economies and of market expectations that point to their gradual increase. In parallel and similarly to 2003, bulky purchases of US Treasury bonds by Asian monetary authorities continued to exert upward pressure on the price of these securities. The interest rate differentials between bonds issued by private companies and government debt bonds narrowed further, albeit less markedly than in 2003, thus remaining far below the average figures recorded since the end of the 1990s. In turn, interest rate differentials of bonds issued by sovereign debtors in emerging market economies remained broadly stable, but continued to narrow in the Latin American economies, in line with an improvement in the economic situation of the region.

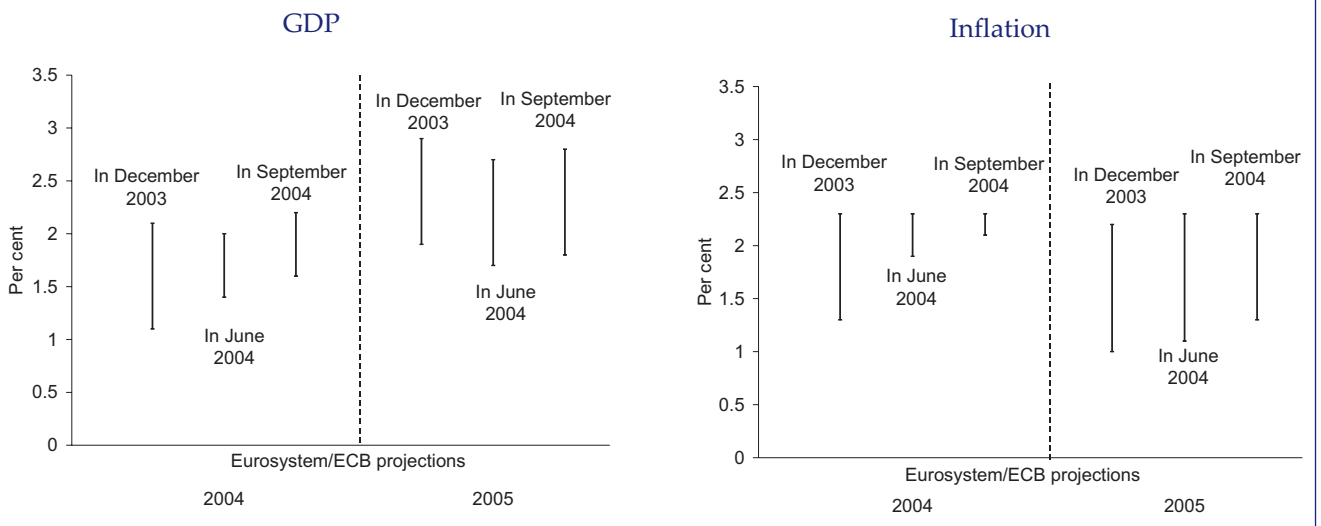
Foreign exchange markets have also been marked by relative stability: on the one hand, the Asian economies, and in particular China, kept their pegs to the US dollar unchanged; on the other hand, the depreciation of the US dollar recorded in 2002-2003, whose counterpart had been an appreciation of the euro and of the Canadian dollar and, to a lesser extent, of the pound sterling and the yen, eased considerably. The strong growth of activity in the United States and expectations of favourable developments in the interest rate differentials vis-à-vis the US dollar seem to have contributed to some stabilisation of the effective exchange rate of the US currency, in a context in which the current account imbalance would point to a continuation of the trend depreciation.

2.2. Monetary policy in the euro area

As referred to in the previous section, the minimum bid rate on the main refinancing operations

Chart 2.4

PROJECTIONS FOR ECONOMIC ACTIVITY AND INFLATION IN THE EURO AREA[a]



Source: BCE

Note:

(a) Projections made by staff of the ECB and the NCBs.

of the Eurosystem has been kept unchanged at 2 per cent since June 2003 (Table 2.4). Throughout this period, the Governing Council of the ECB considered that in a context of favourable prospects for price stability in the medium term, the maintenance of the key ECB interest rates at a low level was adequate, contributing to support the economic recovery in the euro area.

At the beginning of the year, prospects for the 2004-2005 period pointed to the continuation of the gradual recovery of economic activity started in the second half of 2003 and to a reduction of the euro area inflation rate to below 2 per cent (Chart 2.4). The acceleration projected for activity was based on the robust growth of the world economy and the existence of favourable financial conditions. The uncertainties related to the persistence of ajor global imbalances and their potential impli - cations for the sustainability of the world growth were the main risk factor for this scenario. With respect to prices, projections pointed to some short-term fluctuations in the annual inflation rate related to the behaviour of food prices and indirect taxes in the first half of 2003. However, medium-term inflationary pressures remained subdued, as the appreciation of the euro exchange rate in 2002-2003 should continue to exert some downward pressure on import prices. In addition, projections pointed to moderate wage growth, given the gradual recovery and the high unemployment rates in the euro area as a whole.

Data made available during the year confirmed expectations of a gradual rebound in activity, with the euro area GDP growing slightly above expectations in the first half of the year. In parallel, the performance of inflation turned out to be less favourable than expected, reflecting in particular the significant rise in oil prices. These developments were taken on board in the projections released by the ECB in June and September[3]. These projections reflect in comparison with those of December 2003, a successive upward revision of projected inflation, which was more marked in 2004 than in 2005 (Chart 2.4). In a context of economic recovery, it is more likely that the marked rise in oil prices will give rise to second round effects in the setting of wages and prices, which has led the Governing Council of the ECB to signal the predominance of upward risks to price stability in the medium term.

Money market interest rates at the shorter maturities remained stable at levels marginally above 2 per cent, in line with the absence of changes in

(3) The European Central bank announced in June 2004 that it would start to publish in March and September macroeconomic projections for the euro area prepared by ECB staff. These projections are basically an update of the Eurosystem staff projections, published by the ECB in June and December.

Table 2.5

EURO AREA – MONETARY AND FINANCIAL INDICATORS

End-of-period data

	2002	2003	2004[a]	Quarters I	Quarters II	Quarters III
Exchange rates						
EER	94.4	105.8	104.9	102.3	102.5	104.1
EUR/USD	1.049	1.263	1.274	1.222	1.216	1.241
EUR/JPY	124.4	135.1	135.1	127.0	132.4	137.2
EUR/GBP	0.651	0.705	0.696	0.666	0.671	0.687
EUR/CHF	1.452	1.558	1.530	1.559	1.524	1.552
Interest rates						
Overnight (EONIA)	3.44	2.32	2.09	2.06	2.13	2.09
1-month Euribor	2.90	2.10	2.09	2.02	2.08	2.08
3-month Euribor	2.87	2.12	2.15	1.96	2.12	2.15
6-month Euribor	2.80	2.17	2.20	1.94	2.20	2.21
12-month Euribor	2.75	2.31	2.31	1.98	2.43	2.39
12-3-month Euribor (basis points)	-12	18	15	3	31	24
10-year interest rate	4.26	4.33	3.93	4.03	4.39	4.07
Monetary and credit aggregates[b]						
M1	9.8	10.7	9.7	11.4	9.5	9.7
Currency in circulation	42.6	24.9	19.9	22.7	21.1	19.9
Overnight deposits	6.0	8.6	8.0	9.7	7.7	8.0
M2	6.7	7.7	6.3	6.8	5.6	6.3
Other short-term deposits (M2-M1)	3.8	4.7	2.8	2.1	1.7	2.8
M3	7.0	7.2	6.0	6.2	5.3	6.0
Marketable Instruments (M3-M2)	8.9	4.1	4.1	3.1	3.5	4.1
Credit						
Credit to general government	1.7	6.4	5.5	6.6	7.4	5.5
Credit to other euro area residents	4.7	5.8	6.3	5.8	6.1	6.3
Loans to other euro area residents	4.8	5.6	6.5	5.3	6.0	6.5
Longer-term financial liabilities	5.1	6.2	7.9	7.1	7.7	7.9
Memo: sectoral breakdown of loans[c]						
Non-financial corporations	3.7	3.5	4.6	3.3	4.0	4.6
Households[d]	5.8	6.4	7.8	6.6	7.3	7.8
Consumer credit	4.4	2.9	6.2	4.4	5.7	6.2
Lending for house purchase	7.8	8.1	9.8	8.4	9.0	9.8

Source: ECB.

Note:

(a) Figures for 2004 refer to data of end-October for exchange rates and interest rates, and data at end-September for monetary and credit aggregates.

(b) Adjusted for seasonal and calendar effects.

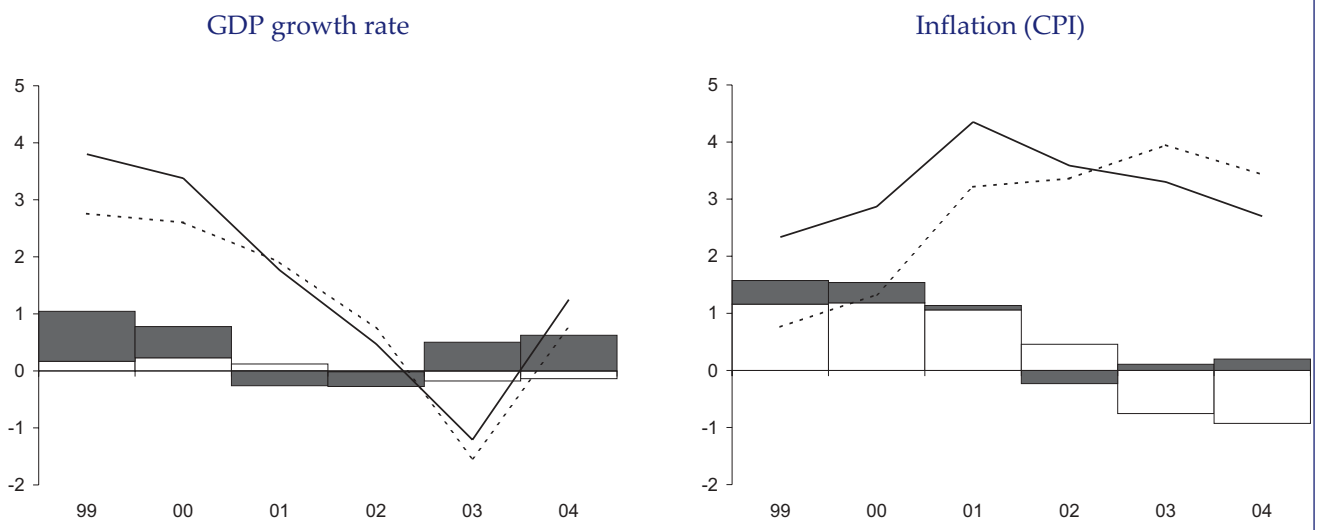
(c) Non-adjusted for seasonal and calendar effects.

(d) Including non-profit institutions serving households.

the key ECB interest rates (Table 2.5). By contrast, the interest rates at the longer maturities showed a trend decline during the first quarter of the year, when there were doubts about the robustness of the recovery in economic activity and a further cut in ECB interest rates was not ruled out. This trend was reversed from the second quarter onwards, reflecting clearer signs of a pick up in activity and the deterioration of inflation prospects in the euro area. Against this background, the yield curve, which was virtually flat at the end of the first quarter, became positive as from the second quarter of the year.

The maintenance of interest rates at low levels, in parallel with a strengthening of economic activity, influenced the behaviour of monetary and credit aggregates. Notwithstanding the deceleration of M3 from the exceptionally high levels recorded in 2001-2003, the more liquid components of this aggregate continued to show robust growth, around 10 per cent, reflecting, namely the low opportunity cost of holding currency. In turn, credit to the private sector continued the trend acceleration already observed in 2003, fuelled by the low level of real interest rates and by the improvement in the economic situation. The growth of loans to

Chart 3.1
CONTRIBUTION OF MONETARY CONDITIONS



the private sector increased from 5.6 per cent at the end of 2003, to 6.5 per cent in September 2004, reflecting an acceleration of both loans to non-financial corporations (from 3.5 to 4.6 per cent), and loans to households (from 6.4 to 7.8 per cent). The buoyant performance of loans to households continued to reflect the strong expansion of loans for house purchase, whose year-on-year growth reached 9.8 per cent at the end of September.

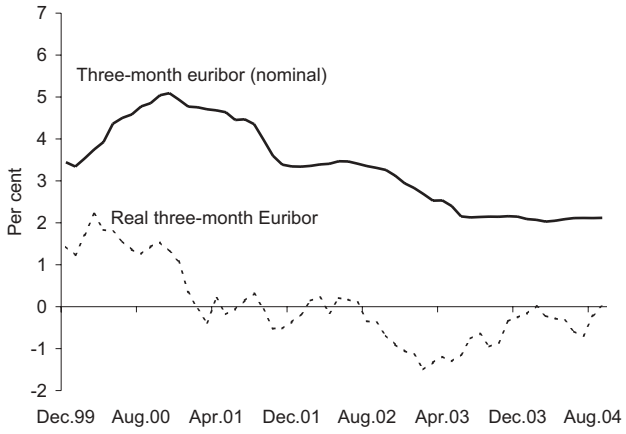
3. MONETARY AND FINANCIAL CONDITIONS OF THE PORTUGUESE ECONOMY

3.1. Monetary conditions

Due to the maintenance of interest rates at very low levels in the past few years, the Portuguese economy has enjoyed accommodating monetary conditions, partly countered by the evolution of the effective exchange rate index for Portugal. Estimates made on the basis of the monetary conditions index[4] point to the fact that if the monetary conditions in the Portuguese economy had remained unchanged since 2001, GDP growth in 2004 would have been around ½ percentage point lower — chiefly reflecting the absence of the effects on domestic demand related to the fall in interest rates observed since then —, while inflation in 2004 would have been ¾ percentage point higher — basically due to the effects of the exchange rate appreciation on price developments in Portugal (Chart 3.1). Considering the higher stability of the

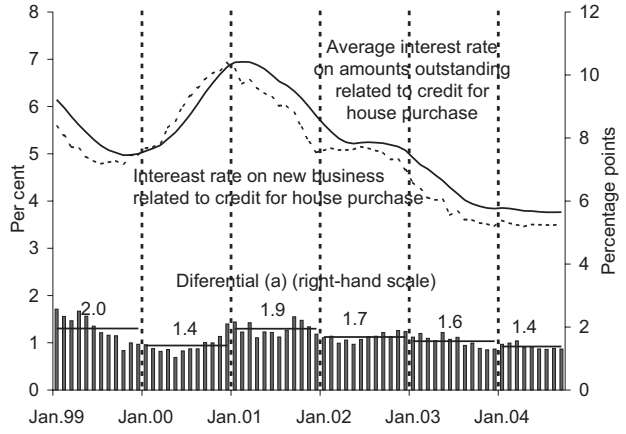
(4) On this index, see Esteves, Paulo Soares, "Monetary conditions index for Portugal", in the June 2003 issue of the *Economic Bulletin* of the Banco de Portugal.

Chart 3.2
THREE-MONTH MONEY MARKET INTEREST RATES (NOMINAL AND REAL)



Note: Despite the recognised limitations of this procedure, real interest rates are calculated as the contemporaneous difference between nominal interest rates and the year-on-year rate of change in the CPI, since it is difficult to assess accurately economic agents' expectations regarding inflation in the relevant period.

Chart 3.3
INTEREST RATE ON CREDIT TO HOUSEHOLDS FOR HOUSE PURCHASE
Amounts outstanding and new business



Note: Estimates up to December 2002.
(a) Differential between the interest rate on new business and the six-month money market interest rate.

Chart 3.4
MARGIN IN CREDIT TO HOUSEHOLDS
Calculated on interest rates on amounts outstanding at end of period[a]

Note:
(a) Margins are calculated as the difference between interest rates on amounts outstanding (estimates up to December 2002) and money market rates: six-month moving average of the 6-month Euribor, in the case of loans for house purchase, and 3-month moving average of three-month Euribor, in the case of credit for other purposes. As for the total, the margin corresponds to the average weighted for the amounts outstanding of margins by purpose, at end of period.

euro exchange rate and of interest rates in the course of 2004, these estimates result mainly from the lagged effects of the fall in interest rates and of the appreciation of the euro exchange rate in 2002 and 2003.

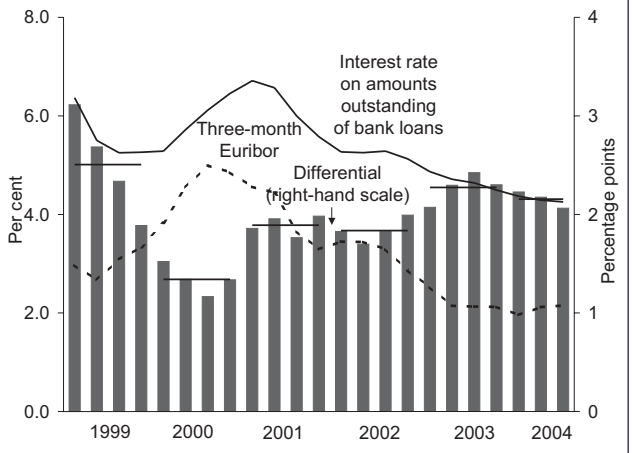
In the period from January to September 2004, money market interest rates remained virtually unchanged, continuing the trend recorded since the beginning of the second half of 2003. In real terms, the average levels of money market interest rates remained close to those recorded at the end of 2003, despite some swings in the first nine months of 2004, resulting from the behaviour of Portuguese inflation[5] (Chart 3.2).

In 2004 the nominal stability of money market interest rates seems to have been reflected in the behaviour of bank interest rates in Portugal, which remained at levels quite close to those seen at the end of 2003 (Table 3.1). Thus, the average interest rate of time deposits of the non-financial private sector remained virtually unchanged at 2.0 per cent, comparing the months of September 2004 and December 2003, whereby the implicit margin of

(5) Real interest rates are calculated as the contemporaneous difference between nominal interest rates and the year-on-year rate of change in the CPI.

Chart 3.5

MONEY MARKET INTEREST RATES, INTEREST RATES ON BANK LOANS TO NON-FINANCIAL CORPORATIONS AND RESPECTIVE DIFFERENTIAL[a]



Note:

(a) The interest rates and the differential correspond to amounts outstanding at end of period. Up to December 2002, the interest rates on amounts outstanding are estimates. The differential is calculated as the difference between the interest rate on amounts outstanding and the three-month moving average of three-month Euribor.

time deposits of the non-financial private sector continued to be virtually nil[6].

Turning to loans, there was also a broadly based stabilisation of bank interest rates in all the segments of the credit market. Thus, in the first nine months of the year, the interest rate on new loans to households for house purchase remained close to the rate recorded at end 2003, i.e. around 3.5 per cent (Chart 3.3). On average, comparing the period from January to September 2004 with the year 2003, the interest rate differential on these operations narrowed by 17 basis points. In line with these developments, the implicit margin in the stock of loans for house purchase narrowed slightly from the end of 2003 and in September it stood close to the minimum levels recorded in mid-2000 (1.6 percentage points) (Chart 3.4)[7]. In the remaining segments, the margins implicit in the stocks remained broadly unchanged from December 2003 (Charts 3.5)[8].

According to the *Bank Lending Survey*, the five banking groups included in the sample in general did not report significant changes in the credit standards applied to the approval of loans to households and enterprises, in the first three quarters of the year (Chart 3.6)[9]. However, there are signs that banks have eased credit standards in the granting of loans for house purchase and to small and medium-sized enterprises in the third quarter of the year. The major factors behind these developments seem to have been the increased competition between banking institutions and an improvement in expectations regarding developments in economic activity. According to reporting banks, the easing of credit standards will tend to give rise to the lengthening of contractual maturities and to the narrowing of the spreads applied to medium risk loans.

3.2. Debt and stock markets

In the period from January to October 2004 the conditions in international capital markets were broadly favourable, although marked by swings, influenced by international conflicts. These conditions were reflected in the trend of Portuguese Treasury bond yields (Table 3.1), which followed a downward path in the first quarter of the year, reaching minimum levels in March (2.7 and 4.0 per cent for bonds with a residual maturity of 5 and 10

(6) The 6-month Euribor, on a 6-month moving average, was taken as a reference in the case of time deposits of the non-financial private sector for the calculation of the implicit margin in the amount outstanding of these operations.

(7) Difference between the interest rate on amounts outstanding at the end of period and a 6-month moving average (ended in the month) of the 6-month Euribor.

(8) Margins are estimated as the difference between interes rate on outstanding amounts at the end of period, for each type of lending, and a 3-month moving average of a 3-month Euribor.

(9) The scale mentioned in the charts relates to the average of replies by the five Portuguese banking groups surveyed in the euro area Bank Lending Survey (BLS). It is calculated by means of a scale that enables the aggregation of individual replies, according to the intensity and direction of the reply, assuming values between 1 and 5, 3 corresponding to "remained basically unchanged". The survey was launched by the Eurosystem in early 2003, in order to obtain more detailed information on the euro area credit markets and, therefore, to improve the assessment of the role played by credit in the business cycles and in the transmission process of monetary policy in the euro area as a whole. The BLS is a quarterly survey and was implemented for the first time in January 2003. The detailed results of the several surveys are available on the Banco de Portugal website (*www.bportugal.pt*).

Table 3.1

NOMINAL INTEREST RATES[a]

	3-month Euribor[b]	Fixed-rate government bond yields 5 years	Fixed-rate government bond yields 10 years	Interest rate on outstanding amounts of loans (incl. overdrafts) to non-financial corporations[c]	Interest rate on outstanding amounts of loans to households for house purchase[c]	Interest rate on outstanding amounts of loans (excl. overdrafts) to households for consumption and other purposes[c]	Interest rate on outstanding amounts of time deposits of the non-financial private sector(c)	*Memo:* Year-on-year rate of change of CPI
1994	10.5	11.8	11.6	15.8	14.2	19.2	8.6	4.0
1995	8.8	9.7	10.0	14.6	13.4	18.1	8.4	3.4
1996	6.4	6.2	6.9	11.4	11.8	15.9	5.9	3.3
1997	5.0	5.1	5.7	9.2	9.4	13.0	4.3	2.4
1998	3.4	3.5	4.1	7.0	6.4	10.2	3.1	3.2
1999	3.4	4.8	5.5	5.5	5.1	8.6	2.5	2.0
2000	4.9	4.9	5.3	6.7	7.0	9.5	3.6	3.9
2001	3.3	4.3	5.0	5.8	6.0	8.7	3.2	3.7
2002	2.9	3.7	4.5	5.3	5.2	8.1	2.9	4.0
2003								
I.	2.5	3.2	4.1	4.8	4.7	7.7	2.4	3.9
II	2.2	2.7	3.8	4.5	4.3	7.5	2.2	3.3
III	2.1	3.3	4.3	4.3	3.9	7.2	2.1	3.1
IV	2.1	3.3	4.4	4.4	3.8	7.1	2.1	2.4
2004								
I.	2.0	2.7	4.0	4.5	3.8	7.3	2.1	2.3
II	2.1	3.7	4.5	4.4	3.8	7.2	2.0	2.7
III	2.1	3.4	4.1	4.3	3.8	7.3	2.0	2.1
October	2.1	3.2	4.0					

Notes:

(a) Concerning money market interest rates and Government bond yiels, monthly averages at end-of-period. For bank rates, interest rates on outstanding amounts, at the end-of-period. In the case of CPI, year-on-year rate of change in the last month of the period.

(b) Up to December 1998, 3-month Lisbor.

(c) Estimates, up to December 2002. For methodology, see "New series on banks' interest rates: long series for the average rates on outstanding amounts". *Economic Bulletin*, December 2003.

Chart 3.6A
CRITERIA FOR THE APPROVAL OF BANK LOANS
Households

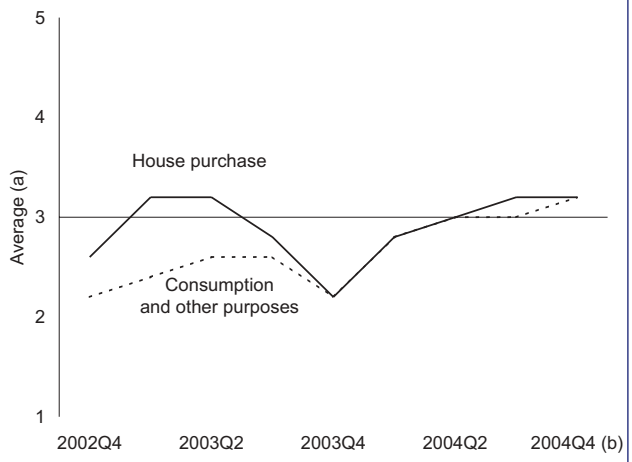
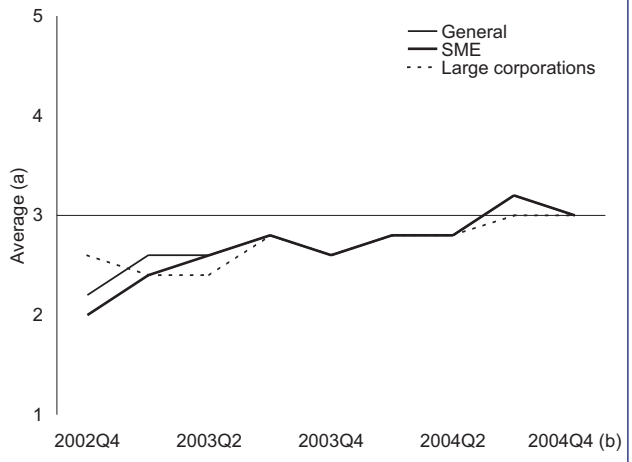


Chart 3.6B
CRITERIA FOR THE APPROVAL OF BANK LOANS
Non-financial corporations



Source: Bank Lending Survey for the euro area.
Notes:
(a) Figures below 3 represent tighter criteria than in previous quarter, while higher figures correspond to some easing of criteria for the approval of loans.
(b) Expectations of banks in the sample.

years respectively). This trend was reversed in the second quarter of the year and, in June, the level of Treasury bond yields had recovered to a maximum of 3.7 per cent, for 5-year bonds and 4.5 per cent for 10-year bonds. Subsequently, government bond yields dropped again, standing at 3.2 and 4.0 per cent respectively in October. In addition, spreads between private debt and public debt securities remained at levels close to those seen at the end of 2003.

At the end of October, the Portuguese stock market index recorded a 15.1 per cent valuation compared with the end of 2003 (10.6 per cent, in the case of PSI 20), which was higher than that of the broad Dow Jones EURO STOXX index (4.1 per cent). However, the liquidity of the Portuguese market continued to be reduced. This characteristic is shared by the stock and private debt markets. Net of redemptions, total issuance of shares and bonds by resident corporations was negligible in the January-August 2004 period.

Taking into account the positive developments in capital markets, the relative return on placements in mutual funds (*Fundos de Investimento Mobiliário*) seems to have remained favourable compared with the traditional time deposits (the historically low levels of bank interest rates have implied a negative real remuneration of these operations). On the basis of information released by *Associação Portuguesa de Fundos de Investimento, Pensões e Patrimónios - APFIPP*, the annualised rate of return of mutual funds is estimated to have stood on average around 2.8 per cent in the first eight months of the year (average annualised rates of return, by type of fund, weighted by the amounts under management). In December 2002 and 2003, the average rate of return of mutual funds was of -0.9 and 4.3 per cent respectively. In the case of real estate funds (*Fundos de Investimento Imobiliário*), the *APFIPP* real estate index increased 4.1 per cent in August 2004 (5.1 and 4.5 per cent in December 2002 and 2003 respectively).

3.3. Indebtedness of the non-financial private sector[10]

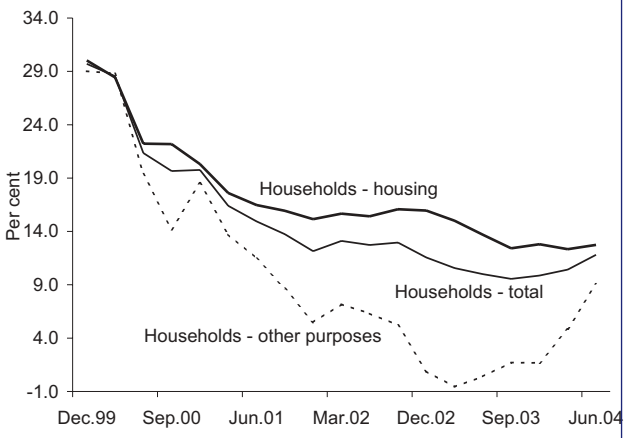
Despite the cyclical slump, the globally accommodating monetary conditions of the past few years (namely the historically low interest rate levels), together with aggressive bank credit supply policies in the house purchase segment, have supported a still remarkable growth of household indebtedness. As a consequence, the gross indebtedness of households, defined as total liabilities of this institutional sector vis-à-vis credit institutions (including "Other Monetary Financial Institutions" (OMFI), i.e. banks, and "Other Financial Intermediaries and Financial Auxiliaries" (OFIFA)), both resident and non-resident, expressed as a percentage

of the respective disposable income, shall rise to around 118 per cent at the end of 2004 (approximately 111 per cent at the end of 2003). This figure, which is high by international standards, together with the fact that credit is generally granted at interest rates indexed to money market rates, imply a strong and increasing sensitivity of Portuguese households to future interest rate changes(11).

The trend deceleration observed since the end of 1999 in the total household debt was interrupted in the fourth quarter 2003 and reversed in the first half of the current year. In June 2004, the rate of change in total liabilities of this sector reached 11.8 per cent, i.e. around 1.9 percentage points higher than the growth recorded at end-2003 (Chart 3.7). For the most recent period, information already available on loans granted by the resident OMFI, indicates that the respective rate of change of 10.0 per cent in August 2004, was 0.3 percentage points lower than in June(12).

Indebtedness for house purchase continued to grow at a very high level and its rate of change stood at 12.7 per cent at the end of June 2004, close to the figure recorded at the end of 2003. In August 2004, the rate of change of loans granted by the resident OMFI to this sector was of 11.6 per cent, i.e. slightly lower (0.3 percentage points) than two months earlier.

Chart 3.7
HOUSEHOLD DEBT
Year-on-year rates of change



Note: Account is taken of loans granted by resident and non-resident credit institutions.

The maintenance of a high growth level of the stock of households' debt for house purchase translated, in the first half of 2004, in a 11.5 per cent increase, in year-on-year terms, of liquid flows of new credit of this type(13). This indication is confirmed by the information release by the *Direcção-Geral do Tesouro* (DGT), according to which the number of new contracts for house purchase increased 16.5 per cent in the first six months of 2004, in year-on-year terms (Chart 3.8.), while the total amount of contracted loans grew 28.9 per cent(14). The average value contracted per loan in

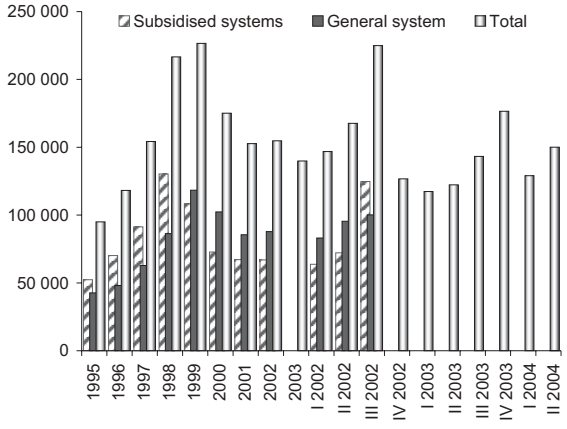
(10) Data on credit granted by the resident Other Financial Intermediaries and Financial Auxiliaries (OFIFA) and by non-resident credit institutions is only made available on a quarterly basis. Thus, this section refers to developments in these aggregates only up to June 2004; this information is supplemented by the most recent developments (until August) of the rates of change in indices of stocks, adjusted for securitisations, of loans granted only by the resident Other Monetary Financial Institutions (OMFI). The latter indicator, usually referred to in the *Monthly Economic Indicators*, is based on financial transactions, thus adjusted for reclassifications, revaluations, exchange rate changes and other changes not due to transactions. It should be noted that when the narrower aggregate (loans of the resident OMFI) is adjusted for credit securitisation operations (whose vehicles have been mainly other resident OFIFA), an adjustment is already being made for one of the main factors that would distort the analysis, when the purpose is to assess developments in the total gross debt of the sectors. It should also be noted that in the article on the banking system, also published in this issue of the *Economic Bulletin*, two other credit aggregates are also used: one takes into account the amount outstanding of credit granted by the banking system on a consolidated basis to resident or non-residents customers (included in the balance sheet of the system); the other takes into account loans granted by resident credit institutions (OMFI and OFIFA included in the composition of consolidation of the banking groups) to the resident non-financial private sector, proxied by financial transactions, in so far as it is also adjusted for reclassifications, revaluations and exchange rate changes (see footnote 14 of the article on the banking system in the first half of 2004).

(11) It should also be noted that this indebtedness indicator does not take into account the breakdown of the debt into households with different income classes nor developments in financial assets. However, data available on these variables suggest that in the past few years households with smaller capacity to meet unfavourable income and interest rate developments have also resorted to this market.

(12) Unless otherwise indicated and as mentioned in footnote 10, the annual rates of change of loans granted by the resident OMFI are calculated on the basis of indices of outstanding amounts of bank loans, adjusted for securitisation operations, reclassifications, exchange rate revaluations and write offs/write downs.

(13) Calculated as the difference between stock values of debt in the end and in the beginning of the period

Chart 3.8
NUMBER OF NEW HOUSING CREDIT CONTRACTS



Source: *Direcção-Geral do Tesouro.*
Note: Quarterly figures have been annualised.

the first half of the year was 10.4 per cent higher than in the corresponding period of 2003 (although virtually identical to the average figure recorded in the second half of 2003). These developments suggest that bank financing, on average, is being used for higher quality houses (bigger and/or with different characteristics) than in the past[15]. According to the replies to the *Banking Lending Survey*, developments in the average value of loans may be favoured by the lengthening of the maturity of loans, implemented by some banking groups. Additionally, in the first half of 2004, housing demand also benefited from the reform of the real estate transactions taxation regime; the application of a more favourable regime on the purchase of real estate since the second half of 2003, gave rise to a significant reduction in transaction costs[16].

After two years of moderate growth, household debt for consumption and purposes other than housing accelerated in the course of the first half of the year, in line with the pick-up in private consumption. The annual rate of change rose to 9.1 per cent in June, compared with 1.7 per cent in December 2003. In August 2004, the rate of change of loans granted by the resident OMFI to this sector stood at 4.1 per cent, 0.3 percentage points less than in June. The difference in June between the rates of change of the two aggregates shows the importance of OFIFA in the recent buoyancy of this credit segment.

In June 2004, the rate of change in the total debt of non-financial corporations stood at 5.1 per cent[17], after 4.5 per cent at the end of 2003 (Chart 3.9)[18]. Data available for the most recent period also point to a stabilisation compared with end-2003. The annual rates of change of loans granted by the resident OMFI to this sector stood at 2.7 and 2.6 per cent respectively in December 2003 and August 2004. The weak growth of this bank credit aggregate in the first eight months of the year reflects, on the one hand, the recourse by non-financial corporations to alternative financing sources and, on the other, the maintenance of some

(14) This rate of change is not directly comparable to that regarding liquid flows of new credit to households for house purchase due to several reasons: (i) the liquid flow of credit comprises not only loans granted by resident OMFI, but also credit granted by resident OFIFA and by non-residents credit institutions, as indicated in footnote 10 (the liquid flow of loans granted only by resident OMFI, based on transactions, grew 16.7 per cent, in year-on-year terms, in the first half of 2004); (ii) the liquid flow of new credit is liquid of redemptions, contrasting to values identified by DGT, which refers to gross amounts of new credit contracts (in particular, in case of renegotiation, substitution or transfer of loans contracts, the liquid flow of the new credit is, in principle, smaller than the amount registered in the new contract); (iii) finally, there is no necessary temporal coincidence between the moment of the realization of the new credit contract and the use of the amounts referred in it, with the correspondent reflex in the outstanding debt.

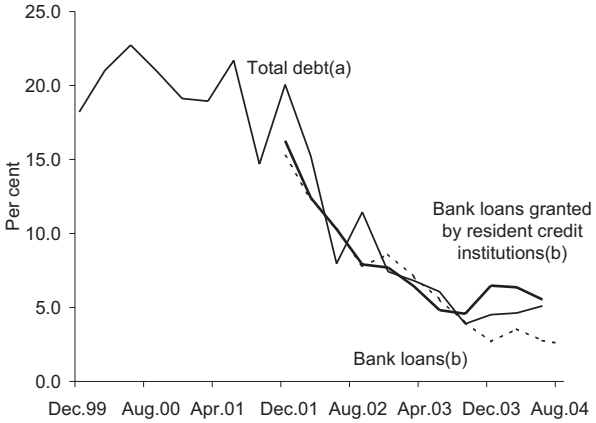
(15) The trend of the average figures related to the assessment by banks of the value of houses per square metre in Mainland Portugal (source: *INE*), point to a rise in the value of houses financed through bank credit far higher than inflation in Portugal (5.9 per cent in the first half of 2004, down from 8.4 per cent in the second half of 2003), in a context of virtual stability in housing prices (0.5 and 1.6 per cent changes in the corresponding periods, according to the Newsletter *Confidencial Imobiliário* index).

(16) Although the first measures of the Property Taxation Reform took effect only in 2004, a transitional regime was adopted from June 2003 onwards, in order to avoid the postponement of a significant number of house purchase decisions. Thus, from June 2003 onwards new property transfer tax rates were applied, sizably lower than those previously in force, which correspond to the rates applicable in the new Municipal Transactions Tax introduced at the beginning of 2004 (which replaced the Property Transfer Tax).

(17) The total debt of this sector is considered to include liabilities on account of loans granted by resident and non-resident credit institutions, and by companies belonging to the same group (FDI), as well as the liabilities (at nominal value) represented by commercial paper and bonds.

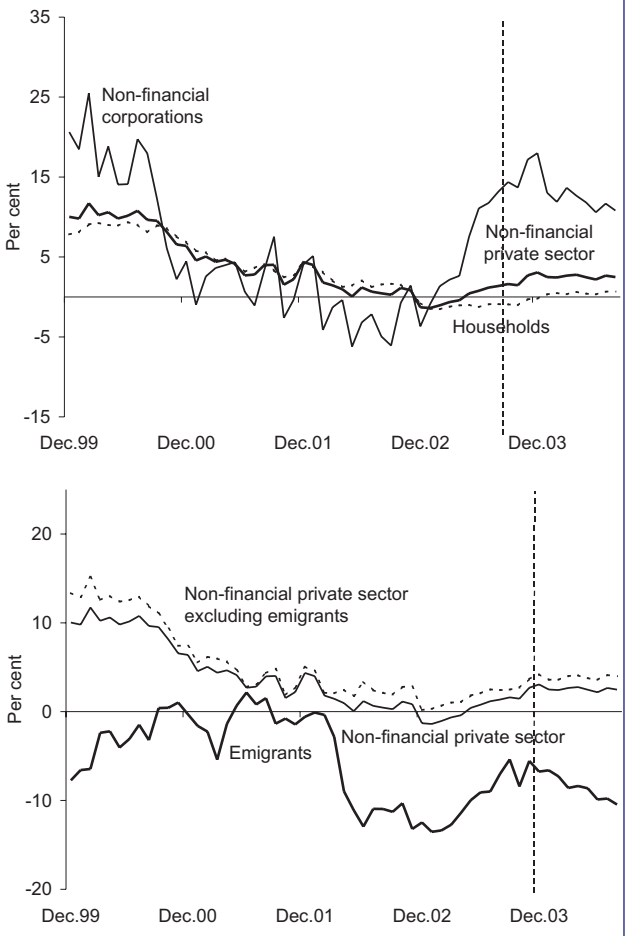
(18) In June 2004, the rate of change of loans granted by resident credit institutions to non-financial companies stood at 5.5 per cent, down from 6.5 per cent at the end of 2003.

Chart 3.9
NON-FINANCIAL CORPORATIONS DEBT
Year-on-year rates of change



Notes:
(a) Account is taken of loan granted by resident and non-resident credit institutions and by companies belonging to the same group (FDI), plus the outstanding amount of commercial paper and bonds (at nominal value).
(b) Rates of change calculated from an index of adjusted stocks (December 2000=100), according to the ECB methodology in the case of OMFI (i.e. excluding reclassifications, wright-off/write-downs and exchange rate changes and adjusted for securitisation operations). In the case of credit to OFIFA, outstanding amounts are adjusted for securitisation operations and reclassifications initially considered as OMFI credit, but against OFIFA (i.e. for total credit institutions, account was taken only of reclassifications that do not reflect adjustments between OMFI and OFIFA).

Chart 3.10
DEPOSITS OF THE NON-FINANCIAL PRIVATE SECTOR IN THE RESIDENT BANKING SYSTEM
Year-on-year rates of change



restrictiveness in the supply of credit by banking institutions regarding the risks associated with the overall economic situation and with sectors and specific companies. Thus, part of the net borrowing requirements of non-financial corporations was met through the recourse to loans from OFIFA and to other financing sources, such as the issuance of commercial paper[19], and, to a lesser extent, borrowing from companies belonging to the same group (in the case of companies with foreign participation). Likewise, the contracting of international syndicated loans by non-financial corporations appears to have regained some momentum in 2004.

The deceleration of bank credit was felt across the majority of the corporate activity branches. However, it should be noted that the growth of loans to the real estate activities sector continued at a high pace (10.5 per cent in August, compared with 13.0 per cent in December 2003)[20]. Bank loans granted to construction firms stood at 1.2 per cent, in August, decelerating from the end of 2003 (2.8 per cent). The amount outstanding of bank loans in industry and services supplied to companies (the latter including holding companies) recorded a negative change (the year-on-year rates of change

(19) This instrument is a very close substitute for bank credit, chiefly in the case of larger companies. The year-on-year rate of change of this type of liabilities of non-financial companies increased to 3.1 per cent in August 2004 (up from a year-on-year change of -12.3 per cent in December 2003).

(20) Annual rates of change calculated on the basis of indices of outstanding amounts of bank loans, adjusted for reclassifications.

Chart 3.11
DEPOSITS OF THE NON-FINANCIAL PRIVATE SECTOR IN THE RESIDENT BANKING SYSTEM AND ABROAD
Year-on-year rates of change

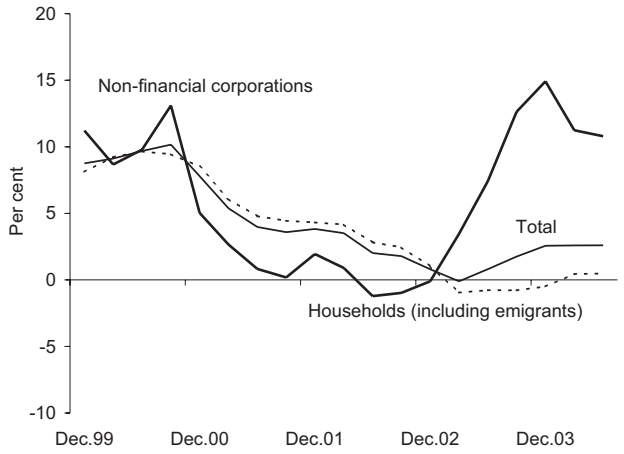
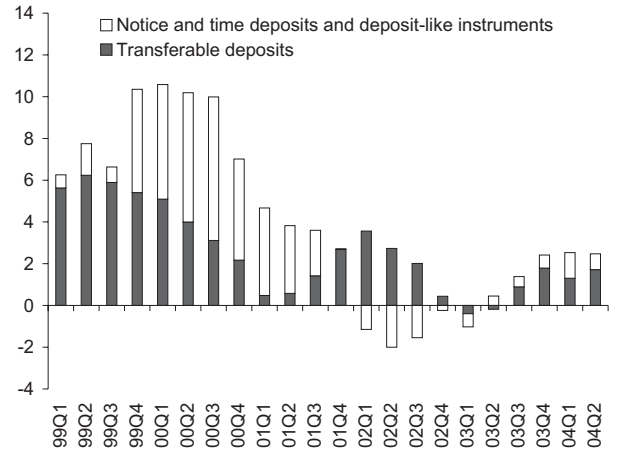


Chart 3.12
CONTRIBUTIONS TO THE YEAR-ON-YEAR RATE OF CHANGE IN DEPOSITS AND DEPOSIT-LIKE INSTRUMENTS OF THE NON-FINANCIAL PRIVATE SECTOR



in December 2003 and August 2004 were respectively of -0.5 and -7.2 per cent, in the former sector, and -7.0 and -1.2 per cent, in the latter).

3.4. Bank deposits of the non-financial private sector

Unlike in 2003, household disposable income will show some real growth in 2004. Notwithstanding, households' current savings are likely to decrease, since the current estimates of the Banco de Portugal point to a higher growth of private consumption than of disposable income[21]. In this context, and given the need that Portuguese households have to earmarked an increasing share of their savings to the repayment of the debt, the amount of current savings that is not earmarked for the service of the debt will be smaller. Given the low remuneration of time deposits, savings will preferably be channelled to other financial assets with higher rates of return. With respect to non-financial corporations, the estimates of the Banco de Portugal for 2004 point to a significant increase in the respective net borrowing requirements compared with 2003, in line with a rebound in corporate investment and activity in general. This, associated with the moderate growth of bank credit to this sector, which was only partially offset by credit granted by other credit institutions and by the issuance of debt securities, seems to be reflected in the reduction of deposits held by this sector in the first eight months of 2004.

In August 2004, the year-on-year rate of change in deposits of the non-financial private sector with the resident banking system stood at 2.5 per cent (3.1 per cent in December 2003). These developments were due to the smaller growth of corporate deposits (10.8 per cent, compared with 18.0 per cent in December 2003), partially offset by a slight recovery in household deposits (0.7 per cent, compared with -0.2 per cent in December 2003) (Chart 3.10). Total deposits of the non-financial private sector aggregate (in Portugal and abroad) also recorded a low year-on-year growth of 2.6 per cent in June 2004, close to the figure recorded at the end-2003 (Chart 3.11). Households' deposits (including emigrants' deposits) increased 0.5 per cent, while deposits of non-financial corporations increased 10.8 per cent. It should also be noted that like in 2002 and 2003, depositors showed a higher preference for high liquidity (with reduced opportunity costs, given the low level of time deposit interest rates), translated into an important contribution of transferable deposits to the change in deposits of the non-financial private sector with the resident banking sector (Chart 3.12).

Developments in total deposits of the non-financial private sector reflected, largely, the historically low levels of bank interest rates on these op-

(21) See Section 5. Expenditure and Output.

Table 3.2

MONETARY SURVEY

EUR million

	2000	2001	2002	2003		2004	Absolute changes 2000	2001	2002	Dec. 2002 up to Aug. 2003	2003	Dec. 2003 up to Aug. 2004
	Dec.	Dec.	Dec.	Aug.	Dec.	Aug.	Dec.	Dec.	Dec.		Dec.	
Net external assets	-6788	-19270	-27444	-33014	-26924	-37321	-15773	-12483	-8174	-5570	520	-10397
Banco de Portugal	14985	16050	15521	12575	19627	10927	-3638	1065	-529	-2947	4106	-8700
Other monetary financial institutions	-21773	-35321	-42965	-45589	-46551	-48248	-12136	-13548	-7644	-2624	-3586	-1697
of which:												
Vis-à-vis the head office and branches of the institution	n.a.	n.a.	n.a.	-36176	-39098	-42782	n.a.	n.a.	n.a.	n.a.	n.a.	-3684
Vis-à-vis other non resident MFI with controlling interest	n.a.	n.a.	n.a.	-7990	-9758	-11354	n.a.	n.a.	n.a.	n.a.	n.a.	-1596
Vis-à-vis other non resident MFIs with no controlling interest	n.a.	n.a.	n.a.	-2910	-3013	3227	n.a.	n.a.	n.a.	n.a.	n.a.	6240
Credit to general government	8496	9082	8069	7560	7923	7572	-268	585	-1013	-509	-146	-351
Domestic credit (except general government)	160783	179401	191038	196304	194228	202303	31206	18618	11637	5266	3190	8075
Households	68921	76063	83363	86952	84675	91443	12062	7142	7300	3589	1312	6768
Non-financial corporations	70667	80085	86352	87559	90865	91165	14167	9418	6267	1208	4513	300
Non-monetary financial institutions	21195	23253	21324	21794	18688	19695	4977	2059	-1929	470	-2636	1007
Currency in circulation	5392	4451	7025	7517	8197	9512	-228	-941	2575	491	1172	1316
Deposits and deposit-like instruments - total	120125	123236	122667	119402	123885	120917	5618	3111	-569	-3265	1218	-2968
Non-monetary financial institutions	9843	10360	9641	10104	8932	8578	182	517	-719	464	-708	-354
General government	8181	6329	7866	4944	6568	5391	-690	-1852	1536	-2921	-1297	-1178
Non-financial corporations and households	102100	106547	105161	104353	108384	106948	6126	4447	-1386	-808	3224	-1436
Securities other than capital	17476	22514	23168	21930	22516	22390	4157	5037	655	-1238	-653	-125
Money market fund shares	115	166	665	801	1058	1127	115	51	499	136	393	69
Capital and reserves	25920	27867	28726	32625	33127	33457	5093	1947	859	3900	4401	330
Sundry (net)	-6537	-9021	-10588	-11425	-13556	-14849	411	-2484	-1567	-837	-2967	-1294
Memo:												
Net foreign assets of OMFI denominated in euro	-19559	-34518	-39524	-40257	-39402	-45111	-8818	-14959	-5006	-733	122	-5709
							Year-on-year rates of change					
Contribution to the euro area M1 aggregate	47723	51219	53225	54279	57307	57793	4.8	7.3	3.9	2.0	7.7	0.8
Contribution to the euro area M3 aggregate	119822	126769	127607	131260	132905	135307	5.9	5.8	0.7	2.9	4.2	1.8

erations (which implied a negative real remuneration of time deposits) and the above-mentioned increase in corporate net borrowing requirements, in a context of an increased investment effort in fixed capital. This increased effort translated into a decline of 7.2 per cent in deposits of non-financial corporations between December 2003 and August 2004. Moreover, preliminary data available point to the fact that investment in other financial assets with more attractive rates of return than deposits continued to grow strongly in 2004. In the year ended in August, amounts managed by mutual funds (excluding multi-fund funds), adjusted for the changes in portfolios' value[22], increased by 5.0 per cent, compared with 3.3 and 8.6 per cent at the end of 2002 and 2003 respectively.

3.5. Monetary survey

Since the beginning of the year until August 2004, developments in domestic credit and in deposits and deposit-like instruments of households and non-financial corporations translated into an increase in the net creditor position of OMFI vis-à-vis the non-financial private sector (Table 3.2). This increase was offset by a deterioration in the net external debtor position.

It should be noted that since the end of 1999, resources from customers have not been sufficient to finance the expansion of credit granted by the resident OMFI. As a consequence, Portuguese banks have resorted since then to the securitisation of part of their credit portfolio, in order to improve the liquidity situation. At the same time, resident financial institutions have increasingly resorted to borrowing from non-residents (namely through the issuance of medium and long-term securities by subsidiaries and branches abroad), in order to meet their financing needs.

It should also be noted that the Monetary Survey was affected by a one-off operation carried out at the end of 2003, but reversed in the early days of 2004, which had an impact on the external position of OMFI and, in the opposite direction, on that of monetary authorities[23]. Excluding this one-off operation, the rise in the net external liabilities of the Banco de Portugal would be less significant in 2004, while the net indebtedness of OMFI vis-à-vis non-residents would be more significant[24].

4. FISCAL POLICY

According to the Draft Report of the State Budget for 2005 submitted by the Government to the Parliament, the general government deficit, on a national accounts basis, will reach 2.9 per cent of GDP in 2004 (2.8 per cent of GDP in 2003) (Table 4.1). This figure remains unchanged from the Excessive Deficit Procedure notification of August 2004 and represents only a slight upward revision of the deficit initially forecast in the State Budget for 2004 (2.8 per cent of GDP). However, the maintenance of the projection for 2004 is currently benefiting from a higher amount of extraordinary receipts than the one implicit in the August notification: 2.0 per cent of GDP, instead of 1.1 per cent. Currently, the estimate of the impact of temporary measures in 2004 includes:

- Transfers of public corporations to the civil servants social security system (*Caixa Geral de Aposentações - CGA)*, in exchange for the payment, by this entity, of the pensions of their former employees, amounting to 1.2 per cent of GDP;
- Sales of State real estate, representing 0.8 per cent of GDP.

According to the 2004 account considered in the Report of the State Budget for 2005, the decline of the effects of temporary measures, from 2.5 per cent of GDP in 2003 to 2.0 per cent of GDP in 2004, is associated with an improvement in the general government deficit, adjusted for this type of measures, from 5.3 per cent of GDP in 2003 to 4.8 per cent of GDP in 2004. Taking into account that the ratio of interest payments to GDP will remain unchanged and that the cyclical component — des-

(22) The adjustment of the changes in value used in the calculation of these rates of change is similar to that made in the calculation of the annual rates of change of bank credit.

(23) In 2003 this operation translated into a significant reduction in the external liabilities of the monetary authorities within the framework of the TARGET system, offset by a negative change in the assets of OMFI.

(24) However, it should be noted that the higher net indebtedness of OMFI vis-à-vis non-residents was compatible with a stabilisation of market indebtedness vis-à-vis non-residents, while there was a debt rescheduling via the lengthening of the average maturity. For further details, see "The banking system in the first half of 2004", in this issue of the *Economic Bulletin*.

Table 4.1

GENERAL GOVERNMENT NATIONAL ACCOUNTS

	As a percentage of GDP[a]						Growth rates	
	Including temporary measures			Excluding temporary measures			Excluding temporary measures	
	2002	2003	2004[b]	2002	2003	2004[b]	2003	2004[b]
Total revenue	**43.2**	**44.8**	**44.9**	**42.3**	**42.3**	**43.7**	**1.6**	**6.7**
Current revenue	41.4	41.9	41.6	40.5	40.4	41.6	1.4	6.5
Taxes on income and wealth	9.8	9.3	9.0	9.3	8.8	9.0	-3.8	6.0
Taxes on production and imports	15.0	15.6	15.1	14.6	14.8	15.1	2.9	5.2
Social contributions	12.2	12.8	12.8	12.1	12.5	12.8	4.7	5.4
Actual	11.3	11.7	11.9	11.2	11.5	11.9	3.6	7.0
Imputed	0.9	1.0	0.9	0.9	1.0	0.9	18.0	-12.1
Other current revenue	4.4	4.3	4.8	4.4	4.3	4.8	-1.6	14.7
Other current revenue excluding corporate-hospitals in 2002	*4.2*			*4.2*			*2.9*	
Capital revenue	1.8	2.9	3.2	1.8	1.9	2.0	4.9	11.2
Total expenditure	**45.9**	**47.6**	**47.7**	**46.4**	**47.6**	**48.5**	**4.2**	**5.2**
Current expenditure	41.7	43.0	43.6	41.7	43.0	43.6	4.7	4.7
Current transfers	19.0	21.4	22.1	19.0	21.4	22.1	14.1	7.0
Social payments	15.0	17.1	17.7	15.0	17.1	17.7	15.7	6.6
in cash	13.2	14.1	14.6	13.2	14.1	14.6	9.0	6.6
in kind	1.9	3.0	3.1	1.9	3.0	3.1	62.9	6.9
including corporate-hospitals in 2002	*3.0*			*3.0*			*0.1*	
Subsidies	1.5	1.5	1.8	1.5	1.5	1.8	5.5	25.5
Other current transfers	2.5	2.7	2.6	2.5	2.7	2.6	9.4	-1.4
Interest	3.0	2.9	2.9	3.0	2.9	2.9	-2.9	4.6
Compensation of employees	15.4	15.0	14.8	15.4	15.0	14.8	-1.0	1.9
Compensation of employees excluding corporate-hospitals in 2002	*14.6*			*14.6*			*4.2*	
Intermediate consumption	4.3	3.8	3.8	4.3	3.8	3.8	-11.0	3.5
Intermediate consumption excluding corporate-hospitals in 2002	*3.7*			*3.7*			*3.4*	
Capital expenditure	4.2	4.6	4.1	4.7	4.6	4.9	-0.2	9.0
Gross fixed capital formation	3.3	3.3	2.6	3.6	3.3	3.3	-6.6	4.2
Net acquisition of non-produced non-financial assets	-0.2	-0.1	-0.1	0.0	-0.1	-0.1		
Capital transfers	1.1	1.4	1.7	1.1	1.4	1.7	27.6	23.5
Overall balance	**-2.7**	**-2.8**	**-2.9**	**-4.1**	**-5.3**	**-4.8**		
Memo:								
Primary current expenditure	38.7	40.1	40.7	38.7	40.1	40.7	5.3	4.8
Primary balance	0.3	0.1	0.1	-1.1	-2.4	-1.9		
Cyclically adjusted primary balance	0.1	1.3	1.7	-1.3	-1.2	-0.3		
Public debt	58.4	60.0	61.6					
Deficit-debt adjustments	2.5	-0.3	0.7					

Notes:

(a) Nominal GDP used for ratios in 2003 and 2004 was estimated by Banco de Portugal.

(b) Estimate based on the account included in the Draft Report of the Budget for 2005.

pite the pick-up in economic growth — is still contributing negatively to the budgetary development[25], fiscal consolidation, as measured by the cyclically adjusted primary balance and corrected for temporary measures, will reach, according to the Ministry of Finance, around 0.9 per cent of GDP.

According to the estimate for 2004, included in the Report of the State Budget for 2005, total general government revenue, excluding the effect of temporary measures, will increase by 1.4 percentage points of GDP in the current year. Taxes on income and wealth and on production and import as a whole will increase 5.5 per cent in 2004, largely reflecting the pick-up in the growth of their macroeconomic bases. These developments are in line with the estimate for the outturn of the State tax revenue in Public Accounts for 2004, included in the Draft Report of the State Budget for 2005 (growth rate of 5.4 per cent, adjusted for the effects of the securitisation of tax arrears in 2003). However, it should be noted that although the growth rate of the January-September outturn of the State tax revenue is higher than assumed for the year as a whole (6.2 per cent), a deceleration is expected until the end of the year. Uncertainty is particularly evident as regards the corporate income tax whose revenue has been affected by a pattern of reimbursements different from the one observed in 2003. Moreover, it is difficult to anticipate the effect on the collection of this tax resulting from the likely suspension of prepayments until the end of the year, due to the reduction of the tax rate from 30 to 25 per cent, introduced in the State Budget for 2004. In turn, the growth projected for the actual social contributions of the private sector system is 4.9 per cent (excluding the effects of the securitisation in 2003)[26]. Considering that the growth rate of social contributions in the Social Security outturn of January-August stood at 2.1 per cent, the estimate included in the State Budget for 2005 for this item seems rather optimistic. Still on the revenue side, it is worth mentioning the very significant growth in other current revenue (14.7 per cent, or 0.5 percentage points of GDP) that will also be difficult to materialise[27].

The growth forecast for total general government expenditure in 2004 points to a 0.9 percentage points of GDP increase. This evolution would be explained, to a large extent, by the developments concerning social transfers in cash to households, as it happened in the past few years. However, there is a significant deceleration in this component of expenditure compared with 2003, reflecting a lower growth of expenditure with unemployment benefits, but also a very low forecast for imputed social contributions, that appears unlikely to materialise[28]. Turning to compensation of employees and after taking into account the very strong growth of the State transfer to CGA, the evolution of the remaining expenditure clearly falls short of expectations, given the increase in the civil servants wage scale (approximately 0.6 per cent on average), the rise in the average wage and the virtual stabilisation of the number of civil servants, in line with the evolution of the number of CGA subscribers along 2004. Finally, mention should be made to the considerable increase in expenditure on subsidies (25.5 per cent), which does not seem in line with estimates of expenditure on professional training, housing interest subsidies and compensatory payments considered in the Draft Report of the State Budget for 2005, and, as such, should fall short of the forecast figure.

Risks in the 2004 budget outturn seem to indicate clearly that the general government deficit, excluding the impact of temporary measures, may exceed the current estimate. However, given the commitment assumed by the Government in the past few years to comply with the reference value

(25) The real GDP growth rate in 2004, albeit increasing significantly from 2003, is still giving rise to a growth of economic activity below its potential. Thus, the output gap, and hence the cyclical component of the fiscal balance, will become more negative in 2004.

(26) This forecast is obtained after isolating the effect of the civil servants system, and coincides with that presented in the Social Security account, also included in the 2005 State Budget.

(27) Other current revenue includes, namely, revenue from the sale of goods and services by the general government and the transfers of the European Social Fund received from the European Union. Despite their strong growth, the latter do not justify the projection for the other current revenue as a whole, as they only account for around 0.1 percentage points of the 0.5 percentage points of GDP in question.

(28) It should be noted that in the general government national accounts, imputed contributions are recorded, on the revenue side, under social contributions and, on the expenditure side, under transfers in cash to households and under compensation of employees.

of 3 per cent of GDP, it cannot be ruled out that, if necessary, additional temporary measures will be adopted. Should this scenario materialise, the fiscal consolidation effect in 2004, mentioned above, may be actually smaller than projected and the fiscal policy may shift from a restrictive to a close to neutral stance.

According to the estimates of the Ministry of Finance, the public debt ratio will reach 61.6 per cent[29] of GDP at the end of 2004, increasing by 1.6 percentage points from the end of 2003. Considering that the primary balance, including the effect of temporary measures, will remain virtually balanced in 2004, this rise in the ratio results from the effect of interest expenditure, which exceeds the moderating effect of the economic growth and the deficit-debt adjustments, which should reach 0.7 per cent of GDP[30].

5. EXPENDITURE AND OUTPUT

According to the estimates of Banco de Portugal shown in this issue of the *Economic Bulletin*, Portuguese GDP is expected to grow, in volume, between 1 and 1½ per cent in 2004. Domestic demand, largely driven by the recovery in private consumption, is likely to make a positive contribution. The contribution from net external demand will probably be negative, despite the rise in the export growth rate, since imports are expected to accelerate rather sharply. This growth composition corresponds to a reversal of the pattern observed in the past two years, when net external demand made positive contributions to the rates of change in output.

The growth interval now presented corresponds to a narrowing of the interval presented in *Economic Bulletin* of June 2004, albeit with a different growth composition. In fact, in June, it was projected positive contributions for GDP growth from both domestic demand and net external demand. The increased domestic demand contribution is due to the upward revision of the private and public components of final expenditure. These revisions are the result of the materialisation of some foreseen risks, namely the risk of more buoyant developments than projected for domestic demand. In addition, exports are also revised upwards, in line with the new assumptions for external demand relevant for the Portuguese economy. However, this significant revision of overall demand does not have a significant impact on the GDP growth estimate, since imports are much more buoyant than initially expected.

The increase in the Portuguese economy's activity is confirmed by the Banco de Portugal's monthly coincident indicator of economic activity (Chart 1.2). This indicator, which had started to recover at the end of the first half of 2003, points to an acceleration of activity in the first two quarters of 2004 and to a stabilization of growth throughout the third quarter. Although admitting some GDP deceleration in the fourth quarter, it will not be very pronounced. In semi-annual terms, activity in the second half of the year is likely to grow at a slightly higher pace than in the first half.

The household savings rate is likely to decline in 2004, since private consumption growth is expected to be higher than the increase of households' disposable income[31], albeit the latter shows a more favourable development than that implicit in the *Economic Bulletin* of June. In fact, real disposable income is likely to grow in 2004, albeit approximately ½ p.p. less than private consumption. This decline in the savings rate is so more significant as the "forced savings" needed to service debt incurred in previous periods by households increased, thereby reducing the "discretionary share" of saving. As referred to in Section 3, the already relatively high gross household indebtedness seems to have continued to rise sharply in

(29) The estimate of 61.6 per cent for the debt ratio at the end of 2004 results from the stock of debt considered in the preparation of the 2005 State Budget and the estimate of nominal GDP of the Banco de Portugal. Using as an alternative the nominal GDP for 2004 implicit in the 2005 State Budget the figure would be 62.0 per cent.

(30) It should be noted that the amount of the deficit-debt adjustments implicit in the estimate of the public debt for end-2004 is, in principle, influenced by the assumption of debt foreseen in the Draft Supplementary Budget for 2004, as regards the payment of previous year expenditure.

(31) In 2004 households' disposable income and savings are not affected, in contrast to 2003, irrespective of whether or not the effects of the supply of tax credits by the general government are taken into consideration. In fact, in 2004 this operation only affects the allocation of funds between the general government and the company that acquired the tax credits. Payments of these overdue taxes are always recorded in the household income account, regardless of the sector that effectively receives them.

2004 (from 111 to around 118 per cent of annual disposable income). However, the pressure towards increasing savings, created by the need to meet higher debt repayment, does not appear to have prevented the overall fall in this variable in 2004. The very accommodating conditions of access to credit may be an important factor explaining the behaviour of Portuguese households.

In parallel, the explanation of the strong acceleration in private consumption may be related to a change in households' expectations from end-2003 onwards. In a context of deceleration in national and international economies, the households' confidence indicator had been declining since 2001. This was sharpened by the public recognition in 2002 of the severe fiscal crisis and by the fact that the Portuguese economy moved into recession. In 2003, after having recorded the most negative change in the second quarter, the economy gradually started to recover. The perception by households that unemployment developments would be less severe than expected and that the fiscal consolidation effort would be less intense than initially assumed has probably contributed to ease the behaviour of households. In addition, the fact that Portugal hosted events at the international scale, notably the European football championship, may have also contributed to temporarily stimulate private consumption.

It is also possible, especially in 2004 because of the European football championship, that private consumption growth is being somewhat overestimated due to the statistical uncertainty in the separation between consumption by residents in the national territory (allocated to private consumption by residents) and by non-residents (allocated to exports of tourism services). Many foreign visitors stayed in Portugal for short periods, and thus a significant part of their consumption in the national territory may have occurred using euro banknotes and coins brought from their home countries(32). In this case there is no record that allows assigning this consumption to non-residents. Although with no impact on the GDP level, this has some bearing on the estimation of the output growth composition and it can exacerbate the contribution from domestic demand to GDP growth, to the detriment of the contribution from net external demand. However, the quantitative impact of this effect does not seem to alter qualitatively the foregoing assessment.

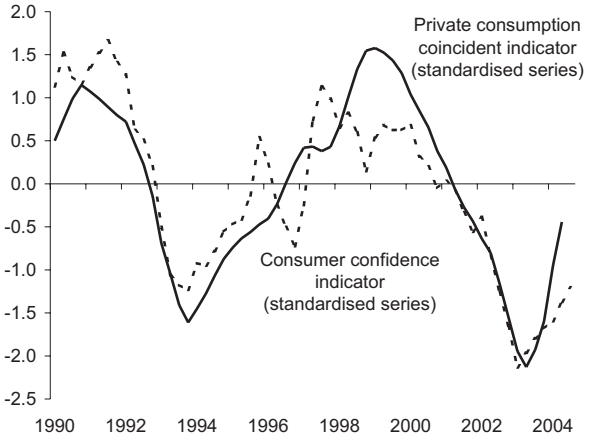
In the context of a rebound in economic activity, disposable income growth in 2004 results from developments in compensation of employees, transfers and corporate and property income. In the case of compensation of employees, despite the virtually unchanged general government wage scale, the behaviour of this item is likely to reflect a slight increase in the real growth rate of wages in the economy as a whole, and less unfavourable developments in dependent employment than in 2003. With regard to transfers to households, the growth rate of domestic transfers is expected to remain high in 2004, reflecting developments in social benefits paid by the general government, namely old-age pensions, notwithstanding the deceleration in unemployment benefits. Domestic transfers, which already correspond to over 25 per cent of household disposable income, have further increased their weight in disposable income in 2004 (by around 1 p.p.), after a 3.1 p.p. increase between 2000 and 2003. By contrast, net external transfers are likely to record a negative change again, in line with the reduction in emigrants' transfers.

Developments in private consumption are illustrated by the trend of the private consumption coincident and consumer confidence indicators. The former, which summarises qualitative data, has been following a strong upward trend since the second quarter of 2003 (Chart 5.1). Consumer confidence, as measured by the indicator calculated by the European Commission, also shows increasing levels, although its trend is less marked. In turn, the accumulated year-on-year rate of change in the retail trade turnover index, which does not consider the sale of cars, motorcycles and fuel for vehicles, shows real positive values since March 2004, standing at 1.9 per cent up to September (-2.6 per cent in the same period in 2003).

In 2004 the expenditure on durable consumer goods is likely to grow in volume. Despite the low levels of the real and nominal interest rates, this increase is likely to stem essentially from the replacement and restoring of these goods by households,

(32) Part of foreign tourists' expenditure in the national territory is accounted in the Balance of Payments using the ATM transactions of debit or credit cards associated to accounts domiciled abroad. In the case of payments in cash brought by tourists, this recording is not possible.

Chart 5.1
PRIVATE CONSUMPTION COINCIDENT INDICATOR AND CONSUMER CONFIDENCE INDICATOR



Sources: European Commission and Banco de Portugal.

given that real expenditure on this type of goods has been declining since end-2000. The acceleration in consumer expenditure on durable goods is particularly marked in the acquisition of new light passenger cars. Sales of this type of cars, including off-road vehicles, grew by 3.9 per cent in accumulated year-on-year terms up to September (-21.1 per cent in the same period in 2003). During the first half of the year, the rise in the sales of new cars focused more than proportionately on high-range cars. The durable goods retail trade turnover index recorded, in real terms, an accumulated year-on-year rate of change up to September of 0.4 per cent that compares with -8.1 per cent in the same period a year earlier.

According to the estimates of Banco de Portugal, public consumption is likely to grow by around 0.6 per cent in real terms in 2004, i.e. at a rate of change close to that recorded in 2003 (0.5 per cent). Considering the composition of public consumption adjusted for the effect of the corporatisation of hospitals in late 2002, this behaviour results from an estimate for the growth rate of expenditure on goods and services, in real terms, higher than in 2003, which more than offsets the deceleration in staff costs, in line with the projection for the average number of subscribers to CGA in 2004[33].

GFCF in 2004 is likely to record a positive change in volume, following the declines in 2002 and 2003. This evolution may have been supported by the maintenance of nominal and real interest rates at low levels. This variable is estimated to grow, in real terms, between ¾ and 2¾ per cent (4.9 and 9.6 per cent declines in 2002 and 2003, respectively). By type of goods, only construction will likely show a still negative rate of change, while most other GFCF components (machinery and metal products, transport equipment and other GFCF with no breakdown) are expected to recover to positive growth rates, stress being laid on GFCF in machinery, which will likely grow strongly, between 6 and 10 per cent. This occurs in a context of accelerating domestic and external demand, following a two-year period of also considerable negative changes. In addition, there is also an increase in the acquisition of telecommunication equipment, which may be associated with the launching of the new-generation mobile telecommunications and the reinforcement of the existing networks. With regard to GFCF in transport equipment, up to September sales of new light and heavy commercial cars recorded accumulated year-on-year growth rates of 5.3 and 21.9 per cent respectively (-15.9 and -24.9 per cent in the same period in 2003) (Table 5.1). However, this GFCF component will probably show an only marginally positive growth rate as a result of the cut in investment in other transport equipment.

According to the projections of Banco de Portugal, Portuguese exports are likely to grow between 7 and 8 per cent in 2004, following the 1.6 and 4.1 per cent increases seen in 2002 and 2003, respectively. The higher rate of change in exports results mainly from the acceleration in external demand relevant for the Portuguese economy and reflects a higher growth pace of exports of both goods and services. The aggregate market share of goods exports may decline slightly, as a result of the decrease in exports of cars and a stabilisation of the market share of the remaining goods in the year as

(33) The corporatisation of a number of hospitals in December 2002 determined the shift of these institutions from the general government sector to the non-financial corporate sector at the level of National Accounts. This change, although with no impact on total public consumption, has significantly affected the recording of its main components, giving rise to a break in the series from 2002 to 2003.

Table 5.1

GROSS FIXED CAPITAL FORMATION

	2002	2003	2004	Until the	2003				2004		
			cumul.	month	I	II	III	IV	I	II	III
Transport equipment											
Sales of commercial vehicles (y-o-y. r.c.)											
Light (under 3.5 ton - excluding 4x4)	-19.6	-12.9	5.3	Set	-27.5	-12.8	-1.8	-4.0	3.4	10.7	1.5
Heavy (above 3.5 ton)	-28.2	-21.0	21.9	Set	-35.9	-14.4	-20.9	-7.3	17.9	27.1	20.0
Machinery											
Gross Trade Monthly Survey - Machinery - b.o.r. (n-s.a.)[(a)]											
Turnover		-25.7	-7.7	Set	-21.5	-34.3	-33.3	-12.3	-22.0	-4.7	3.7
Current activity		-47.0	-33.6	Set	-48.5	-45.7	-55.3	-39.0	-46.3	-31.7	-22.7
Expected activity		0.5	5.9	Set	16.5	-14.7	-5.3	10.7	4.7	8.3	4.7
Manufacturing Industry Monthly Survey - Other equipment goods - b.o.r. (n-s.a.)											
Domestic orders book (n-s.a.)	-28.2	-40.3	-32.0	Set	-47.7	-44.3	-36.7	-32.7	-34.3	-33.7	-28.0
Current production	-6.9	-11.9	2.2	Set	-24.7	-16.0	-6.0	-1.0	-8.7	12.3	3.0
Expected production	0.0	-7.8	1.3	Set	-20.0	-10.3	-1.0	0.0	2.7	1.7	-0.3
Stocks of finished products	19.5	-1.7	-1.2	Set	1.0	-3.7	-1.7	-2.3	0.3	-3.3	-0.7
Construction											
Construction confident indicator - b.o.r. (s.a.)											
European Commission Opinion Survey	-34.0	-47.4	-43.0	Set	-52.7	-44.7	-47.0	-45.3	-44.7	-42.3	-42.0
Construction and Public Works Monthly Survey - b.o.r. (n-s.a.)	-32.3	-52.0	-45.3	Set	-54.0	-53.7	-50.8	-49.5	-46.5	-45.0	-44.3
Cement sales (y-o-y. r.c.)	-6.7	-16.8	-0.5	Set	-18.9	-20.5	-16.5	-10.0	-1.1	-0.1	-0.3
Total sector											
Construction and Public Works Monthly Survey - b.o..r. (n-s.a.)											
Assessment of activity	-23.0	-35.3	-30.6	Set	-41.8	-36.3	-32.7	-30.3	-37.0	-31.0	-23.7
Order books	-43.9	-68.1	-65.8	Set	-67.7	-71.0	-67.7	-66.0	-66.7	-66.3	-64.3
AECOPS - Monthly Survey (n-s.a.)											
Activity - b.o.r.	-18.8	-30.7	-23.2	Set	-34.7	-30.3	-28.0	-29.7	-33.7	-28.0	-8.0
Order books - months	11.5	9.5	8.6	Set	10.0	10.0	9.1	8.8	8.9	8.4	8.6

y-o-y.r.c. - year-on-year rate of change.
c.r.c. - cumulative rate of change.
b.o.r. - balance of respondents.
s.a. - seasonally adjusted.
n-s.a. - not seasonally adjusted.

Sources: *INE*, *ACAP*, *Cimpor*, *Secil*, *AECOPS*, European Commission and Banco de Portugal.

Note:

(a) New survey as from February 2003. In 2003 the annual average figure refers to the period between February and December, and the figure for the first quarter corresponds to the average figures for February and March.

Table 5.2

IMPORTS OF GOODS IN THE PERIOD FROM JANUARY TO JUNE[(a)]

	2003	2004	2004
	Weights		Year-on-year rate of change
Total	100.0	100.0	10.1
Consumption goods	30.8	30.9	10.7
Food	8.6	8.4	8.0
Non-food	16.1	16.1	10.3
Light passenger vehicles	6.1	6.4	15.8
Equipment goods	27.4	28.0	12.5
Transport equipment excl.light passenger vehicles	9.9	9.9	10.3
Other equipment goods	17.5	18.1	13.7
Energy	9.8	9.7	8.5
Intermediate goods	32.0	31.3	7.9
Unprocessed	4.2	4.2	10.6
Processed	27.8	27.1	7.5
Other	0.0	0.0	-35.5

Source: *INE*.
(a) Implicit figures from January-July of International Trade publication of *INE*.

a whole. The rise in the growth rate of services' exports results from the acceleration in both tourism and other services' exports, namely transport and financial services. Despite the positive contribution to the acceleration in services' exports, growth in tourism services' exports is revised downwards when compared with the macroeconomic scenario shown in the June issue of the *Economic Bulletin*, since the impact of the European football championship on this item was lower than expected. This downward revision partly resulted from the fact that fans from the various competing teams stayed

Table 5.3

INTERNATIONAL TRADE OF GOODS IN THE PERIOD FROM JANUARY TO JUNE[(a)]

EUR million

	2003	2004	2003	2004	2003	2004
	Imports (A)		Exports (B)		(A) - (B)	
Total	19 753	21 740	13 807	14 467	5 946	7 273
Consumption goods	6 075	6 726	5 683	5 862	392	864
Food	1 699	1 835	822	897	878	938
Non-food	3 179	3 505	3 669	3 746	-490	-241
Light passenger vehicles	1 197	1 386	1 192	1 219	5	167
Equipment goods	5 421	6 097	3 856	3 986	1 566	2 112
Transport equipment excl.light passenger vehicles	1 961	2 163	1 923	1 942	37	221
Other equipment goods	3 460	3 935	1 932	2 044	1 528	1 891
Energy	1 938	2 103	329	305	1 608	1 798
Intermediate goods	6 313	6 810	3 902	4 272	2 411	2 537
Unprocessed	828	916	263	363	565	553
Processed	5 484	5 894	3 639	3 909	1 846	1 985
Other	6	4	37	41	-30	-37

Source: *INE*.
(a) Implicit figures from January-July of International Trade publication of *INE*.

in Portugal for a shorter period of time than initially assumed. In fact, visits associated with the European football championship seem to have been characterised by shuttling of fans with short average stays. However, as previously mentioned, it is possible that consumption by non-residents in the national territory is somewhat underestimated.

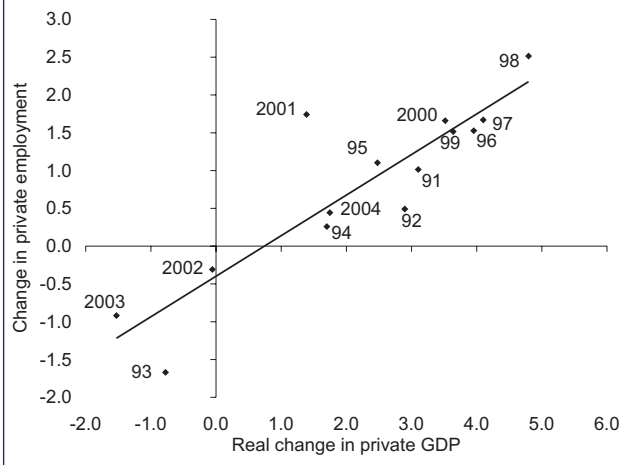
In the first half of the year, imports of goods and services should have grown by 10.7 per in real terms. This growth was far above the estimated increase of the overall demand, weighed by the average import content, which is estimated at 4.2 per cent, in the corresponding period (Chart 1.1).

Table 5.2 presents the estimated imports year-on-year growth rates, in nominal terms, for the first half of the year by broad economic categories. Judging by the available information concerning trade deflators for January-May period, the price changes should not have been very important in the case of imported food goods and transport material. Thus, the high growth rates of imports of these components should have been translated in similar real growth rates. In the case of non-food consumption goods and of other equipment goods, the year-on-year decrease of imports prices (about 2 ½ per cent) is estimated to have continued, leading to increases in real terms higher than those observed in nominal terms.

Table 5.3 reinforces this perspective of strong imports buoyancy, presenting the net imports (that is, imports minus exports) for the same categories of goods. It should be noted the strong growth of net imports of consumption goods and other equipment goods that compare with less expressive net imports of fuel and intermediate goods(34). Naturally, the sharp growth of imports, above what could be expected given global demand indicators, is expected to unwind throughout the rest of the year, moderating import growth in the second half. The estimates published in this Bulletin reflect this assumption, pointing to goods and services' imports in the year as a whole growing between 7 and 9 per cent, after having declined in 2002 and 2003 (0.8 and 0.5 per cent respectively).

(34) Net imports (of exports) are the most relevant international trade indicator for estimating the domestic demand, using a resource and uses framework (estimated domestic demand = internal production + net imports).

Chart 6.1
PRIVATE GDP AND PRIVATE EMPLOYMENT GROWTH



Sources: *INE* and Banco de Portugal

6. EMPLOYMENT AND WAGES

According to the *INE*'s Labour Force Survey, during the first half of 2004 the employment remained relatively stable, in line with the cyclical evolution in the product (Chart 6.1 and Table 6.1). An analysis in a constant sample reveals that the stabilisation of the employment level seems to have been achieved by net job creation associated with self-employed people without employees and wage earners on temporary contracts, which offset the net loss of jobs seen among employees on permanent contracts.

Economic recession periods affect different economic activities in a heterogeneous manner, frequently accelerating ongoing sectoral recomposition processes. The recent experience of the Portuguese economy seems to suggest that the break in economic activity generated significant net job losses in agriculture, construction and manufacturing (especially in the so-called "traditional sectors," located in the Northern region). By contrast, developments in employment in tertiary activities show that the downturn period and the current recovery stage have only been accompanied by a moderate deceleration in the growth rate of employment in these sectors (Table 6.2).

In the first half of 2004, despite the 2.4 per cent year on year increase in the number of unemployed people, the unemployment rate remained

Table 6.1

TOTAL EMPLOYMENT BY EMPLOYMENT STATUS AND TYPE OF CONTRACT

Year-on-year rates of change in a constant sample, as a percentage[(a)]

	2002		2003		2004
	1st half	2nd half	1st half	2nd half	1st half
Employees	0.1	-0.1	-1.0	-1.0	0.2
Permanent contract	-0.9	-0.8	-1.8	-2.3	-1.1
Other contracts	4.1	2.9	2.1	4.6	5.3
Other types of employment	0.8	-0.5	-0.9	0.9	0.9
Self-employed	5.7	0.1	1.1	3.0	1.8
Self-employed – employer	3.1	0.6	0.1	-1.0	-1.8
Unpaid workers	-7.5	-11.2	-18.2	-10.4	-1.6
Other	-37.3	6.6	-16.8	-7.6	12.2
Total	0.3	-0.2	-1.0	-0.4	0.4
Memo:					
Total (growth rate in a simple sample)	1.0	0.0	-0.7	-0.2	0.1

Sources: *INE* and Banco de Portugal.
Note:
(a) The estimate in a constant sample does not take into account the partial rotation of the sample in each quarter i.e. it uses only the component of the Employment Survey's sample that is identical in two consecutive quarters. Rates of change calculated in consecutive constant samples are less subject to erratic changes and are thus preferable for assessment purposes. The impact of erratic changes shall be the lower the wider the aggregate.

at a level similar to that of the first half of 2003. Following the sharp rise in 2002, the unemployment rate rose by only 0.2 p.p., to 6.3 per cent, from the second quarter of 2003 to the corresponding quarter in 2004.

A typical feature of the labour market cyclical behaviour only revealed by the analysis of flows between different labour states is the verification that, in downturns, there are more shifts from unemployment to employment than in upturns. During downturns, although the difficulty in finding a job increases for every unemployed person, as is always the case with downturns in economic activity, there is a significant increase in the number of unemployed finding a job. This is due to the fact that the increase in the number of people searching for a job more than offsets the decline in the rate of transition from unemployment to employment. In

Table 6.2

TOTAL EMPLOYMENT BY SECTORS

Year-on-year rates of change in a constant sample, as a percentage(a)

	2002		2003		2004
	S1	S2	S1	S2	S1
Agriculture and fishing	-1.6	-2.2	-1.8	0.7	1.0
Mining	-10.8	-0.1	14.4	0.3	-13.6
Manufacturing	-2.4	-2.8	-2.5	-2.2	-2.4
Electricity, gas and water	0.8	-4.2	-7.3	-7.4	-6.1
Construction	3.2	-0.5	-4.8	-2.9	1.6
General government education and health	2.6	0.9	-0.2	1.0	1.3
Other services	0.7	1.7	1.0	0.4	1.1
Total	0.3	-0.2	-1.0	-0.4	0.4
Memo:					
Total (Growth rate in a simple sample)	1.0	0.0	-0.7	-0.2	0.1

Sources: *INE* and Banco de Portugal.
Notes:
(a) See footnote of Table 6.1.

Table 6.3

LABOUR MARKET INFLOWS AND OUTFLOWS[a]

As a percentage of the labour market

	2002		2003		2004
	1st half	2nd half	1st half	2nd half	1st half
Flows between employment and inactivity					
Employment – inactivity	2.83	3.96	3.30	2.75	2.72
Inactivity - Employment	2.71	3.61	2.96	2.59	2.44
Inflows into unemployment	3.44	5.10	4.68	4.86	3.90
Employment=> Unemployment	1.66	2.41	2.31	2.14	1.80
Permanent	0.55	0.73	1.01	0.77	0.67
Fixed-term	0.66	1.07	0.88	0.92	0.63
Other	0.45	0.62	0.41	0.45	0.50
Inactivity => Unemployment	1.79	2.69	2.38	2.71	2.10
Outflows from unemployment	3.53	4.06	4.72	4.50	4.54
Unemployment=> Employment	1.99	2.13	2.53	2.33	2.27
Permanent	0.31	0.35	0.42	0.32	0.39
Fixed-term	0.93	1.16	1.39	1.24	0.84
Other	0.75	0.62	0.73	0.77	1.04
Unemployment=> Inactivity	1.54	1.93	2.19	2.17	2.27
Net inflows into unemployment	-0.09	1.04	-0.04	0.36	-0.64
Other factors[b]	0.00	0.60	-0.08	-0.04	0.47
Change in the unemployment rate	0.32	1.64	0.04	0.40	-0.17
Memo:					
Unemployment rate (last quarter os each semester)	4.5	6.1	6.1	6.5	6.3

Notes:
(a) Considering the common component of the samples in quarters *t* and *t*-1, using quarter *t* weights .
(b) Obtained as residual. It includes, in particular, the effects of sampling irregularities.

other words, there are more job vacancies in downturns than in upturns, although there are also more job cuts.

In the wake of turbulence in Portuguese labour market flows triggered by the economic recession, the recent buoyancy of shifts between employment, unemployment and inactivity seems to point to the normalisation of the intensity of these flows. In the second half of 2004, inflows into unemployment ceased to exceed 4 per cent of the labour force, which seems to be a reasonable reference level for the magnitude of the inflow into equilibrium unemployment[35]. The unemployment outflow still remained strong (and above 4 per cent). This reflects, on the one hand, the effect of increasing movements of workers among labour situations that occur after periods of a break in production and, on the other hand, a certain lag in the process of adjustment of the unemployed to the new labour market conditions. Taken together, these two observations indicate a decline in the net inflow into unemployment. Excluding the contribution from the rotation of the sample, this evolution would have pointed to a more significant decline in the unemployment rate.

Nonetheless, in the first half of 2004 there was a significant worsening of the average unemployment duration, translated into an increased incidence of long-term unemployment from 36 to 45 per cent[36]. If the increase in the average unemployment duration can be partly accounted for by the containment in the flow of new unemployed, the magnitude of the change in the incidence of long-term unemployment simultaneously denotes a significant worsening of the resilience of unemployment, which can be associated with the recent

(35) I.e. the rate of inflow into (and outflow from) unemployment that is consistent with the stationary unemployment rate.

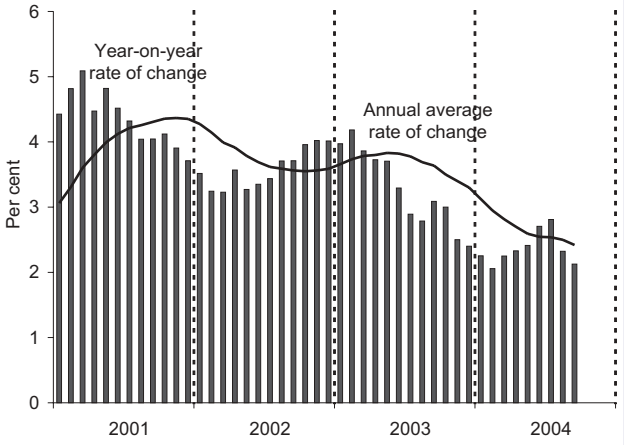
(36) Long-term unemployed is a person who has been looking for a job for 12 months or over.

change in eligibility rules and in rules relating to the maximum potential duration of unemployment benefits. This association is hinted by the rise in the coverage rate of unemployment benefits among unemployed people from 43 to 47 per cent between the first half of 2003 and the same period in 2004[37].

In 2004, according to the estimates of Banco de Portugal, compensation per employee of the economy's private sector (i.e. excluding general government) seems to have risen by around 3.7 per cent, while in the economy as a whole wage growth (excluding government transfers to CGA) seems to have stood at 3.1 per cent. Compared with 2003, nominal average compensation in the private sector is likely to have accelerated by around ½ percentage point. In real terms, the acceleration was more significant.

In 2004 unit labour costs appear to have grown between 2 and 2½ per cent in the total economy and between 2½ and 3 per cent in the private sector, from 1 to 1½ p.p. less than in 2003. The main contribution to this deceleration stems from positive growth of labour productivity, of around 1 per cent, in contrast to the drop in 2003. In any case, unit labour costs in the euro area as a whole, which is an economic area where approximately two thirds of the Portuguese trade with countries abroad are concentrated, are likely to record a similar slowdown. Thus, the positive differential of around 1½ p.p. in the growth pattern between this indicator for Portugal and the corresponding indicator for the euro area as a whole remains relatively unchanged.

Chart 7.1
CONSUMER PRICE INDEX
Year-on-year and average rates of change



Source: *INE*.
Note: Up to December 2002, rates of change were calculated using the CPI basis 1997. From January 2003 onwards, rates of change are calculated using the new CPI basis 2002.

7. INFLATION

In 2004 the annual average HICP inflation rate is likely to stand between 2.4 and 2.6 per cent[38], compared with 3.3 per cent in 2003 and with a forecast of between 2.2 and 3.0 shown in the June issue of the Economic Bulletin. The decline in the average inflation rate in 2004 basically results from the trend of deceleration in prices throughout 2003. In fact, between late 2003 and May 2004, the year-on-year rate of change of the HICP remained between 2.1 and 2.4 per cent, subsequently rising abruptly to 3.7 per cent in June, before declining progressively, to reach 2.1 per cent again in September. The peak in June is accounted for by strong price rises in hotels, on the occasion of the European football championship, which abated in the following months.

In 2004 the annual average growth rate of the CPI is likely to stand slightly below the one projected to the HICP (at around 0.1 p.p.), mainly due to the higher impact of the European football championship on the HICP, whose structure covers expenditure by non-residents and thus includes

(37) An unemployed person may not receive unemployment benefits for three reasons: for not fulfilling eligibility conditions, for not having applied, or due to the ending of the benefit-granting period. In addition, being classified as unemployed is not a required condition to receive unemployment benefit. From the total individuals identified by the Labour Force Survey as eligible for unemployment benefits (or for the assistance unemployment benefit), 8.9 per cent are identified as employed and 33.7 per cent as inactive.

(38) Projections for the average inflation rate are part of a joint forecast exercise of the Eurosystem. In the context of these periodical exercises, the relevant price index is the HICP, since the Governing Council of the ECB announces the quantitative definition of price stability based on this index. As referred to in the introduction to this article, the HICP is obtained on the basis of the same monthly data supporting the CPI, although the former uses different weights to aggregate elementary price indices.

Table 7.1

CPI – MAIN CATEGORIES AND AGGREGATES

Average and year-on-year rates of change, in percentage

	Weights	Annual average rate of change				Year-on-year monthly rates of change			
		2001	2002	2003	2004	2003	2004		
					Sep.	Dec.	Mar.	Jun.	Sep.
Total	100.0	4.4	3.6	3.3	2.4	2.4	2.3	2.7	2.1
Total excluding unprocessed food and energy	79.8	3.6	4.4	3.2	2.5	2.4	2.6	2.7	2.1
Aggregates									
Goods	65.3	4.2	2.4	2.7	1.6	1.6	1.4	1.8	1.2
Food	22.8	6.1	1.9	2.9	2.0	2.6	2.3	1.6	0.4
Unprocessed	11.8	8.8	0.3	2.6	0.9	2.5	1.2	0.2	-1.6
Processed	11.0	3.1	3.8	3.1	3.2	2.6	3.4	3.2	2.6
Industrial	42.5	3.1	2.7	2.6	1.4	1.1	0.9	1.9	1.6
Non-energy	34.1	2.5	3.1	2.0	0.9	1.1	1.0	1.0	0.3
Energy	8.4	5.2	1.2	4.9	3.5	1.5	0.7	5.8	6.9
Services	34.7	4.8	6.0	4.5	3.9	3.8	3.9	4.2	3.8

Sources: *INE* and Banco de Portugal

Note: Up to December 2002, rates of change were calculated using the CPI basis 1997. From January 2003 onwards, rates of change are calculated using the new CPI basis 2002.

the higher weight of expenditure on accommodation services. Therefore, the temporary rise in hotel prices affected the year-on-year rate of change of the CPI less significantly than that of the HICP, reaching a peak of 2.8 per cent in July (Chart 7.1).

In September, once the effects related to the European football championship were reversed, the year-on-year rate of change of the CPI services component stood at 3.8 per cent (Table 7.1), i.e. at a level close to the one seen from July 2003 (when the effect of the rise in the standard VAT rate introduced in June 2002 ceased to be felt) to May 2004. This means that there has been no deceleration of inflation in the services component, despite the adverse economic environment throughout most of the period under analysis.

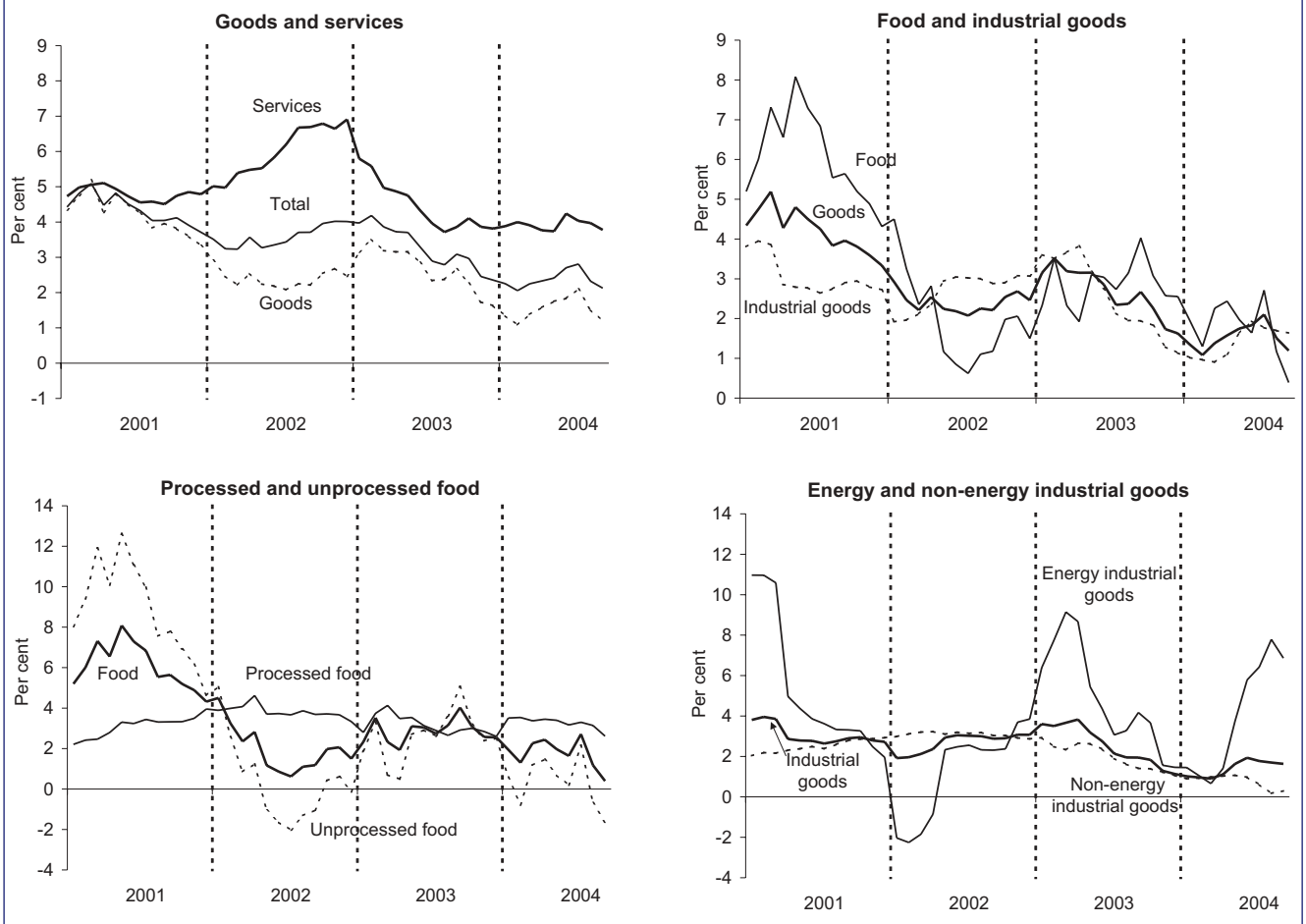
Likewise, developments in goods prices over the first nine months of 2004 did not follow a definite trend, although the fluctuation levels of the year-on-year rate of change are more compatible with a situation of price stability. In the January-September period, the year-on-year rate of change of this component recorded an average value of 1.5 per cent, reaching a minimum of 1.1 per cent in February and a peak of 2.1 per cent in July (in September annual inflation in goods stood at 1.2 per cent). This behaviour resulted from the combination of three factors: the deceleration in non-energy industrial goods prices; the acceleration in energy prices; an evolution of food prices, which continues to be essentially characterised by high volatility, particularly of unprocessed goods, although it has recently undergone a favourable stage (Charts 7.2).

The year-on-year rate of change of non-energy industrial goods prices remained stable at around 1.0 per cent throughout the first half of the year (2.0 per cent on average in 2003 as a whole). Subsequently, this CPI component decelerated to 0.3 per cent in September, which was mainly associated with the "clothing and footwear" item. The year-on-year rate of change of the prices of this item declined from 0.7 per cent in June to -4.6 per cent in September, due to an effect caused by sales and promotions significantly stronger than in the previous year.

Energy prices, whose pace essentially reflected developments in consumer fuel prices, accelerated significantly from April onwards, in line with developments in the oil price in international markets. The year-on-year rate of change of this CPI component increased from 0.7 per cent in March to 6.9 per cent in September.

In turn, unprocessed food prices continued to show high volatility in 2004, stress being laid on their favourable developments in the most recent

Charts 7.2
CPI – MAIN AGGREGATES
Year-on-year rates of change



Sources: INE e Banco de Portugal
Note: Up to December 2002, rates of change were calculated using the CPI basis 1997. From January 2003 onwards, rates of change are calculated using the new CPI basis 2002.

months, with a decline in the respective year-on-year rate of change from 2.2 per cent in July to -0.7 per cent in August and to -1.6 per cent in September.

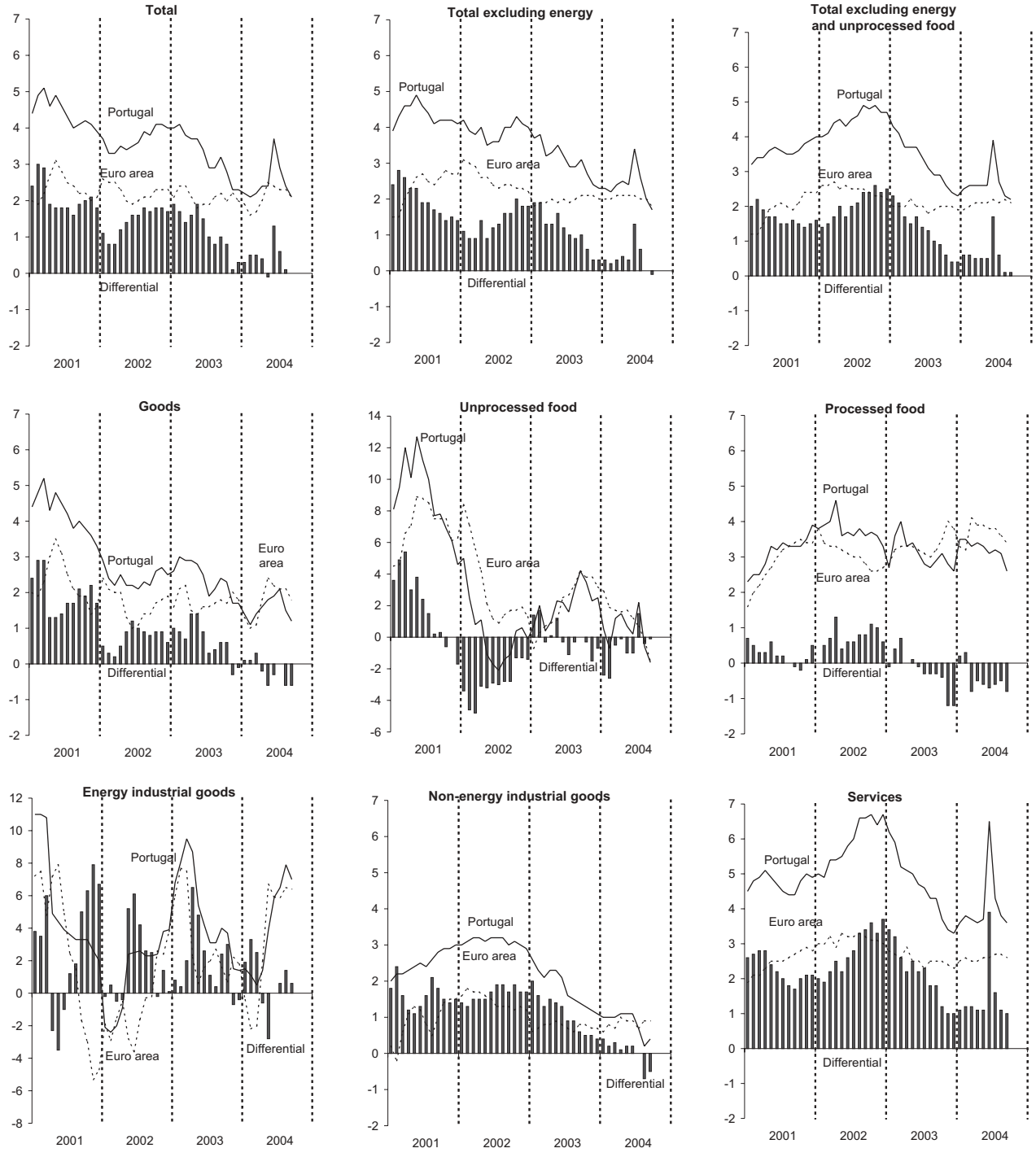
It is worth noting that, the year-on-year rate of change of the CPI in September 2004 coincides with the rate of change of the index obtained by excluding the most volatile prices, i.e. typically unprocessed food and energy prices (Table 7.1).This means that the contribution from the rise in fuel consumer prices (an acceleration of around 5½ p.p. compared with end-2003) is being fully offset by a very favourable trend of unprocessed food prices. As already referred to, the containment of inflation in recent months further benefits from the particularly strong effect caused by sales and promotions in the "clothing and footwear" item.

The inflation differential between Portugal and the euro area in 2004 was also quite affected by the rise in hotel prices in June and July. Excluding these effects, the inflation differential, calculated on the basis of the HICP, seems to have remained in values not higher than ½ p.p.. In August and September, the Portuguese year-on-year inflation has been virtually identical to the one seen in the euro area as a whole. This reflects negative differentials for goods inflation, especially for processed food and non-energy industrial goods, and positive differentials, slightly above 1 p.p. for services inflation (Charts 7.3).

Charts 7.3

HARMONIZED INDEX OF CONSUMER PRICES – TOTAL AND AGGREGATES

Year-on-year rates of change and differentials



Source: Eurostat.

8. BALANCE OF PAYMENTS

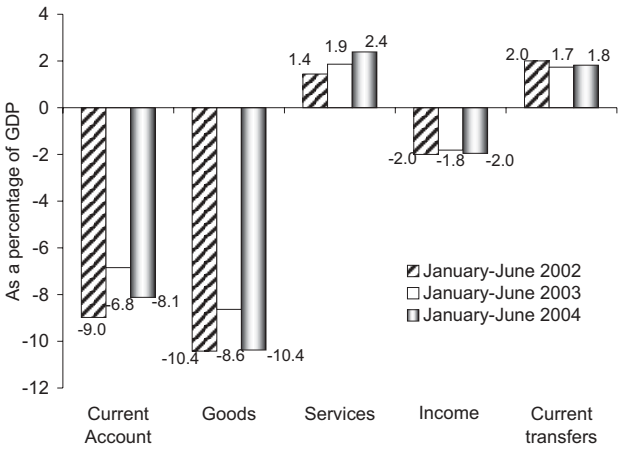
8.1 Annual estimates

In 2004, according to the estimates of Banco de Portugal, the Portuguese economy's net external borrowing requirements, as measured by the joint deficit of the current plus capital account, are likely to increase to a range from 4¼ to 5¾ (Table 1.1), countering the downward trend seen in recent years, when the external deficit narrowed from a peak of 8.9 per cent of GDP in 2000 to 3.6 per cent in 2003. The range now shown for the external deficit corresponds to a worsening vis-à-vis the forecast disclosed in the June issue of the *Economic Bulletin*, reflecting mainly two factors. On one hand, in August 2004, revisions of data (since 2001) on external trade disclosed by *INE*, imply a change of the joint deficit of the current plus capital accounts in 2003 from 3.0 per cent of GDP (published in the *Annual Report* 2003 and in the June 2004 issue of the *Economic Bulletin*) to 3.6 per cent; on the other hand, it is forecasted a higher import growth in 2004, both in volume and in terms of the respective deflator (in a context of a more unfavourable behaviour of the oil price), which more than offsets the upward revision of export growth.

The increase in the Portuguese economy's net external borrowing requirements is likely to result from the private sector's contribution. Excluding the effect of the special temporary operations conducted by general government, the estimates of Banco de Portugal point to a virtual unwinding in 2004 of the net financing capacity of around 1½ per cent of GDP recorded by the private sector (households and corporations) in 2003 (after several years experiencing net borrowing requirements).

The widening of the external deficit in 2004 seems to mainly reflect the significant worsening of the goods account deficit. It also translates, albeit to a lesser extent, the widening of the income account deficit, the decline in the current transfers surplus and the slight reduction in the capital account balance. Conversely, there should be an increase in the services account surplus. The widening of the goods account deficit will result from both a loss in the terms of trade and a rather adverse volume effect. Developments in terms of trade are partly related to the rise in the oil price,(39) while the volume effect results from a stronger goods imports growth, in real terms, compared with exports growth, especially in the first half of the year, as mentioned in Section 5.

Chart 8.1
BALANCE OF PAYMENTS BREAKDOWN
Balances



8.2. Current and capital accounts in the first half of 2004

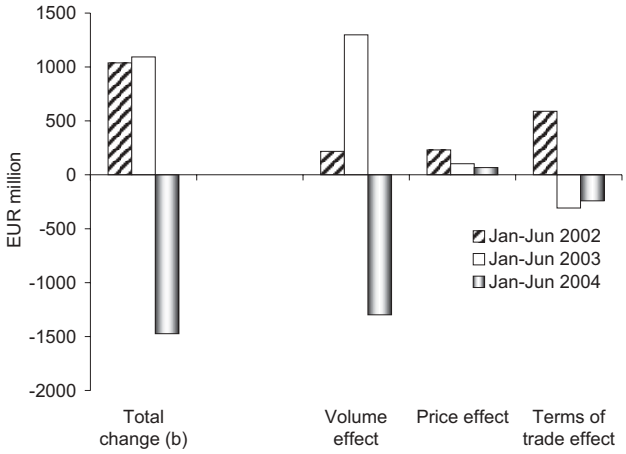
In the first half of 2004, the deficit resulting from the sum of the current and capital account balances reached 6.7 per cent of GDP(40), from 4.9 per cent of GDP in the first half of 2003 (Table 8.1). This deterioration essentially reflected the increase in the current account deficit in the same period, from 6.8 to 8.1 per cent of GDP, although the capital account surplus also declined from 1.9 to 1.4 per cent of GDP, due to lower transfers of structural funds in this period, within the scope of the Third Community Support Framework. The trend of the current account deficit essentially reflects the worsening of the goods account deficit, much more substantial than the increase in the services account surplus. There were also increases in the income deficit and the current transfers surplus, although with less extent (Chart 8.1).

The goods account deficit rose from 8.6 to 10.4 per cent of GDP, with the contribution from a unfa-

(39) Even excluding fuel, terms of trade are estimated to fall in 2004, similarly to the previous year.

(40) For calculating the ratios of the different balance of payments components as a percentage of GDP in the first halves, use was made of half-yearly estimates of nominal GDP, calculated by Banco de Portugal.

Chart 8.2
CHANGE IN THE TRADE ACCOUNT BREAKDOWN



Notes:
(a) The change in the trade balance can be broken down into:
- volume effect – effect of the change of exported and imported volumes
$[X_{t-1}.Vx_t.(1+Px_t)]-[M_{t-1}.Vm_t.(1+Pm_t)]$
- price effect – effect of the average growth of external trade prices
$(X_{t-1}.P_t)-(M_{t-1}.P_t)$
- terms of trade effect – effects of the relative change in export and import prices
$[X_{t-1}.(Px_t-P_t)]-[M_{t-1}.(Pm_t-P_t)]$
where:
X_{t-1} e M_{t-1} – exports and imports in year *t-1*, at current prices
Vx_t e Vm_t – growth of exports and imports, in volume terms, in year *t*
Px_t e Pm_t – growth of export and import prices in year *t*
P – average growth of external trade prices in year *t* $[(Px_t+Pm_t)/2]$
Note that the volume effect includes the price volume cross-effect, so that the sum of the three effects adds up to the total change. This cross-effect, however, is not significant.
(b) A negative change means an increase in the trade deficit.

vourable volume effect (Chart 8.2), due to stronger growth in imports than in exports in real terms (10.8 and 6.9 per cent respectively). Developments in the price differential of exports and imports of goods also had a negative impact on the balance of goods, as was the case in the same period in 2003[41].

In the first half of 2004, the income account deficit rose from 1.8 to 2.0 per cent of GDP, essentially reflecting the higher direct investment income deficit, since there were no changes, as a percentage of GDP, in the deficits of portfolio investment and "other investment" income.

The services account surplus rose by 0.5 p.p. of GDP to 2.4 per cent of GDP, with the contribution, to a certain extent, from the increase of 0.2 p.p. of GDP in the balance on travel and tourism to 2.4 per cent of GDP. In the first half of the year, nominal tourism revenue grew by 11.3 per cent (driven in June by the European football championship), while expenditure abroad by residents on travel and tourism also grew sharply, albeit less (7.8 per cent). To a lesser extent, the improved balances on air transport services and financial services also contributed to the rise in the services account surplus.

The current transfers surplus rose from 1.7 to 1.8 per cent of GDP, when comparing the first halves of 2003 and 2004, with the two opposite developments nearly offsetting each other. The balance on public current transfers rose from a virtually nil figure in the first half of 2003 to a surplus of 0.4 per cent of GDP in the same period in 2004, which is essentially due to transfers associated with the European Social Fund. By contrast, the private current transfers surplus declined further, similarly to the past two years. This trend has been reflecting not only the decrease in emigrants' remittances (2.4 per cent in the first half of 2004), but also the increase in immigrants' remittances (8.4 per cent).

8.3 Financial account in the first half of 2004

In the first half of 2004, the financial account recorded a net inflow equivalent to 8.1 per cent of GDP, compared with 5.3 per cent of GDP in the same period in 2003 (Table 8.2). In the first six months of 2003 and 2004, the financial account records, in particular of the monetary sector (monetary authorities and monetary financial institutions (MFIs)), were affected by two operations of a temporary nature that, although substantially changing flows associated with these institutional sec-

(41) According to the estimates of Banco de Portugal based on information provided by the INE, in the first half of 2004 the year-on-year rates of change in deflators of goods exports and imports were -1.7 and -0.4 per cent respectively (-2.2 and -0.5 per cent in the first half of 2003).

Table 8.1

BALANCE OF PAYMENTS

EUR million

	Jan-Dec 2003	January-June 2003			January-June 2004			Balance as a percentage of GDP		
	Balance	Debit	Credit	Balance	Debit	Credit	Balance	Jan-Dec 03	Jan-Jun 03	Jan-Jun 04
Current Account	-7 455.2	28 601.8	24 220.3	-4 381.5	31 379.3	25 977.0	-5 402.3	-5.7	-6.8	-8.1
Goods	-11 781.7	20 199.0	14 675.1	-5 523.9	22 321.4	15 416.0	-6 905.3	-9.0	-8.6	-10.4
Services	3 460.3	3 380.7	4 572.7	1 192.0	3 696.6	5 287.3	1 590.7	2.6	1.9	2.4
Transport	-183.2	1 089.3	966.8	-122.4	1 146.9	1 096.5	-50.4	-0.1	-0.2	-0.1
Travel and tourism	3 732.6	1 102.2	2 521.9	1 419.7	1 187.7	2 805.9	1 618.2	2.9	2.2	2.4
Insurance services	-77.0	79.5	35.7	-43.9	106.9	68.4	-38.5	-0.1	-0.1	-0.1
Royalties and license fees	-218.7	121.7	16.0	-105.7	120.0	13.9	-106.1	-0.2	-0.2	-0.2
Other services	217.3	907.2	966.3	59.2	1 059.3	1 224.6	165.3	0.2	0.1	0.2
Government services	-10.7	80.7	65.9	-14.9	75.8	77.9	2.1	0.0	0.0	0.0
Income	-2 136.5	3 663.3	2 502.5	-1 160.8	3 795.3	2 495.7	-1 299.7	-1.6	-1.8	-2.0
Compensation per employees	-13.1	74.3	69.5	-4.9	67.5	44.9	-22.7	0.0	0.0	0.0
Investment income	-2 123.4	3 589.0	2 433.0	-1 155.9	3 727.8	2 450.8	-1 277.0	-1.6	-1.8	-1.9
Current transfers	3 002.7	1 358.9	2 470.0	1 111.1	1 566.0	2 778.0	1 212.1	2.3	1.7	1.8
Official transfers	608.6	841.3	824.8	-16.5	976.7	1 219.3	242.5	0.5	0.0	0.4
Private transfers	2 394.0	517.6	1 645.2	1 127.6	589.2	1 558.8	969.5	1.8	1.8	1.5
Capital Account	2 717.8	92.1	1 316.1	1 224.0	106.4	1 030.5	924.1	2.1	1.9	1.4
Capital transfers	2 701.2	79.6	1 296.4	1 216.8	87.4	1 013.9	926.5	2.1	1.9	1.4
Official transfers	2 784.6	15.8	1 265.4	1 249.6	10.9	987.7	976.8	2.1	2.0	1.5
Private transfers	-83.5	63.8	31.0	-32.9	76.5	26.2	-50.3	-0.1	-0.1	-0.1
Acquisition/disposable of non-produced non-financial assets	16.7	12.5	19.7	7.2	19.0	16.6	-2.4	0.0	0.0	0.0
Financial Account	4 714.7	1 060 019.7	1 063 394.3	3 374.6	1 326 802.4	1 332 210.3	5 407.9	3.6	5.3	8.1
Direct investment	767.6	12 718.0	12 990.3	272.3	13 887.5	13 633.2	-254.3	0.6	0.4	-0.4
Portuguese investment abroad	-84.6	1 357.6	2 136.7	779.1	4 783.5	849.4	-3 934.0	-0.1	1.2	-5.9
Foreign investment in Portugal	852.2	11 360.4	10 853.6	-506.8	9 104.0	12 783.7	3 679.7	0.7	-0.8	5.5
Portfolio investment	-5 257.9	141 738.3	133 254.4	-8 483.9	152 314.5	149 290.9	-3 023.6	-4.0	-13.3	-4.5
Assets	-18 617.2	75 353.6	66 164.8	-9 188.8	84 706.8	79 517.7	-5 189.1	-14.2	-14.4	-7.8
Liabilities	13 359.3	66 384.7	67 089.6	704.9	67 607.7	69 773.2	2 165.5	10.2	1.1	3.3
Financial derivatives	64.1	2 112.3	1 975.3	-137.1	1 554.7	1 525.8	-28.9	0.0	-0.2	0.0
Other investment	3 342.6	874 724.2	881 998.5	7 274.3	1 145 616.3	1 153 353.6	7 737.3	2.6	11.4	11.6
Assets	-9 316.0	301 491.1	295 010.8	-6 480.3	399 936.6	392 190.3	-7 746.3	-7.1	-10.1	-11.6
Liabilities	12 658.6	573 233.1	586 987.7	13 754.6	745 679.7	761 163.3	15 483.6	9.7	21.5	23.3
Reserve assets	5 798.3	28 726.8	33 175.9	4 449.1	13 429.4	14 406.8	977.4	4.4	7.0	1.5
Errors and omissions	22.7			-217.2			-929.7	0.0	-0.3	-1.4
Memo:										
Current Account + Capital Account	-4 737.4	28 693.9	25 536.4	-3 157.5	31 485.7	27 007.5	-4 478.1	-3.6	-4.9	-6.7

Table 8.2

FINANCIAL ACCOUNT[a][b]

As a percentage of GDP[c]

	2003	January-June 2003			January-June 2004		
	Net change	Change in liabilities	Change in assets	Net change	Change in liabilities	Change in assets	Net change
Financial Account	**3.6**	**18.5**	**-13.2**	**5.3**	**29.7 (21.3)**	**-21.6 (-13.2)**	**8.1**
Direct investment	0.6	-0.8	1.2	0.4	5.5	-5.9	-0.4
Portfolio investment	-4.0 (-0.5)	1.1	-14.4 (-7.1)	-13.3 (-6.0)	3.3	-7.8	-4.5
Financial derivatives	0.0	-3.3	3.1	-0.2	-2.3	2.3	0.0
Other investment	2.6	21.5	-10.1	11.4	23.3 (14.9)	-11.6 (-3.3)	11.6
Reserve assets	4.4 (0.9)	-	7.0 (-0.3)	7.0 (-0.3)	-	1.5	1.5
By institutional sector of the resident investor:							
Monetary Authorities	**-3.5 (0.7)**	**2.1**	**1.1**	**3.2**	**13.0 (4.7)**	**0.6**	**13.6 (5.3)**
Portfolio investment	-3.9 (-0.4)	-	-6.7 (0.6)	-6.7 (0.6)	-	-0.4	-0.4
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	-4.0 (0.2)	2.1	0.8	2.8	13.0 (4.7)	-0.5	12.5 (4.2)
Reserve assets	4.4 (0.9)	-	7.0 (-0.3)	7.0 (-0.3)	-	1.5	1.5
General Government	**3.7**	**3.3**	**0.0**	**3.3**	**3.6**	**-0.3**	**3.3**
Direct investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portfolio investment	3.9	4.0	-0.3	3.7	4.2	-0.4	3.8
Financial derivatives	-0.1	-0.5	0.3	-0.3	-0.3	0.1	-0.2
Other investment	-0.1	-0.1	0.0	-0.1	-0.3	0.0	-0.3
Monetary Financial Institutions	**3.2 (-1.1)**	**17.9**	**-9.5**	**8.4**	**6.9**	**-7.8 (0.5)**	**-0.9 (7.4)**
Direct investment	0.0	0.0	-0.2	-0.2	0.0	-0.1	-0.2
Portfolio investment	-4.4	-0.6	-2.2	-2.8	-0.9	-0.9	-1.8
Financial derivatives	0.1	-2.2	2.2	0.0	-1.4	1.5	0.1
Other investment	7.5 (3.3)	20.6	-9.3	11.3	9.2	-8.3 (0.0)	0.9 (9.3)
Non-monetary Financial Institutions	**4.4**	**0.2**	**-2.5**	**-2.3**	**-0.2**	**-3.7**	**-3.8**
Direct investment	0.3	-0.1	1.0	0.9	0.1	0.0	0.1
Portfolio investment	4.2	0.7	-3.9	-3.2	0.1	-4.2	-4.0
Financial derivatives	0.0	-0.5	0.4	0.0	-0.6	0.6	0.0
Other investment	-0.2	0.0	-0.1	-0.1	0.2	0.0	0.2
Non-financial Corporations and Private Individuals	**-4.2**	**-5.0**	**-2.4**	**-7.3**	**6.3**	**-10.4**	**-4.1**
Direct investment	0.3	-0.7	0.4	-0.3	5.5	-5.7	-0.3
Portfolio investment	-3.8	-3.0	-1.4	-4.4	-0.2	-2.0	-2.1
Financial derivatives	0.0	-0.1	0.1	0.0	-0.1	0.1	0.0
Other investment	-0.6	-1.1	-1.5	-2.6	1.1	-2.8	-1.7

Notes:

(a) A (+)sign means an increase of foreign liabilities or a decrease in foreign assets, i.e. a financial outflow. A (-) sign means a decrease in foreign liabilities or an increase.

(b)Values in parenthesis are flows corrected of special effects mentioned in the main text.

(c) In the first column ratios are as a percentage f the annual GDP in 2003; in other columns, ratios were calculated on the basis of the corresponding six-month GDP.

tors, did not imply changes in the overall financial account balance. One of these operations took place in early 2004 and corresponded to the reversal of another operation carried out in late 2003. It translated into a significant increase in "other investment" MFI assets, to an amount of 8.4 per cent of semi-annual GDP, in contrast to an increase in "other investment" external liabilities of monetary authorities within the scope of the TARGET system[42]. The other one-off set of operations consisted in a shift in the Banco de Portugal's external

(42) Following ECB's methodological recommendations, the net value of resident MFI operations settled through the TARGET system is entered in the balance of payments as a change in the liabilities of monetary authorities under "other investment".

asset portfolio in early 2003 to an amount of 7.3 per cent of semi-annual GDP, which led to a decline in gold assets and currencies other than the euro, in favour of holding assets in euro. For methodological reasons[43], this shift required an accounting reclassification from the "reserve assets" item to the "portfolio investment assets" item[44].

Excluding these temporary or special operations, MFIs were the sector that contributed the most in the first half of 2004 to net inflows into the Portuguese economy, with 7.4 per cent of GDP (8.4 per cent in the same period a year earlier). These inflows were essentially originated by loans and deposits recorded in the financial account under "other investment", similarly to previous years[45]. It should be noted that, in 2003 as a whole, conversely to the usual situation, non-monetary financial institutions (non-MFIs) were the sector that contributed the most to net inflows into the Portuguese economy, due to a strong concentration, at the end of the year, of processes for the securitisation of bank credit. Given that units issued by financial corporations that acted as special purpose vehicles, classified in the non-MFI sector, were mainly placed with non-resident investors, this implied that the financing of banks assumed this indirect increase in portfolio investment liabilities in the Portuguese balance of payments[46]. In the first half of 2004, in the absence of new significant securitisation operations, the external financing of Portuguese banks assumed again the dominant form of a change in banks' "other investment" liabilities[47].

General government financial operations with non-residents also gave rise to inflows into the Portuguese economy. This reflects investments by non-residents in Portuguese public debt securities. Contrary to the first half of 2003, net investment by non-residents in short-term public debt securities was higher than investment in long-term securities. This change in the structure of investments by non-residents in Portuguese public debt largely resulted from the reissue of Treasury Bills as from mid-2003, which had been discontinued in 1999.

Lastly, in the first six months of 2004, foreign direct investment in Portugal and Portuguese direct investment abroad resulted in a minor (double) net outflow of 0.4 per cent of GDP, vis-à-vis a small inflow in the same period a year earlier (also 0.4 per cent of GDP). Considered separately, net flows of both foreign direct investment in Portugal and Portuguese direct investment abroad were more important than in the same period of the previous year, and were essentially associated with non-financial corporations and households. However, these flows should be analysed cautiously, since in the first half of 2004 there were direct investment operations of a high amount in both directions, thus offsetting each other, that did not correspond to net investment in (or of) the Portuguese economy[48].

9. CONCLUSION

In the current stage of recovery, following the recession started in mid-2002 and that extended throughout 2003, the Portuguese economy is generally characterised by moderate output growth and strong expansions of domestic demand and imports. Import growth is so intense that, despite the very positive behaviour of exports, which accelerated considerably from 2003, the contribution from net exports to GDP growth became negative, in contrast to the two previous years. The joint deficit of the current plus capital account worsened significantly, due to a sharp deterioration of the goods balance, also influenced by an adverse effect of terms of trade. This increase in the external deficit reflects the rise in the external borrowing requirements of the Portuguese economy, mainly as a result of the reduction in the private sector's net financing capacity. Thus, in 2004 the virtuous process of endogenous adjustment of the financial situation of households and corporations, which had

(43) From January 1999 onwards, following the methodological changes arising from the creation of Economic and Monetary Union, reserve assets are considered only those assets of Banco de Portugal vis-à-vis non-euro area residents denominated in currencies other than the euro.

(44) For a more detailed analysis of operations in 2003, see Section II.6 "Balance of payments" in the *Annual Report* 2003.

(45) For more details, see the text on the banking system in this issue of the Bulletin.

(46) For more details, see the *Annual Report* 2003.

(47) Given that part of these MFI financing operations take place via TARGET system, they also have an impact on the change in "other investment" liabilities of monetary authorities.

(48) See Notes A.4.1 to A.4.3 and A.4.5 (b) in the *Statistical Bulletin* on the analysis of direct investment items. See also Box II.6.1 "Foreign direct investment flows" in the *Annual Report* 2003.

started in 2001, seems to have been interrupted, hopefully temporarily.

The Banco de Portugal maintains that the sole sustained pattern of economic recovery will have to be led by export growth, with a moderate and lagged rebound in domestic demand. Only such growth composition will allow the readjustment of imbalances in the financial situations of households and corporations, with a positive reflection on the aggregate indicator of the economy's external borrowing requirements. However, in 2004 this growth pattern was not confirmed and the buoyancy of domestic demand, and particularly of private consumption, was not met by more intense output growth. It is hardly explainable that in a year when estimates point to output growth slightly above 1 per cent in real terms, imports of goods and services grow in volume by around 8 per cent (assuming their significant deceleration in the second half of the year, since import growth in volume exceeded 10 per cent in the first half of the year).

The factors behind the buoyancy of domestic demand in 2004, in particular of private consumption, are not yet very clear. Even excluding some overestimation of this aggregate due to the difficulties in identifying expenditure in euro banknotes and coins by non-residents in the national territory, the factors explaining the strong acceleration of consumption are likely due to the change in household expectations. Against a background of deceleration in the national and international economies, there had been a decline in the household confidence indicator since 2001, sharpened by the public recognition in 2002 of the severe fiscal crisis and by the entry of the Portuguese economy into recession. In 2003, after having reached the most negative growth figure in the second quarter, the economy gradually started to recover. The perception that unemployment developments would be less marked than expected and that the fiscal consolidation effort would be less intense than initially assumed probably contributed to ease the behaviour of households. In addition, monetary conditions have been particularly accommodating for households over recent years, thus not being an obstacle to the partial financing of the acceleration of domestic demand through the recourse to bank credit. It cannot be excluded that the European football championship being held in Portugal also contributed, at least temporarily, to create a climate that was more favourable to consumption.

As mentioned, estimates shown in this article imply some deceleration in domestic demand in the latter part of 2004. In fact, it does not seem reasonable, and especially not desirable, to extrapolate to the future the recent acceleration in domestic demand and the growth pattern associated with it. If maintained for an extended period, this would imply an unsustainable rise in the indebtedness of Portuguese households and corporations. The sooner a gradual readjustment pattern of the aggregate financial situation of the private sector is resumed, the lower the probability of a more abrupt future adjustment. When resorting to bank credit, households and corporations must namely take into account that monetary conditions cannot indefinitely remain in the rather accommodating situation seen in recent years. Therefore, interest rate rises should be expected in a short to medium-term horizon. This will not depend on the specific economic conditions of the Portuguese economy, but rather on developments in the economic environment of the euro area as a whole.

A final consideration should be made on fiscal policy: following the very strong expansionary stimulus between 1997 and 2001 that translated into a deterioration of more than 4 p.p. of GDP of the primary general government balance adjusted for the cycle and for temporary measures - which led to the fiscal crisis — in 2002 this indicator reversed somewhat, by around 1 p.p. of GDP. In 2003 there was no significant additional improvement in the indicator, because the lagged effect of the consolidation measures decided in 2002 and the effects of some additional measures taken in 2003 were offset by continued strong growth of social security expenditure. For 2004 Government forecasts point to some further recovery in the primary balance adjusted for the cycle and for temporary measures, but there are serious risks of this improvement not materialising. Since 2002 it has only been possible to meet the limits for the public deficit imposed by the European Union Treaty due to a very high recourse to extraordinary measures with a temporary impact. Excluding these measures, the Portuguese public deficit still stands at levels close to or above 5 per cent of GDP (or 4 per cent, according to the estimates of Banco de Portugal, if it is also adjusted for the effect of the business cycle), which

shows the magnitude of the necessary consolidation effort. Moreover, despite the temporary measures, the Portuguese public debt ratio has been following a consistent upward trend in recent years, and in 2004 it is projected to exceed by a significant margin the reference value of 60 per cent set forth in the Treaty. Thus, it is not realistic to consider that the fiscal consolidation effort is over and that the expansionary policy stance can be resumed. Quite the opposite, this consolidation effort is now more necessary than ever, given that the downturn in the Portuguese economy has been overcome. The growing difficulty in finding temporary measures of a high amount, which are accepted by the European Commission in the light of national accounting principles, will add further pressure on the Portuguese Government towards pursing the fiscal consolidation effort in a decisive manner. In addition, in the short term this effort will contribute to moderate domestic demand, facilitating the return to a more balanced growth pattern. Above all, a consistent fiscal consolidation effort is necessary because healthy public finances are an essential requirement to ensure a sustainable growth in the Portuguese economy in the medium term.

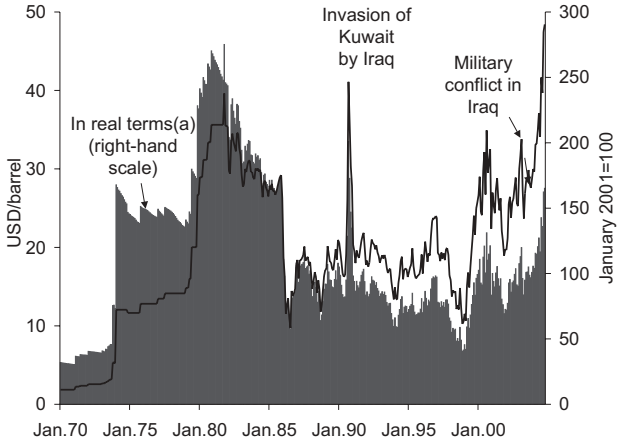
Completed with information available up to end-October 2004.

Box: RECENT DEVELOPMENTS IN OIL PRICES

The increase in the international oil price to historically high levels in nominal terms was one of the major developments in the first nine months of 2004. By end October, the oil price stood at 48 USD/barrel, approximately USD 18 above the value recorded in the beginning of the year, exceeding the levels attained in February 2003, on the brink of the military conflict in Iraq, and even those recorded in 1990 when Iraq invaded Kuwait (Chart 1).The recent increase in the oil price, in real terms, is of a much lower magnitude than that observed during the two oil shocks in the 1970s and even than that observed early in the 1990s, when Iraq invaded Kuwait. However, vis-à-vis end 2003, the oil price increased by approximately 53 per cent in real terms, standing at the highest level observed since the early 1990s. In parallel, in the futures market, the oil price was successively revised upwards, with contracts pointing to values around USD 43/barrel towards the end of 2005 and around USD 40/barrel at the end of 2006, well above the levels agreed in early 2004 (Chart 2).

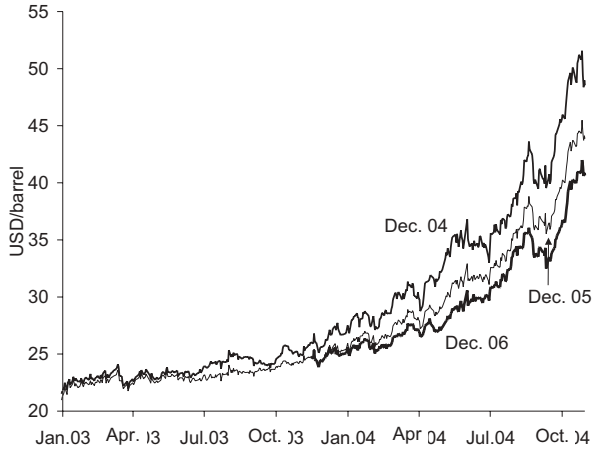
Oil prices developments took place in the wake of an upward trend observed since early 1999, after the Asian and Russian crisis, and are likely to reflect several factors:

Chart 1
OIL PRICE (BRENT)
End-of-month values



Source: *Thomson Financial Datastream.*
Note:
(a) Deflated by the USA CPI.

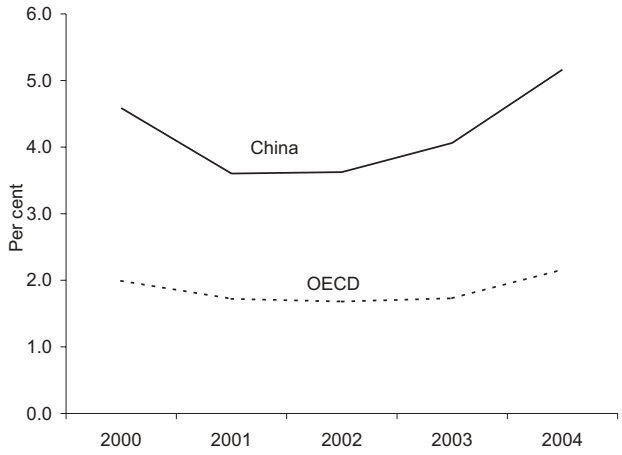
Chart 2
OIL PRICE (BRENT)
Futures market



Source: *Bloomberg.*

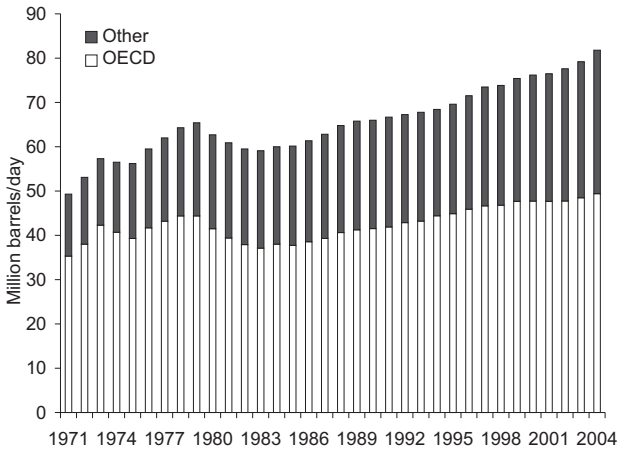
- *World demand for oil has increased at a faster pace than expected. This trend is likely to reflect a structural change, associated with the integration of countries into world economy, such as China and India, countries with high energy-intensive production (Chart 3). In effect, growth in demand for oil was particularly marked in countries outside the OECD and, among these, in the group of Asian economies, whose weight on total world demand increased from approximately 26 per cent in 1995 to 29 per cent in 2004 (Charts 4, 5a and 5b). The unforeseen rise in world demand for oil is also in tandem with the successive upward revisions of projections for global economic activity observed since mid-2003.*
- *From the supply side, political instability in the Middle East and in other important producing countries, in particular Venezuela and Nigeria, gave rise to concerns as to the safety of world oil provisioning either in the short or in the medium term. The decline in global spare production capacity to very low levels led to further concerns as to the supply ability to accommodate additional shocks. Investment in the development of productive capacity by oil producing countries was rather limited over the last two decades. This was probably partly due to the significant budget imbalances accumulated in some of these countries, as well as, and particularly in the case of OPEC countries, the policy adopted by that organisation in the definition of*

Chart 3
ANNUAL OIL CONSUMPTION AS A PERCENTAGE OF GDP



Source: Thomson Financial Datastream; OPEC and Banco de Portugal calculations.

Chart 4
WORLD DEMAND FOR OIL



Source: Thomson Financial Datastream and OPEC.

Chart 5A
WORLD DEMAND 2004
By region

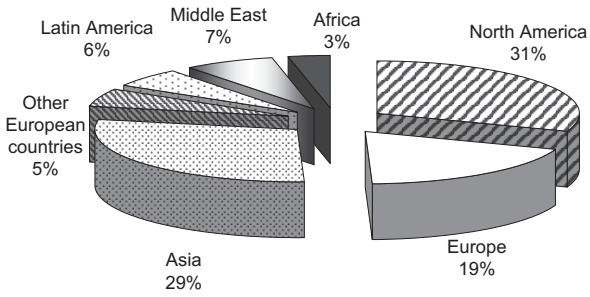
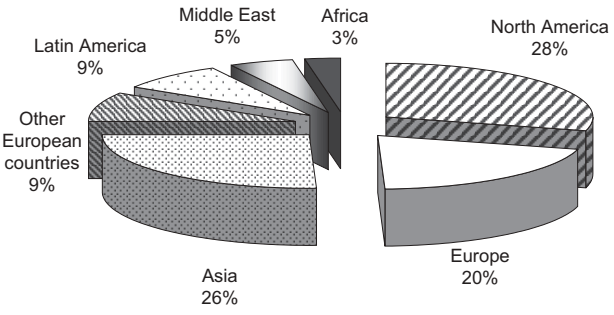


Chart 5B
WORLD DEMAND 1995
By region

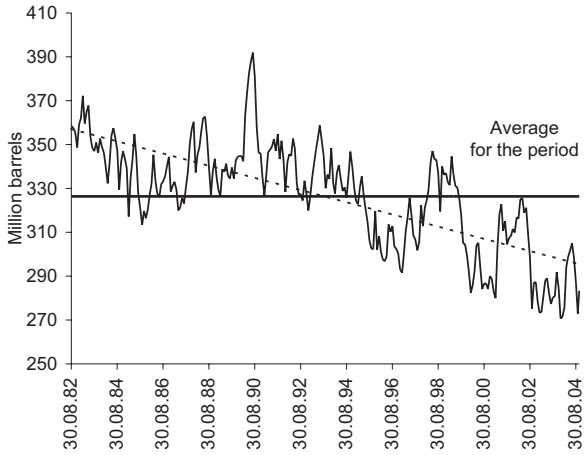


Source: International Energy Agency and OPEC.

ceilings on production. Moreover, a significant part of the increase in global oil supply observed in 2004 has been of the lower quality variety, while demand was particularly strong for light and sweet crude oil – partly due to the limited operational flexibility of refiners to handle heavy sour crudes.

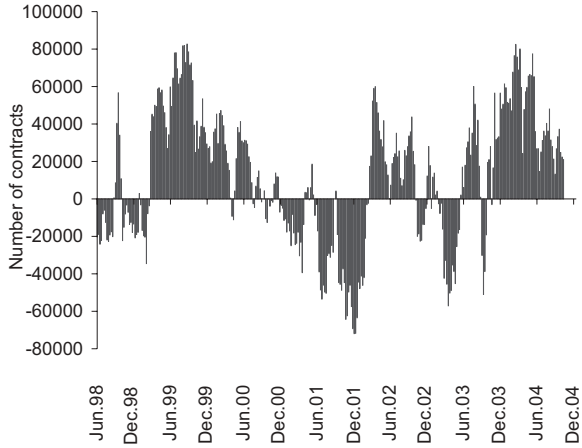
- *Furthermore, in major industrialised economies, the levels of oil stocks for commercial purposes fell to historical lows, creating fears of disruption in the production process of oil refineries. In the course of the 1990s, there was a broadly based trend towards reducing oil stocks for commercial purposes, particularly in the USA (Chart 6). This seems to have partly been associated with the introduction of more efficient stock management policies, namely via the implementation of new information technologies, and with the sector restructuring process, which involved the winding up and merger of a number of oil refineries, resulting in a reduction in the total number of companies. In the context of increased global demand for oil and of financial disincentives to restocking as a result of relatively high spot market oil prices, this trend continued in the 2000-2004 period, determining a significant reduction in the industry flexibility to accommodate shocks.*

Chart 6
US – OIL STOCKS
Excluding official strategic reserves



Source: Thomson Financial Datastream.

Chart 7
SPECULATIVE POSITIONS[(a)] IN THE OIL FUTURE MARKETS
Number of contracts: difference between long and short positions



Source: Bloomberg.
(a) Speculative positions are those taken up by entities classified by the US Commodities Futures Trading Commission as "non-commercial", i.e., positions taken up by entities whose participation in the future and options market is not related to hedging of corporation business activity.

- *Finally, the combination of the above-mentioned factors seems to have fostered speculative positions, and a significant number of speculative long positions were taken up in the oil futures market (Chart 7).*

Looking ahead, part of the increase in oil prices in recent years is expected to be of a permanent nature, associated with the integration of China and India into world economy. In addition, taking into account the supply – demand imbalance for different varieties of oil, the reduced spare production capacity and the very low levels of oil stocks for commercial purposes in major industrialised countries, it cannot be ruled out that instability and upward pressures on oil prices may continue in the near future, namely when considering the persisting political tensions in a number of producing countries.

THE BANKING SYSTEM IN THE FIRST HALF OF 2004

1. INTRODUCTION

Developments in the Portuguese banking system in the first half of 2004 confirm its resilience in the face of the economic conditions stemmed from the down stage of the business cycle. In fact, within a context of some recovery in the economic activity and broadly positive conditions in international financial markets, banking activity increased and liquidity and solvency indicators were enhanced. Net income increased slightly in the first half-year, in spite of the decline in the profitability ratios due mainly to the expressive cut in extraordinary gains. The trend of the banking system[1] balance sheet in the first six months of the year reflected, on the one hand, the continued expansion of credit to customers (with particular emphasis on the acceleration of credit to households) and, on the other hand, a significant change in the composition of the funding of banks' activity, which nonetheless continued to translate into an increase in liabilities to non-residents. Nevertheless, this was in line with the stabilisation of banks' market borrowing with non-residents (covering net liabilities to credit institutions abroad and under the form of securities)[2], while the average maturity of this type of financing has widened. Indeed, in the first half of 2004, banking activity was, to a large extent, financed by the use of the liquidity obtained by means of credit securitisation occurred late in 2003, as well as by the

(1) The analysis of the banking system made in this section is chiefly based on data on consolidated activity. When it is not possible to obtain the necessary sectoral or instrumental breakdown for the analysis, aggregates on an individual basis or from the Monetary and Financial Statistics are used (for details, see Box II.8.1, "Information used in the analysis of the Portuguese banking system", in the 2002 issue of the *Annual Report* of the Banco de Portugal). In this case, with the purpose of achieving an approach as close as possible to the system on a consolidated basis, the aggregates analysed from Monetary and Financial Statistics consider (when possible) not only other Monetary Financial Institutions, but also other Financial Intermediaries and Financial Auxiliaries (except Investment Funds, Securitisation Funds and Securitisation Corporations), most of which are within the consolidation perimeter of the Portuguese banking system.
Unless otherwise stated, the aggregate "Portuguese banking system" refers to banks (including *Caixa Económica Montepio Geral*), other savings banks and mutual agricultural credit banks, excluding those banks having their head office or carrying on their activity exclusively in the Madeira off-shore and/or carrying on their activity predominantly with non-residents. Branches of credit institutions having their head office in another Member State of the European Union are considered as banks and included in the above-mentioned aggregate – except those that cannot be classified as Monetary Financial Institutions – as well as branches of credit institutions originating from third countries.

(*to be continued...*)

(*...continued*)

This article includes references to the consolidated accounts of the banking system as a whole (as defined in the previous paragraph) and of a subset of domestic institutions. This latter aggregate corresponds to the whole system, excluding the institutions with management controlled by non-resident entities, either incorporated under the Portuguese law, being subsidiaries of non-resident banking groups (under the supervision of the Banco de Portugal) or branches of credit institutions having their head office abroad. This distinction between domestic and non-domestic institutions is based on the fact that non-domestic institutions can obtain financing abroad from entities with a close relationship as compared to domestic institutions, therefore the type of funding and its maturity have a minor relevance since it is typically intra-group financing.

(2) This conclusion is obtained after adjusting the banking system balance-sheet for the effects of a temporary operation which occurred at the end of 2003, within the scope of the TARGET system, (see the 2003 issue of the *Annual Report*). In effect, when adjusting interbank net investments abroad for the effect of that operation, the decrease in liabilities to non-resident credit institutions net of claims, in the first half of 2004, is lower than the decrease evinced in the balance-sheet, albeit close to the increase in liabilities represented by securities (corresponding to a virtually nil change in market external financing of the system).

Table1

SUMMARY TABLE

On a consolidated basis

	1999	2000	2001	2002	2003	2003	2004
	Dec.	Dec.	Dec.	Dec.	Jun.	Dec.	Jun.
As a percentage of total average assets							
Net interest income	2.45	2.21	2.24	2.12	2.05	2.00	1.93
Other current income	1.33	1.30	1.17	1.14	1.31	1.34	1.41
Gross income	3.77	3.51	3.41	3.26	3.36	3.34	3.34
Administrative costs[(a)]	2.07	1.79	1.73	1.69	1.68	1.69	1.64
Extraordinary gains	0.40	0.27	0.01	0.06	0.03	0.06	-0.05
Depreciation for the year	0.31	0.25	0.24	0.24	0.23	0.23	0.21
Net provisions	0.66	0.63	0.45	0.61	0.54	0.57	0.54
Taxes on profit for the year	0.20	0.19	0.16	0.13	0.14	0.13	0.13
Results before minority interest	0.92	0.91	0.85	0.65	0.79	0.78	0.77
Profit/loss for the year	0.70	0.70	0.69	0.53	0.66	0.65	0.64
Return on equity (ROE)[(b)]	14.7	15.1	14.9	11.7	14.1	13.9	13.3
Return on equity (ROE)[(c)]	17.0	16.9	17.3	13.5	16.4	16.0	15.5
Operational costs (as a percentage of banking product)[(d)]	63.1	58.2	57.6	59.1	56.9	57.4	55.4
Ratio credit to resources from customers	102.8	114.3	121.0	127.7	131.5	126.9	127.9
Coverage of interbank liabilities by highly liquid assets (per cent)	101.4	88.7	91.5	87.4	87.7	100.7	102.9
Credit and interest overdue (as a percentage of gross credit)	n.a.	2.18	2.12	2.26	2.54	2.40	2.22
Specific provision of credit (as a percentage os gross credit)	1.78	1.48	1.42	1.42	1.63	1.75	1.71
Credit and interest overdue net of specific provisions (as a percentage of credit net of specific provisions)	n.a.	0.72	0.71	0.85	0.93	0.66	0.53
Rates of change							
Results before minority interests	17.4	14.9	3.4	-18.4	-4.5	26.0	2.7
Net results for the year	15.4	16.8	9.4	-18.7	-5.7	28.6	0.7
Gross credit to customers	25.9	21.7	13.2	7.0	6.4	3.1	2.2
Resources from customers	9.3	9.9	7.0	1.4	0.7	3.4	5.0
Capital adequacy ratio (per cent)[(e)]	10.8	9.2	9.5	9.8	9.8	10.0	10.3
Average total assets (€ million)	204 773	237 223	264 753	280 795	288 435	294 640	302 272
Average own funds (€ million)	12 819	14 311	14 995	15 633	16 113	16 595	17 528

Notes:
(a) Includes staff costs and other administrative costs.
(b) Results before deduction of minority interests as a percentage of equity capital.
(c) Results after deduction of minority interests as a percentage of equity capital deducted of minority interests.
(d) Including staff costs, other administrative costs and depreciation.
(e) Own funds/(Total requirements*12.5).

strong growth of deposits held by non-resident customers.

In the first half of 2004, bank loans to households either for house purchase or for other purposes accelerated. Some improvement in economic confidence in the first half of the year seems to have been behind the increased demand for credit by Portuguese households, against the background of low interest rates, moderate development of housing prices and longer maturities for the repayment of loans.

The weight of credit delinquency on total credit granted by the banking system decreased in the first half of the year. This trend was shared by credit to households and to corporations, even when the delinquency rates were adjusted for the annual flow of write-offs/write-downs (particularly significant in 2003).

The profitability ratios of the Portuguese banking system, on a consolidated basis, declined slightly in the first half of 2004. This decline was chiefly due to the negative change in extraordinary gains in this period. The continued decrease in the contribution of the financial margin was nearly fully offset by the growth of other current income (in particular net commissions); as a result, the weight of the gross income on the system's assets remained virtually unchanged vis-à-vis the previous year as a whole. Administrative costs, in turn, saw a modest growth in the first six months of 2004, and the efficiency ratio was enhanced (i.e., the ratio of administrative costs to gross income has decreased).

The ratio of the overall adequacy of the banking system's own funds, on a consolidated basis, improved slightly from the end of 2003, to stand at 10.3 per cent at the end of the first half- year. Thus, the solvency ratio in the Portuguese banking system has pursued steadily an upward trend since late 2000 (when it had reached 9.2 per cent). This development has chiefly reflected the improvement in the solvency of institutions with lower ratios and with a significant weight on the system. Together with an increase in the average system capital adequacy ratio, the concentration of institutions' ratios around 8 per cent has been reduced.

2. GENERAL BACKGROUND

In 2003, against the background of recessive economic juncture in Portugal but of favourable developments in international financial markets, the overall situation of the Portuguese banking system had improved significantly in terms of both activity and profitability, in line with developments in most European systems(3).

In the first half of 2004, the international framework maintained, in general, the path evinced in the second half of the previous year. Interest rates were kept at low levels. In turn, Government bond yields followed a downward trend in the first quarter of the year, that was reversed in the subsequent quarter; in the half-year as a whole the average yield was close to that observed in the second half of the previous year. In private debt markets, spreads in new issues remained at low levels. In the same period, the international stock indices hovered around values slightly above those recorded at the end of 2003(4). International conflicts, however, (partly responsible for the continued rise in oil prices) have countered the more expressive recovery in stock markets and restrained further improvement in confidence in general, in spite of the recovery in GDP growth and the stabilisation in the unemployment rate, particularly in the euro area.

The Portuguese stock exchange index recovered significantly up to June vis-à-vis December 2003(5) (remaining virtually unchanged since then). However, liquidity in the Portuguese market remained low, in both the stock market and the private debt market(6).

No significant changes were observed in the regulatory framework of the Portuguese banking system in the first half of 2004. In the third quarter, Banco de Portugal issued Notice no. 4/2004 and Instruction no. 16/2004.

(3) For a more detailed analysis of the Portuguese banking system in 2003, see section II.8 on *Banking System* in the 2003 issue of the *Annual Report*.

(4) For more details on this subject, see section on *Monetary Conditions* in the article on *Portuguese Economy in 2004*.

(5) The value of the PSI 20 from the beginning of 2004 to the end of the first half-year had a change of 9.5 per cent, whereas that change was 13.5 per cent for the General PSI.

(6) See section on *Monetary Conditions* in the article on *Portuguese Economy in 2004*.

Notice No. 4/2004 extends into 2004 the possibility of certain provisions related to latent capital losses inherent in financial participations held by credit institutions and financial companies being registered against reserves (without impact on the results for the period)(7). This change reflects an approach to the major principles laid down in the International Accounting Rules (IAS, whose entry into force is foreseen for 2005).

With a view to ensuring transparency and comparability in the evaluation of the institutions included in the Portuguese banking system by general public and, particularly, by investors, the Banco de Portugal established in Instruction no. 16/2004 that credit institutions disclosing information to the public on solvency, credit quality, profitability and efficiency should adopt an homogeneous methodology defined in that Instruction. Irrespective of the publication of such indicators with a standard methodology, institutions may disclose any other indicators on the same subjects. The first reference date for the dissemination of information in compliance with the established methodology is 30 September 2004.

3. BANKING ACTIVITY

Banking activity on a consolidated basis, assessed in terms of total assets, increased by 4.1 per cent in June 2004 (7.4 and 4.8 per cent for the year as a whole and at the end of the first half of 2003 respectively(8)) (Tables 2 and 3).

In the first half of 2004, banking activity was characterised by the continued high growth of credit to the non-financial private sector, while the securities and financial fixed assets portfolio made also a positive contribution to the change in bank assets in the first six months of the year. In turn, interbank investments abroad increased also significantly in the first six months of the year, simultaneously to a strong decline in deposits held by banks with central banks(9).

Since late 1999, customers' resources have not been sufficient to finance the expansion of credit granted by the Portuguese banking system. As a result, Portuguese banks have resorted to the securitisation of part of their credit portfolio in order to improve their liquidity position. At the same time, resident financial institutions has increased significantly indebtedness with the non-resident sector (in particular, via the issuance of medium and long-term securities by branches and subsidiaries abroad), thus funding the respective borrowing requirements.

In the first half of 2004, the system's financing with non-residents increased further (while adjusting for the effects of the temporary operation that affected the system's balance sheet at the end of 2003), although with a marked change in its composition vis-à-vis the previous year: interbank liabilities (net of assets) decreased significantly, almost fully offset by the increase in liabilities represented by securities (issued by branches and subsidiaries abroad of Portuguese banks and taken, to a large extent, by non-residents), thus maintaining the amount of market external debt unchanged(10). Therefore, the increase in the system's foreign liabilities resulted significantly from the change in resources from non-resident customers (largely with resident banking institutions(11)). Conversely, residents' deposits (excluding general govern-

(7) Notice no. 4/2002 (whose no. 5th (4) was reworded by Notice no. 4/2004), introduced new requirements at the level of own funds provisioning and deductions applicable to the mentioned capital losses, and defined (in no. 5th) a transitory regime, regarding both the setting up of provisions and the deductions from own funds. In addition, it authorised that provisions set up in 2002 and 2003, within the scope of the above no. 5th, would counterbalance reserves.

(8) Year-on-year rates of change. For June and December 2003, the rates of change on a consolidated basis were affected to approximately 1.5 p.p. by the widening of the consolidation perimeter of one banking group in the first quarter of 2003.

(9) Emphasis should be laid on the significant decrease of system assets in central banks in early 2004, resulting from reversing a temporary operation, within the scope of the TARGET system, that affected results at the end of 2003 (see sections II.6 and II.8 in the 2003 issue of the *Annual Report*, on the *Balance of Payments* and the *Banking System* respectively. Reversing such operation was offset by a corresponding increase in credit to other credit institutions abroad.

(10) Corresponding to liabilities represented by debt securities taken by non-residents and interbank liabilities incurred with other credit institutions abroad.

(11) In spite of maintaining a relatively unimportant share in the total deposits of customers , on a consolidated basis, the ratio of deposits held by non-residents to total assets increased from 13.0 per cent at the end of 2003 to 14.2 per cent in June 2004. Considering only deposits held by the non-resident non-monetary sector with resident monetary institutions, their relative weight on total assets of the system, on a consolidated basis, increased by 1.5 p.p. since the beginning of the year to approximately 6 per cent at the end of the first half of the year.

Table 2

BALANCE-SHEET OF THE BANKING SYSTEM

On a consolidated basis

€ million

	1998	1999	2000	2001	2002	2003	2003	2004
	Dec	Dec.	Dec	Dec.	Dec.	Jun.	Dec.	Jun.
Cash and assets in central banks	8 867	10 829	9 642	10 063	8 762	8 415	15 430	6 459
of which: cash and assets in the Banco de Portugal	8 608	10 026	8 592	8 987	7 857	7 695	14 327	5 418
Credit to other credit institutions	30 984	27 254	28 596	33 887	30 293	33 592	32 837	35 841
In the country	n.a.	n.a.	10 952	12 768	9 570	7 791	7 968	5 628
Abroad	n.a.	n.a.	17 644	21 119	20 723	25 800	24 868	30 212
Credit to customers (net of provisions))	103 523	131 213	160 235	181 468	194 219	199 989	199 477	204 270
Credit overdue	n.a.	n.a.	3 553	3 903	4 462	5 158	4 881	4 623
Provisions	2 577	2 377	2 406	2 609	2 802	3 306	3 561	3 543
Securities and financial fixed assets (net of provisions)	33 594	31 843	36 984	35 951	32 149	33 531	37 485	39 219
of which: (Gross) public issuers' securities	n.a.	n.a.	10 793	10 742	9 697	9 865	9 853	11 165
Non-financial fixed assets	4 468	4 631	4 600	4 735	4 578	4 619	4 551	4 435
Other assets	9 092	13 249	10 661	12 361	12 995	14 791	14 288	16 708
Total assets	190 527	219 019	250 719	278 464	282 996	294 937	304 067	306 932
Resources from central banks	1 690	3 158	3 462	2 766	1 284	2 845	3 147	2 806
of which: Banco de Portugal	1 383	2 658	3 300	2 258	1 031	2 546	2 766	2 492
Resources from other credit institutions	41 748	44 920	51 834	57 017	54 503	56 280	54 546	49 131
In the country	n.a.	n.a.	10 024	11 099	7 767	6 607	5 569	4 849
Abroad	n.a.	n.a.	41 810	45 918	46 736	49 673	48 977	44 282
Resources from customers	116 729	127 606	140 205	150 033	152 136	152 091	157 236	159 756
of which:								
Deposits of resident customers	n.a.	n.a.	109 976	113 870	116 485	112 485	117 673	116 247
Deposits of non-resident customers	n.a.	n.a.	30 181	36 101	35 538	39 480	39 440	43 498
Liabilities represented by securities	6 606	13 225	23 106	32 973	38 686	44 928	49 814	54 811
of which: bonds	5 239	10 072	18 214	27 309	30 921	33 848	37 444	40 387
Subordinated debt	3 892	4 521	5 392	8 076	8 721	8 705	8 883	8 631
Provisions	1 847	2 263	3 119	3 354	3 510	3 527	3 365	3 312
Other liabilities	6 217	9 487	9 015	8 810	8 326	10 176	9 490	9 929
Equity capital	11 798	13 840	14 587	15 436	15 830	16 385	17 586	18 556
Net income for the year	1 241	1 431	1 672	1 829	1 488	954	1 914	961
Total liabilities and equity capital	190 527	219 019	250 719	278 464	282 996	294 937	304 067	306 932
Memo:								
Demand deposits	37 659	44 363	47 188	53 033	54 649	52 089	55 709	54 008
Time and saving deposits	78 975	83 195	92 969	96 938	97 374	99 876	101 404	105 737
Credit to other credit institutions net of resources	-10 764	-17 666	-23 237	-23 130	-24 210	-22 688	-21 710	-13 290
In the country	n.a.	n.a.	928	1 669	1 804	1 184	2 399	779
Abroad	n.a.	n.a.	-24 165	-24 799	-26 014	-23 872	-24 109	-14 070
Resources from customers (including securities issued)	n.a.	n.a.	149 649	160 851	164 114	163 564	168 787	171 776
of which:								
Resources from customers (deposits and deposit-like)	n.a.	n.a.	140 205	150 033	152 136	152 091	157 236	159 756
Securities issued held by resident customers (estimate)	n.a.	n.a.	9 444	10 818	11 978	11 472	11 551	12 020
In the domestic institutions subgroup								
Credit to other credit institutions net of resources	*-8 319*	*-14 038*	*-19 753*	*-18 612*	*-15 340*	*-14 170*	*-11 985*	*-5 599*
In the country	*n.a.*	*n.a.*	*727*	*156*	*1 019*	*612*	*1 556*	*483*
Abroad	*n.a.*	*n.a.*	*-20 480*	*-18 768*	*-16 359*	*-14 783*	*-13 542*	*-6 082*
Resources from customers (including securities issued)	*n.a.*	*n.a.*	*127 062*	*135 270*	*139 540*	*139 722*	*146 251*	*147 052*
of which:								
Resources from customers (deposits and deposit-like)	*n.a.*	*n.a.*	*119 381*	*126 449*	*129 669*	*130 308*	*136 504*	*136 783*
Securities issued held by resident customers (estimated)	*n.a.*	*n.a.*	*7 681*	*8 821*	*9 871*	*9 413*	*9 747*	*10 268*

Table 3

BALANCE SHEET

On a consolidated basis

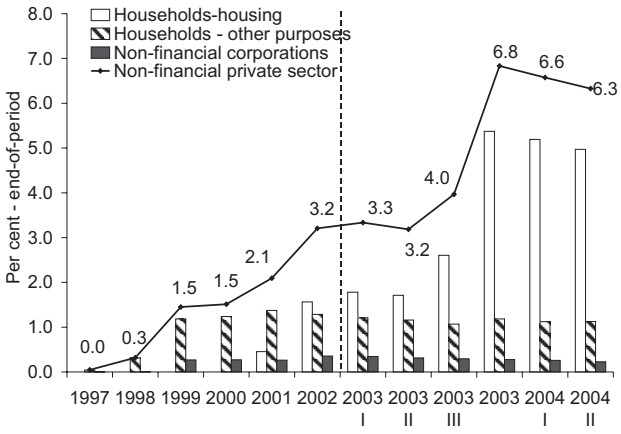
	1999	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
	Dec.	Dec.	Dec.	Dec.	Dec.	Jun.	Dec.	Dec.	Dec.	Dec.	Jun.
Cash and assets in central banks	4.9	3.8	3.6	3.1	5.1	2.1	-11.0	4.4	-12.9	76.1	-23.2
of which: cash and assets in Banco de Portugal	4.6	3.4	3.2	2.8	4.7	1.8	-14.3	4.6	-12.6	82.3	-29.6
Credit to other credit institutions	12.4	11.4	12.2	10.7	10.8	11.7	4.9	18.5	-10.6	8.4	6.7
In the country	n.a.	4.4	4.6	3.4	2.6	1.8	n.a.	16.6	-25.0	-16.7	-27.8
Abroad	n.a.	7.0	7.6	7.3	8.2	9.8	n.a.	19.7	-1.9	20.0	17.1
Credit to customers (net of provisions)	59.9	63.9	65.2	68.6	65.6	66.6	22.1	13.3	7.0	2.7	2.1
Credit overdue	n.a.	1.4	1.4	1.6	1.6	1.5	n.a.	9.8	14.3	9.4	-10.4
Provisions	1.1	1.0	0.9	1.0	1.2	1.2	1.2	8.4	7.4	27.1	7.2
Securities and financial fixed assets (net of provisions)	14.5	14.8	12.9	11.4	12.3	12.8	16.1	-2.8	-10.6	16.6	17.0
of which: (Gross) public issuers' securities	n.a.	4.3	3.9	3.4	3.2	3.6	n.a.	-0.5	-9.7	1.6	13.2
Non-financial fixed assets	2.1	1.8	1.7	1.6	1.5	1.4	-0.7	2.9	-3.3	-0.6	-4.0
Other assets	6.0	4.3	4.4	4.6	4.7	5.4	-19.5	15.9	5.1	9.9	13.0
Total assets	100.0	100.0	100.0	100.0	100.0	100.0	14.5	11.1	1.6	7.4	4.1
Resources from central banks	1.4	1.4	1.0	0.5	1.0	0.9	9.6	-20.1	-53.6	145.0	-1.4
of which: Banco de Portugal	1.2	1.3	0.8	0.4	0.9	0.8	24.2	-31.6	-54.3	168.3	-2.1
Resources from other credit institutions	20.5	20.7	20.5	19.3	17.9	16.0	15.4	10.0	-4.4	0.1	-12.7
In the country	n.a.	4.0	4.0	2.7	1.8	1.6	n.a.	10.7	-30.0	-28.3	-26.6
Abroad	n.a.	16.7	16.5	16.5	16.1	14.4	n.a.	9.8	1.8	4.8	-10.9
Resources from customers	58.3	55.9	53.9	53.8	51.7	52.0	9.9	7.0	1.4	3.4	5.0
of which:											
Deposits of residents customers	n.a.	43.9	40.9	41.2	38.7	37.9	n.a.	3.5	2.3	1.0	3.3
Deposits of non-residents customers	n.a.	12.0	13.0	12.6	13.0	14.2	n.a.	19.6	-1.6	11.0	10.2
Liabilities represented by securities	6.0	9.2	11.8	13.7	16.4	17.9	74.7	42.7	17.3	28.8	22.0
of which: bonds	4.6	7.3	9.8	10.9	12.3	13.2	80.8	49.9	13.2	21.1	19.3
Subordinated debt	2.1	2.2	2.9	3.1	2.9	2.8	19.3	49.8	8.0	1.9	-0.8
Provisions	1.0	1.2	1.2	1.2	1.1	1.1	37.8	7.5	4.7	-4.1	-6.1
Other liabilities	4.3	3.6	3.2	2.9	3.1	3.2	-5.0	-2.3	-5.5	14.0	-2.4
Equity capital	6.3	5.8	5.5	5.6	5.8	6.0	5.4	5.8	2.5	11.1	13.2
Net income for the year	0.7	0.7	0.7	0.5	0.6	0.3	16.8	9.4	-18.7	28.6	0.7
Total liabilities and equity capital	100.0	100.0	100.0	100.0	100.0	100.0	14.5	11.1	1.6	7.4	4.1
Memo:											
Demand deposits	20.3	18.8	19.0	19.3	18.3	17.6	6.4	12.4	3.0	1.9	3.7
Time and saving deposits	38.0	37.1	34.8	34.4	33.3	34.4	11.7	4.3	0.4	4.1	5.9

ment) continued to decelerate, largely reflecting the use of liquidity by resident non-financial corporations.

3.1. Credit

Banking activity in the first half of 2004 was mainly characterised by the maintenance of the high pace of growth in credit granted to the non-financial private sector. This development was only partly reflected in the balance sheet of the Portuguese banking system in June 2004 (compared to June 2003), due to the securitisation of loans occurred at the end of 2003. In year-on-year terms, credit to customers in the balance sheet of the Portuguese banking system maintained the decelerating trend evinced in recent years (Table 3)[12]. However, the outstanding amount of securitised loans represented 6.3 per cent of total loans granted to the non-financial private sector at the end of June 2004, i.e., double the weight observed in the same month of 2003 (3.2 per cent) (Chart 1)[13]. Considering data from Monetary and Financial Statistics, the downward trend of credit effectively granted to the non-financial private sector seems to have been discontinued in the last quarter of 2003. In June 2004, credit granted by credit institutions to that sector registered an annual rate of change of 8.3 per cent, accounting for a slight increase from the end of 2003 (8.1 per cent) and from the end of the same period in the previous year (7.6 per cent)[14].

Chart 1
SECURITISATION
Weight of operations in total loans originally granted by credit institutions to the non-financial private sector



Source: Monetary and Financial Statistics.

3.1.1. Loans to households

The decelerating trend observed since the end of 1999 in loans to households, discontinued in the

(12) The year-on-year rate of change of gross credit to customers stood at 2.2 per cent in June 2004, compared with growth rates of 3.1 and 6.4 per cent in December and June 2003 respectively. It should be noted, however, that in 2003 growth rates in this aggregate were affected by the change in the consolidation perimeter of a Portuguese banking group, as already mentioned. Adjusted for this effect, gross credit to customers is estimated to have registered growth rates of approximately 1.9 and 4.8 per cent in December and June 2003.

(13) As previously mentioned, although these securitisation operations have mitigated the growth of credit to customers, some securities resulting from these operations were kept by the selling banks. In 2003, in particular, a banking group carried out a securitisation operation of mortgage-backed assets to a significant amount, subsequently maintaining in their balance sheet the securities issued as the result of such operation. This resulted in a strong rise in the item securities and other financial fixed assets.

(14) The figures presented here differ from those published in previous similar analyses and in the publication *Monthly Indicators* , since, in addition to loans granted by other monetary financial institutions (other MFI) adjusted for securitisation and corrected for write-offs/write-downs and exchange rate changes, they also consider loans granted by other resident financial intermediaries (excluding resident special-purpose vehicles acquiring securitised credit) adjusted for securitisation. In this case, reclassifications of credit granted by other MFI under consideration are those that do not correspond to credit reassignments between other MFI and other financial intermediaries within the group (for instance, due to mergers). The year-on-year rates of change are calculated from an index of adjusted stocks (Dec. 2000=100). It is important to note that, in any case, the figures of Monetary and Financial Statistics are not directly comparable to data on a consolidated basis presented in this section; although the more global aggregate (including other financial intermediaries) is closer than that considering only credit granted by other MFI. As mentioned in previous publications, there are conceptual differences in these two sources of information, in particular as regards the universe considered and the consolidation approach: on the one hand, Monetary and Financial Statistics do not exclude institutions having their head-office or major activity in the Madeira off-shore and cover only activity in Portugal; on the other hand, Monetary and Financial Statistics consider the information on an individual basis. For further details on such differences, see Box II.8.1 "*Information used in the analysis of the Portuguese banking system*" in the 2002 issue of the *Annual Report*.

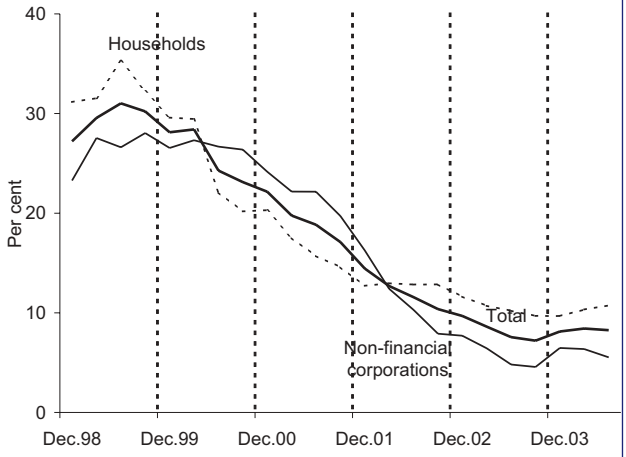
second half of 2003, was reversed in the first half of 2004. Based on Monetary and Financial Statistics, the rate of change of loans granted by other monetary financial institutions and by other financial intermediaries to this sector increased to 10.7 per cent in June 2004, 1 percentage point (p.p.) above the growth rate recorded at the end of 2003 (0.5 p.p. above that recorded in the same month of the previous year) (Charts 2 and 3)[15].

In this segment, stress should be laid on the maintenance of a high pace of growth of loans for house purchase, whose rate of change at the end of the first half of 2004 was 11.7 per cent, i.e., higher than at the end of the previous year (11.4 per cent) and only 1.3 p.p. below the figure recorded twelve months earlier. In spite of the low stage of business cycle, the overall accommodating monetary conditions observed in recent years (particularly the historically low levels of the interest rates) as well as the new products made available by banks in this field continued to favour the access to credit market for house purchase (Chart 4)[16].

Major banking groups have thus pointed (in the *Bank Lending Survey*) to an increase in demand of loans for house purchase since the beginning of the second half of 2003; after some stabilisation in early 2004, the results for the Survey of July clearly indicated a strengthening of demand in this segment of credit market. The buoyancy of demand (reflecting improved confidence, chiefly in the second quarter of the year) does not seem to have been significantly countered by the increased tightening of criteria for the approval of this type of loans — namely higher spreads, more enforceability of guarantees and tighter ratios loan-to-value — induced by the perception of higher risks associated with economic activity in general and with prospects for the housing market.

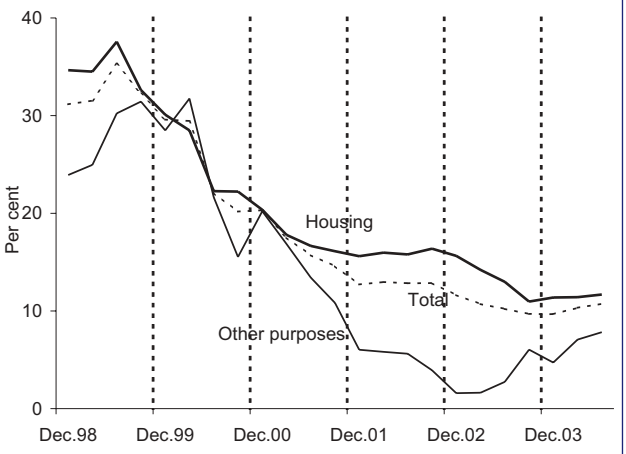
The acceleration of loans for house purchase in the first half of the year was reflected in a higher number of new housing credit contracts agreed in the first six months of 2004, when compared with the same period of 2003 (16.5 per cent higher) (Chart 5). This increase was more significant for the amounts of the new contracts: the average value of new contracts agreed in the first half of the present year was 10.4 per cent above that recorded in the same period of 2003 (although remaining virtually unchanged vis-à-vis the average value in the second half of 2003)[17]. This development (given stricter loan-to-value ratios, according to the indication of some banking groups) sug-

Chart 2
LOANS GRANTED BY RESIDENT CREDIT INSTITUTIONS TO THE NON-FINANCIAL PRIVATE SECTOR
Annual rate of change[a]



Note:
(a) Year-on-year rate of change calculated on the basis of an index of adjusted stocks, as indicated in note 14.

Chart 3
LOANS GRANTED BY RESIDENT CREDIT INSTITUTIONS TO HOUSEHOLDS
Annual rate of change[a]



Note:
(a) Year-on-year rate of change calculated on the basis of an index of adjusted stocks, as indicated in note 14.

(15) The figures mentioned in this section are adjusted figures, according to the previous footnote.
(16) See section on *Monetary Conditions* in the article on *Portuguese economy in 2004*.

Chart 4
AFFORDABILITY INDICATOR AND ITS COMPONENTS
Chain rate of change

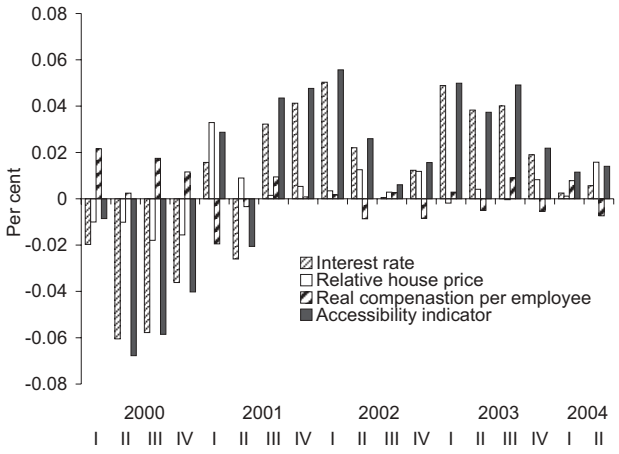
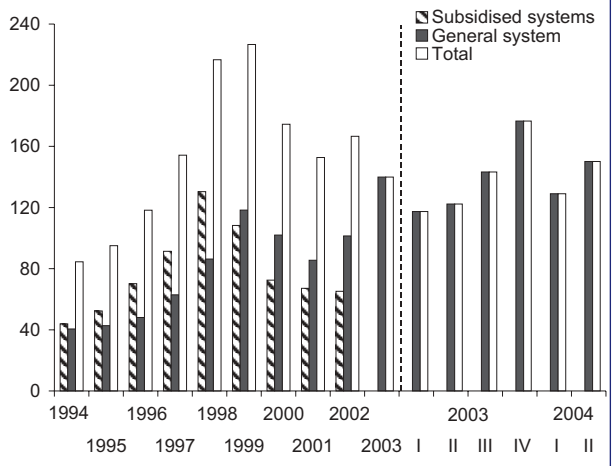


Chart 5
NUMBER OF HOUSING CREDIT CONTRACTS
Mainland



Source: *Direcção-Geral do Tesouro*.
Note: Quarterly figures have been annualised.

gests that banks lending may have been addressed to houses of higher average quality (in terms of characteristics, size and location) than in previous years[18]. The trend of the average value of houses financed by bank lending seems to be facilitated by wider periods for loan repayments, a condition provided by some banking groups, chiefly in the wake of the abolition of the subsidised credit regime for house purchase in October 2002 (according to the *Bank Lending Survey*).

Credit granted by resident credit institutions to households for consumption and other purposes accelerated in the first half of 2004, after two years of weak growth in line with the contraction of private consumption. The year-on-year rate of change reached approximately 8 per cent in June (after around 4.5 and 2.5 per cent in December and June 2003 respectively). According to the results of the *Bank Lending Survey*, the recovery in this segment is probably associated with an increase in expenditure with durable goods, in line with improved consumer confidence.

3.1.2. Loans to non-financial corporations

In spite of the slow growth evinced by loans granted by Portuguese banks to resident non-financial corporations in the last twelve months, this movement was partly offset by the acceleration of credit granted by other financial intermediaries to this sector[19]. Therefore, in June 2004, the year-on-year rate of change of loans granted by resident credit institutions to non-financial corporations was 5.5 per cent (6.5 and 4.8 per cent, in December and June 2003 respectively).

In the first half of 2004, credit supply in this segment of banking activity seems to have maintained some tightening vis-à-vis the risks associated with the overall economic situation and with specific sectors and firms (according to the results

(17) See section on *Monetary Conditions* in the article on *Portuguese economy in 2004.*

(18) Average values of the square-metre-based evaluation of houses by banks in Mainland (source: *INE*) also points to an increase in the value of houses financed by bank credit considerably above inflation in Portugal (5.9 per cent, in the first half of 2004, after 8.4 per cent in the second half of 2003). This path was evinced against the background of a virtual stabilisation of house prices (changes of 0.5 and 1.6 per cent in the corresponding periods, according to the Newsletter index of *Confidencial Imobiliário*). The before mentioned rates correspond to year-on-year changes of half-yearly average values.

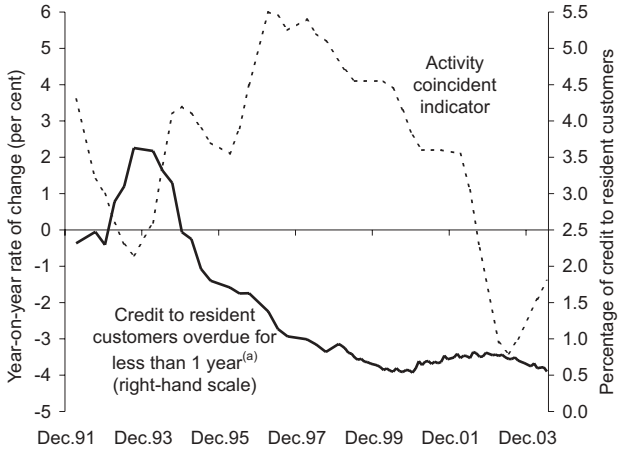
(19) It should be noted that, in the last quarter of 2003, an institution classified in the sector of other financial intermediaries was integrated into the monetary financial institution of one banking group. As a result, the year-on-year rate of change of credit granted to the non-financial private sector by other financial intermediaries in December, calculated from Monetary and Financial Statistics, was significantly influenced by that fact (i.e., it underestimated the growth of credit granted by those institutions).

of the *Bank Lending Survey*). The trend shown by the outstanding amounts of credit granted to non-financial corporations will partly reflect this behaviour of major banking groups, as loan demand seems to have been maintained virtually unchanged.

In the first half of 2004, borrowing requirements of non-financial corporations are estimated to have increased from the previous year, in line with the recovery of firms' investment and economic activity in general. Part of these requirements seems to have been financed by other sources than loans, such as commercial paper[20] and, to a lesser extent, borrowing from affiliates (in the case of foreign direct investment corporations). Also arrangements on international syndicated loans to Portuguese non-financial corporations seems to have gained some momentum in 2004 (up to mid-September 2004, a significant amount of loans had been agreed, exceeding by 37 per cent the amount recorded in the previous year as a whole). Similarly to developments in 2003, Portuguese banks were practically not actively involved. Nonetheless, growth of total credit to non-financial corporations in the first half of 2004 seems to have been short of borrowing requirements; these were complied with a relevant decline in deposits of this sector (that had recorded a significant accumulation in 2003)[21].

In the first half of 2004, the concentration of credit related to the real estate sector continued to widen, accounting for 57 per cent of total loans granted to the non-financial private sector[22] (56 per cent at the end of 2003). This path was chiefly due to the developments in lending to households for house purchase, whose share in the total was 41 per cent, at the end of first half-year (40 per cent in December 2003).

Chart 6
CREDIT OVERDUE AND ECONOMIC ACTIVITY
On an individual basis



Note:
(a) Series break in January 1999.

3.1.3. Credit quality and provisioning

In the first half of 2004, the share of credit overdue on total credit on a consolidated basis decreased (to 2.22 per cent) vis-à-vis the same period of the previous year (2.54 per cent) and the end of 2003 (2.40 per cent) (Table 1)[23]. Considering data on an individual basis, credit to residents overdue for less than 1 year represented approximately 0.55 per cent of total credit granted to residents at the end of June (compared with 0.59 per cent in

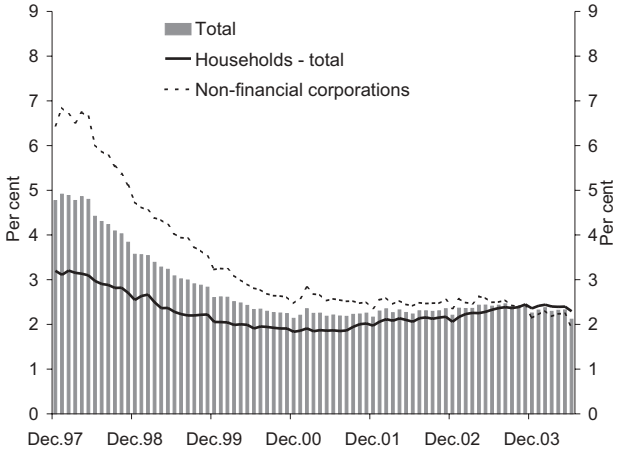
(20) Commercial paper has been a close substitute for bank loans, chiefly in the case of larger corporations. The year-on-year rate of change of outstanding liabilities of commercial paper issued by the by non-financial corporations increased significantly in June 2004 to 7.9 per cent (-12.3 and 37.6 per cent, in December and June 2003 respectively).

(21) See section on *Monetary Conditions* in the article on *Portuguese economy in 2004*.

(22) This value refers only to loans in the banks' balance sheet. It does not include securities related to securitisation of credit purchased by banks. This aggregate of credit to the real estate sector covers loans granted to non-financial corporations operating in branches such as construction and real estate services as well as credit granted to households for house purchase. It should be noted, however, that the exposure of the banking system to the whole real estate sector includes, in addition to loans, other assets on corporations in the before-mentioned branches (including securities issued by those corporations) and securities held in the portfolio of banking institutions that were issued as a counterpart to securitisation operations of credit granted for house purchase.

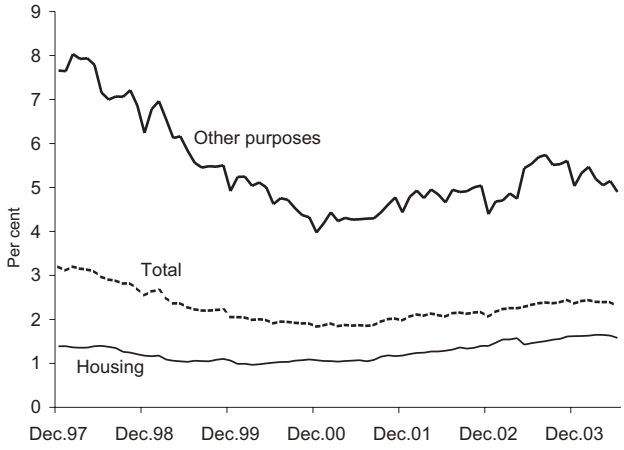
(23) For the total banking system, on an individual basis, the indicator of credit quality defined in Instruction of the Banco de Portugal no. 16/2004 (as the ratio of [credit overdue at more than 90 days plus doubtful credit reclassified as credit overdue (at more than 90 days)] and total gross credit) decreased from 2.35 per cent in December 2003 to 2.23 per cent in June 2004.

Chart 7
RATIO OF CREDIT OVERDUE TO TOTAL CREDIT TO RESIDENT CUSTOMERS



Source: Monetary and Financial Statistics.

Chart 8
RATIO OF CREDIT OVERDUE TO BANK'S CREDIT TO HOUSEHOLDS



Source: Monetary and Financial Statistics.

December 2003 and 0.72 per cent, twelve months earlier) (Chart 6)[24].

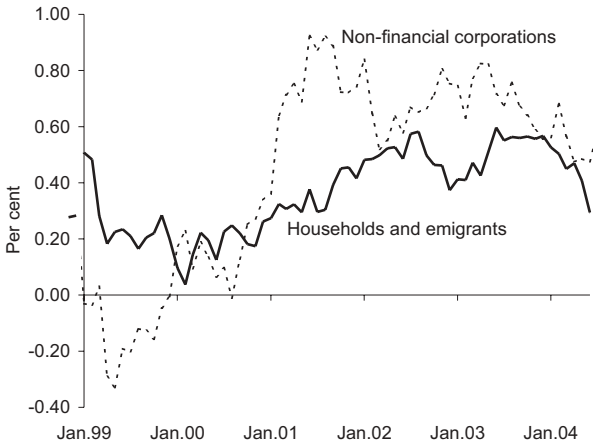
According to Monetary and Financial Statistics, the improvement in credit overdue indicators[25] in the first half of 2004 was common to the sub-sectors of the non-financial private sector (Chart 7). For the total sector, the ratio of credit overdue reached a minimum in June (2.12 per cent), to a large extent as a result of developments in corporation credit delinquency. Therefore, the ratio of credit overdue by non-financial corporations decreased to 1.92 per cent at the end of the first half of the year (after 2.15 and 2.50 per cent in December and June of 2003), while that of households stood at 2.30 per cent (2.36 and 2.33 per cent in the same months of 2003). Worthy of mention in this segment is the continued deterioration in the quality of credit granted for house purchase in the course of 2003 and maintained in the first months of 2004 (Chart 8). However, this trend was discontinued in the second quarter of the year, and the respective ratio of credit overdue to total credit declined to 1.58 per cent in June (4.b.p. below the figure recorded in December albeit 12 p.b. above that recorded in June 2003). As to credit to households for other purposes but house purchase, the weight of credit overdue in total credit in this segment decreased also in June 2004 to 4.90 per cent (5.03 and 5.53 per cent in December and June 2003 respectively).

The ratio of credit overdue to total credit granted by the Portuguese banking system has remained at relatively low levels during the low stage of business cycle. This development seems to be largely associated with the historically low level of interest rates, but also reflects significant amounts of write-offs/write-downs (and the consequent utilisation of provisions previously made). Thus, the net flow of credit fallen due in a certain period would correspond to the change in credit overdue plus the amount of credit previously registered as overdue which, in that period, had been deducted from assets, for being recognised as definitely uncollectable. In 2003 as a whole, the estimated annual flow of credit fallen due (adjusted for write-offs/write-downs) was particularly significant, chiefly in the household segment (representing 0.57 per cent of bank loans adjusted for securitisation), lightening somewhat in the first half of 2004. In June, it represented 0.29 per cent of total bank loans to households (adjusted for securitisation) (0.60 per cent, one year earlier) (Chart 9)[26].

(24) The utilisation of individual data is adequate in this subsection due to the existence of longer and more detailed series. Considering data on an individual basis, the ratio of total credit overdue to gross credit narrowed to 2.03 per cent (2.12 and 2.27 per cent in December and June 2003 respectively).

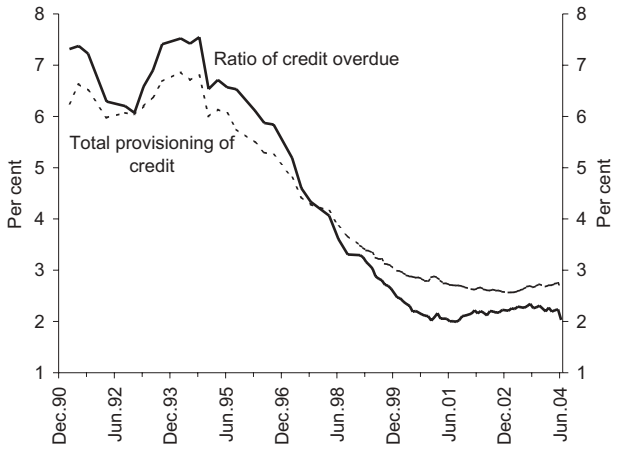
(25) Indicators based on Monetary and Financial Statistics correspond to the ratio of credit and interest overdue to total credit, for each sub-sector in reference.

Chart 9
ANNUAL FLOW OF NEW CREDIT OVERDUE[(a)]



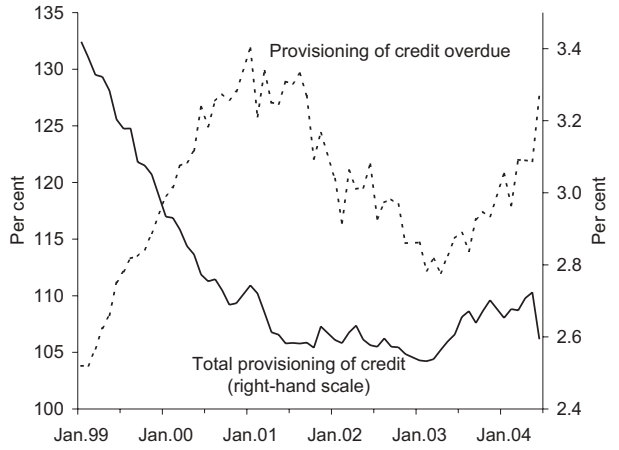
Note:
(a) Estimate of the annual flow of new credit overdue (adjusted for write-offs/write-downs) as a percentage of banks' loans (adjusted for securitisation).

Chart 10
DELINQUENCY RATIO IN CREDIT TO CUSTOMERS AND TOTAL PROVISIONING OF CREDIT
Percentage of credit granted (gross)
On an individual basis



Note: Series break in January 1999.

Chart 11
TOTAL PROVISIONING OF CREDIT AND PROVISIONING OF CREDIT OVERDUE
On an individual basis



As regards non-financial corporations, the corresponding indicator followed an upward trend, towards 0.48 per cent in June 2004 (0.56 and 0.72 per cent in December and June 2003 respectively)[(27)].

Total credit provisioning, as a percentage of gross credit, strengthened particularly in 2003 in the wake of the enforcement of Notice no.8/2003[(28)] and as credit institutions assessed an increase in credit risk (as indicated by *Bank Lending Survey*). In the course of the first half of 2004, it maintained an upward trend (reaching 2.75 per cent in May, on an individual basis); in June, however, this indicator narrowed to 2.61 per cent, slightly below that recorded at the end (and in the corresponding month) of 2003 (2.64 per cent) (Chart 10). Yet, as a percentage of credit overdue, total provisioning (including specific provisions and provisions for general credit risks, on an individual basis) enlarged from 115.1 per cent in June 2003 (123.0 per cent at the end of the year) to 127.7 per cent twelve months later (Chart 11). On a consolidated basis, specific credit provisioning, as a percentage of gross credit, increased in the first half of 2004 vis-à-vis de same period of the previous year

(26) The delinquency ratio adjusted for write-offs/write-downs (i.e., the weight of non-performing credit plus the annual flow of credit write-offs/write-downs on total credit granted by banks adjusted for securitisations and write-offs/write-downs), in the case of households, also decreased from 2.31 per cent in December 2003 (2.38 per cent in June 2003) to 2.27 per cent in June of 2004.

(27) In spite of this trend, the delinquency ratio adjusted for write-offs/write-downs increased from 2.75 per cent in December 2003 to 2.81 per cent in June 2004, but improved vis-à-vis the same months of the previous year (2.95 per cent).

(28) Notice no. 8/2003 had amended the credit provisioning regimes. Changes were described in detail in Box II.8.1. *Changes in the provisioning regime credit overdue and other doubtful credit*, in the 2003 issue of the *Annual Report*.

Table 4

AGGREGATE EXPOSURES OF THE PORTUGUESE BANKING SYSTEM TO EMERGING MARKETS

On a consolidated basis

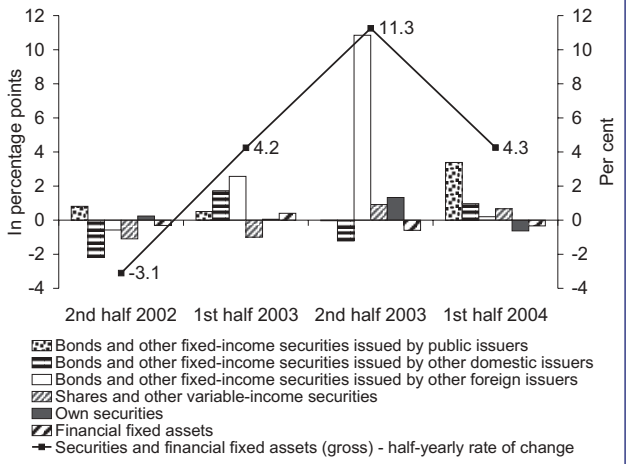
	As a percentage of total assets				
	2001	2002	2003	2003	2004
	Dec.	Dec.	Jun..	Dec.	Jun.
Total	1.5	1.1	1.0	0.9	0.9
of which: Brazil . .	1.1	0.8	0.6	0.6	0.7

Note: The group of emerging markets includes the geographical areas of Eastern Europe, Latin America and Asia and Pacific. In June 2002 and June 2003, there were slight changes in the definition of these geographical areas.

Chart 12

SECURITIES AND FINANCIAL FIXED ASSETS

Half-yearly rate of change and contributions by category of asset



(from 1.63 to 1.71 per cent) albeit declining from the end of 2003 (1.75 per cent).

Reflecting the abovementioned developments related to credit delinquency and credit provisioning, the ratio of credit and interest overdue (net of provisions) to credit net of specific provisions (on a consolidated basis) has decreased continuously since June 2003, to stand at 0.53 per cent in June 2004 (0.66 and 0.93 per cent, in December and June 2003 respectively) (Table 1)[29].

3.1.4. Exposure to emerging markets

The Portuguese banking system's aggregate exposure to emerging markets[30] is rather low. In the first half of 2004, it remained virtually unchanged from the end of the previous year, at around 0.9 per cent of total assets (on a consolidated basis). Brazil was the major source of that exposure, accounting for 0.7 per cent of the system's total assets (Table 4).

3.1.5. Securities portfolio

In June 2004, the securities and fixed assets portfolio of the banking system, on a consolidated basis, changed by 16.0 per cent year-on-year (as in December 2003[31]). The respective weight on total assets increased from 12.3 per cent at the end of 2003 to 12.8 per cent in June 2004 (11.4 per cent one year earlier) (Table 3).

In the first six months of the year, securities issued by governments had the most important positive contribution to the change in the securities portfolio (Chart 12). Thus, bonds and other fixed-income securities issued by the Portuguese and foreign governments grew by approximately 13 per cent in June, year-on-year, thus raising their weight on total securities portfolio (to 27.6 per cent). Moreover, the share of securities issued by resident private issuers in the total system's portfolio increased slightly (to 19.4 per cent of the total at the end of the first half of 2004).

(29) On an individual basis, the ratio of credit overdue (net of provisions for credit overdue) to total credit (net of provisions for credit overdue) narrowed from 0.85 per cent in December 2003 to 0.81 per cent in June 2004 (0.97 per cent in the same period of the previous year).

(30) The group of emerging markets considered in this section corresponds to the geographical areas of Eastern Europe, Latin America and Asia and Pacific.

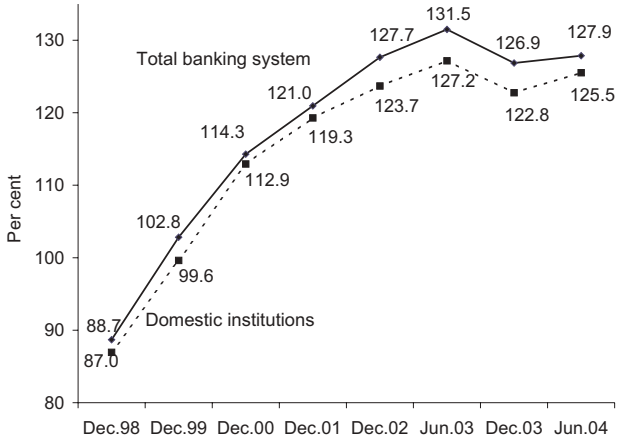
(31) Taking into account securities and financial fixed assets net of provisions, the year-on-year rate of change was 17.0 per cent in June 2004, after 16.6 per cent at the end of the previous year. Developments in this item in 2003 were mainly due to the important growth recorded by fixed-income securities issued by non-resident private issuers in the balance sheet of the Portuguese banking system; this growth was a result of the maintenance in the balance sheet of a banking group, of securities related to a securitisation operation of mortgage credit carried out at the end of 2003.

In June 2004, gross financial fixed assets of Portuguese banks were around 4 per cent fewer than one year earlier. In net terms, this reduction was somewhat less significant, since provisioning of financial fixed assets decreased markedly (by 15.7 per cent). Developments in provisioning may reflect some recovery of latent losses in financial participations, in line with the upturn in the stock market, thus resulting in a lower effort by the Portuguese banks in carrying out stipulations of Notice no. 4/2002[32].

3.2. Resources

In June 2004, resources from customers, on a consolidated basis, accelerated slightly supported by the recovery in residents' deposits (largely due to the trend followed by general government deposits) and by a significant rise in non-residents' deposits. Therefore, the year-on-year rate of change of resources from customers increased from 3.4 per cent[33] in December 2003 (0.7 per cent in June 2003) to 5.0 per cent at the end of the first half of 2004 (deposits held by residents grew by 3.3 per cent after 1.0 and 1.8 per cent in the same months of 2003 respectively) (Table 3). As previously mentioned, the pace of customers' deposits is strongly influenced by the abnormally high amount of deposits held by the general government with the resident banking system in June 2004 (which resumed a significantly lower level in August). Excluding general government deposits, the year-on-year rate of change of deposits held by resident customers (on a consolidated basis) declined to 1.8 per cent in June 2004 (compared with 2.1 and 2.7 per cent in December and June 2003 respectively), keeping the decelerating trend of the previous year. In view of the maintenance of historically low levels in deposit interest rates, in the first half of the year, a major part of savings of the non-financial private sector seems to have continued being reallocated to alternative investments with higher profitability[34].

Chart 13
RATIO OF CREDIT (NET OF PROVISIONS) TO RESOURCES FROM CUSTOMERS
On a consolidated basis



Note: Resources from customers include deposit and deposit-like instruments from resident and non-resident customers. They do not include debt represented by securities.

In contrast with the trend followed by deposits by residents in the first half of 2004, stress should be laid on the significant increase in deposits held by non-residents (10.2 per cent, year-on-year). This path was particularly marked for deposits held by the non-resident non-monetary sector with the resident banks, whose year-on-year rate of change was over 28 per cent at the end of the first half of 2004 (albeit decelerating vis-à-vis December 2003).

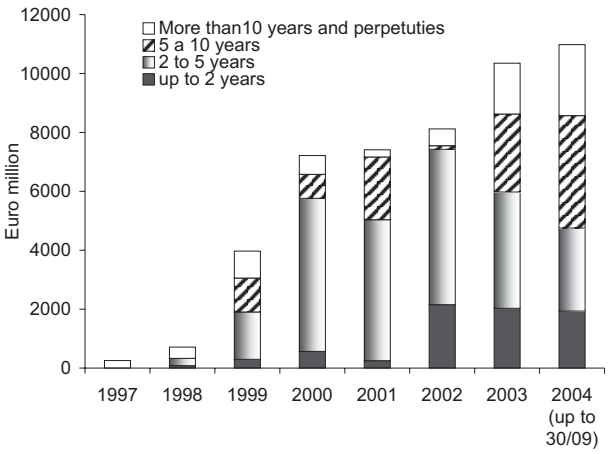
In spite of the deceleration in credit recorded in the balance sheet of the banking system, the moderate pace shown by total resources from customers in the first six months of 2004 was reflected in some widening of the ratio of credit (net of provisions) to resources from customers, from 126.9 per cent at the end of 2003 to 127.9 per cent six months later (although remaining clearly below 131.5 per cent, in June 2003) (Chart 13)[35]. This increase is also apparent in the case of domestic institutions: from 122.8 per cent in December to 125.5 per cent in June 2004 (127.2 per cent one year earlier). However, including liabilities represented by securities

(32) This Notice, on the provisioning of latent losses in financial participations, entered into force in mid-2002, providing for a gradual building up of these provisions. The major efforts made by Portuguese banks seem to have been developed in the course of 2002.

(33) This rate (as well as that for June 2003) was influenced by the widening of the perimeter of consolidation of a banking group in the first quarter de 2003. In 2003, the impact of such widening on the year-on-year growth rate of resources from customers is estimated to be approximately 1.7 p.p.

(34) See section on *Monetary Conditions* in the article on *Portuguese economy in 2004.*

Chart 14
INTERNATIONAL ISSUES OF BONDS BY BRANCHES AND SUBSIDIARIES ABROAD OF PORTUGUESE BANKING GROUPS
Structure by original maturity



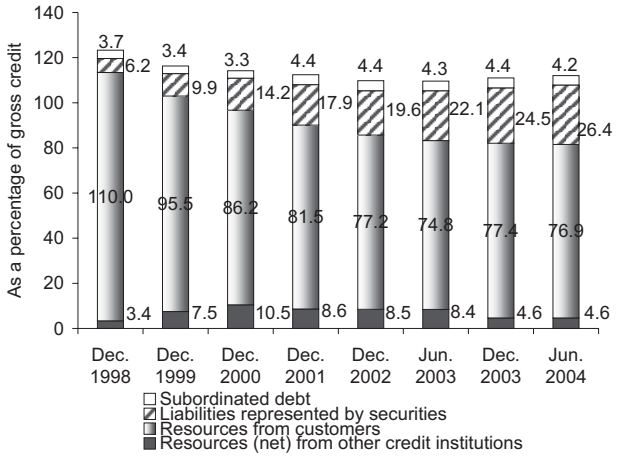
Sources: Dealogic Bondware, Bloomberg and Datastream.

held by customers, the ratio of net credit to resources from customers remained virtually unchanged in June of 2004, vis-à-vis the end of 2003 (114.7 per cent, compared with 114.6 per cent and 118.6 per cent in December and June 2003 respectively).

In the course of 2004, Portuguese banks intensified the issuance of debt securities by subsidiaries and branches abroad. Up to the end of September, the announced amount of international issues of bonds exceeded by more than 6 per cent the total issued in 2003 as a whole (when a significant recovery of this type of issues by Portuguese banks took place, benefiting from the improvement in the conditions of access to international financial markets, contrarily to the second half of 2002) (Chart 14). As a result, the share of liabilities represented by securities in the financing structure of credit granted by the banking system continued to increase (from 24.5 per cent in December to 26.4 per cent in June 2004) (Chart 15A). This path is more significant in the case of domestic institutions (increasing by approximately 2.5 p.p.) whose liabilities represented by securities accounted for 28.0 per cent of total credit financing, at the end of the first half of 2004 (Chart 15B).

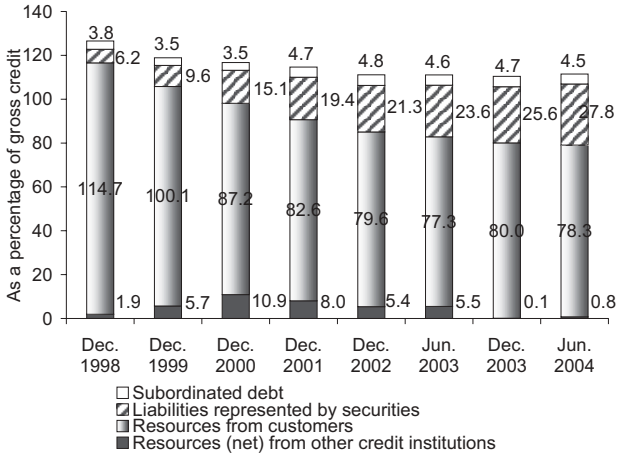
In contrast with developments in 2003 (when a significant part of issues was of bonds with maturity up to five years), it is worth noting that in the first three quarters of 2004 the weight of long-term

Chart 15A
FINANCING SOURCES OF THE BANKING SYSTEM
On a consolidated basis



Note: (Net) resources from other credit institutions include net resources from central banks

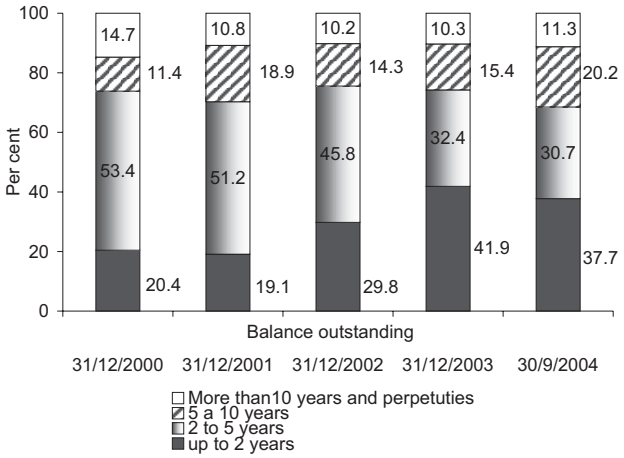
Chart 15B
FINANCING SOURCES OF THE BANKING SYSTEM – DOMESTIC INSTITUTIONS
On a consolidated basis



Note: (Net) resources from other credit institutions include net resources from central banks

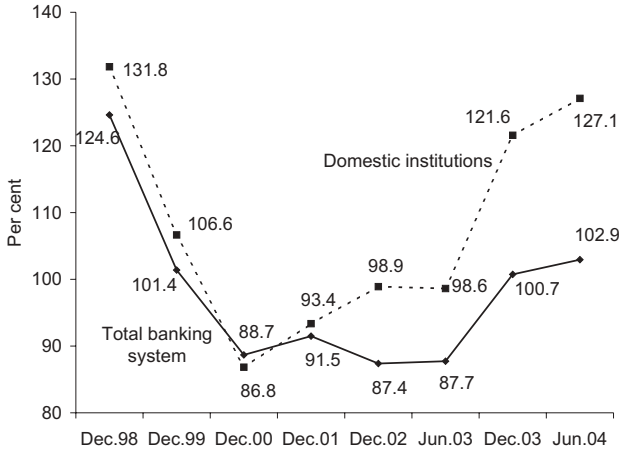
(35) Considering also the liabilities to resident customers represented by securities in the aggregate of resources from customers, the above mentioned ratio widened slightly from 118.2 per cent in December 2003 to 118.9 per cent in June 2004 (122.3 per cent in the same month of the previous year).

Chart 16
STRUCTURE BY RESIDUAL MATURITY OF BONDS ISSUED BY SUBSIDIARIES AND BRANCHES ABROAD OF PORTUGUESE BANKING GROUPS



Sources: Dealogic Bondware, Bloomberg and Datastream.

Chart 17
RATIO OF COVERAGE OF INTERBANK LIABILITIES BY HIGHLY LIQUID ASSETS
On a consolidated basis



Note: Highly liquid assets are defined as the sum of interbank assets (including assets in central banks) and securities issued by public entities (and similar entities). Interbank liabilities include liabilities in central banks and other credit institutions.

issues (over five years) on the total was approximately 57 per cent. As a result, the residual maturity structure of total outstanding amounts of these bonds changed towards a higher weight of bonds with residual maturity over two years (62 per cent at the end of the first half of 2004) (Chart 16).

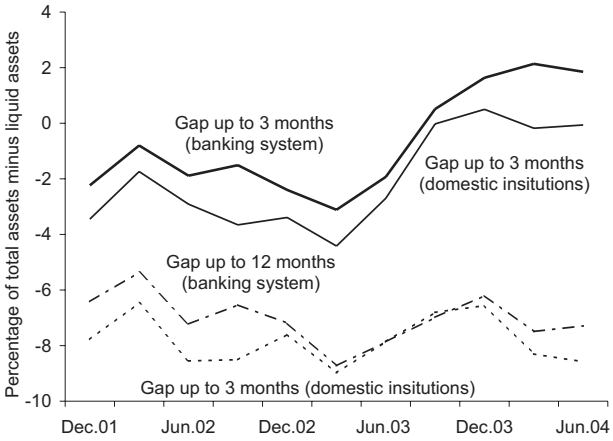
As previously mentioned, despite the significant increase in debt represented by securities chiefly taken by non-residents, the decline in net liabilities to credit institutions abroad (adjusted for the effect of the temporary operation within the scope of TARGET) allowed for the maintenance of market external debt of the Portuguese banking system virtually unchanged during the first half of 2004. Thus, there was an increase in the average maturity of market liabilities to non-residents, by means of either a decrease in interbank (net) liabilities or an increase in maturities of issues of securities.

The ratio of coverage of interbank liabilities by highly liquid assets of the banking system as a whole[36] went up to 102.9 per cent at the end of the first half of 2004, slightly above the value recorded at the end of 2003 and significantly above that observed twelve months earlier (Chart 17). The improvement in this indicator chiefly reflects the change in the structure of liabilities, as a result of the increased recourse of the banking system to the securities market instead of direct interbank financing. Also, for the subset of domestic institutions, the improvement of this indicator (chiefly against June 2003) was significant, up to 127.1 per cent in June of 2004 (close to the value recorded at the end of 2003).

In turn, liquidity gap indicators in cumulative scales of maturity indicate that the liquidity situation did not change significantly during the first six months of 2004, for both the banking system and the subgroup of domestic institutions. Compared to June 2003, these indicators denote an overall improvement, particularly apparent in the 3-month horizon (Chart 18)[37].

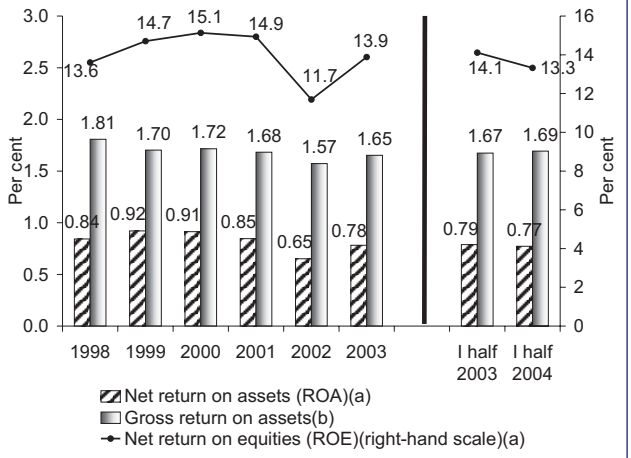
(36) The ratio of coverage of interbank liabilities by highly liquid assets is defined as the sum of interbank assets and securities issued by public issuers as a percentage of interbank liabilities (including assets and liabilities to central banks).

Chart 18
LIQUIDITY GAP IN CUMULATIVE SCALES OF MATURITY
On a consolidated basis



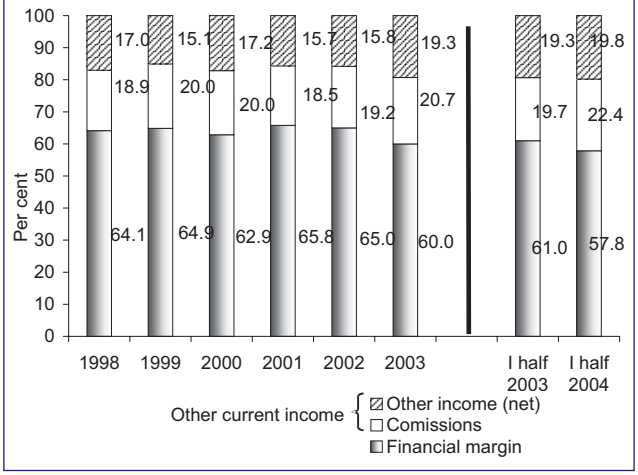
Note: Liquidity gap defined as (liquid assets – volatile liabilities)/(assets – liquid assets) in each cumulative scale of residual maturity.

Chart 19
PROFITABILITY RATIOS
On a consolidated basis



Notes:
(a) Results before minority interest have been considered in the calculation of return on assets and on equity.
(b) Ratio of the overall gross income to average assets. Ratios for intra-annual periods are annualised so as to facilitate comparisons.

Chart 20
COMPOSITION OF GROSS INCOME
On a consolidated basis



4. PROFITABILITY

In the first half of 2004, profitability ratios of the Portuguese banking system (on a consolidated basis) declined slightly from the same period in the previous year (Chart 19). Although net results have increased slightly in the half-year (0.7 per cent), other profitability indicators decreased when measured in terms of both total assets and equity (Tables 5 and 6). Thus, net return on assets (ROA) maintained a slightly downward trend in the first six months of the present year, chiefly reflecting a reduction in extraordinary gains related to capital gains from fixed assets (which recorded abnormally high amounts in 2003). In fact, the decrease in extraordinary gains has contributed with 8 b,p. to the decline in ROA (i.e., excluding this item, ROA would have followed an upward trend in the first half of 2004). Due to ROA developments and a reduction in leverage, as compared to the same period of the previous year, net return on equity (ROE) before minority interests declined to 13.3 per cent (after 13.9 and 14.1 per cent in total year and in the same period of 2003 respec-

(37) Liquidity gap is defined as the ratio of the difference between liquid assets (LA) and volatile liabilities (*VL*) to the difference between total assets (A) and liquid assets for each cumulative maturity scale, i.e. $LG = \frac{LA - VL}{A - LA}$.

Net assets are defined as the sum of cash, claims on central banks and credit institutions, debt securities and variable-income securities eligible for monetary policy operations, irrevocable commitments and derivatives. Volatile liabilities correspond to liabilities vis-à-vis central banks and credit institutions, liabilities represented by debt securities with residual maturity up to the maturity of the scale, commitments to a third party and derivatives. Therefore, these aggregates exclude the items related to customers (credit and deposits).

Table 5

PROFIT AND LOSS ACCOUNT

On a consolidated basis

	EUR million				Year-on-year rate of change			
	2001	2002	2003	2004	2001	2002	2003	2004
	1st half	1st half	1st half	1st half	1st half	1st half	1st half	1st half
1. Interest income	8 666	7 382	7 448	7 010	20.5	-14.8	0.9	-5.9
2. Interest expense	5 727	4 459	4 494	4 094	25.7	-22.1	0.8	-8.9
3. Net interest income (1-2)	**2 939**	**2 923**	**2 954**	**2 916**	**11.6**	**-0.5**	**1.1**	**-1.3**
4. Income from securities	152	153	126	134	22.4	0.3	-17.5	6.6
5. Net commissions	802	857	953	1 127	-8.6	6.8	11.3	18.3
6. Income from financial operations	158	285	259	221	-58.7	80.4	-9.3	-14.7
7. Income from affiliated companies and branches exc. from consolidation (net)[(a)]	107	103	182	168	-5.0	-3.5	77.1	-7.7
8. Other operational profits (net)	350	341	370	474	111.8	-2.5	8.4	28.4
9. Other current income (4+5+6+7+8)	**1 569**	**1 738**	**1 889**	**2 125**	**-5.6**	**10.8**	**8.7**	**12.5**
10. Gross income (3+9)	**4 508**	**4 662**	**4 844**	**5 041**	**4.9**	**3.4**	**3.9**	**4.1**
11. Staff costs	1 358	1 383	1 463	1 473	-1.5	1.8	5.8	0.6
12. Other administrative costs	856	928	966	1 010	7.2	8.5	4.1	4.5
13. Administrative costs (11+12)	**2 214**	**2 311**	**2 430**	**2 482**	**1.7**	**4.4**	**5.1**	**2.2**
14. Overall gross income (10-13)	**2 295**	**2 351**	**2 414**	**2 559**	**8.3**	**2.4**	**2.7**	**6.0**
15. Extraordinary gains	8	124	37	-74	-94.2	1 453.4	-70.4	-303.1
16. Depreciation for the year	297	300	326	313	-1.7	0.9	8.7	-4.1
17. Net provisions	492	747	779	809	-22.9	51.6	4.3	3.8
18. Income before taxes and minority interests (14+15-16-17)	**1 513**	**1 428**	**1 346**	**1 363**	**15.1**	**-5.6**	**-5.7**	**1.3**
19. Taxes on profit for the year	281	237	209	196	1.8	-15.5	-11.9	-6.4
20. Income before minority interests[(b)] (18-19)	**1 232**	**1 190**	**1 137**	**1 168**	**18.6**	**-3.4**	**-4.5**	**2.7**
21. Minority interests (net)	224	179	183	207	-37.5	-19.9	2.1	13.3
22. Profit/loss for the year (20-21)	**1 008**	**1 011**	**954**	**961**	**48.2**	**0.3**	**-5.7**	**0.7**
Memo:								
Year-on-year rate of change of the average assets					13.4	7.2	3.5	4.8

Notes:

(a) The item "income from affiliated companies and subsidiaries excludes from consolidation" registers income generated by affiliated companies excluded from the consolidation of the banking groups considered, which is attributable to the group according to the percentage of shares held in these companies. Affiliated companies are companies whose management is under a significant influence, assuming that this situations occurs when the shares held correspond to at least 20 per cent of the voting rights. In turn, subsidiaries excluded from the consolidation are those whose management is under a relevant influence, carriers on activities which are incompatible with the objective of consolidated accounts, namely commercial, industrial, agricultural and insurance corporations.

(b) Income before minority interests enables a more accurate measure of income generated by all consolidated assets and, therefore, it should be used in order to compare income with profitability on an individual basis.

Table 6

PROFIT AND LOSS ACCOUNT

On a consolidated basis

As a percentage of average assets

	2000	2001	2002	2003	2003 1st half	2004 1st half
1. Interest income	6.17	6.49	5.35	4.92	5.16	4.64
2. Interest expense	3.96	4.25	3.23	2.92	3.12	2.71
3. Net interest income (1-2)	2.21	2.24	2.12	2.00	2.05	1.93
4. Income from securities	0.07	0.08	0.07	0.05	0.09	0.09
5. Net commissions	0.70	0.63	0.63	0.69	0.66	0.75
6. Income from financial operations	0.26	0.16	0.16	0.18	0.18	0.15
7. Income from affiliated companies and branches exc. from consolidation (net)[(a)]	0.10	0.06	0.04	0.13	0.13	0.11
8. Other operational profits (net)	0.17	0.24	0.25	0.29	0.26	0.31
9. Other current income (4+5+6+7+8)	1.30	1.17	1.14	1.34	1.31	1.41
10. Gross income (3+9)	3.51	3.41	3.26	3.34	3.36	3.34
11. Staff costs	1.11	1.03	1.00	1.00	1.01	0.97
12. Other administrative costs	0.69	0.70	0.69	0.69	0.67	0.67
13. Administrative costs (11+12)	1.79	1.73	1.69	1.69	1.68	1.64
14. Overall gross income (10-13)	1.72	1.68	1.57	1.65	1.67	1.69
15. Extraordinary gains	0.27	0.01	0.06	0.06	0.03	-0.05
16. Depreciation for the year	0.25	0.24	0.24	0.23	0.23	0.21
17. Net provisions	0.63	0.45	0.61	0.57	0.54	0.54
18. Income before taxes and minority interests (14+15-16-17)	1.11	1.01	0.78	0.91	0.93	0.90
19. Taxes on profit for the year	0.19	0.16	0.13	0.13	0.14	0.13
20. Income before minority interests[(b)] (18-19)	0.91	0.85	0.65	0.78	0.79	0.77
21. Minority interests (net)	0.21	0.15	0.12	0.13	0.13	0.14
22. Profit/loss for the year (20-21)	0.70	0.69	0.53	0.65	0.66	0.64
Average assets (€ millions)	237 223	264 753	280 795	294 640	288 435	302 272

Notes:

(a) The item "income from affiliated companies and subsidiaries excludes from consolidation" registers income generated by affiliated companies excluded from the consolidation of the banking groups considered, which is attributable to the group according to the percentage of shares held in these companies. Affiliated companies are companies whose management is under a significant influence, assuming that this situations occurs when the shares held correspond to at least 20 per cent of the voting rights. In turn, subsidiaries excluded from the consolidation are those whose management is under a relevant influence, carriers on activities which are incompatible with the objective of consolidated accounts, namely commercial, industrial, agricultural and insurance corporations.

(b) Income before minority interests enables a more accurate measure of income generated by all consolidated assets and, therefore, it should be used in order to compare income with profitability on an individual basis.

tively)[(38)] (see box "*Determining factors behind profitability in the Portuguese banking system*").

The interest margin maintained a downward trend in the first half of 2004, accounting for less than 58 per cent of total gross income (Chart 20). The low level of interest rates has been reflected in the progressive narrowing of the differential between lending rates and deposit rates[(39)] (Table 7). Conversely, net commissions (largely related to transactions on traditional financial intermediation instruments) have been increased significantly (thus offsetting the narrowing of the interest margin).

(38) Excluding extraordinary gains, ROE would also have maintained an upward trend in the first half of 2004.

(39) See section on *Monetary Conditions* in the article on *Portuguese economy in 2004*.

Table 7

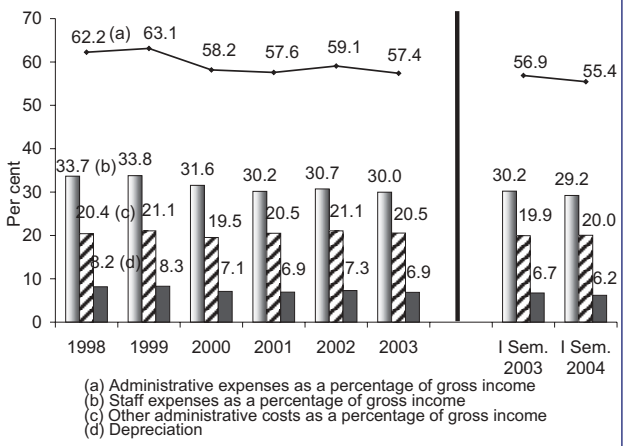
IMPLICIT AVERAGE RATES OF RETURN[a] OF THE MAIN BALANCE SHEET ITEMS

Per cent

	1999	2000	2000	2001	2002	2003	2003	2004
							1st half	
Interbank assets[b]	3.48	3.60	4.00	4.09	2.79	2.23	2.47	1.91
Non-interbank assets	5.43	5.42	5.76	5.91	4.72	4.43	4.65	4.03
Credit (gross))	5.85	5.71	6.12	6.26	4.94	4.60	4.84	4.19
Securities(gross)	4.59	4.96	5.14	5.05	4.08	3.96	4.11	3.62
Other assets	0.91	0.84	0.93	1.29	1.57	1.56	1.52	1.26
Interest-bearing assets	4.78	4.85	5.23	5.44	4.24	3.88	4.12	3.51
Interbank liabilities	3.70	3.91	4.34	4.42	3.00	2.50	2.65	2.13
Non-interbank liabilities	2.40	2.59	2.86	3.14	2.41	2.25	2.34	2.06
Deposits	2.21	2.28	2.54	2.81	2.10	1.80	1.97	1.56
Demand deposits	0.85	1.00	1.08	1.19	0.83	0.63	0.74	0.51
Time deposits	2.96	3.02	3.40	3.75	2.85	2.47	2.69	2.15
Other	1.96	1.40	1.41	1.54	1.44	2.03	2.37	2.15
Securities	3.50	4.18	4.39	4.12	3.17	3.51	3.14	3.55
Equity and subordinated liabilities	4.67	5.23	5.56	5.48	4.53	4.38	4.35	4.16
Other liabilities	1.55	1.79	1.83	2.12	1.94	2.27	2.38	1.58
Interest-bearing liabilities	2.90	3.08	3.41	3.59	2.61	2.34	2.45	2.09
Differentials (p.p.):								
Interest-bearing assets-liabilities	1.89	1.77	1.82	1.86	1.63	1.54	1.68	1.42
Non-interbank assets - non-interbank liabilities	3.03	2.84	2.90	2.77	2.31	2.18	2.31	1.97
Credit-deposits	3.65	3.44	3.58	3.45	2.84	2.81	2.87	2.64
Interbank assets - interbank liabilities	-0.23	-0.31	-0.34	-0.33	-0.21	-0.27	-0.18	-0.22

Notes:
(a) Implicit average rates of return calculated as the ratio of annual interest flows to the average annual stock of the corresponding item in the balance sheet.
(b) Includes: cash, demand deposits with the Banco de Portugal, liquid assets held in credit institutions and other claims on institutions.

Chart 21
RATIO OF OPERATIONAL COSTS (ADMINISTRATIVE COSTS AND DEPRECIATION) TO GROSS INCOME
On a consolidated basis



(a) Administrative expenses as a percentage of gross income
(b) Staff expenses as a percentage of gross income
(c) Other administrative costs as a percentage of gross income
(d) Depreciation

Therefore, in the first six months of 2004, the negative contribution of the interest margin to total change in ROA was partly offset by the other current income that increased again significantly (by 12.5 per cent), albeit less than in 2003. Behind this path, affecting favourably, there were net commissions, other operational profits (net) and income from securities (Tables 5 and 6). Opposite contributions were given by the income from financial operations (significantly influenced by losses associated with the foreign spot exchange position) and from affiliated companies and branches excluded from consolidation. In turn, administrative costs grew moderately, stress being laid on the stability of labour costs . As a result of these developments, the ratio of administrative costs to gross income narrowed by 1 p.p. from the same period in the previous year to approximately 49 per cent (Chart 21).

It is worth noting that, in spite of the slightly downward trend denoted by profitability indicators of the Portuguese banking system vis-à-vis 2003, there has been some improvement in terms of financial stability (see box *"Determining factors behind profitability in the Portuguese banking system"*), given that the decline observed has reflected a decrease in asset risk (and also in leverage, in the case of ROE). Another positive aspect in developments of system's profitability s relates to the reduction of dispersion in empirical distributions of ROA and ROE of the institutions included in the banking system[40]. Together with the decrease in the average value of the distributions of both indicators, there was a higher concentration around this average in institutions with an important weight on the system, in the period between the end of 2000 and the first half of 2004, (See box *"Recent developments in profitability and solvency of the Portuguese banking system"*).

5. SOLVENCY

In June 2004, the overall adequacy ratio of own funds of the banking system, on a consolidated basis, stood at 10.3 per cent, 0.3 p.p. more than at the end of 2003 (0.5 p.p. above the level recorded one year earlier) (Table 8). The improvement in the capital adequacy ratio continued to reflect higher growth of own funds than that recorded by the own funds requirements (9.3 and 4.2 per cent respectively). A similar trend is observed in the case of base own funds: the adequacy ratio stood at 7.3 per cent at the end of June (7.2 and 7.1 per cent at the end of June and December 2003 respectively). The sustained upward trend of the solvency ratio of the Portuguese banking system observed since 2000 was thus continued. This increase, in average terms, was chiefly the result of the improvement in the solvency of institutions with lower ratios and weighing significantly on the system's own funds. In effect, since 2000, the individual distribution[41] of the solvency ratios has shifted both towards a higher average value and to a less marked concentration of institutions at levels close to the regulatory minimum of 8 per cent (see box *"Recent developments in profitability and solvency of the Portuguese banking system"*).

6. CONCLUSION

Developments in the Portuguese banking system in the first half of 2004 were broadly positive. The slight decline in profitability was the result of

(40) Empirical distribution obtained by using a gaussian kernel function, which weighs institutions based on the respective assets, in the case of ROA, and on the respective equity, in the case of ROE.

(41) Empirical distribution obtained by the use of a gaussian kernel function, which weighs institutions based on the respective equity.

Table 8

CAPITAL ADEQUACY

On a consolidated basis

	EUR million							Year-on-year rate of change)					
	1998	1999	2000	2001	2002	2003	2004	1999	2000	2001	2002	2003	2004
	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Jun.	Dec.	Dec.	Dec.	Dec.	Dec.	Jun.
1. Own funds													
1.1. Base own funds	9 714.8	11 025.9	12 991.0	13 237.7	13 351.2	13 965.8	14 806.1	13.5	17.8	1.9	0.9	4.6	6.5
1.2. Complementary	3 834.1	4 268.9	5 026.3	7 030.1	7 808.6	8 313.3	8 418.5	11.3	17.7	39.9	11.1	6.5	5.9
1.3. Deductions	821.1	512.7	2 272.6	2 998.8	2 829.1	2 616.6	2 466.3	-37.6	343.3	32.0	-5.7	-7.5	-13.8
1.4. Supplementary own funds.	12.7	27.3	0.4	1.2	0.0	1.6	1.4	115.8	-98.6	225.0	-	-	2109.0
Total of own funds	12 740.4	14 809.5	15 745.1	17 270.1	18 330.7	19 664.1	20 759.7	16.2	6.3	9.7	6.1	7.3	9.3
2. Own funds requirement													
2.1. Credit risks	8 747.5	10 651.8	13 184.5	14 094.3	14 687.0	15 304.5	15 688.6	21.8	23.8	6.9	4.2	4.2	3.7
2.2. Position risks	234.3	180.6	284.2	289.1	219.6	365.5	386.1	-22.9	57.3	1.7	-24.0	66.4	47.6
2.3. Settlement and counterparty risks	37.5	47.8	30.7	40.8	41.3	45.3	51.3	27.3	-35.7	32.9	1.0	9.7	0.1
2.4. Foreign exchange risks	134.5	79.2	134.9	87.3	87.2	86.5	36.3	-41.1	70.4	-35.3	-0.1	-0.8	-49.2
2.5. Other requirements	0.1	0.0	20.7	1.5	0.1	0.1	0.9	-	-	-92.8	-92.7	-28.8	2001.4
Total own funds requirements	9 153.9	10 959.4	13 655.1	14 513.1	15 035.1	15 801.8	16 163.1	19.7	24.6	6.3	3.6	5.1	4.2
3. Ratios								Year-on-year change (percentage points)					
3.1. Own funds/total requirements	139.2	135.1	115.3	119.0	121.9	124.4	128.4	-4.0	-19.8	3.7	2.9	2.5	6.0
3.2. Own funds/(total requirements x 12.5)	11.1	10.8	9.2	9.5	9.8	10.0	10.3	-0.3	-1.6	0.3	0.2	0.2	0.5
3.3. Base own funds/(total requirements x 12.5)	8.5	8.0	7.6	7.3	7.1	7.1	7.3	-0.4	-0.4	-0.3	-0.2	0.0	0.2

Note: The figures in this table correspond only to the institutions supervised by the Banco de Portugal. Therefore, the branches of credit institutions having their head office in other European Union Countries are excluded.

a fall in extraordinary gains, as banks were again able to offset the decrease in the interest margin by the strong growth of other current income, in particular commissions. These developments occurred against the background of a further increase in the solvency ratio, consolidating the trend evinced since 2000.

Even though credit to customers has expanded markedly, Portuguese banks were able to stabilise their market debt to non-residents, in parallel with a widening of the respective average maturity. This was the result of the fact that the reduction in net liabilities to credit institutions abroad was offset by the issuance of securities in international financial markets with longer maturities. The resulting improvement in liquidity is particularly relevant, since it strengthens the resilience of Portuguese banks to unfavourable shocks in the conditions of access to international financial markets.

Portuguese banks have revealed good adjustment capacity to a system of low interest rates, while the effects of the low stage of the business cycle on the financial situation have been relatively mitigated, as evinced by the historically low level of delinquency credit. However, taking into account the high levels of indebtedness of the non-financial private sector and the prevalence of variable interest rates in the credit contracts in Portugal, it is vital that banks maintain appropriate risk management permitting them to consolidate the positive results obtained thus far.

Box 1
DETERMINING FACTORS BEHIND PROFITABILITY OF THE PORTUGUESE BANKING SYSTEM

Two indicators are generally utilised in order to assess the profitability of the banking system (as an essential element for the analysis of its stability): return on assets (ROA), defined (in the case of the Portuguese banking system) as the ratio of results (net of taxes) before minority interests to total average assets; and return on equity (ROE), which corresponds to the previous ratio, but adjusted for the level of utilisation of equity (i.e., by the leverage, defined as the ratio of total assets to capital). Changes in ROE reflect developments at the level of results, but also of other factors, such as the higher or lower level of leverage (affecting only ROE) or changes in the asset risk level (affecting both ROE and ROA). An increase in the indicators of the system's profitability may, in fact, not reflect an improvement in its strength, particularly in the case where it results from a rise in the asset's average risk.

Therefore, for the period between 2000 and the first half of 2004, developments in ROE of the Portuguese banking system were broken down into the abovementioned factors (risk change and leverage), using for the purpose an approach initially developed by the Bank of England(1). ROE may, in effect, be broken down into four ratios:

$$ROE = \left(\frac{\text{Net results before minority interest}}{\text{Gross income}}\right) \times \left(\frac{\text{Gross income}}{\text{Risk–adjusted assets}}\right) \times \left(\frac{\text{Risk–adjusted assets}}{\text{Total assets}}\right) \times \left(\frac{\text{Total assets}}{\text{Equity}}\right)$$

Note that the first ratio may be broken down into the return component deriving from current activity and other income (including extraordinary gains). The former could be expressed in terms of the efficiency ratio, thus isolating the contribution of this additional factor to total system's profitability(2). In the same vein, the fourth ratio mentioned (leverage) may be expressed in terms of capital requirements, thus isolating the institutional character of this factor(3). In the approach followed in this note, the utilisation of these alternatives was not deemed justified, in view of the relatively short period under analysis.

Chart 1 presents the breakdown of the change in ROE into its determining factors in the period from 2000 to the first half of 2004. These factors are described in Table 1, that presents also the expected impact of an increase in each one of them on the financial stability of the system. In order to complete the analysis, Chart 1 includes also a comparison between the determining factors behind the change in ROE in the first half of 2004 and in the same period of the previous year.

The chart shows that, despite the slightly downward trend seen in return on equity after 2002 (the year that witnessed an extraordinary fall in banks' profitability in line with the international financial markets) the trend of ROE has in fact reflected an improvement in terms of financial stability. Indeed, in 2003, the increase in ROE was due to the positive contribution of total margin and risk-adjusted return (whose impact on financial stability is also positive); both the asset risk and leverage made a negative contribution (albeit small) to the change in return in that year, although with a positive impact on the financial stability of the system.

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(1) Bank of England, Financial Stability Review, December 2003 ("Box7: What drives banks' ROE?"). Subsequently, this approach was also used by the Sveriges Riksbank, in Financial Stability Report 1/2004 ("What affects return on equity?") and by the Banco de España, in Informe de Estabilidad Financiera nº6 ("Recuadro II.1 - Factores determinantes de la evolución del ROE de las entidades de depósito espanõlas"). It should be noted that, in the case of the two first central banks , ROE is defined in terms of results before taxes.

(2) A similar breakdown was followed in the approach by the Banco de España. In fact, the ratio $\left(\frac{\text{Net results before minority interests}}{\text{Gross income}}\right)$ may be broken down into $\left(\frac{\text{Overall gross income + Other net income}}{\text{Overall gross income}}\right) \times \left(\frac{\text{Gross income – Administrative costs}}{\text{Gross income}}\right)$ This latter ratio may be expressed in terms of efficiency ratio as (1-RE) where $RE = \frac{\text{Administrative costs}}{\text{Gross income}}$. The efficiency ratio may be defined in terms of operational costs (equivalent to the sum of administrative costs and depreciation) adjusting the overall gross income and other net income , as adequate.

(3) This breakdown was also used in the approach of the Banco de España, which, instead of the abovementioned fourth factor, considered $\left(\frac{\text{Total assets}}{\text{Tier 1 + Tier 2}}\right) + \left(\frac{\text{Tier 1 + Tier 2}}{\text{Equity}}\right)$ so defining the leverage in terms of regulatory capital and of the relationship of the latter with the accounting capital.

Table 1

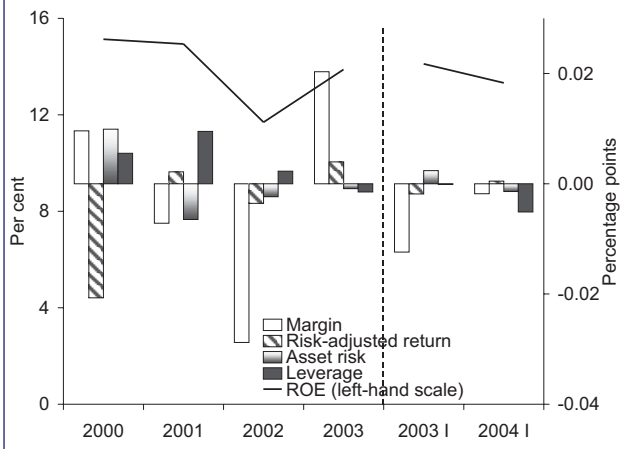
Ratio	Description	Impact
Margin[(a)]	Measure the total margin of the activity	Positive
Risk-adjusted return on assets	Measures efficiency on a risk adjusted basis	Positive
Asset risk[(b)]	Measure propensity to risk	Negative
Leverage	Measures the intensity of the utilisation of equity	Negative

Notes:

(a) Note that this margin does not correspond to the financial margin usually mentioned in banking system analyses (regarding only the interest margin) but rather to the surplus of the whole activity of the system, considering not only operational costs but also the costs associated with doubtful credit (reflected by net provisions).

(b) Risk-adjusted assets correspond to the capital requirements of the solvency ratio of the system (see table 8 in the main text).

Chart 1
RETURN ON EQUITY
Breakdown of contributions
to year-on-year changes



In the first half of 2004, return on equity declined slightly compared to 2003 as a whole and to the same half of the previous year. However, in terms of financial stability, there was a clear improvement from the same half of 2003, since the highest level of ROE then observed was associated with higher asset risk and with a leverage level above that seen in the first six months of 2004. In the first half of 2004, in spite of a negative contribution of total margin to the change in ROE (which had also a negative impact on financial stability), the fall in ROE was also due to the decrease in asset risk and to a lower leverage level. Both factors have thus contributed to an improvement in terms of financial stability.

Box 2

RECENT DEVELOPMENTS IN PROFITABILITY AND SOLVENCY OF THE PORTUGUESE BANKING SYSTEM

Profitability and solvency indicators of the Portuguese banking system, on a consolidated basis, have had broadly positive developments in recent years. In terms of profitability, in spite of the slightly downward trend seen since 2000, the relative position of the Portuguese banking system has remained relatively favourable within the European context, in parallel with a decline in the dispersion of the indicator among the different institutions integrating the system. Turning to solvency, the gradual increase in the capital adequacy ratio (since 2000) has reflected increases in this indicator for the institutions with a higher share in the Portuguese banking system and with ratios close to the minimum required. Despite the progress attained, this indicator is still below the level of the corresponding indicator in most European countries.

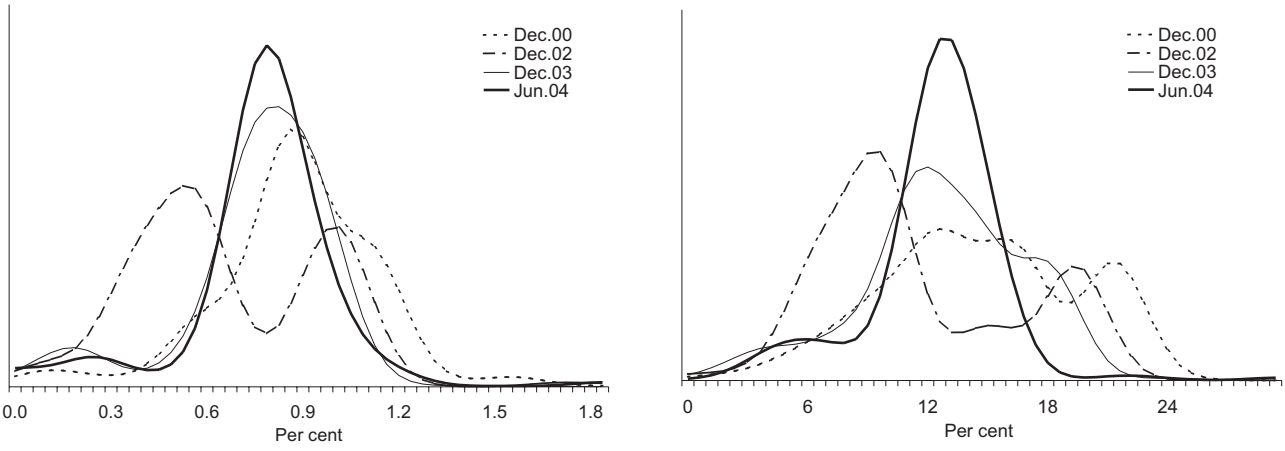
After 2002, when both ROA (return on assets) and ROE (return on equity) reached their troughs, both indicators recovered somewhat. However, there is a slight downward trend since 2000 (even excluding 2002). In spite of this trend — that chiefly reflects a decline in the interest margin, against the background of low interest rates and growing competitiveness in the sector, partly offset by other current income (such as commissions) and by significant gains in terms of cost efficiency — the trend observed may be considered broadly positive, since, in that period, the differences between institutions with an important weight on the system have diminished. The trend of the empirical distribution of ROA and ROE, estimated for the institutions integrating the Portuguese banking system (Chart 1), point in that direction.

The chart shows that the system's profitability indicators saw a slight reduction in the average value of the distribution functions of ROE and ROA between 2000 and the first half of 2004 (reflected in a shift to the left of the curves). Simultaneously, the concentration of institutions with an important weight on the Portuguese banking system around the average increased. In particular, in 2002 (when both indicators reached their lower average), deviations increased significantly, even though different behaviours in two groups of institutions with relevant weight were shown: in one group profitability declined, whereas the other recorded an opposite trend.

Turning to developments in terms of solvency, the increase in the capital adequacy ratio seems to have been chiefly the result of an improvement in the solvency of institutions (with relevant weight on the system in terms of equity) with lower ratios. Chart 2 shows that the empirical distributions of the solvency ratios present higher averages (i.e., shifting to the right) between 2000 and the first half of 2004. In the course of the period under re-

Chart 1

EMPIRICAL BREAKDOWN[(a)] OF PROFITABILITY RATIOS

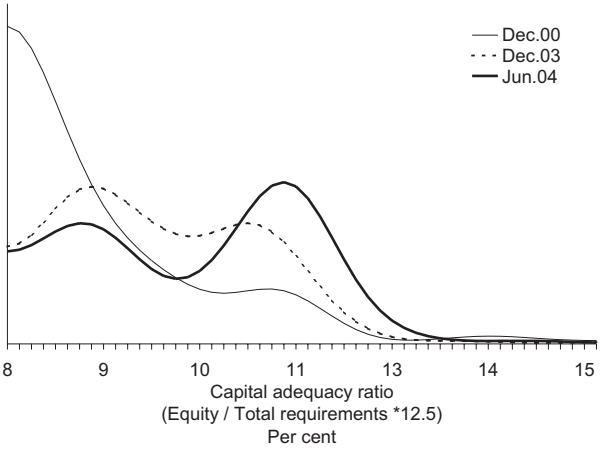


Note:

(a) Empirical breakdown obtained from non-parametric methods, using a gaussian kernel function that weighs the institutions by their assets, in the case of ROA, and by their equity, in the case of ROE.

Chart 2

EMPIRICAL DISTRIBUTION OF THE CAPITAL ADEQUACY RATIO



view, there was a gradual decline in the number of relevant institutions whose capital adequacy ratio presents levels close to the minimum 8 per cent required[2].

(1) The distributions presented here were obtained from a non-parametric estimation, using a kernel function type gaussian. The kernel estimator of the density function at point x is defined as $f_h(x) = \frac{1}{nh}\sum_{i=1}^{n} k\left(\frac{x_i - x}{h}\right)$ *where k(...) is the kernel function and h is a scale parameter on which the smoothing of the distributions depends. In the case of a gaussian kernel function, K(u) is equivalent to* $\frac{1}{\sqrt{2\pi}}\exp\left(-\frac{1}{2}u^2\right)$ *Institutions were weighed by the respective assets, in the case of ROA, and by the respective equity, in the case of ROE. Note that the format of the kernel estimates format depends on the scale parameter (h). Literature suggests some alternative methods to determine this parameter. In this note, use was made of the following selection criteria:* $h = \frac{0.9 \times m}{n^{1/5}}$, *where* $m = \min\left(\sqrt{variance_x}, \frac{interquantile\ scope_x}{1.349}\right)$ *In order to legitimise inter-temporal comparisons of the distributions, the parameter associated with each indicator was maintained constant for the different periods under analysis, at the maximum level determined by the criteria indicated for such periods.*

(2) The information presented in note no. 1 is still valid for the solvency indicator; however, in this case, institutions were weighed by the respective equity.

MAIN DEVELOPMENTS IN THE PORTUGUESE FOREIGN EXCHANGE AND DERIVATIVES MARKET IN 2004

1. INTRODUCTION

As usual, the Annual Survey of Banco de Portugal covered data on the turnover and notional amounts outstanding, regarding the activity in the foreign exchange and derivatives markets. Data collected on turnover comprised foreign exchange market instruments and interest rate derivatives for a single currency(1). Data on amounts outstanding focused on a wider range of market risk categories including, apart from foreign exchange and interest rate markets, equity, commodity, credit and "other" derivatives. Information on turnover covered all transactions carried out in April 2004, while information on amounts outstanding focused on nominal or notional amounts of all operations carried out but not yet settled at the end of March 2004.

Similarly to previous surveys, the universe of surveyed entities includes all banking institutions resident in Portugal. However, some of these institutions did not participate in the 2004 survey given that they did not carry out any activity in any of the above-mentioned market risk categories. Therefore, a total of 44 banks participated in the 2004 survey, i.e. the same number of banks that participated in the 2003 survey. Over the years, the national survey model has been adapting to the triennial central bank survey model, coordinated by BIS, and incorporating changes introduced in the latter. In line with this, due to changes implemented by BIS in the triennial survey, which was conducted again this year(2), the national survey underwent some adjustments, namely in order to clarify the definition of transactions between institutions belonging to the same group and to improve information on systems through which transactions are conducted. Transactions between institutions belonging to the same financial group now include only those carried out by reporting dealers with their branches and subsidiaries and those carried out between affiliated firms belonging to the group; thus excluding inter-desk deals and inter-offices deals of an institution. On the other hand, a new classification identifying the use of electronic (specific for dealers and customers) and non-electronic trading systems was introduced.

The overall analysis of the results of the 2004 survey should take into account that developments detected depend strongly on developments in the US currency between March/April 2003 and March/April 2004. In a context in which amounts are expressed in US dollars and reference currencies are often different, the broadly based depreciation of the US dollar in the period under review widened the expansion and dampened the reduction of total aggregates of transactions and amounts outstanding.

This study aims at identifying changes in the size and structure of the foreign exchange and derivatives markets in Portugal, by analysing the turnover and amounts outstanding both in over-the-counter (OTC) (section 2) and in organised markets (section 3). The last section aims at analysing developments in the degree of concentration in the several market risk categories covered by the survey, both for transactions and amounts outstanding.

(1) Derivatives involving exposure to interest rate risk in more than one currency were classified as foreign exchange derivatives.

(2) A box at the end of this article presents the analysis of the preliminary results for the triennial survey coordinated by BIS.

The most significant developments between 2003 and 2004 were the following:

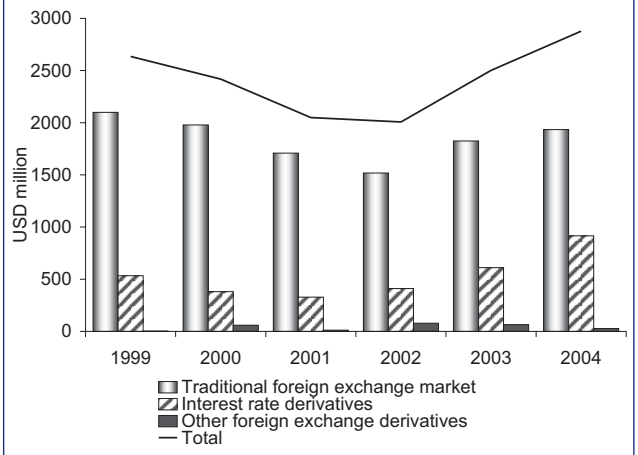
- increase in the overall turnover in the OTC market mainly due to the significant rise in interest rate derivative transactions;
- strong expansion of amounts outstanding in all market risk segments (and for the first time, equity and equity indices derivatives recorded a non-negligible share);
- continuation of the strong development in the interest rate swaps segment and extraordinary growth of interest rate options;
- maintenance of the overall upward trend in the share of transactions with financial institutions and, at the same time, strengthening of the role played by non-resident counterparties located in the euro area;
- strengthening of the predominance of the euro in most market segments and a decrease in the weight of the US dollar on traditional foreign exchange market transactions;
- increase of the activity in high yielding currencies, as an alternative investment in an overall environment of low interest rates, determining the increase of the weight of transactions in pounds sterling and Australian dollars on total foreign exchange turnover;
- significant increase in the use of electronic trading systems, particularly in the case of forex swaps;
- recovery of the activity in organised markets, after the fall recorded in 2003;
- maintenance of a high degree of concentration in OTC and organised markets, in terms of both transactions and amounts outstanding.

2. OTC MARKET

2.1. Turnover[3]

The annual survey of Banco de Portugal on activity in foreign exchange and derivatives market revealed an increase in the overall turnover in the OTC market - including traditional instruments of the foreign exchange market, other foreign exchange derivatives and single-currency interest rate derivatives. In April 2004, the average daily turnover, at current exchange rates, stood at USD 2,877 million, increasing by 15%[4] vis-à-vis April 2003 (Table 1). However, excluding the impact of exchange rate fluctuations, the increase in turnover is reduced to 7% (compared with a growth of 12%, at constant exchange rates, in 2003).

Chart 1
OTC MARKET
Average daily turnover



The increase in turnover (for the second consecutive year) did not enable a total recovery of the falls recorded between 1998 and 2002, and is still well below the level of the April 1998 survey, i.e. USD 5,434 billion. The expansion of the OTC market activity was mainly due to the significant rise in interest rate derivative transactions, which have revealed a quick expansionary trend since 2001. Albeit positive, the contribution of traditional instruments of the foreign exchange market[5] to the growth of overall turnover of the OTC market was much lower than that recorded by interest rate derivatives. On the other hand, non-traditional foreign exchange derivatives[6] continued to contrib-

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

(4) Unless otherwise mentioned, the amounts and percentages refer to April 2004 and inter-temporal comparisons to the period from April 2003 to April 2004, calculated at current exchange rates, based on values expressed in US dollars.

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

(6) Non-traditional foreign exchange derivatives comprise currency swaps and foreign exchange options.

Table 1

OTC MARKET

Average daily turnover

USD million and as a percentage of the total

	Total	Traditional foreign exchange market	%	Other foreign exchange derivatives	%	Interest rate derivatives	%
1999	2635	2099	80	3	0	533	20
2000	2418	1978	82	59	2	381	16
2001	2049	1709	83	12	1	328	16
2002	2007	1518	76	78	4	411	20
2003	2501	1825	73	65	3	611	24
2004	2877	1934	67	27	1	916	32
Change(%):							
2002/2003	24.6	20.2		-16.7		48.7	
2003/2004	15.0	6.0		-58.5		49.9	

ute negatively to growth, pointing to the worsening of the downward trend of turnover (Chart 1).

As a result of these movements, interest rate derivatives increase their share in the OTC market in contrast to the decrease in the shares of the traditional foreign exchange instruments and non-traditional foreign exchange derivatives (Table 1). Despite the strengthening of the position of interest rate derivatives (to 32%), the traditional foreign exchange market continues to be the major segment (with 67%). The share of non-traditional foreign exchange derivatives, whose importance was already low, declined to 1%.

Traditional foreign exchange market

According to the results of the April 2004 survey, the average daily turnover in the traditional foreign exchange market, at current exchange rates, increased by 6%, standing at USD 1,934 million. Despite this increase there was a significant deceleration in the pace of growth of turnover, following the 20% rise in 2003. At current exchange rates, turnover contracted slightly, by 0.3%, compared with a rise of 11% in 2003.

However, the relative stability of total turnover masks different developments by foreign exchange ***type of instrument***. In effect, among traditional foreign exchange instruments only turnover in forex swaps increased (Table 2). There was a decrease in turnover in both spot operations and outright forwards, more markedly in the latter case.

Following the somewhat significant recovery observed in the previous two years, the 8% decrease in turnover in spot operations might point to a stabilising trend of turnover in this market segment. On the other hand, the 20% fall in turnover in outright forwards may point to their increasingly lower utilisation, which had been evidenced in all surveys since 1998 with the exception of 2003. In contrast to these developments, the strong recovery of forex swaps turnover observed in 2003 consolidated, recording a turnover new year-on-year growth of around 37%.

As a result of this heterogeneous growth pattern, the structure by instrument in the traditional foreign exchange market changed in favour of a higher share of forex swaps (+ 10 p.p. to 43%), conversely to lower shares of spot operations (- 9 p.p. to 53%) and outright forwards (- 1 p.p. to 4%) (Chart 2).

Table 2

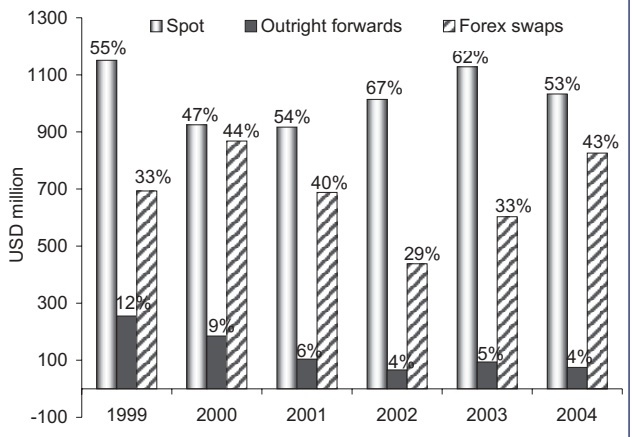
TRADITIONAL FOREIGN EXCHANGE MARKET

Average daily turnover

USD million

	Total	Spot	Outright forwards	Fx. swaps
1999	2099	1151	255	693
2000	1978	925	185	868
2001	1709	917	104	688
2002	1518	1014	66	438
2003	1825	1128	94	603
2004	1934	1033	75	826
Change (%):				
2002/2003	20.2	11.2	42.4	37.7
2003/2004	6.0	-8.4	-20.2	37.0

Chart 2
TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER
Breakdown by instrument



It is worth noting that, despite the strengthening of forex swaps in the structure by instrument in the Portuguese market, their share is still much lower than that detected by surveys conducted by BIS at the international level, accounting for more than 50% of total traditional instrument activity of the foreign exchange market.

By ***type of counterparty***, the results of the 2004 survey pointed to the maintenance of the upward trend in transactions with financial institutions and, at the same time, the downward trend in transactions with non-financial customers.

Transactions with financial entities grew by 11%, reaching USD 1,744 million, having increased with both resident and non-resident counterparties.

In turn, the fall in turnover of non-financial customers (including corporations and government bodies) was exclusively due to the decline in transactions with resident counterparties, given that the turnover with non-resident customers remained relatively stable. In terms of the structure by type of counterparty, these movements led to further strengthening of the share of financial institutions in the traditional foreign exchange market turnover, to 90%, and a further reduction of the share of non-financial customers, to 10% (Table 3).

With regard to the distribution of turnover between residents in Portugal and abroad, it can be concluded that the downward trend in transactions with the first type of counterparty was maintained, while business carried out with non-resident entities continued to expand. This led to a further increase in the share of transactions with non-residents, from 83% in 2003 to 86% in 2004.

Turnover with euro area counterparties (resident in Portugal and in other EU countries) recorded only a slight increase of 6%, keeping its relative weight around 49%.

Due to increasing transactions between domestic banks, the share in the so-called domestic interbank market[7] increased slightly, to 6%, after remaining unchanged at 5% between 2001 and 2003.

Table 3

TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER
Breakdown by type of counterparty

% of total

	1999	2000	2001	2002	2003	2004
Financial institutions	82	80	77	70	86	90
Resident	10	8	5	5	5	6
Non-resident	72	72	72	65	81	84
of which: euro area			21	21	31	33
Non-financial customers	18	20	23	30	14	10
Resident	14	19	16	21	12	8
Non- resident	4	1	7	9	2	2
of which: euro area			3	4	1	2
	100	100	100	100	100	100
Total - resident	24	27	21	26	17	14
Total - non- resident	76	73	79	74	83	86
of which: euro area			24	25	32	35

Table 4

TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER

Breakdown by currency

% of total[a]

	1999	2000	2001	2002	2003	2004
EUR	79	86	86	84	78	90
USD	83	79	74	75	79	71
GBP	20	13	13	10	12	17
JPY	9	11	13	14	16	14
CHF	3	3	7	7	9	4
Other European currencies	0	6	6	8	3	1
Other currencies	6	2	1	2	3	3

Note:

(a) In the foreign exchange market, the breakdown by currency totals 200 per cent of total transactions since the two legs of each transaction are recorded separately.

Table 5

TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER

Breakdown by currency pairs

% of total

	2003	2004
EUR/USD	57	61
EUR/GBP	7	14
EUR/JPY	8	9
EUR/CHF	4	4
EUR/DKK	1	0
EUR/SEK	1	0
EUR/NOK	1	0
EUR/AUD	0	2
USD/JPY	8	5
USD/GBP	5	3
USD/CHF	5	0
USD/other	3	2
Total	100	100

Nonetheless, the share of the interbank market was still significantly different from that seen prior to the introduction of the euro and to the bank merger process (in 1998, its share stood at 11%).

With regard to the ***breakdown by currency***, the euro recovered its predominance in traditional foreign exchange market transactions, while the pound sterling became the third most actively traded currency (Table 4). This change in the structure by currency reflected a growth of 22% in transactions involving the euro and of 50% in transactions involving the pound sterling. In contrast, turnover involving the US dollar and the iene contracted by 4% and 7% respectively. As a result, the euro replaced the US dollar in the first position, increasing its share by 12 p.p. to 90%, the share of the US dollar declined by 8 p.p. to 71%, moving to the second position, while the share of the pound sterling increased by 5 p.p. to 17%, replacing the iene at the third position. Even though the strong reduction in turnover involving the Swiss franc led to a loss of 5 p.p. in its share to 4%, this currency remained in the fifth position.

Following the trend already seen in 2003, Nordic currencies turnover continued to decline, constituting a negligent share in total transactions in the foreign exchange market. Finally, the turnover of the residual category denominated "other currencies" was relatively stable, with its share remaining unchanged at 3%.

Turning to ***currency pairs***, the euro/US dollar continued to be the most actively traded currency pair and its share in total turnover strengthened, from 57% to 61% (Table 5), followed by the euro/pound sterling pair, with 14%, reaching the second position for the first time over the last three years, and the euro/iene pair, with 9%. It should also be noted that: the euro acted almost exclusively as counterparty for transactions involving the Swiss franc, and among other currency pairs involving the European currency, the euro/Australian dollar pair gained some importance in the total (2%). Developments in transactions with the Australian currency, as well as with the British currency, took place in a context where yields of these currencies became more attractive within an overall framework of low interest rates.

Conversely to 2003, overall developments in the ***structure of business by instrument*** varied across traditional instruments of the foreign exchange market (Table 6). One common feature consisted only in the discontinuance of the trend towards longer maturities in outright forwards and forex swaps, and a more widespread recourse to electronic systems. Moreover, with regard to inter-temporal comparisons, given the new breakdown by type of system through which transac-

(7) The share of the domestic interbank market is equivalent to the share of resident financial institutions, since operations carried out with other resident financial institutions, other than banks, are virtually non-existent.

Table 6

TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER

Characterisation of the type of business by instrument

As a percentage of total turnover by instrument

	Spot		Outright forwards		Forex swaps	
	2003	2004	2003	2004	2003	2004
Counterparties	**100**	**100**	**100**	**100**	**100**	**100**
Financial institutions	**81**	**88**	**69**	**58**	**97**	**96**
Resident	7	11	2	4	1	1
Non-resident	74	77	67	54	96	95
of which euro area	20	23	7	7	55	47
Non- financial customers	**19**	**12**	**31**	**42**	**3**	**4**
Resident	17	12	29	42	1	1
Non resident	2	0	2	0	2	3
of which euro area	1	0	0	0	1	3
Currency pairs	**100**	**100**	**100**	**100**	**100**	**100**
EUR/USD	52	71	54	74	67	49
EUR/GBP	7	6	6	7	7	24
EUR/JPY	12	7	2	4	1	10
EUR/CHF	5	5	1	1	1	3
EUR/DKK	0	0	0	0	1	0
EUR/SEK	1	0	0	1	1	0
EUR/NOK	1	0	0	0	0	0
EUR/other	1	1	2	3	1	4
USD/JPY	7	5	1	5	11	6
USD/GBP	5	5	0	4	6	1
USD/CHF	8	0	0	0	1	0
USD/other	1	0	34	1	3	3
Other currency pairs	0	0	0	0	0	0
Maturities	**100**	**100**	**100**	**100**	**100**	**100**
[Up to 7 days]	100	100	29	42	0	38
]7 days - 1 month]			38	15	76	23
]1 month - 1 year]			32	43	10	38
]1 year - 5 years]			1	0	14	1
> 5 years			0	0	0	0
Conduction of transactions	**100**	**100**	**100**	**100**	**100**	**100**
Electronic trading systems	**61**	**76**	**16**	**56**	**21**	**89**
for dealers	61	75	16	52	21	89
Electronic broker	45	43	2	12	1	31
Electronic dealing	16	32	14	40	20	58
for customers		1		4		0
Multi-bank systems		1		4		0
Single bank systems		0		0		0
Non-electronic trading systems	**39**	**24**	**84**	**44**	**79**	**11**
Non-electronic broker	14	6	5	0	20	5
Other	25	18	79	44	59	6

tions are conducted, a number of relevant institutions improved their reporting quality.

Turning to ***spot*** transactions, business with resident and non-resident financial counterparties was strengthened, in contrast to a decrease in resident and non-resident non-financial customers. Activity was further focused on the euro/US dollar pair (71%), while there was a decrease in the share of pairs involving the US dollar and other currencies, excluding the euro, and those including the iene. With regard to the type of system through which of operations are conducted, while revealing a growing predominance of electronic dealing systems, data do not show any progress in the utilisation of electronic broker-type systems nor show a widespread utilisation of electronic platforms for customers.

As regards trading in ***outright forwards***, there was a loss of importance of financial counterparties in this segment, conversely to the previous year and as opposed to spot transactions. In turn, business with resident non-financial customers increased significantly. There were also some important changes in terms of the most traded currency pairs, which were mainly due to the virtual unwinding of the turnover involving the US dollar and other currencies that are not usually listed; this turnover had gained an extraordinary importance over the two previous years. These developments contributed to the redistribution of the importance of currency pairs in favour of the euro/US dollar and pairs involving the pound sterling and the yen, which also benefited from an increase in absolute terms. In terms of the distribution by maturities, 85% of outright forwards transactions is now almost evenly distributed among maturity classes "up to 7 days" and "1 month to 1 year", to the detriment of the higher concentration on maturities between 7 days and 1 month observed in 2003. There were also significant changes in the type of system for the conduction of transactions in this instrument, with banks opting for electronic systems, replacing the previous greater recourse to the telephone . It should be noted that this is the only instrument of the traditional foreign exchange market where the use of electronic trading platforms for customers has some relevance.

Trading in ***forex swaps*** did not record significant changes regarding the breakdown by counterparty. It is worth mentioning that, although non-resident financial institutions maintain their importance, there was a more even redistribution of their share among euro area and non-euro area counterparties. With regard to the most traded currency pairs, this is the only instru-

ment of the traditional foreign exchange market where the euro/US dollar pair lost some relative importance (-18 p.p. to 49%). This decrease in share took place in a context where turnover in the euro/US dollar pair remained stable, while transactions in other pairs involving the euro, namely with the pound sterling and the iene, significantly increased. Conversely, turnover of currency pairs involving the US dollar and other currencies excluding the euro decreased, with a consequent loss in share. Similarly to outright forwards, the share of forex swaps traded at maturities up to 7 days grew significantly. Regarding the system for the conduction of this type of contract, there was a more marked increase in the utilisation of electronic systems than that observed for other instruments of the traditional foreign exchange market. It is worth mentioning that the share of turnover conducted through electronic brokers ceased to be incipient, given that it now accounted for 31% of turnover in this instrument.

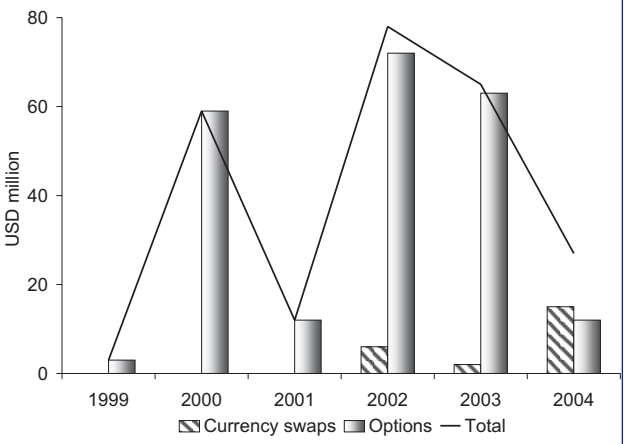
Other foreign exchange derivatives instruments

The turnover of other foreign exchange derivatives (currency swaps and foreign exchange options) declined by 59% between April 2003 and April 2004 to USD 27 million, after a 17% fall in the previous year (Table 1). At constant exchange rates, the decrease in turnover was even more marked, at over 60%. This type of instrument continued to be traded by a very restricted number of institutions, as its use is greatly dependent on the temporary use of certain market niches. As a result, activity in this type of product has always been very volatile in the Portuguese market (Chart 3). In this context, and given that its share has become even more negligent in the over-the-counter market, this segment is not reviewed in detail. However, special mention should be made to the marked decline in the turnover of foreign exchange options between April 2003 and April 2004, which has been the predominant (and in some years even exclusive) instrument of this segment in the surveys conducted so far. This year, however, the fall in options transactions as well as the increase in currency swaps transactions led to a change in the relative rank among these instruments, with the latter becoming predominant.

Chart 3

NON-TRADITIONAL FOREIGN EXCHANGE DERIVATIVES

Average daily turnover



OTC interest rate derivatives

Activity in the interest rate derivatives market continued to grow at a strong pace. The daily average turnover, at constant exchange rates, increased 50% to USD 916 million, in April 2004, following a similar increase in 2003 (Table 7). At constant exchange rates, the growth was lower, but nonetheless considerable, of 35%, compared to 23% in 2003. Despite the recovery recorded over the last two years, turnover has not yet return to the levels prior to the introduction of the euro.

Turnover increased mainly due to a strong growth in the IRS (interest rate swaps) segment, having also benefited from the extraordinary rise in interest rate options. Conversely, FRA (forward

Table 7

OTC INTEREST RATE DERIVATIVES

Average daily turnover

USD million

	Total	FRA	IRS	Options
1999	533	345	186	2
2000	381	225	156	0
2001	328	38	288	2
2002	411	22	384	5
2003	611	40	561	10
2004	916	29	753	134
Change (%):				
2002/2003	48.7	81.8	46.1	100.0
2003/2004	49.9	-27.5	34.2	1240.0

Chart 4
OTC INTEREST RATE DERIVATIVES
Average daily turnover

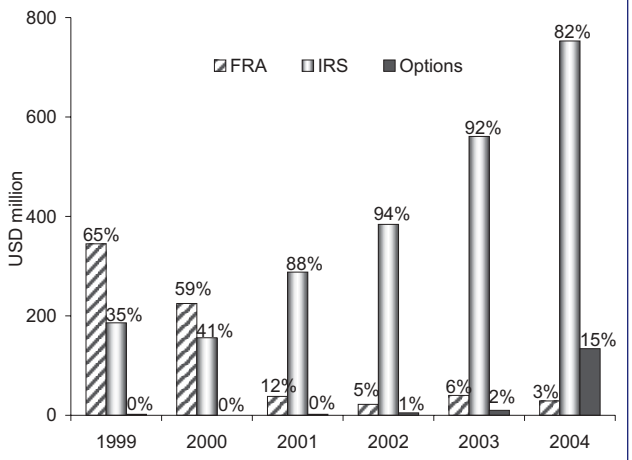


Table 8
OTC INTEREST RATE DERIVATIVES TURNOVER
Breakdown by counterparty

% of total

	1999	2000	2001	2002	2003	2004
Financial institutions	99	98	97	91	82	86
Resident	16	7	8	3	4	11
Non-resident	83	91	89	88	78	75
of which: euro area			30	50	38	50
Non-financial customers	1	2	3	9	18	14
Resident	1	1	3	3	14	14
Non-resident	0	1	0	6	4	0
of which euro area			0	6	0	0
	100	100	100	100	100	100
Total - resident	17	8	11	6	18	25
Total - non-resident	83	92	89	94	82	75
of which: euro area			30	56	38	50

rate agreements), which are now traded by a very restricted number of institutions, recorded a strong decrease in turnover. Thus, in terms of the structure by instrument, the share of FRA decreased to only 3%, while the share of IRS decreased to 82%, as opposed to the significant gain in market share (to 15%) recorded by options (Chart 4).

The analysis by ***type of counterparty*** points to the growth of turnover with financial institutions and non-financial customers, in contrast to the pattern detected in the traditional foreign exchange market, where only transactions with the first type of counterparty recorded an increase. It is worth mentioning that, also in this segment, turnover with financial institutions increased both with resident and non-resident counterparties. However, this expansion in business was only recorded by euro area financial entities, given that the turnover with non-euro area financial entities remained broadly unchanged. In turn, transactions with non-financial customers increased only with counterparties located in Portugal. As a result of the stronger growth in transactions with financial counterparties compared with transactions with non-financial counterparties, the share of financial institutions strengthened (to 86%), in line with that seen in the traditional foreign exchange market (Table 8). However, this increased share was obtained in the interest rate derivatives market at the expense of the increase in the share of transactions with residents, given that the share of turnover with non-residents decreased, while the share of non-resident counterparties in the traditional market increased. On the other hand, as a result of the strong expansion in transactions with euro area entities, its weight in the total increased significantly from 56% to 75%, compared with 49% in the traditional foreign exchange market. Also, turnover in the domestic interbank market(8), whose share increased by 11%, seems to play a much more relevant role, according to the survey results, than that assigned to it by the traditional foreign exchange market.

Turning to the ***structure by currency***, there were no relevant movements, given that euro interest rates maintained a predominant position (with 93%) in total interest rate derivatives transactions (Table 9).

The analysis of the structure of the ***type of business by instrument*** does not include ***FRA*** due to the small share now held by this instrument in the interest rate derivatives market. However, the analysis includes interest rate options for the first time, due to the increase in their turnover in 2004.

With regard to ***IRS***, there was an increase in the importance of financial counterparties to the detriment of non-financial counterparties, as well as in

(8) The turnover of business in the domestic interbank market is equivalent to the total traded with financial institutions, given that transactions of interest rate derivatives with other financial institutions, other than banks, are virtually non-existent in the Portuguese market.

Table 9

OTC INTEREST RATE DERIVATIVES TURNOVER

Breakdown by currency

% of total

	1999	2000	2001	2002	2003	2004
EUR	65	93	91	89	94	93
USD	7	4	9	5	5	5
JPY	1	0	0	0	1	0
GBP	12	0	0	1	0	2
Other currencies	15	3	0	5	0	0

the share of the turnover with euro area entities, in line with the pattern detected for the overall interest rate market (Tables 8 and 10). ***Swaps*** focused mainly on euro interest rates and no longer show a greater concentration in maturities up to 7 days, probably reflecting a decrease in the activity of the so-called EONIA swaps. In turn, their incidence on maturities between 7 days and 1 year increased. Regarding the type of system for the conduction of transactions, and in contrast to the traditional foreign exchange market, the use of electronic trading systems did not increase markedly. However, there was greater recourse to electronic trading platforms for customers in IRS than in any of the other instruments reviewed. Therefore, non-electronic trading systems continued to be the most used type of instrument, accounting for around 70% of total transactions in this market.

Transactions in ***interest rate options*** have not attained a stable structure yet, namely with regard to the breakdown by type of counterparty, as this segment has been very recently developed and transactions are carried out by a very limited number of banks. Resident non-financial customers were the main counterparty in this type of contract, while the highest relative share in turnover with financial institutions was recorded by euro area non-resident counterparties. Business involving euro interest rate transactions continued to be predominant, despite the gain in share recorded by USD interest rate transactions, which continued to concentrate on maturities over 1 month. Conversely to any of the other instruments reviewed, options continued to be traded exclusively through non-electronic trading systems.

Table 10

OTC INTEREST RATE DERIVATIVES TURNOVER

Characterisation of the type of business by instrument

As a percentage of total turnover by instrument

	IRS		Options	
	2003	2004	2003	2004
Counterparties	**100**	**100**	**100**	**100**
Financial institutions	**81**	**96**	**100**	**34**
Resident	4	12	10	10
Non-resident	77	84	90	24
of which: euro area	37	52	90	23
Non-financial customers	**19**	**4**	**0**	**66**
Resident	15	4	0	66
Non-resident	4	0	0	0
of which: euro area	0	0	0	0
Currencies	**100**	**100**	**100**	**100**
EUR	94	94	100	87
USD	6	4	0	13
JPY	0	0	0	0
GBP	0	2	0	0
CHF	0	0	0	0
Other	0	0	0	0
Maturities	**100**	**100**	**100**	**100**
[Up to 7 days]	46	0	0	0
]7 days - 1 month]	11	22	0	0
]1 month - 1 year]	10	43	10	52
]1 year - 5 years]	24	29	90	21
> 5 years	9	6	0	27
Conduction of transactions	**100**	**100**	**100**	**100**
Electronic trading systems	**24**	**30**	**0**	**0**
for dealers	24	12	0	0
Electronic broker	0	0	0	0
Electronic dealing	24	12	0	0
for customers		18		0
Multi-bank systems		18		0
Single bank systems		0		0
Non-electronic trading systems	76	70	100	100
Non-electronic broker	13	34	0	0
Other	63	36	100	100

2.2. Amounts outstanding

The results of the survey conducted in 2004 reveal a significant increase vis-à-vis 2003 (61%)[9] in notional amounts outstanding of OTC derivatives[10], when denominated in US dollars (Table 11). This expansion is lower (45%) when adjusted for foreign exchange fluctuations, reflecting the depreciating trend of the US dollar between March 2003 and March 2004.

Conversely to the last two years, the pace of growth of amounts outstanding of interest rate derivatives (52%) was lower than that of foreign ex-

Table 11

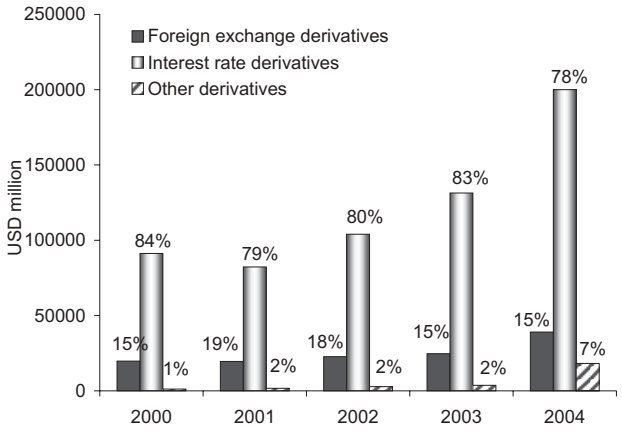
NOTIONAL AMOUNTS OUTSTANDING OF OTC DERIVATIVES

USD million

	Total	Fx. derivatives	Int. rate derivatives	Other derivatives
1999	135365	20954	113297	1114
2000	112126	19710	91268	1148
2001	103507	19561	82283	1663
2002	129544	22710	104027	2807
2003	159697	24687	131376	3634
2004	257291	39073	200027	18191
Change(%):				
2002 / 2003	23.3	8.7	26.3	29.5
2003 / 2004	61.1	58.3	52.3	400.6

Chart 5

NOTIONAL AMOUNTS OUTSTANDING OF OTC DERIVATIVES



change derivatives (58%). At the same time, other derivatives, including equity and equity indices, commodity and credit derivatives, increased significantly this year (five-fold). Therefore, the relative share of amounts outstanding of the different types of instrument changed somewhat (Chart 5). The share of interest rate derivatives declined, as opposed to an increase in other derivatives, whose share was relevant for the first time (in line with the expanding trend observed at the international level for new market segments and bringing the share of interest rate derivatives closer to international figures).

OTC foreign exchange derivatives

Amounts outstanding of foreign exchange derivatives increased significantly in 2004, both when denominated in US dollars (58%) and when adjusted for the effects of foreign exchange fluctuations (47%) (Table 12).

All types of foreign exchange derivatives contributed to the increase in amounts outstanding (Table 12). Despite a significant growth, foreign exchange forwards (which include outright forwards and FX swaps) recorded a loss in their relative share, maintaining, however, their clear predominance among foreign exchange derivatives in the portfolios of reporting institutions (Chart 6). In turn, currency swaps resumed the upward trend that had been discontinued in 2003, and their relative share increased also. Options maintained a considerable pace of growth, but with a relatively reduced share. It is worth mentioning that developments in amounts outstanding of currency swaps and foreign exchange options contrast with the negligent role of these instruments in terms of transactions (reflecting the fact that these instruments are usually used to cover operations with relatively long maturities, so their share in terms of positions is maintained over a long period).

Table 12

NOTIONAL AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE DERIVATIVES

USD million

	Total	Forwards	Currency Swaps	Options
1999	19549	14903	3012	1634
2000	20954	13357	5684	1913
2001	19561	13629	5496	436
2002	22710	15961	6136	613
2003	24687	19308	4272	1107
2004	39073	28903	8266	1904
Change(%):				
2002 / 2003	8.7	21.0	-30.4	80.6
2003 / 2004	58.3	49.7	93.5	72.0

(9) With regard to positions, unless otherwise mentioned, amounts outstanding and percentages refer to 31 March 2004 and inter-temporal comparisons to the period from the end of March 2003 to the end of March 2004.

(10) Amounts outstanding are adjusted for the double counting resulting from transactions carried out in the domestic interbank market.

Chart 6
NOTIONAL AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE DERIVATIVES
Breakdown by instrument

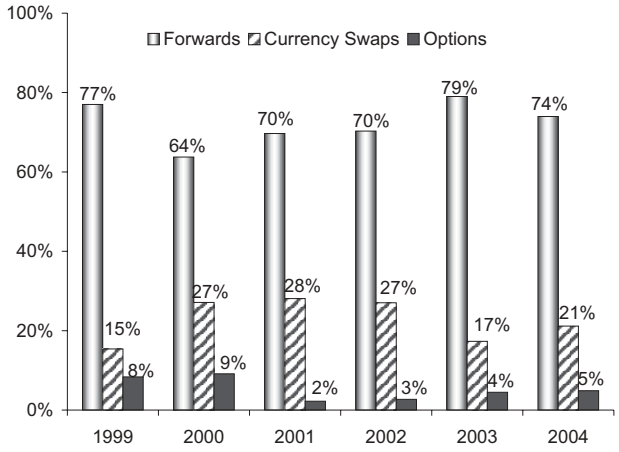


Table 13
AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE DERIVATIVES
Breakdown by currency (a)

% of total

	1999	2000	2001	2002	2003	2004
EUR	92	94	93	85	88	93
USD	69	76	70	73	67	68
JPY	18	15	17	17	17	16
GBP	14	9	17	13	16	15
CHF	2	1	1	1	2	1
BRL		0	0	8	5	1
Other European currencies	2	3	0	1	2	3
Other currencies	3	2	2	2	3	3

Note:
(a) The breakdown by currency totals 200% of total transactions since the two legs of each transaction are recorded separately.

In terms of the ***breakdown by currency***, mention should be made to a broadly based increase in the amounts outstanding of the main currencies. However, the most significant expansion of euro-denominated amounts outstanding (which is likely to be partly related to the appreciation of this currency against the US dollar) led to the strengthening of the predominant position of the European currency. These developments occurred to detriment of the Brazilian real, which share is now negligible (Table 13). The analysis of the ***breakdown by currency pairs*** shows a greater concentration on the /USD pair, which now accounts for around 61%(11) of amounts outstanding (against 55% in 2003). The share of this pair, the EUR/GBP (14%) and the EUR/JPY (12%) pairs is, overall, of 87% in total amounts outstanding (compared to 83% in the previous year).

The analysis of the ***breakdown by counterparty*** of the amounts outstanding points to an increase in the relative share of financial institutions, mainly due to the significant increase in amounts outstanding with euro and non-euro area non-resident counterparties. The share of resident financial institutions continued to be negligent. At the same time, amounts outstanding of non-financial customers increased slightly. However, within the context of a strong expansion of financial institutions, the relative share of non-financial customers decreased. In terms of the breakdown between resident and non-resident counterparties, the share of resident counterparties continued to decline, although in absolute terms their amounts outstanding continued to increase. It is worth mentioning the increase in the relative importance of non-resident counterparties located in the euro area, revealing the higher integration of Portuguese institutions in the euro area market (Table 14).

The ***analysis by instrument*** points to a relative homogeneity in terms of the breakdown by counterparty and by currency, despite considerable differences in the structure by maturity (Table 15).

Therefore, financial counterparties hold the predominant position in all instruments and their share increased for the three types of derivatives. However, special mention should be made to the significant share of non-financial customers in the options segment and, to a lesser extent, in currency swaps. The increase in the share of euro area resident counterparties is seen in all instruments. With regard to currencies, the EUR/USD, EUR/JPY and EUR/GBP are also the main pairs, except in the case of options, where the Brazilian real plays a major role (although reflecting strategic decisions by a very limited number of institutions).

In terms of the breakdown by maturity, forwards continued to show a high concentration on maturities up to 1 year (mainly between 1 month

(11) The breakdown by currency pairs totals 100%.

Table 14

AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE DERIVATIVES

Breakdown by counterparty

% of total

	1999	2000	2001	2002	2003	2004
Financial institutions	**55**	**60**	**68**	**74**	**83**	**86**
Resident	8	7	4	3	2	2
Non- resident	47	53	64	71	81	84
of which: euro area			17	18	23	30
Non-financial customers	**45**	**40**	**32**	**26**	**17**	**14**
Resident	34	31	22	15	16	14
Non- resident	11	9	10	11	1	0
of which: euro area			3	3	0	0
	100	100	100	100	100	100
Total - resident	**42**	**38**	**26**	**18**	**18**	**16**
Total-non-resident	**58**	**62**	**74**	**82**	**82**	**84**
of which: euro area			**20**	**21**	**23**	**30**

and 1 year). Turning to currency swaps, maturities between 1 month and 1 year are now prevailing, while maturities up to 1 month continued to be virtually non-existent (in line with the difference between the share of this instrument in transactions and in amounts outstanding). The importance of positions of over 1 year (around 45%) is still a specific feature of currency swaps. Regarding options, there was a higher dispersion of maturities (which may translate the increase in the depth of this segment in the Portuguese market).

Table 15

AMOUNTS OUTSTANDING OF OTC FOREIGN EXCHANGE DERIVATIVES

Breakdown by instrument

As a percentage of amounts outstanding by instrument

	Forwards		Currency Swaps		Options	
	2003	2004	2003	2004	2003	2004
Counterparties	**100**	**100**	**100**	**100**	**100**	**100**
Financial institutions	88	89	68	77	56	67
Resident	2	2	0	1	2	12
Non-resident	86	88	68	76	54	56
of which: euro area	25	31	18	29	2	25
Non- financial customers	12	11	32	23	44	33
Resident	11	10	32	22	41	31
Non- resident	1	0	0	1	2	2
of which: euro area	0	0	0	0	0	0
Currency pairs	**100**	**100**	**100**	**100**	**100**	**100**
EUR/USD	57	59	35	67	82	64
EUR/JPY	8	9	42	24	0	13
EUR/GBP	17	17	2	5	10	1
EUR/CHF	2	2	0	0	0	0
EUR/ other	4	6	3	4	7	0
GBP/USD	2	1	0	0	0	2
USD/JPY	4	5	0	0	0	0
USD/CHF	1	0	0	0	0	0
USD/other	5	1	18	0	1	20
Other	0	0	0	0	0	0
Maturities	**100**	**100**	**100**	**100**	**100**	**100**
[Up to 7 days]	5	10	0	1	0	1
]7 days - 1 month]	20	21	2	0	20	23
]1 month - 1 year]	59	55	27	55	74	49
]1 year - 5 years]	6	6	49	26	6	27
> 5 years	10	8	22	18	0	0

OTC interest rate derivatives

Similarly to foreign exchange derivatives, notional amounts outstanding in the interest rate derivatives segment increased significantly, both when denominated in US dollars (52%) and when adjusted for the effects of foreign exchange fluctuations between March 2003 and 2004 (37%) (Table 16).

The increase in amounts outstanding was due both to the maintenance of a strong pace of growth of IRS and the significant expansion in options, against a background in which amounts outstanding of FRA declined as a result of the marked decrease in their turnover. Therefore, the upward trend in the relative share of IRS was discontinued, but this instrument maintained, its predominant position in institutions' portfolios, with a share of 85% (Chart 7). In turn, the share of options grew strongly, now accounting for around 14% of amounts outstanding. In this segment, despite a more widespread participation of financial institu-

Table 16

NOTIONAL AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

USD million

	Total	FRA	IRS	Options	Other
1999	130574	66449	62424	1701	0
2000	113297	29788	80558	2656	295
2001	82283	7254	72173	1367	1489
2002	104027	933	95230	7864	0
2003	131376	1438	124156	5780	2
2004	200027	1296	169851	28880	0
Change (%):					
2002 / 2003	26.3	54.1	30.4	-26.5	-
2003 / 2004	52.3	-9.9	36.8	399.7	-100.0

Chart 7

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

Breakdown by instrument

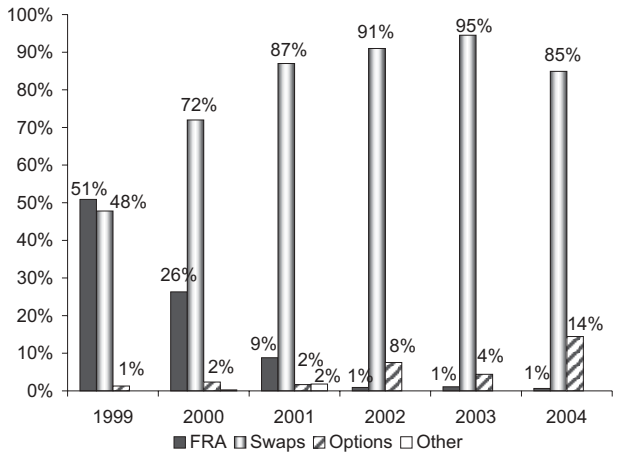


Table 18

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

Breakdown by counterparty

% of total

	1999	2000	2001	2002	2003	2004
Financial institutions	**91**	**91**	**93**	**92**	**90**	**89**
Resident	17	10	9	8	11	14
Non-resident	74	81	84	84	79	75
of which: euro area			22	32	26	39
Non-financial customers	**9**	**9**	**7**	**8**	**10**	**11**
Resident	2	3	4	6	8	10
Non-resident	7	6	3	2	2	1
of which: euro area			0	1	0	0
	100	100	100	100	100	100
Total-resident	**19**	**13**	**13**	**14**	**19**	**24**
Total-non-resident	**81**	**87**	**87**	**86**	**81**	**76**
of which: euro area			**22**	**33**	**26**	**39**

tions, the number of institutions is still restricted. FRA maintained their residual share. Developments in the relative importance of the different instruments brought the structure of the Portuguese market closer to that seen in major international markets.

Turning to the ***breakdown by currency***, the relative share of euro interest rate derivatives increased further, to the detriment of the US dollar (Table 17). Indeed, in absolute values, notional amounts of US dollar interest rate derivatives contracted, while euro interest rate instruments grew strongly (even when adjusted for the appreciation of the EUR/USD).

The ***structure by counterparty*** reveals a significant stability in the breakdown between financial and non-financial counterparties. Non-resident financial institutions maintained their clear predominance, following, however, the downward trend in their relative share. At the same time, the share of resident counterparties increased further, led by the joint increase in the share of financial institutions and non-financial customers (Table 18).

The ***breakdown by instrument***[12] points to a relative homogeneity in terms of the structure by currency — where the euro holds a predominant position — and by maturity, with a strong concentration on maturities of over 1 month, in particular between 1 and 5 years (Table 19).

Regarding counterparties, the breakdown by instrument reveals the predominance of non-resident financial institutions. However, the relative share of these counterparties is clearly lower in the options segment, where resident non-financial customers play a significant role (similarly to foreign exchange options).

Table 17

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

Breakdown by currency

% of total

	1999	2000	2001	2002	2003	2004
EUR	75	69	80	83	88	91
USD	7	13	12	11	9	6
JPY	0	1	0	0	0	0
GBP	10	9	5	3	1	2
Other European currencies		6	2	2	1	1
Other currencies	8	2	1	1	1	0

Other OTC derivatives

According to the 2004 survey, the relative importance of equity, commodity and credit derivatives increased (now accounting for around 7% of total OTC) (Chart 5). The rise in amounts out-

(12) FRA were not reviewed given that, due to the lower liquidity and depth of this segment, a very detailed analysis would tend to reflect changes in business strategies of some specific institutions instead of overall trend patterns.

Table 19

AMOUNTS OUTSTANDING OF OTC INTEREST RATE DERIVATIVES

Breakdown by instrument

As a percentage of amounts outstanding by instrument

	IRS		Options	
	2003	2004	2003	2004
Counterparties	**100**	**100**	**100**	**100**
Financial institutions	92	92	59	72
Resident	11	14	9	22
Non-resident	81	78	50	50
of which: euro area	26	40	28	31
Non-financial customers	8	8	41	28
Resident	6	7	39	25
Non-resident	2	1	2	3
of which: euro area	0	0	1	0
Currencies	**100**	**100**	**100**	**100**
EUR	87	93	91	87
USD	10	6	9	6
GBP	1	1	0	6
JPY	0	0	0	1
SEK	1	0	0	0
Other	1	0	0	0
Maturities	**100**	**100**	**100**	**100**
[Up to 7 days]	1	1	0	3
]7 days - 1 month]	3	4	0	5
]1 month - 1 year]	32	25	37	30
]1 year - 5 years]	37	44	49	43
> 5 years	27	26	14	19

Table 20

NOTIONAL AMOUNTS OUTSTANDING OF OTHER OTC DERIVATIVES

USD milliom

	Total	Equity	Commod-ity	Credit	Other
2001	1662	1662	0	0	0
2002	2808	2236	0	572	0
2003	3634	2776	1	773	84
2004	18190	13768	29	4301	92
Change(%):					
2002 / 2003	29.4	24.2	-	35.1	-
2003 / 2004	400.6	396.0	2800.0	456.4	9.5

standing was mainly due to developments in equity derivatives and, to a lesser extent, in credit derivatives (Table 20). Equity derivatives thus continue to account for around 75% of other derivatives, while credit derivatives account for 24%. Activity in commodity derivatives continues to be virtually non-existent.

Turning to ***equity derivatives***, there was a significant increase in amounts outstanding. However, this movement was not due to a broadly based behaviour of participating banks in this segment but rather to business strategies of a limited number of banks, which increased significantly the amounts outstanding of equity swaps and options. Thus, amounts outstanding in this market segment are broken down into swaps (55%) and options (45%).

Regarding counterparties, the importance of financial institutions decreased due to the decline in the relative share of non-resident financial counterparties located in the euro area (as opposed to an increase in the share of resident and non-resident non-financial customers). However, non-resident financial institutions belonging to the euro area continue to be the main counterparty (with 31% of amounts outstanding), followed by financial institutions located outside the euro area (with 26%).

With regard to the nationality of the issuer of the underlying asset, the strong concentration on euro area equity and equity indices strengthened, now accounting for 97% of amounts outstanding (against 93% in 2003).

Credit derivatives also increased significantly, albeit maintaining a negligible share. The number of participating institutions in this segment rose, but is still low.

3. ORGANISED MARKET

According to the April 2004 survey results, activity in instruments traded in organised markets - options and futures - continued to concentrate greatly on interest rate derivatives and to be carried out by a still limited number of banks. Derivatives of other market risk categories - foreign exchange, equity and commodity - maintained negligible shares or were non-existent, as is the case of commodity derivatives. It should be noted that the survey only gathers data on foreign exchange and interest rate derivative transactions, while covering a wider group of derivatives in the case of amounts outstanding.

Activity in foreign exchange derivatives was limited to foreign exchange futures, while the segment of equity derivatives, where only futures used to be reported, now also shows business in options, leading to a significant development of this segment. Interest rate derivatives, whose al-

Table 21

EXCHANGE TRADED DERIVATIVES

Average daily turnover

USD million

	Total	Foreign exchange derivatives	%	Interest rate derivatives	%
1999	598	1	0.2	597	99.8
2000	1158	1	0.1	1157	99.9
2001	435	2	0.5	433	99.5
2002	3338	3	0.1	3335	99.9
2003	1291	1	0.1	1290	99.9
2004	1989	3	0.2	1986	99.8
Change(%):					
2002/2003	-61.3	-66.7		-61.3	
2003/2004	54.1	200.0		54.0	

most exclusive predominance in the structure by instrument in the organised market remained unchanged, continued to be broken down into options and futures.

With regard to the segment of interest rate derivatives, data gathered revealed a different pattern between 2003 and 2004, in terms of turnover and notional amounts outstanding. This segment increased in terms of turnover, but decreased in terms of amounts outstanding (Tables 21 and 22). Behind this different behaviour was a significant increase in activity in interest rate options, chiefly affecting contracts with shorter maturities, inducing a more frequent rollover in terms of transactions, but with a shorter life in banks' portfolios. It should be noted that, when assessing these results, given the limited number of banks working with exchange traded derivatives, and, in particular, options, this market is rather sensitive to changes in portfolio management strategies decided by one of the few institutions that have business in this type of product.

Indeed, the expansion of turnover in interest rate derivatives was due exclusively to the increase in options contracts, given that turnover in futures contracted. To the reduction of notional amounts outstanding contributed the decline in activity both of futures and options.

Interest rate futures continued to be the instrument reported by a larger number of banks in organised markets, despite the decline in terms of turnover (-49%) and amounts outstanding (-19%). As a result, and due to the different movement of options in terms of transactions and amounts outstanding, the weight of futures in total turnover decreased (to 29%), albeit increasing (to 52%) in total amounts outstanding, against 89% and 45% in 2003 respectively.

4. DEGREE OF CONCENTRATION OF TURNOVER AND AMOUNTS OUTSTANDING IN FOREIGN EXCHANGE AND DERIVATIVES MARKET

The degree of concentration in the different market segments[13] continues to be relatively high, despite some differences in terms of both level and developments across the different segments. It is

Table 22

EXCHANGE TRADED DERIVATIVES

Notional amounts outstanding

USD million

	Total	Foreign exchange derivatives	%	Interest rate derivatives	%	Equity and equity indices derivatives	%
1999	9677	1	0.0	9676	100.0	-	-
2000	4827	0	0.0	4766	98.7	61	1.3
2001	23171	19	0.1	21938	94.7	1214	5.2
2002	43387	7	0.0	43181	99.5	199	0.5
2003	48122	52	0.1	47938	99.6	132	0.3
2004	33223	13	0.0	32673	98.3	537	1.6
Change(%):							
2002 / 2003	10.9	642.9		11.0		-33.5	
2003 / 2004	-31.0	-75.0		-31.8		306.4	

Table 23

INTEREST RATE FUTURE TRANSACTIONS
Breakdown by instrument

As a percentage of total turnover by instrument

	Interest rate futures - less than 1 year		Interest rate futures - over 1 year	
	2003	2004	2003	2004
Counterparties				
Foreign exchanges	**100**	**100**	**100**	**100**
euro area	57	79	98	89
Non-euro area	43	21	2	11
Currencies	**100**	**100**	**100**	**100**
EUR	86	73	97	87
USD	13	27	3	13
JPY	0	0	0	0
GBP	1	0	0	0
CHF	0	0	0	0
Other	0	0	0	0

worth mentioning that the number of institutions has remained relatively stable within each segment over the last years. The fact that this number is relatively low leads sometimes to some volatility in concentration indicators.

The significant degree of concentration can be easily seen in the combined market shares of the three and six most active financial institutions[14] which, in terms of both turnover and amounts outstanding, are above 60% and 85% respectively (Tables 25 and 26).

Table 24

AMOUNTS OUTSTANDING OF INTEREST RATE FUTURES
Breakdown by instrument

As a percentage of amounts outstanding by instrument

	Interest rate futures - less than 1 year		Interest rate futures - over 1 year	
	2003	2004	2003	2004
Counterparties				
Foreign exchanges	**100**	**100**	**100**	**100**
euro area	3	15	99	90
Non-euro area	97	85	1	10
Currencies	**100**	**100**	**100**	**100**
EUR	94	76	99	89
USD	6	11	1	11
JPY	0	0	0	0
GBP	0	13	0	0
CHF	0	0	0	0
Other	0	0	0	0

Table 25

TURNOVER
Concentration indicators

	n	Q 3	Q 6
Spot			
1999	28	67.1	85.2
2000	27	70.0	87.1
2001	25	70.5	88.8
2002	26	64.4	92.4
2003	25	73.5	89.6
2004	26	64.0	87.2
Foreign exchange derivatives			
1999	26	75.3	86.3
2000	21	82.7	94.6
2001	22	75.9	88.8
2002	20	54.3	84.8
2003	23	64.5	82.9
2004	23	66.4	88.1
Interest rate derivatives			
1999	13	68.6	92.4
2000	10	85.0	99.2
2001	11	75.6	97.0
2002	13	94.2	99.4
2003	13	77.5	99.8
2004	14	78.9	98.3

n - number of financial institutions participating in each segment.

In the ***spot segment***, there was a slight decrease in the degree of concentration, particularly due to the significant fall in the share of the most active institution in this segment.

Turning to the ***foreign exchange derivatives*** segment, the degree of concentration increased in terms of both transactions and amounts outstanding. The most significant movement was due to the strengthening of the individual share of the three most active institutions in all types of foreign exchange derivatives (excluding options), leading to a considerably rise in the Q3 indicator.

Turning to ***interest rate derivatives***, the degree of concentration in terms of transactions was kept relatively stable. On the other hand, regarding

(13) The calculation of market shares was based on all reported operations, either relating to OTC market or to the organised market.

(14) In terms of the financial institutions operating in the Portuguese market, two different situations should be considered: i) banks belonging to the Portuguese financial groups; and ii) banks operating individually in the Portuguese market. Given the combined strategy generally adopted by each financial group, in the analysis of market shares account was taken of the combined weight of the several institutions belonging to the same group instead of their individual weight.

Table 26

AMOUNTS OUTSTANDING

Concentration indicators

	n	Q 3	Q 6
Foreign exchange derivatives			
1999	28	38.6	50.0
2000	28	69.8	88.8
2001	26	70.8	88.5
2002	27	55.9	82.2
2003	27	55.4	82.0
2004	27	66.3	86.3
Interest rate derivatives			
1999	19	68.9	89.6
2000	19	84.9	98.6
2001	18	87.7	97.9
2002	22	84.8	96.8
2003	21	83.6	96.2
2004	22	72.3	96.0
Equity derivatives			
1999	-	-	-
2000	4	94.0	100.0
2001	8	85.7	99.8
2002	10	82.6	99.2
2003	13	80.8	95.4
2004	11	92.1	98.8

n - number of financial institutions participating in each segment.

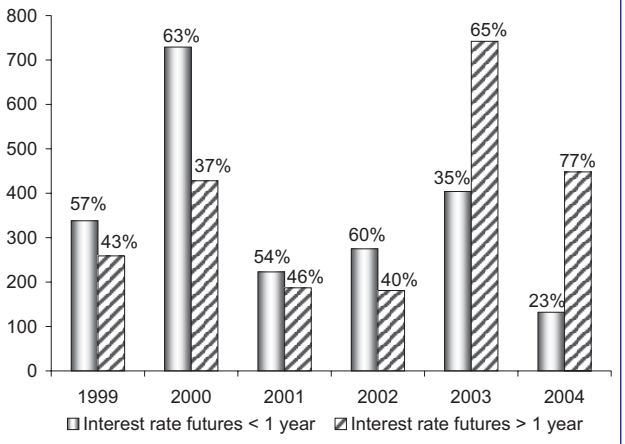
amounts outstanding, there was a considerable decrease in the combined share of the three most active institutions. These developments were identical across the several interest rate instruments and resulted from the emergence of a fourth institution holding a significant share.

Finally, ***equity derivatives*** recorded a strong increase in the degree of concentration, in contrast to

Chart 8

INTEREST RATE FUTURES

Average daily turnover



the recent downward trend (more in line with a still recent and developing market). These developments resulted from the very significant increase in activity of a financial group that usually is not very active in this sector.

An analysis of the degree of concentration of turnover and amounts outstanding by ***type of counterparty***, points to a very high degree of concentration in operations carried out both with financial entities and with non-financial counterparties, albeit showing a higher concentration in the case of financial counterparties. This can be observed via the Lorenz curves (Charts 9

Chart 9

TURNOVER

Financial vs non-financial counterparties

Lorenz curves

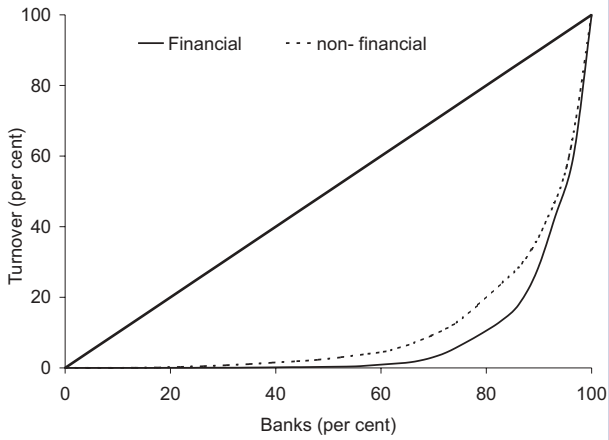
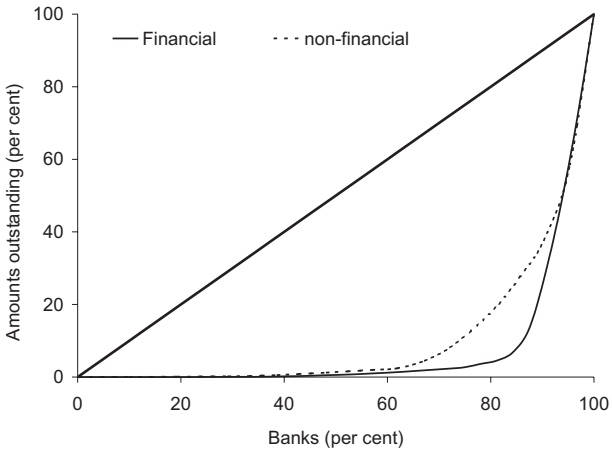


Chart 10

AMOUNTS OUTSTANDING

Financial vs non-financial counterparties

Lorenz curves



and 10), which represent the percentage of transactions or amounts outstanding carried out or held by a given percentage of banks. The highest convexity of the Lorenz curve relating to financial counterparties indicates that the operations carried out with these entities are more concentrated in a smaller percentage of banks than those carried out with non-financial customers. As to the breakdown between resident and non-resident counterparties, the degree of concentration is more uniform, particularly at the level of transactions.

Box: TRIENNIAL SURVEY OF FOREIGN EXCHANGE AND DERIVATIVES MARKET ACTIVITY, CO-ORDINATED BY THE BIS, IN 2004

Preliminary results on turnover

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 2004. It had the participation of central banks and monetary authorities of a larger number of countries than in 2001 (52 vis-à-vis 48 countries). The 2004 survey, which adopted a similar format to the three previous ones, collected data on turnover in spot foreign exchange and currency and interest rate derivative transactions in the course of April and on amounts outstanding of derivative instruments at the end of June. The survey focused again on over-the-counter (OTC) market operations only and as regards amounts outstanding, it collected data on a consolidated basis. On 28 September 2004, the national survey results on turnover were jointly published by the participating central banks, and the BIS associated to the disclosure, by releasing aggregate preliminary data of this segment of the survey. As regards the survey results relative to amounts outstanding, the BIS will only publish global data on a future date.

Data on turnover calculated by the BIS revealed a strong expansion of ***over-the-counter activity*** *over the past three years, registering growth rates above 50%, both in the traditional foreign exchange market and in the*

Table 1

TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER[a]

Results of the triennial surveys coordinated by the BIS

Average daily turnover

In USD billion and as a percentage

	1998		2001		2004	
	Value	% of the total	Value	% of the total	Value	% of the total
Total turnover[b]	**1490**		**1200**		**1880**	
Total[c]	**1430**	**100**	**1174**	**100**	**1773**	**100**
Spot	568	40	387	33	621	35
Outright forwards	128	9	131	11	208	12
Foreign exchange swaps	734	51	656	56	944	53
By currency[d]		**200**		**200**		**200**
USD		87		90		89
Euro		.		38		37
DEM		30		.		.
FRF		5		.		.
ECU and other EMS currencies		17		.		.
JPY		20		23		20
GBP		11		13		17
CHF		7		6		6
AUD		3		4		6
CAD		4		5		4
Other currencies		16		21		21
By counterparty		**100**		**100**		**100**
Financial institutions - *"reporting dealers"*	908	63	689	59	936	53
Other financial institutions	279	20	329	28	585	33
Non-financial customers	242	17	156	13	252	14
		100		**100**		
Resident	657	46	499	43	674	38
Non-resident	772	54	674	57	1099	62

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

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

(d) In the foreign exchange market, the breakdown by currency totals 200% of total turnover, since the two legs of each transaction are recorded separately.

foreign exchange and interest rate derivative segments. The average daily turnover of transactions in the ***traditional foreign exchange market*** *(which includes spot transactions, outright forwards and foreign exchange swaps) reached USD 1,880 million in April 2004. Therefore, from April 2001 to April 2004, current exchange rates increased by 57%, and by 36% when assessed at constant exchange rates. This rise has more than offset the 20% contraction recorded from April 1998 to April 2001.*

Every ***traditional foreign exchange instrument*** *has expanded significantly, but the sharper growth of turnover in spot operations and outright forwards was reflected in a slight increase in their weight on total turnover (to 35% and 12% respectively), counterbalancing the decreasing importance of forex swaps (to 53%). Activity in "traditional" instruments was developed with all types of* ***counterparties*** *and, in particular, with financial institutions that are not "reporting dealers", whose weight on total turnover increased markedly (from 28% to 33%). In contrast, the share of "reporting dealers" financial institutions in the total declined, reflecting, in particular, the continued banking consolidation process and the increased utilization of electronic brokers in dealing operations. As a result, the overall weight of turnover with financial institutions remained virtually unchanged at around 86%, as did non-financial customers' share at around 14%. Transactions with cross-border counterparties increased significantly, accounting for more than 60% in total transactions, thus confirming the trend towards the globalisation of activity.*

Turning to the breakdown of turnover by ***currency****, there were no significant changes. The US dollar continued to hold the position of most important currency, participating in 90% of traditional foreign exchange market turnover (see note (d) to the first table). The euro maintained the second position (37%), followed by the iene (20%) and the pound sterling (17%). In the* ***geographical breakdown*** *of trading, the United Kingdom (31%) and the United States (19%) continued to be the most important financial centres, jointly holding approximately 50% of trade worldwide. 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%.*

At the international level, and according to the results of the BIS survey, turnover in the ***OTC derivatives market****, which includes non-traditional foreign-exchange derivatives (such as currency swaps and for-*

Table 2

OTC DERIVATIVES MARKET TURNOVER[a]

Results of the triennial survey co-ordinated by the BIS

Average daily turnover

USD billion and as a percentage

	1998		2001		2004	
	Value	% of the total	Value	% of the total	Value	% of the total
Foreign exchange derivatives[b]	**97**	**100**	**67**	**100**	**140**	**100**
Currency swaps	10	10	7	10	21	15
Options	87	90	60	90	117	84
Other	0	0	0	0	2	1
Interest rate derivatives	**265**	**100**	**489**	**100**	**1025**	**100**
FRA	74	28	129	26	233	22
Swaps (IRS)	155	58	331	68	621	61
Options	36	14	29	6	171	17
Other	0	0	0	0	0	0
Total [c]	**362**		**556**		**1165**	
Total turnover (d)	**375**		**575**		**1220**	

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 derivatives (i.e. excluding outright forwards and foreign exchange swaps).

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

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

eign-exchange options) and interest rate derivatives, has more than doubled between April 2001 and April 2004. At constant exchange rates, this growth moderates to 77%. The high pace of growth of both foreign-exchange and interest-rates derivatives was behind the expansion observed.

As a result, there were no changes in the relative weights of these segments, and interest-rate derivatives continued to account for approximately 88% of total turnover in the derivatives market, while non-traditional foreign-exchange derivatives continued to hold a rather small share, at around 12%. Due to this disparity in the relative importance of both segments, the structure of interest-rate derivatives persists as a proxy of the overall structure of the derivatives market.

*The development in **interest-rate instruments** business were more marked in contracts denominated in US dollars, particularly in interest-rate options, that recorded an extraordinary growth. As a result, options increased sharply their share in total trading in the interest-rate derivatives market (from 6% to 17%), against a decrease in the share of FRA (to 22%) and of IRS (to 61%). According to BIS, the shift in expectations about future development of key interest rates in the USA is behind the growth in turnover in contracts denominated in US dollars. In spite of such trend, euro denominated contracts maintained their leading role in interest-rate derivatives (45%). This predominance was not seen in options, in which the US dollar was clearly dominant. Although at a slower pace, contracts denominated in euros have also expanded significantly, chiefly in IRS, which are considered to be the benchmark for the European fixed income segment.*

*Similarly to developments in the traditional foreign-exchange market, total derivatives transactions also saw a sharp increase in business with financial **counterparties** that are not reporting dealers, with their share increasing from 29% to approximately 44%. Simultaneously, the share of turnover with "reporting dealers" financial institutions decreased further, which, according to the BIS, may reflect a greater use of derivates particularly by small banks, hedge funds and insurance companies. As a result, financial institutions, albeit largely predominant, had a slight decline in their share to 92%. In turn, in line with developments in the traditional for-*

Table 3

OTC INTEREST RATE DERIVATIVES TURNOVER [a]

Results of the triennial survey co-ordinated by the BIS

Breakdown by currencies and counterparties

USD billion and as a percentage

	1998		2001		2004	
	Value	% of the total	Value	% of the total	Value	% of the total
By currency[b]	265	100	489	100	1025	100
USD	71	27	152	31	347	34
Euro	-		231	47	461	45
DEM	63	24	-		-	
FRF	25	9	-		-	
ECU and other EMS currencies	35	13	-		-	
JPY	27	10	27	6	46	4
GBP	17	6	37	8	90	9
Other	28	11	42	8	81	8
By counterparty[b]	265	100	489	100	1025	100
Financial institutions "reporting dealers"	150	56	322	66	494	48
Resident	71	27	135	28	188	18
Non-resident	78	29	187	38	306	30
Other financial institutions	89	34	142	29	450	44
Resident	46	17	57	12	195	19
Non-resident	44	17	85	17	256	25
Non-financial customers	27	10	25	5	79	8
Resident	16	6	15	3	32	3
Non-resident	10	4	10	2	47	5

(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) Excludes adjustments to compensate for an eventual under-appraisal of overall data.

eign-exchange market, also in the derivatives segment non-resident counterparties maintained their growing weight in transactions, with their share increasing to 60%.

Turning to the ***geographical distribution of turnover in non-traditional derivatives****, BIS data reveal that the United Kingdom and the United States strengthened their position as major financial centres at the international level, jointly holding a share of 67% of total turnover (against 54% in 2001). France gained some importance, reaching the 3rd position with a share of 10%. Among the remaining countries, stress should be laid on the loss in share by Germany from 13% to 3%, and the declines in share of the Dutch and Spanish markets to 1.5% and 0.8% respectively (vis-à-vis 3% in 2001).*

Turning to the ***Portuguese market****, developments over the last triennial were characterized by some features distinguishing it from the overall trend observed.*

This occurred in the ***traditional foreign-exchange market****, whose trend showed some characteristics differing from those observed in the same period in the international market. OTC activity, in broad terms, had a paler increment than that detected in the BIS survey. The turnover increase in the traditional foreign-exchange market (of only 11%) did not make it possible to offset the significant contraction observed between 1998 and 2001, in the wake of the introduction of the euro, as happened at the international level. It should be recalled that this decrease in turnover had been much more marked in the Portuguese case (-61%), against that occurred in the global market (-20%). In turn, in the Portuguese market, there was no preferential development of the spot and forward segments, and the increase in national turnover was chiefly due to forex swaps and had a negative contribution from outright forwards. Notwithstanding these movements, the* ***breakdown by instrument*** *did not change significantly, and pursued a pattern somewhat different from that detected at the international level, with spot foreign-exchange operations continuing to prevail (53%), while outright forwards continue to hold a rather small share (4%) in total turnover, in contrast to the dominant position of forex swaps and the relatively major importance of outright forwards in the global market. The* ***breakdown of turnover by counterparties*** *also indicates a different behaviour, with financial institutions increasing their predominance in the traditional foreign exchange market (to approximately 90%), counterbalanced by the decline in the share of non-financial customers. In line with international developments, however, a trend was maintained towards the internationalisation of trading with non-resident counterparties, in a context in which this type of counterparty traditionally gains more expression in the Portuguese market, where it has a share above 85%. In terms of the* ***distribution by currency****, the euro continued to be the most important currency, taking the position occupied by the dollar at the international level, while transactions involving the pound sterling showed a significant increase in their share in total foreign-exchange turnover, similarly to developments in the global market.*

Developments in the ***Portuguese OTC derivative market*** *were rather buoyant, as in the global market, and total turnover stood in April 2004 at more than double the figure for April 2001. Similarly to developments at the international level, interest-rate derivatives continued to prevail, to account for more than 95% of total derivatives turnover in the Portuguese case. It is worth stressing that the importance of the interest-rate segment is higher in the Portuguese market, in a context in which turnover of non-traditional foreign-exchange derivatives is virtually non-significant. As to the breakdown* ***by instrument*** *of the interest-rate segment, the Portuguese pattern remained similar to the international market structure, continuing to show, however, a more significant predominance of IRS, which account for more than 80% of turnover. Also in the Portuguese market, interest-rate options increased significantly, inducing a gain in market share to approximately 15%, which is close to the share they hold in the international market. In turn, the turnover of FRA was almost non-existent, in clear contrast to the relative share they hold in the BIS survey.*

The predominance of the euro, in terms of base ***currencies*** *of the interest-rate derivatives, was more significant in the Portuguese market than in the international market. Euro interest rates were used in 93% of transactions (compared with 5% for the US dollar). This supremacy prevailed in both IRS and options. It is worth noting, however, that the abovementioned increase in contracts denominated in US dollars at the international level was also apparent in options in the Portuguese market, albeit to a smaller extent, with an increase in the share of interest-rate option contracts in US dollars. As to the breakdown by* ***counterparties****, the domestic survey re-*

vealed a trend that was slightly different from that seen in broad terms. The importance of financial counterparties declined more markedly, but remained predominant (approximately 85%), thus offsetting the increase in trading with resident non-financial counterparties. As a result, there was no sharper internationalisation of trading in interest-rate derivatives in Portugal, notwithstanding the still particularly expressive role played by non-resident counterparties (approximately 75%).

Table 4

GEOGRAPHICAL DISTRIBUTION OF TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER [a]

Results of the triennial survey co-ordinated by the BIS - Average daily turnover in April

USD billion as a percentage

	1998		2001		2004	
	Value	% of the total	Value	% of the total	Value	% of the total
Countries						
Argentina	2	0.1	…	...	1	0.0
Australia	47	2.4	52	3.2	81	3.4
Austria	11	0.6	8	0.5	13	0.6
Bahrain	2	0.1	3	0.2	3	0.1
Belgium	27	1.4	10	0.6	20	0.8
Brazil[b]	5	0.3	5	0.3	3	0.1
Canada	37	1.9	42	2.6	54	2.2
Chile	1	0.1	2	0.1	2	0.1
China[b]	0	0.0	0	0.0	1	0.0
Colombia	…	…	0	0.0	1	0.0
Czech Republic	5	0.3	2	0.1	2	0.1
Denmark	27	1.4	23	1.4	41	1.7
Estonia	…	...	…	...	0	0.0
Finland	4	0.2	2	0.1	2	0.1
France	72	3.7	48	3.0	64	2.7
Germany	94	4.8	88	5.5	118	4.9
Greece	7	0.4	5	0.3	4	0.2
Hong Kong SAR	79	4.0	67	4.1	102	4.2
Hungary	1	0.1	1	0.0	3	0.1
India	2	0.1	3	0.2	7	0.3
Indonesia	2	0.1	4	0.2	2	0.1
Ireland	10	0.5	8	0.5	7	0.3
Israel	…	…	1	0.1	5	0.2
Italy	28	1.4	17	1.0	20	0.8
Japan	136	6.9	147	9.1	199	8.3
Korea	4	0.2	10	0.6	20	0.8
Latvia	…	...	…	...	2	0.1
Lithuania	…	...	…	...	1	0.0
Luxembourg	22	1.1	13	0.8	14	0.6
Malaysia	1	0.1	1	0.1	2	0.1
Mexico	9	0.5	9	0.5	15	0.6
Netherlands	41	2.1	30	1.9	49	2.0
New Zealand	7	0.4	4	0.2	7	0.3
Norway	9	0.5	13	0.8	14	0.6
Peru	…	…	0	0.0	0	0.0
Philippines	1	0.1	1	0.1	1	0.0
Poland	3	0.2	8	0.5	6	0.3
Portugal	4	0.2	2	0.1	2	0.1
Russia	7	0.4	10	0.6	30	1.2
Saudi Arabia	2	0.1	2	0.1	2	0.1
Singapore	139	7.1	101	6.2	125	5.2
Slovakia	…	…	1	0.0	2	0.1
Slovenia	…	…	0	0.0	0	0.0
South Africa	9	0.5	10	0.6	10	0.4
Spain	19	1.0	8	0.5	14	0.6
Sweden	15	0.8	24	1.5	31	1.3
Switzerland	82	4.2	71	4.4	79	3.3
Taiwan, China	5	0.3	4	0.3	8	0.3
Thailand	3	0.2	2	0.1	3	0.1
Turkey	…	…	1	0.1	3	0.1
United Kingdom	637	32.5	504	31.2	753	31.3
United States	351	17.9	254	15.7	461	19.2
Total	**1958**	**100.0**	**1619**	**100.0**	**2408**	**100.0**

(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) Data cover spot transactions only.

Table 5

GEOGRAPHICAL DISTRIBUTION OF NON-TRADITIONAL OTC DERIVATIVES MARKET TURNOVER[(a)]

Results of the triennial surveys co-ordinated by the BIS - Average daily turnover in April

USD billion and as a percentage

	1998		2001		2004	
	Value	% of the total	Value	% of the total	Value	% of the total
Countries						
Australia	5	1.1	12	1.6	18	1.2
Austria	4	0.8	5	0.7	15	1.0
Bahrain	0	0.0	0	0.0	0	0.0
Belgium	6	1.3	14	1.8	32	2.1
Brazil	...	...	1	0.1	1	0.1
Canada	7	1.5	13	1.7	17	1.2
Chile	...	...	...	...	0	0.0
Colombia	...	...	0	0.0	0	0.0
Czech Republic	...	...	0	0.0	1	0.0
Denmark	5	1.1	6	0.8	12	0.8
Finland	2	0.4	1	0.1	0	0.0
France	46	9.7	67	8.8	154	10.2
Germany	34	7.2	97	12.7	46	3.0
Greece	0	0.0	0	0.0	0	0.0
Hong Kong SAR	3	0.6	4	0.5	15	1.0
Hungary	0	0.0	0	0.0	0	0.0
India	...	...	0	0.0	1	0.1
Indonesia	0	0.0	0	0.0	0	0.0
Ireland	3	0.6	6	0.8	13	0.9
Israel	...	...	...	...	0	0.0
Italy	5	1.1	24	3.1	41	2.7
Japan	42	8.8	22	2.9	39	2.6
Korea	0	0.0	0	0.0	2	0.1
Latvia	...	...	...	...	0	0.0
Luxembourg	3	0.6	5	0.7	7	0.5
Malaysia	1	0.2	0	0.0	0	0.0
Mexico	0	0.0	0	0.0	2	0.1
Netherlands	6	1.3	25	3.3	22	1.5
New Zealand	0	0.0	0	0.0	1	0.1
Norway	3	0.6	3	0.4	5	0.3
Philippines	...	...	...	...	0	0.0
Poland	...	...	...	...	1	0.1
Portugal	1	0.2	0	0.0	1	0.0
Saudi Arabia	0	0.0	0	0.0	0	0.0
Singapore	11	2.3	6	0.8	17	1.1
South Africa	1	0.2	1	0.1	3	0.2
Spain	4	0.8	21	2.7	12	0.8
Sweden	5	1.1	4	0.5	8	0.6
Switzerland	16	3.4	15	2.0	18	1.2
Taiwan, China	0	0.0	1	0.1	3	0.2
Thailand	0	0.0	0	0.0	0	0.0
Turkey	...	...	...	...	0	0.0
United Kingdom	171	36.0	275	36.0	643	42.6
United States	90	18.9	135	17.7	355	23.5
Total	**475**	**100.0**	**764**	**100.0**	**1508**	**100.0**

(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.

Articles

HOUSEHOLDS' DEBT BURDEN: AN ANALYSIS BASED ON MICROECONOMIC DATA*

*Luísa Farinha***

1. INTRODUCTION

The rapid growth in Portuguese households' indebtedness in the past few years increased the concerns that debt could become excessively burdensome to households. The increase in the aggregate-level debt burden ratio, which occurred during the second half of the 1990s, despite the downward trend of interest rates, reinforced such concerns. As a matter of fact, this ratio grew significantly during the second half of the 90s, mainly reflecting rising households' indebtedness, and stabilised after 2000.

The changes in the aggregate debt burden ratio provide some useful information on changes in consumption and households' investment as a whole. However, it should be stressed that those changes do not necessarily imply movements in a particular direction in the financial restraint of individual households. The aggregate debt burden ratio, in period t, which is defined as the estimate of interest plus capital repayments by households in that period divided by the estimate of aggregate disposable income, i.e.:

$$\frac{\sum_{i}^{ND} Debt\ service\ payments_{it}}{\sum_{i}^{NT} Disposable\ income_{it}}$$

(ND being the number of indebted households and NT the total number of households) depends both on the average ratio of indebted households and, to a large extent, on the number of indebted households. Thus, an increase in the aggregate indicator is consistent with the stability of the individual debt burden if the increase in the number of indebted households is sufficiently strong.

It should be noted that the aggregate ratio may also be read as a weighted average of individual debt burden rations (in which weights correspond to the ratios of each household's disposable income on total disposable income):

$$\sum_{i}^{ND}\left[\frac{Debt\ service\ payments_{it}}{Disposable\ income_{it}}\left(\frac{Disposable\ income_{it}}{\sum_{i}^{NT} Disposable\ income_{it}}\right)\right]$$

Thus, a single value of the aggregate-level measure is consistent with several combinations of individual debt burden and income across households. From the point of view of the stability of the financial system, it is reasonable to assume that the impact of an increase in the interest rates in the case of a relatively homogeneous debt burden across households will differ from the case where, for instance, the higher burden concentrates in the lower-income classes.

These initial considerations show the importance of using micro level data in the analysis of these issues. Only with this type of data it is possible to characterise in detail the distribution of the households' debt burden ratio. Therefore, the usual measures of central tendency (e.g. the mean) must be complemented with measures that capture the position of households in the tails of the distribution (e.g. the higher percentiles), where it

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

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is likely to find the more relevant situations from the point of view of financial stability.

The analysis presented in this article used the micro level data extracted from the results of the Survey on Households' Wealth and Indebtedness conducted in 1994 and in 2000. Data stemming from this survey should, however, be used with caution because, according to the results of the Census, there is strong evidence that some households, in particular the younger, are underrepresented, mainly in the 2000 sample. As economic theory (e.g. the life cycle hypothesis) suggests that younger households may be highly indebted and have a high debt-service burden, their weak representativity in the sample would bias downward the average debt burden ratio. Furthermore, it would increase the uncertainty about the conclusions on the behaviour of the ratio in that particular age class. However, despite the mentioned limitations, it is possible to conclude that, on average, there was not a significant increase in the debt burden ratio at the level of individual households.

Section 2 briefly presents the data and methodology. Section 3 analyses the results and section 4 concludes.

2. DATA AND METHODOLOGY

The analysis presented in this article is based on the micro data from the Survey on Households' Wealth and Indebtedness (*IPEF*), conducted by the *INE* with the support of the Banco de Portugal in 1994 and 2000. The unit of analysis of the *IPEF* is the household. The survey includes detailed information on wealth, indebtedness, income and expenditure (in particular payments associated with debts) of a sample of Portuguese households. This information is complemented by other aspects, such as age, level of education and labour market situation of the head of household.(1)

It was mentioned above that developments in the aggregate debt burden ratio depend both on the change in the number of indebted households and on the individual ratios of these households. The analysis presented in this article focuses mainly on the second aspect, using two different approaches: descriptive analysis and regression analysis.

The descriptive analysis characterises the distribution of the debt burden ratio of indebted households, using both the sample average and the 75th percentile. These statistics were calculated for several sub-samples defined according to pairs of households' characteristics that are particularly relevant in the analysis of indebtedness, such as the household's income and age and the level of education of its head. The pairs of variables selected were, on the one hand, income and age and, on the other hand, income and education. With this procedure, the effect of one of the variables on the debt burden ratio was isolated from the effect of the other.

In turn, the regression analysis provides an estimate of the effect of each one of the characteristics, simultaneously controlling for the effect of all the other explicitly included in the model. Given that the variable to be explained – households' debt burden – takes the value zero with a non-zero probability and is continuous for values above zero, the tobit methodology was used in this analysis. The following explanatory variables were included in the model: income, age, gender, marital status, level of education, labour market situation and household's number of elements. To facilitate the interpretation of results, "household's number of elements", "income" and "age" were measured as the difference between the value of the variable in the household and its value in a reference household, i.e., a household with two elements, earning the average wage and whose head is 40 years old. The remaining attributes were defined through dummy variables, which take the value 1 in a certain status and 0 otherwise. As usual, the dummy variables characterising the status of the reference household were not included in the model (head married, male, with the 3rd cycle of basic schooling and employee). To capture potential nonlinearities in the effect of income and age on the debt burden, the income squared and the interactive variable obtained from the product between income and age were also included as explanatory variables.(2) The inclusion of interactive variables resulting from multiplying each explana-

(1) For further details on *IPEF*, see the article "The effect of demographic and socio-economic factors on households' indebtedness", June 2003 issue of the *Economic bulletin*.

(2) A specification including the age squared was also estimated, in which the effect of this variable was not significant.

Table 1

SUMMARY CHARACTERIZATION OF THE 2000 SAMPLE , BY CLASSES OF INCOME AND AGE

Income		Age				
		Up to 30 years old	31 to 40	41 to 50	51 to 60	Total
Below 500 €	Indebted households (in percentage).	10.0	17.7	14.3	10.2	12.2
	Average of the debt burden	0.1875	0.2452	0.3199	0.1085	0.1877
	75th percentile of the debt burden	0.3735	0.3778	0.3922	0.1242	0.2879
	Relative frequency (in percentage).	0.17	0.91	0.74	1.90	3.71
From 500 to 1000 €	Indebted households (in percentage).	32.9	30.5	25.6	15.8	22.7
	Average of the debt burden	0.1875	0.1990	0.1861	0.1428	0.1763
	75th percentile of the debt burden	0.2270	0.2958	0.2097	0.1712	0.2207
	Relative frequency (in percentage).	2.15	7.51	7.92	8.09	25.66
From 1000 to 1500 €	Indebted households (in percentage).	39.6	48.4	39.3	23.8	35.3
	Average of the debt burden	0.1547	0.1553	0.1366	0.1178	0.1381
	75th percentile of the debt burden	0.2157	0.2089	0.1864	0.1622	0.1887
	Relative frequency (in percentage).	1.73	8.66	11.88	7.84	30.12
From 1500 to 2500 €	Indebted households (in percentage).	57.1	62.3	46.2	38.3	46.4
	Average of the debt burden	0.1963	0.1195	0.1114	0.0946	0.1111
	75th percentile of the debt burden	0.2022	0.1781	0.1675	0.1266	0.1629
	Relative frequency (in percentage).	0.99	6.68	9.57	8.75	25.99
Above 2500 €	Indebted households (in percentage).	50.0	78.8	65.5	41.4	56.2
	Average of the debt burden	0.0939	0.0932	0.0842	0.0543	0.0763
	75th percentile of the debt burden	0.1616	0.1288	0.1022	0.0671	0.0993
	Relative frequency (in percentage).	0.25	3.38	5.94	4.95	14.52
Total	Indebted households (in percentage).	35.8	43.3	37.5	22.9	32.2
	Average of the debt burden	0.1740	0.1538	0.1359	0.1072	0.1338
	75th percentile of the debt burden	0.2222	0.2018	0.1736	0.1479	0.1825
	Relative frequency (in percentage).	5.28	27.15	36.06	31.52	100.00

Source: *Inquérito ao Património e Endividamento das Famílias do INE*.

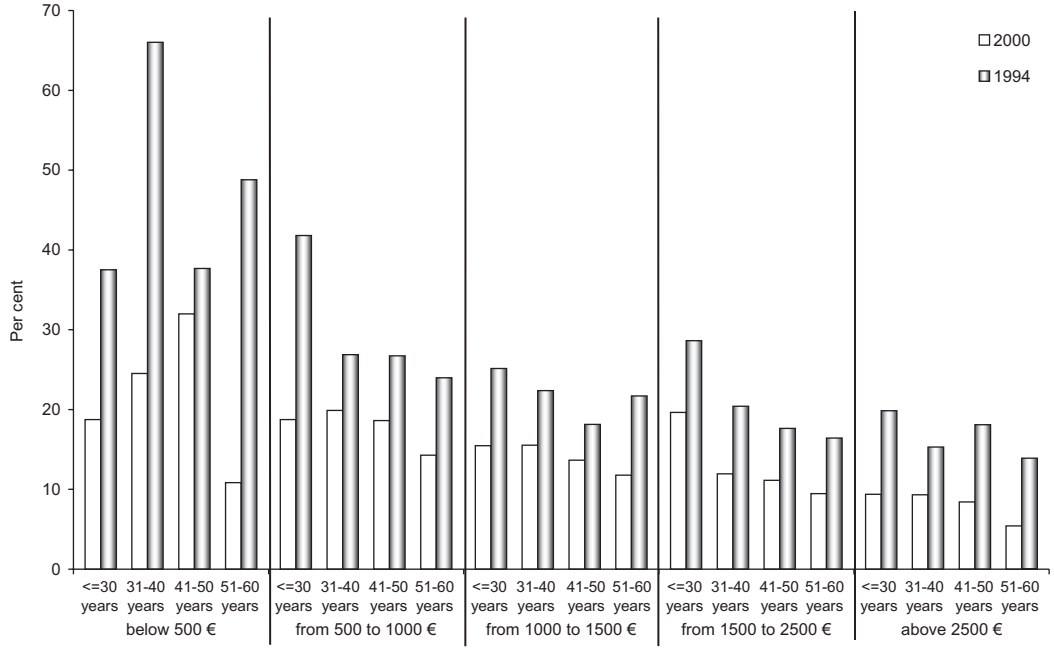
tory variables by D1994 (a variable which takes value 1 if an observation relates to 1994 and 0 otherwise) makes it possible to check whether the effects of the relevant variables changed significantly between 1994 and 2000.

3. RESULTS

Table 1 presents the sample average and the 75th percentile of the debt burden ratio of sub-samples defined according to income and age in the 2000 survey. The frequency of households and the share of those indebted in 2000 in each sub-sample are also shown. As can be seen from this table, households in the lowest-income class (below 500€ per month) and in the lowest age class (up to 30 years old) are underrepresented in the sample. In most of these cases, the number of households is very small. Therefore the figures calculated for these sub-samples are very inaccurate in statistical terms. Thus, a greater emphasis is put on the remaining sub-classes, presented in the shaded area of Table 1. The results should be interpreted with caution, since, as mentioned, there is evidence that some households, especially the younger, are underrepresented in the sample. As representativity is not ensured, summary statistics for the total sample may not be reflecting the Portuguese reality. Additionally, the results obtained may underestimate the actual change in the average debt burden, if loans more recently taken out are underrepresented (chiefly admitting that they

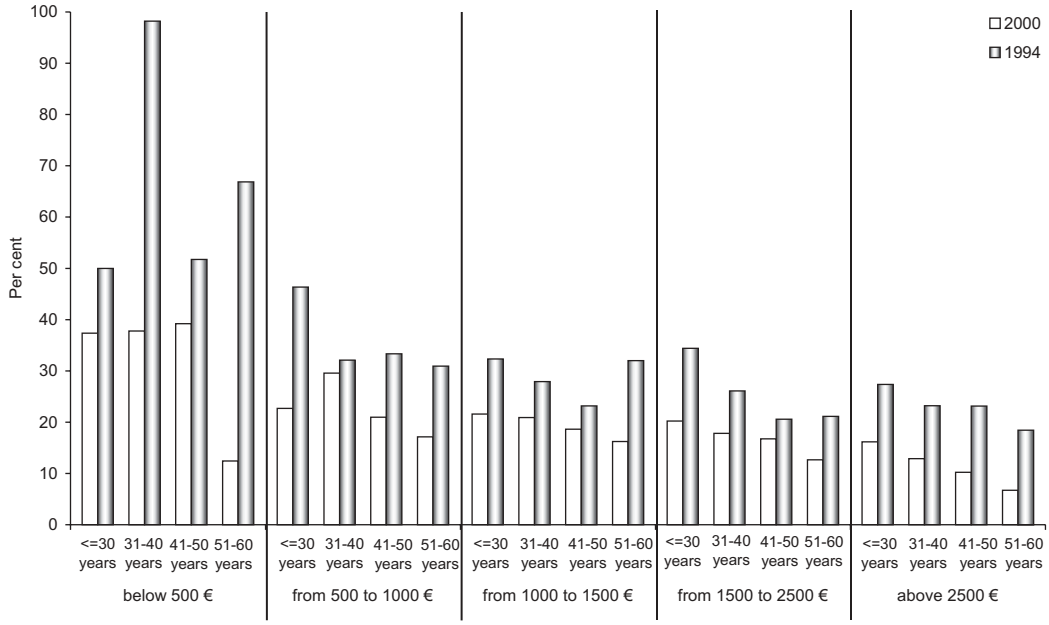
(3) More recent loans are probably associated with higher ratios, since inflation has eroded the nominal value of payments on loans taken out in previous years.

Chart 1
AVERAGE DEBT BURDEN
IN SUB-SAMPLES OF 1994 AND 2000 SURVEYS
Income and age



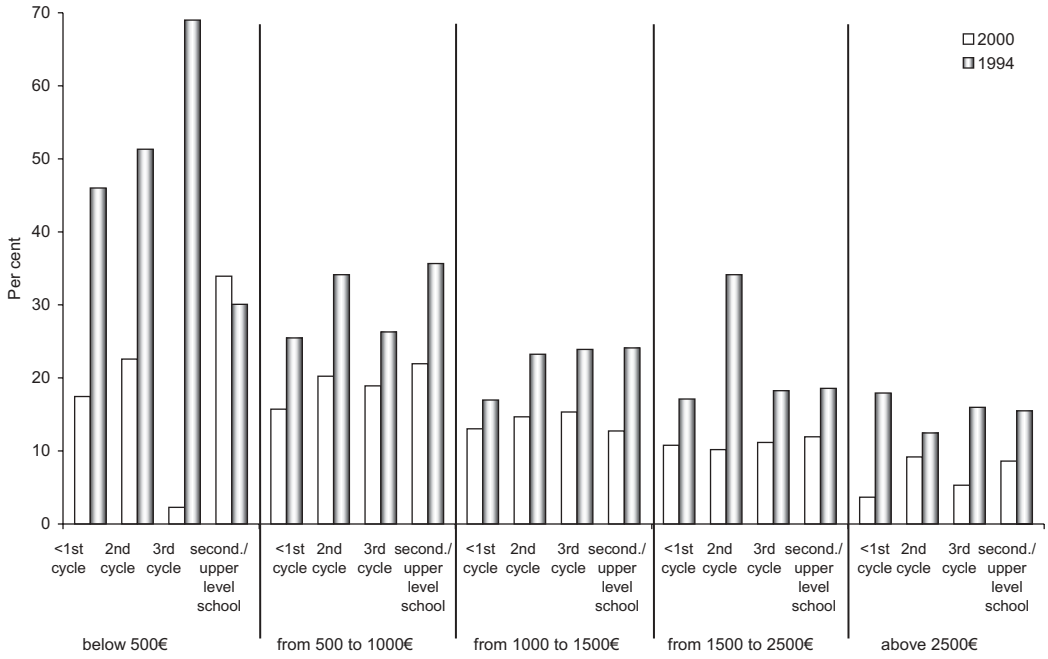
Source: *INE, "Inquérito ao Património e Endividamento das Famílias".*

Chart 2
DEBT BURDEN IN THE 75th PERCENTILE
IN SUB-SAMPLES OF THE 1994 AND 2000 SURVEYS
Income and age



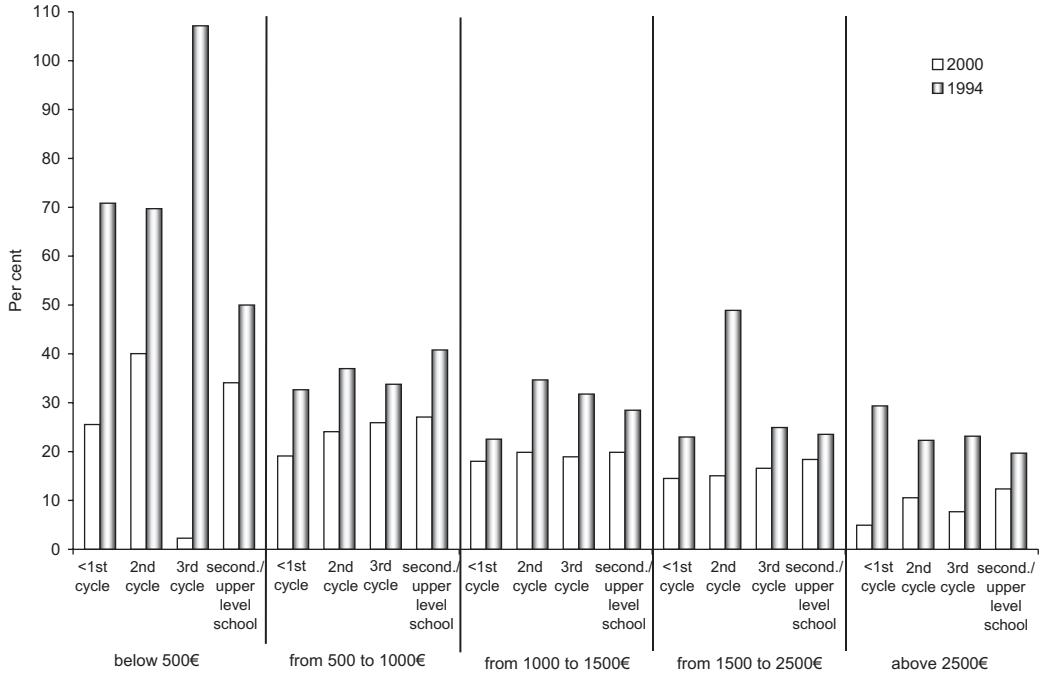
Source: *INE, "Inquérito ao Património e Endividamento das Famílias".*

Chart 3
AVERAGE DEBT BURDEN
IN SUB-SAMPLES OF THE 1994 AND 2000 SURVEYS
Income and education



Source: *INE, "Inquérito ao Património e Endividamento das Famílias".*

Chart 4
DEBT BURDEN IN THE 75th PERCENTILE
IN SUB-SAMPLES OF THE 1994 AND 2000 SURVEYS
Income and education



Source: *INE, "Inquérito ao Património e Endividamento das Famílias".*

Table 2

SUMMARY RESULTS OF THE TOBIT MODEL FOR THE DEBT BURDEN

Marginal effects in 2000 and differences from 1994

	Effect in 2000	Effect in 1994 minus effect in 2000	
		Value	*t*-statistics
Constant	-2.4	0.30	0.30
Households monthly income	2.4	-0.99	-1.70
Households monthly income squared	-0.3	0.20	1.94
Age of the head (years)	-0.2	-0.03	-0.83
Head is single	-4.7	1.23	0.70
Head has no formal education	-5.3	-0.62	-0.44
Head has Basic schooling (1st cycle)	-3.4	-0.82	-0.93
Head has Basic schooling (2nd cycle)	-1.0	-0.90	-0.87

Source: *Inquérito ao Património e Endividamento das Famílias* of *INE*.

Notes:

(a) Only results for significant variables.

(b) The marginal effects, measured in percentage points, are defined against a benchmark that is a household comprising two elements, earning monthly €1230 (equal to the sample average at 2000 prices); whose head is male, 40 years old, married, has completed the 3rd cycle of schooling and is employee.

are usually associated with higher debt burden ratios).[3] In the second half of the 1990s, the youngest households were the main contributors to the increase in aggregate indebtedness. As they are underrepresented, in particular in 2000, it is expected that loans taken out more recently are also underrepresented.

Table 2 presents the most relevant results of the regression estimates, namely the cross-section marginal effects statistically significant in 2000 and the differences between those effects in 1994 and in 2000. Charts 1 to 4 show the average and the 75th percentile in sub-samples defined according to income-age and income-education pairs. The joint reading of the various pieces of information point to the following conclusions:

- the percentage of indebted households increased between 1994 and 2000, although the actual increase in the number of indebted households is insufficiently reflected in data in Table 1, given the weak representativity of some subclasses, in particular the youngest;
- the heuristic observation of averages of the distribution of the debt burden ratios in the sub-samples built according to the above mentioned pairs of variables (age and income; education and income) points to a reduction in the debt burden ratio between 1994 and 2000 in most sub-samples (Charts 1 and 3); in turn, the results of the regression suggest that the reduction in the average debt burden, reflected in the constant of the model, is not statistically significant;
- extreme situations of the debt-burden ratio are more likely to be found in lower-income subclasses, which show relatively higher average ratios, both in 1994 and in 2000; this conclusion is suggested by the reading of 75th percentile of the distribution (Charts 2 and 4);
- moreover, controlling for age, the average debt burden ratio (and 75th percentile) seems to decrease with household's income, both in 2000 and 1994; this conclusion is not confirmed by the econometric analysis, where the non-linear specification suggests that the debt burden ratio increases for lower-income households but decreases from a higher level of income onwards (Table 2);
- considering only classes with income above 500€, due to the fact that the class up to 500€ is represented by a small number of households, the average ratio and the 75th percentile in each class of income, in most cases,

decrease with age (Table 1 and Charts 1 and 2); the regression results are consistent with the previous ones, suggesting that increasing the age of the household's head by one year leads to a reduction of around 0.2 percentage points in the debt burden ratio; the conclusion is valid for the 1994 and 2000 samples;

- according to the descriptive statistics, there is less evidence about the effect of the level of education on the debt burden than that of income and age; the indicator seems to grow with the level of education, more clearly from the second subclass onwards (whose elements completed the second cycle) both in 2000 and 1994; in turn, the econometric analysis points to a systematic and monotonous effect of the level of education on the debt burden up to the 3rd cycle of schooling; in particular, households whose head has no formal education show a lower average debt burden (of around 5.3 percentage points) than that of the reference household (i.e. the household whose head completed the 3rd cycle);
- the households whose head is single have a debt burden significantly lower than those whose head is married, both in 2000 and in 1994;
- finally, the marginal effects of age, education and marital status of the household' s head in 2000 are not significantly different from the effects in 1994.

4. CONCLUSION

The aggregate level estimates of Portuguese households' debt burden ratio usually referred to in the publications of the Banco de Portugal – defined as the estimate of households' debt burden divided by the estimate of disposable income – point to a strong increase in this indicator in the second half of the 1990s (it has doubled from 1995 to 2000). In turn, the empirical evidence obtained on the basis of the micro level data stemming from the *IPEF* in 1994 and in 2000 suggests that, on average, individual level debt burden ratios have not increased significantly. How is it possible to reconcile these two results? The explanation is probably associated with the strong increase in the accessibility of households to credit during the second half of the 1990s. It can therefore be concluded that the increased accessibility of households to bank financing was not achieved at the expense of the creation of highly critical situations in terms of the fulfilment of debt service commitments. The decrease in interest rates over this period allowed access to credit for a growing number of households, without implying the acceptance by credit institutions of extreme situations in terms of debt burden ratios. However, the fact that the increase in access to credit was stronger for the younger and for those with lower levels of formal education (see the article published in the June 2003 issue of the *Economic bulletin*) introduces elements of vulnerability, in aggregate terms, to an increase in unemployment. It is plausible to assume that these are the fringes of the population that, in the former case, show less permanent labour ties or, in the latter case, lower capacity to overcome an unemployment episode. The usual requirement, by banks, of personal guarantees in addition to the mortgage collateral in credit granted to younger people allows a mitigation of risks in this segment. However, the necessary data to assess the importance of these situations are not available.

LIQUIDITY AND ORDER FLOW IN THE PORTUGUESE STOCK MARKET

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The major purpose of this paper is the construction of measures characterising the order flow in the Portuguese stock market, and the analysis of the impact of such measures on the probability and time of execution of the orders.

In a market organised as an auction, as is the case of the Portuguese stock market, a bid (ask) order of a certain stock will be executed whenever matched by one or more ask (bid) orders at the required quote or at a more favourable quote. For instance, let us consider that a bid is submitted to the stock exchange at a given moment at quote p for the amount q. If at that moment the total amount of ask orders outstanding at p or a lower quote is greater than q, the bid will then be fully and immediately satisfied. If the number of ask orders outstanding at a satisfactory quote are insufficient to execute in full the bid, the unsatisfied share will be pending until expiration, full execution or cancellation of the order. Therefore, as a result of the volume and quote of the orders for each stock, a given order may (i) be immediately executed; (ii) be pending for some time, until partial or full execution; or (iii) be cancelled.

An important feature of financial markets is the spread in which investors carry out their transactions, and is associated with the notion of market liquidity(1). Thus, an efficient characterisation of the market usually requires the calculation of several liquidity measures, such as those presented in this article.

The liquidity notion is relatively wide and is associated with the ability to trade assets into currency, which, by definition, is the most liquid of all assets. Broadly speaking, asset liquidity may be analysed following two approaches: time and cost. According to the first approach, an asset is liquid if it can be traded quickly. Conversely, an asset is illiquid if investors cannot find, for a long period, matching market orders enabling the respective transaction. According to the second approach, an asset is liquid if the price to be paid (received) when buying (selling) the asset is close to its current market price. This leads to consider spreads between bid and ask quotes. The spread between the highest bid quote and the lowest ask quote corresponds to a liquidity measure usually known as the bid-ask spread.

This paper analyses bid and ask orders for all stocks belonging to the PSI-20 index of the Portuguese stock market between January and October 2002. The monitoring of all orders since submission to execution makes it possible to quantify the easiness in the execution of orders. This suggests the construction of specific liquidity indices for every stock or group of stocks. One of these mea-

* The views expressed in this article are those of the authors and not necessarily those of the Banco de Portugal. The authors thank Nuno Caramujo for his comments and suggestions.

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(1) Financial markets are required to offer investors the possibility of executing transactions quickly and with small price changes, maintaining transaction costs at a low level. Against this background, several works show that illiquid assets, i.e., assets facing more difficulties in their transactions, tend to offer higher expected yield (see, inter alia, the works by Amihud and Mendelson (1986) and Brennan and Subrahmanyam (1996)).

sures is the bid-ask spread, for which an average value of 60 basis points was obtained. The distinction between the different stocks of the index shows that the group of highly capitalised corporations has an average spread of 29 basis points, whereas the group of thinly capitalised corporations shows a spread of 105 basis points.

Another interesting measure consists in transactions costs, defined as the percentage change of the transaction price of a stock vis-à-vis its price one minute earlier. This is an additional liquidity measure, and its average value in PSI-20 is 4.11 basis points.

The values of the liquidity indices in the Portuguese stock market are equivalent to those observed in international markets, with bid-ask spreads around 20 and 30 basis points, and transaction costs between 3.79 and 5.03 basis points. It should be noted, however, that market liquidity changes throughout the transaction day, declining from the opening of the session to 12:00 p.m., to increase again approaching close of business. The behaviour in U-shaped pattern is also shared by major international markets.

This study also determines to what extent the orders submitted by investors are affected by market liquidity indicators. The success of an order may be measured either by the probability of execution or by the time to execution. Breaking down the determinants of the execution into specific factors pertaining to overnight, stocks and the market, this paper reveals that an increase in the bid-ask spread and in the stock volatility or a decline in the number of shares supplied at best quote lead to a decrease in the probability and an increase in the time of execution of the orders. It can also be concluded that, when trading high capitalisation stocks, an investor should expect an average increase of 8.5 (9.8) per cent in the probability of execution of the bid (ask) order, compared with trading low capitalisation stocks.

The article is structured as follows. The first section characterises the data and market structure, and calculates liquidity measures. Section 2 presents an analysis of liquidity and determines the behaviour of such measures throughout the day. Section 3 makes use of probit models of non-linear regression and the Cox model of proportional effects to estimate the relationship between liquidity measures and probability and time to execution. Finally, section 4 presents the major conclusions.

1. CHARACTERISATION OF THE MARKET

1.1. Descriptive data analysis

The database analysed was obtained from Euronext Lisboa and consists of all bid/ask orders relating to the 20 stocks traded in the PSI-20 index during the 195 transaction days between 4 January 2002 and 15 October 2002. This database contains a total of 2,441,490 orders. For each order, the stock exchange reports the ISIN code of the traded stock, the market segment (i.e., if it is a bid or ask order), the type, the expiry date of the order, an identification of the broker launching the order, and the position of the order in the maturity line. This permits to detect whether or not the order was cancelled (by the stock exchange or by the financial operators), changed, executed, or if it has simply expired. In addition, the database includes, for partially or fully executed orders, the number of trades leading to the execution of the transaction. Orders are divided into five types: (i) limit, indicating the maximum (minimum) bid (ask) quote and the quantity; (ii) at best price, which only indicates the quantity to be traded; (iii) opening/closing price, when the orders can only be given during the pre-opening and pre-closing period[(2)]; (iv) stop-orders, orders activated only when the market price attains the quote established in the order, giving rise to limit orders; and (v) market, chiefly equivalent to orders at best price, but privileging the swiftness of execution to the detriment of the price of execution, since they accept to "rise" in the order book.

Table 1 presents a summarised characterisation of the orders submitted during the period under analysis, thus making it possible to distinguish be-

(2) Trading of stocks belonging to the PSI-20 is continuous throughout the day. However, at the opening and close of business there are trading periods with different characteristics. These periods are known as pre-opening and pre-closing periods. During these periods, orders are accumulated until when, by matching all bid and ask orders, a single price is determined (opening price and closing price, respectively) satisfying the largest possible quantity of orders on both sides of the market. These transition periods were withdrawn from the analysis, since their characteristics are different from those of continuous transaction periods.

Table 1

DESCRIPTION OF MARKET ORDERS

Per cent

	PSI 20		Thinly capitalised		high capitalisation	
	Number of orders	Amount[a]	Number of orders	Amount[a]	Number of orders	Amount[a]
Buy Orders	45.55	49.28	47.26	48.58	44.36	49.38
Limit Orders	90.62	94.89	92.45	96.45	89.34	94.32
Orders at best price	8.99	5.03	7.00	3.30	10.38	5.38
Buy Limit Orders(% of limit orders)	47.23	49.57	48.28	48.77	46.47	49.74
At best price bid (% of at best price orders)	29.19	44.72	34.90	44.44	26.50	44.95
Validity of the orders (% of at best price orders)						
Validity for the day (% of total)	85.26	93.66	83.62	83.57	86.41	95.80
Order status (% of total)						
Orders executed	50.75	55.83	42.79	44.21	56.31	58.27
Orders expired	26.93	14.72	33.41	26.95	22.40	12.15
Annulled/cancelled/changed orders	22.22	29.47	23.65	28.71	21.22	29.59

Note:
(a) The amount is calculated by multiplying the quantity offered for each order by the closing price on the day the order was submitted.

tween the group of PSI-20 stocks and two subgroups of corporations: the highly capitalised group, gathering the 5 most highly capitalised corporations listed in the stock exchange, and the low capitalisation group, covering the 15 most low capitalisation corporations of the index[3].

The table shows that 54.4 per cent of the orders are ask orders, whereas 45.6 per cent are bid orders, most of the orders with same-day maturity. This result reveals more pressure on the ask side. However, this difference fades when carrying out the value analysis, and does not seem to be significant enough to give rise to imbalances in the order book during the period under analysis.

The limit orders represent 90.6 per cent of total orders submitted, rising to around 95 per cent in value terms. The group of limit orders includes 47.2 percent of bid orders. Orders at best price represent approximately 9 per cent of total orders, nearly 29.2 per cent of which are bid orders. The group of high capitalisation corporations reveals a higher percentage of orders at best price (10.4%) than the group of low capitalisation corporations (7%). The higher percentage of ask orders in total orders at best price may reveal a different behaviour between bid and ask intentions.

As regards the order position, i.e., the trajectory of the order until it is taken from the order book, it can be concluded that half of the orders submitted are executed, while 27 per cent of the orders expire for exceeding the maturity period. Thinly capitalised corporations have, on average, an execution ratio of 42.8 per cent, which is significantly below the execution ratio of 56.3 per cent, on average, of high capitalisation corporations. This may be interpreted as evidence that high capitalisation corporations have a higher probability of satisfying bid and ask intentions than low capitalisation corporations, denoting the higher liquidity of high capitalisation stocks.

In the preparation of this paper, we only considered the limit orders with maturity on the same day they were submitted. In addition, orders submitted during the pre-opening and pre-closing periods were eliminated. As a result, a total of 1,594,921 observations were used in this study.

(3) The breakdown into the 5 most high capitalisation corporations and the 15 most low capitalisation corporations corresponds to a natural separation in the PSI-20 index. The five largest corporations account for approximately 75% of total capitalisation of the PSI-20 index and are part of the group of 90 corporations with more weight on the Euronext 100 index.

1.2. The order book and liquidity measures

The order book consists of the compilation of bid and ask orders for each stock, at each moment in time. Orders enter in the book during the day and are immediately available to the market. They are removed from the book when executed, cancelled, changed or expired.

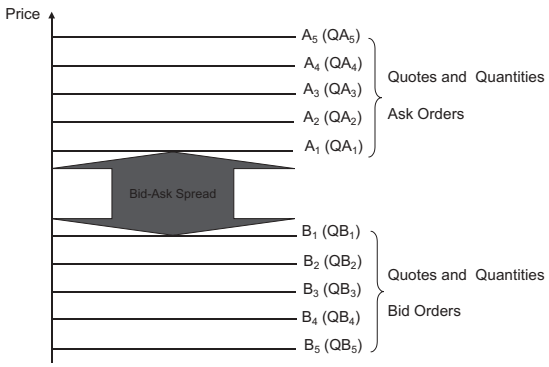
For every stock, market side (bid or ask) and transaction time unit (in our case, the second), the order book corresponds to a table comprising all quotes offered for transaction and the respective total quantities of outstanding orders, i.e., the orders that have not yet reached their maturity, have not been cancelled, or have not been fully satisfied. At each moment in time, orders that are cancelled or expired are withdrawn from the order book. Likewise, the quantities offered by outstanding orders that are not immediately satisfied are added to the book. It can be thus concluded that monitoring the order book corresponds to creating a virtual settlement system.

Chart 1 represents the order book of a stock at a given moment in time. Values B_1 to B_5 with $B_1 > B_2 \ldots > B_5$, represent the five highest quotes associated with bids and, therefore, have a higher probability of execution. Quantities $QB_1, \ldots, QB_5$ with $QB_1 < QB_2 \ldots < QB_5$ pertain to the accumulated ask quantities at B_1 to B_5 quotes, respectively. Likewise, A_1 to A_5, with $A_1 < A_2 \ldots < A_5$, represent the five lowest quotes on the ask side and, therefore, show the higher probability of being executed, as well as quantities $QA_1, \ldots, QA_5$, with $QA_1 < QA_2 \ldots < QA_5$.

The order book is a mechanism for the analysis of bid-ask matching. The bid $(B_1$ to $B_5)$ and ask values $(A_1$ to $A_5)$ correspond to the best price quotes offered on the market by agents willing to buy or sell assets, respectively. The spread between the highest bid quote (B_1) and the lowest ask quote (A_1), known as bid-ask spread, is a natural liquidity measure. Stocks with higher spread are characterised by an increased difficulty in obtaining transaction and, as a result, by lower liquidity.

It should be noted that, although each order may be executed in different transactions over time, the construction of the order book assumes that, for fully or partially executed orders, all transactions are carried out at the moment when the last change is introduced in the order. This simplification introduces some flaws in the book. Therefore, every order is eliminated at moments when the calculation of the order book led to $B_1 = A_1$, which accounts to less than 10 per cent of the orders.

Chart 1
SCHEMATIC REPRESENTATION OF THE ORDER BOOK



Among the most common criticisms of the bid-ask spread as a measure of liquidity is that it considers only the price component, and not the respective quantities. In order to include the traded volume, an analysis can be made of the changes in the quantities offered in the order book for the different bid/ask quotes (as in the subsequent section), or an additional liquidity measure, called transaction cost, can be considered. The latter represents a percentage change of the transaction price between two consecutive minutes. More liquid stocks will be associated with less price changes, which translates into lower transaction costs.

Table 2 presents a summary of the two previously described liquidity measures. Since higher or thinner liquidity situations may be the result either of spreads between stocks or of different market conditions with periods of larger price changes potentially associated with periods of major disturbances, Table 2 calculates liquidity measures for different daily return intervals. This indicator is intended to measure the general market sentiment on the day an order is submitted. Large price changes should correspond to periods of more difficulties in matching stock bids and asks, which

Table 2

LIQUIDITY MEASURES

	Daily return spreads vis-à-vis the average return for the period					
Bid-ask spread (%)	$<\mu-2\sigma$	$[\mu-2\sigma,\mu-\sigma[$	$[\mu-\sigma,\mu+\sigma]$	$]\mu+\sigma,\mu+2\sigma]$	$>\mu+2\sigma$	Total
Low capitalisation group	1.56	1.27	0.97	1.18	1.26	1.05
High capitalisation group	0.36	0.31	0.27	0.30	0.31	0.29
Total - PSI 20 Index	0.79	0.66	0.56	0.66	0.64	0.60
Transaction costs (in basis points)	$<\mu-2\sigma$	$[\mu-2\sigma,\mu-\sigma[$	$[\mu-\sigma,\mu+\sigma]$	$]\mu+\sigma,\mu+2\sigma]$	$>\mu+2\sigma$	Total
Low capitalisation group	9.02	9.20	5.88	7.23	7.81	6.52
High capitalisation group	3.32	2.84	2.34	2.57	2.77	2.48
Total - PSI 20 Index	5.34	5.15	3.81	4.43	4.54	4.11
Number of orders	$<\mu-2\sigma$	$[\mu-2\sigma,\mu-\sigma[$	$[\mu-\sigma,\mu+\sigma]$	$]\mu+\sigma,\mu+2\sigma]$	$>\mu+2\sigma$	Total
Low capitalisation group	28 051	62 233	476 800	69 045	11 451	647 580
High capitalisation group	50 727	107 342	665 658	102 815	20 799	947 341
Total - PSI 20 Index	78 778	169 575	1142 458	171 860	32 250	1594 921

Note: μ represents the average return of the sample period, and σ the standard deviation. Definition of the variables: the *bid-ask spread* is given by $(A_1 - B_1) / ((A_1 + B_1) / 2) * 100$; the transaction cost is $\sum (B_{1,t} - B_{1,t-1}) * Q_t / \sum P_t * Q_t$, where $B_{1,t}$ is the average value of the best price bid quote in minute t, $P_t = (A_{1,t} + B_{1,t}) / 2$ represents a proxy for the transaction price, Q_t; is the quantity executed associated with the order, and the sum is carried out for all orders fully or partially executed entered in minute t. (For ask orders, the definition uses the best price aks quote A_1.) The number of orders corresponds to the number of bids/asks in any of the distribution intervals of daily return of the PSI-20 index.

may be translated into thinner-liquidity periods. Table 2 groups orders by different categories defined in terms of daily changes in the PSI-20 index. For the period under analysis, the index return was calculated vis-à-vis the previous session, and a daily return distribution was obtained with mean μ and standard deviation σ. For instance, the spread $[\mu - \sigma, \mu + \sigma]$ in the table corresponds to the days when the daily return of the PSI-20 index stood between (i) the daily average return of the index over the period under analysis less one standard deviation of that return $(\mu - \sigma)$, and (ii) the average return plus one standard deviation $(\mu + \sigma)$. The table also presents the number of orders included in the different daily return spreads of PSI-20.

Table 2 shows that the bid-ask spread of the group of stocks belonging to the index PSI-20 is 60 basis points, with a significant difference between the group of stocks of high and low capitalisation. The bid-ask spread for the low capitalisation group is 1.05 per cent, approximately fivefold that for the high capitalisation group, which is 0.29 per cent. The bid-ask spread varies within the day, with an approximately U-shaped standard. However, the liquidity distribution shows asymmetry in terms of daily return, with the left tail of distribution of this variable associated with lower liquidity values than those observed in the right tail.

Transaction costs in the case of the group of low capitalisation firms are, on average, at 6.52 basis points, while in the case of the group of high capitalisation companies the figure is 2.48 basis points. Similarly to the bid-ask spread, transaction costs change also with daily return. When daily return is less than two pattern deviations below the sample average, its value stands at 5.34 basis points, decreasing to 3.81 basis points in the interval between minus one and plus one pattern deviation, increasing again to 4.54 when the daily return stands more than two pattern deviations above average return, which also indicates an asymmetric behaviour as regards the distribution of daily return.

In order to better incorporate liquidity measures in the Portuguese market within other stock markets, Table 3 presents the average values of the bid-ask spread and transaction costs for a sample of major international markets.

Table 3

COMPARISON WITH INTERNATIONAL MARKETS

Market – Index	Stock Exchange Capitalisation as at 30/04/2004 ($M)	Bid-ask spread (%)	Transaction costs (basis points)
USA - Dow Jones	3144935	0.27	3.79
Euronext - Paris	847707	0.14	3.72
Spain- IBEX 35	302030	0.24	5.50
Germany - DAX	607668	0.17	5.03
Italy - MIB 30	429427	0.27	4.40
Greece - ASE 20	3385	0.63	9.43
Austria - ATX	24347	0.94	11.56
Brazil - Bovespa	11931	0.83	13.98

Source: Information published in "*Global Equity Markets*", *Birinyi Associates, Inc., Deutsche Bank Securities*, September 2002. Results reflect the analysis for January 2002.

Although the sample period is not coincident, the comparison of the values in the table with the results obtained for the Portuguese market shows that the liquidity index values fall within the same magnitude range as those observed for international markets. In particular, the sub-group of high capitalisation corporations reveals a bid-ask spread (29 basis points) and an average value of transaction costs (2.48 basis points) at levels that are close to those observed in major international markets.

2. BEHAVIOUR OF THE BID-ASK CURVE AND INTRA-DAILY ANALYSIS

This section analyses in more detail the composition of the bid-ask curves in the order book, with special emphasis on the impact of the quantity on price.

In addition, and similarly to developments in most markets, the intra-daily behaviour of liquidity is analysed, as measured by the average values of the bid-ask spread during the day.

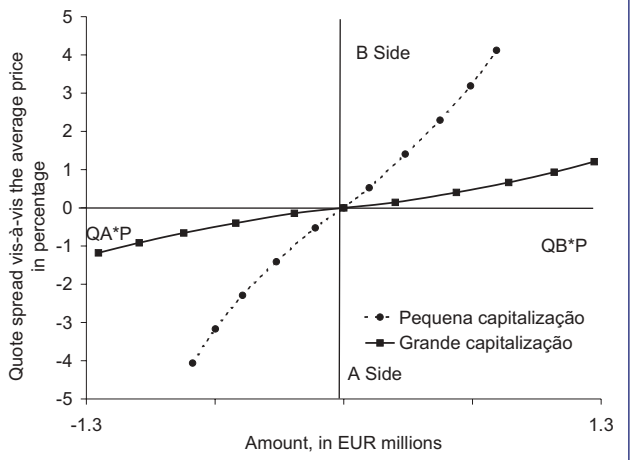
2.1. Behaviour of the bid-ask curve

The full characterisation of the behaviour of stock demand and supply can only be achieved when simultaneously considering the two variables of the order book: quotes (bid-ask spread) and quantities offered at each moment in time. The slope of the book measures the amount that an investor will have to pay extra (or receive less) to buy (sell) shares of a certain stock. This analysis suggests an additional liquidity measure, which we shall call price robustness (for high-amount orders), and defined as the amount (in euros) that a sell (or buy) order should attain, for its price to change by 0.1 per cent. In a liquid market, large transactions should be absorbed without causing large changes in the transaction price.

The empirical analysis of the order book has been undertaken in other markets. Biais et al. (1995) conclude that the order book in the Paris Bourse is slightly concave, with a bid-ask spread twice as high as the adjacent spreads, on either side. In turn, Al-Suhaibani and Kryzanowski (2000) conclude that the slope of the order book of the Saudi Stock Market does not depart strongly from linearity.

Chart 2 represents the Portuguese market order book, permitting to distinguish between both groups of high and low capitalisation corporations. The vertical axis represents the average bid-ask spread as a percentage of the quote midprice. The horizontal axis presents the amount entered in the order book, evaluated at the quote midpoint. The first quadrant represents the bid segment; the third quadrant the ask segment. The values indicated in the chart are averages of the bid and ask orders of each subgroup of stocks, for the five levels calculated on either side. For instance, the chart section corresponding to high capitalisation corporations, on the right-hand side,

Chart 2
SLOPE OF THE ORDER BOOK



can be interpreted as follows: on average, there are outstanding bid orders amounting to € 1.27 million that may be matched by ask orders standing 1.2 per cent below the regular transaction price.

The group of low capitalisation corporations presents a steeper slope than high capitalisation corporations. This means that the price of low capitalisation corporations is more susceptible to changes in quantities offered. Table 4 quantifies the graphic representation presented in Chart 2, determining the price robustness, i.e., the average amount necessary for an offer to give rise to a 0.1 per cent change in the stock price. (The price is defined herein as the average between the better quotes offered at both sides of the market.) As previously, this measure of impact on prices is calculated for different distribution intervals of daily returns of the PSI-20 index. Table 4 also establishes a distinction between price robustness for bid and ask orders.

The results presented in Table 4 reveal that, on average, a 0.1 per cent change is expected in prices if, at a given moment in time, bid orders to the amount of € 136 thousand or ask orders to the amount of € 140 thousand are settled. As would be expected, the stock price in low capitalisation corporations is more sensitive to changes in quantities offered. In turn, prices in general are more sensitive to changes in quantities offered when the market registers more changes in daily return. This behaviour is consistent with less liquidity of low capitalisation corporations and/or with situations of sudden changes in market returns.

2.2. Intra-daily behaviour

According to some authors, such as Bias, Hillion and Spatt (1995), the number of orders and transactions changes throughout the day, registering a higher number and average value of transactions towards the end of the session. According to these authors, low average value orders at the beginning of the day may be related to a mechanism of price disclosing. Large orders at the end of the day occur after price disclosure, or also due to the fact that large financial intermediaries, such as investment funds, close their portfolio positions based on the end of the session values instead of intra-daily values.

The change in the volume of transactions seems to be related to a change in market liquidity, wherefore higher liquidity is to be expected when the market registers a higher number of transactions. Chart 3 represents the bid-ask spread behaviour throughout the day between 9:00 a.m. and 4:00 p.m., for one-hour intervals, distinguishing developments in low capitalisation and high capitalisation groups. The values at the opening and the end of the session correspond to a lower number of orders.

As observed in most markets, stock market liquidity in Portugal reveals an intra-day behaviour with approximately a U-shaped standard, decreasing during the morning to increase slightly towards the end of the session.

The bid-ask spread of thinly (highly) capitalised corporations attains its low at approximately 2:30 p.m., accounting for approximately 60 (53) per cent of the value recorded at the opening of the session.

3. DETERMINING FACTORS BEHIND THE RATIO AND TIME OF EXECUTION OF THE ORDERS

The previous sections identified a number of liquidity indicators characterising the market that an investor faces when submitting an order. This section determines the importance of such indicators for the success of the orders, which is defined as the easiness of execution (when the quantity ex-

Table 4

PRICE ROBUSTNESS

0.1% impact on average price (bid) (euro million)	Daily return intervals vis-à-vis average return for the period (μ)					
	$<\mu-2\sigma$	$[\mu-2\sigma,\mu-\sigma[$	$[\mu-\sigma,\mu+\sigma]$	$]\mu+\sigma,\mu+2\sigma]$	$>\mu+2\sigma$	Total
Low capitalisation group	0.009	0.028	0.029	0.031	0.016	0.028
High capitalisation group	0.130	0.178	0.225	0.197	0.189	0.210
Total - PSI 20 Index	0.087	0.123	0.143	0.130	0.128	0.136
0.1% impact on average price (ask) (euro million)	$<\mu-2\sigma$	$[\mu-2\sigma,\mu-\sigma[$	$[\mu-\sigma,\mu+\sigma]$	$]\mu+\sigma,\mu+2\sigma]$	$>\mu+2\sigma$	Total
Low capitalisation group	0.018	0.025	0.026	0.023	0.016	0.025
High capitalisation group	0.128	0.199	0.231	0.201	0.201	0.218
Total - PSI 20 Index	0.088	0.135	0.146	0.130	0.136	0.140

ecuted is positive), or the time elapsed from the moment when the order is submitted to the respective execution.

A bid (ask) order will have the more probability of being executed: the more it matches quotes on the opposite side of the market in the order book; the larger is the volume of orders accumulated on the ask (bid) side; or the lower is the bid-ask spread. These factors determine that the rate of execution of the order depends on the characteristics of the order and on its relationship with the order book at the moment it is submitted. For instance, a higher number of orders in the book at the best price quotations will reduce the probability of execution, or increase the average time to execution.

In addition to specific factors inherent to the order, it should be expected that factors related to the stock or the market may also influence the probability of execution. In particular, high capitalisation stocks with lower volatility will probably have more probability of execution. Lets us consider that the dummy variable *Exec* corresponds to 1 when the order is fully or partially executed, and to 0 otherwise. The probability of full or partial execution of an order, $\Pr\{Exec=1\}$, may be described as:

$$\Pr\{Exec=1\} = F[\alpha + g(order\ \ factors) + h(stock\ \ factors) + w(market\ \ factors) + \varepsilon]$$

where F is a function associated with the probit model, and it is assumed that g, h, and w are linear functions. In addition:

(i) $order\ \ factors = (D_{\text{agressiveness}}, Priority\ Quantity, Bid-ask, D_9, \ldots, D_{16})$

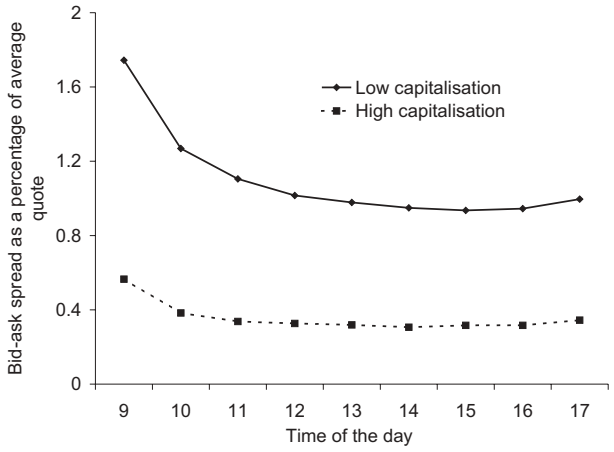
(ii) $stock\ \ factors = (\sigma_{\text{stock}}, D_{\text{high cap.}}, Return_{\text{stock}})$;

(iii) $market\ \ factors = (R_{<\mu-2\sigma}, R_{[\mu-2\sigma,\mu-\sigma[}, R_{[\mu-\sigma,\mu+\sigma[}, R_{[\mu+\sigma,\mu+2\sigma[}, R_{>\mu+2\sigma)}.$

$D_{\text{agressiveness}}$ is a dummy variable corresponding to 1 in the case when, in an ask order, the order quote, *Quote*, is below the minimum ask quote in the order book of the stock in the minute prior to submitting the order, $V_{1,t-1}$. Otherwise, the variable is zero. In the case of a bid order, the variable corresponds to 1 if $Quote > C_{1,t-1}$. This is a measure of the aggressiveness of the order. It is to be expected that more aggressiveness will induce a narrowing of the bid-ask spread. Table 5 presents the correlations between the bid-ask spread and the measure of aggressiveness of the order for the minute when the order was submitted and for the three previous minutes. It can be observed that submitting ask (bid) orders at quotes below (above) the lower (higher) ask (bid) quote in the book has a correlation of -8.97 (-8.14) per cent with the bid-ask spread. This correlation will gradually decrease as the lag widens.

The *Priority Quantity* variable for a bid order represents the ratio of the quantity of shares offered at best price bid quote in the total quantity of shares offered at best price bid and ask quotes in the previous minute, i.e., $QB_{1,t-1} / \left(QB_{1,t-1} + QA_{1,t-1}\right)$, where $QB_{1,t-1}$, for instance, is the quantity outstanding in the order book for the highest bid

Chart 3
INTRA-DAILY BEHAVIOUR OF THE BID-ASK SPREAD



quote. For an ask order, the *Priority Quantity* is defined as $QA_{1,t-1} / (QB_{1,t-1} + QA_{1,t-1})$.

The bid-ask variable represents the bid-ask spread of the stock in the minute prior to the order.

As regards the variables associated with the stock, σ_{stock} represents the daily volatility of the stock, and is defined as $(P_{maximum} - P_{minimum}) / |P_{close} - P_{opening}|$, where $P_{maximum}(P_{minimum})$ represents the maximum (minimum) transaction price of the stock during the day. (The price of the transaction is proxied by $(A_1 + B_1) / 2$.) The values for P_{close} and $P_{opening}$ are defined in a similar manner. The $Return_{stock}$ variable represents the daily return of the stock defined as the basis for closing prices, and is intended to monitor the idiosyncratic movements of stock prices in the PSI-20.

$D_{high\ cap.}$ is a dummy variable corresponding to 1 in case the order refers to a high capitalisation stock, which makes it possible to compare the behaviours of both groups of stocks.

Finally, turning to the variables related to the market, and similarly to tables 2 and 4, the dummy variables considered describe the market return intervals vis-à-vis the average for the period. Variable $R_{<\mu-2\sigma}$ is an indicator corresponding to 1, if the daily return is lower than the average return for the period minus two standard deviations, and corresponding to 0 otherwise. Similarly, the dummy variables for the respective interval are defined as: $R_{[\mu-2\sigma,\mu-\sigma[}$, $R_{[\mu-\sigma,\mu+\sigma[}$, $R_{[\mu+\sigma,\mu+2\sigma[}$ and $R_{<\mu+2\sigma}$.

With a view to controlling changes in market behaviour throughout the day, already reported in Chart 3, the regression model also considers dummy variables for the transaction time, $D_9, \ldots, D_{16}$, which correspond to 1, if the order was submitted at [9:00,10:00 a.m.], ..., [16:00,16:25 p.m.], respectively. Taking into account that these variables have as their exclusive purpose to monitor the effects estimated for the remaining variables, the value of their estimates is omitted.

Since the dependant variable of on the model is a dummy corresponding to 1 if the order is executed and to 0 otherwise, a probit, non-linear regression model is estimated. The second and third columns of Table 6 present the results of the regression model just described. In the table, the estimates of the coefficients represent the marginal effects of the independent variables on the probability that the order is executed. The line below the values estimated for the coefficients presents the respective p-values.

Similarly, it is possible to calculate the impact of the same factors, associated with order, stock and market, on the time of execution, depending on whether or not the order is executed. For that purpose, use was made of a Cox model of proportional effects. The results of the estimates of this model for ask and bid orders are presented in the third and fourth columns of Table 6. This is the ratio (known in the literature as hazard ratio) of the instantaneous rate of execution of the order to the reference rate of execution (known in literature as baseline hazard). Estimates of hazard ratios above 1 represent a decrease in the time of execution vis-à-vis the reference. For instance, the hazard ratio associated with the aggressiveness in ask orders is 2.18, which means that, on average, the aggressive orders (with $D_{agressiveness}$ equivalent to 1) have a rate of execution 2.18 times higher than non-aggressive orders (with $D_{agressiveness}$ equivalent to 0).(4)

The results presented in Table 6 reveal that the factors related to the order, stock and market are very important in explaining the probability and time of execution of the order. The results in the

(4) In the Cox duration model, the hazard function is defined as $h(t) = h_0(t) * \exp(\beta_1 * x_1 + \ldots + \beta_k * x_k)$, where $h_0(t)$ is the baseline hazard, and β_i are the coefficients to be estimated. Table 6 presents estimates of $\exp(\beta_i)$.

Table 5

SAMPLE CORRELATION BETWEEN THE BID-ASK AND AGGRESSIVENESS IN LAGGED MINUTES

	$D_{contemp.\ agress.}$	$D_{agressiveness}$	$D_{agressiveness\ (-2)}$	$D_{agressiveness\ (-3)}$
		Buy orders		
Bid Ask Spread	-0.0897	-0.0869	-0.0904	-0.0856
		Sell orders		
Bid Ask Spread	-0.0814	-0.0778	-0.064	-0.0522

Notes: Definition of the variables: the bid-ask spread is given by $(A_1-B_1)/((A_1+B_1)/2)*100$; $D_{comtemp.agress.}$ is 1 if $Quote_t < A_{1,t}$ ($Quote_t > B_{1,t}$) for an ask (bid) order, and 0 otherwise. $Quote_t$ is the quote associated with the order and $A_{1,t}$ ($B_{1,t}$) is the average value of the best price ask (bid) quote at minute t. $D_{agressiveness}$ corresponds to 1 if $Quote_t < A_{1,t-1}$ ($Quote_t > B_{1,t-1}$) for an ask (bid) order, and to 0 otherwise. $D_{agressiveness\ (-2)}$ corresponds to 1 if $Quote_t < A_{1,t-2}$ ($Quote_t > B_{1,t-2}$) for an ask (bid) order, and 0 otherwise. $D_{agressiveness\ (-3)}$ is defined in a similar manner but for t-3. All correlations are significant with confidence intervals of 95%. The number of observations is 1,335,266.

second column reveal that, if an ask order is submitted at a quote below its best price ask quote (V_1 in Chart 1) in the previous minute (aggressiveness measure), the probability of execution of the order is raised by 60 per cent (this value stands at 55 per cent in the case of bid orders - third column). As expected, the probability of execution of ask (bid) orders decreases when, in the minute prior to submitting the order, the order book presents a higher number of orders at best price ask (bid) quotes, or when the bid-ask spread is wider. A 1 per cent increase in the quantity of stocks at best price ask quote reduces the probability of execution of the ask orders by 14.9 per cent (15.4 per cent in the case of bid orders). A widening of the bid-ask spread by 1 per cent lowers the probability of execution of ask orders by 5.4 per cent (4.3 per cent in the case of bid orders).

The stock and market factors also influence the probability of execution of bid and ask orders. A 1 per cent rise in the stock volatility is associated with a decline in the probability of execution of bid orders (0.13 per cent) and ask orders (0.07 per cent). In case the stock belongs to the group of high capitalisation corporations, the probability of execution of ask (bid) orders increases by 8.5 (9.8) per cent. This impact is consistent with the results presented in Table 1 (summarised description of the orders). Finally, and as expected, the stock return and the index tend to affect positively (negatively) the probability of execution of the ask (bid) order.

As regards the time of execution of the orders, the results of the duration model are in general consistent with those obtained for the probability of execution. According to the results, the time of execution of ask (bid) orders decreases when the orders are below (above) the best price ask (bid) quote recorded in the previous minute (i.e., when aggressiveness increases), when the number of shares at minimum (maximum) ask (bid) quote decreases vis-à-vis the previous minute, or when there is a narrowing in the bid-ask spread from that recorded in the previous minute. Similarly to the probability of execution, high capitalisation stocks are associated with shorter times of execution than low capitalisation stocks. However, the results reveal that positive changes of the stock returns are associated with an increase in the time of the execution of ask orders or its decrease in the case of bid orders. Stock volatility also shortens the time of execution of both bid and ask orders, albeit not markedly.

4. CONCLUSIONS

This paper analyses liquidity and factors of execution of orders in the Portuguese stock market. The compilation of all orders of stocks belonging to the PSI-20 index from January to October 2002 made it possible to build a market order book and, consequently, to create a virtual system of order transactions. The analysis of the order book permits market liquidity indicators to be identified, such as the spread between the highest bid quote

Table 6

ANALYSIS OF THE EXECUTION RATION AND TIME OF EXECUTION

	Probability of execution		Time of execution	
	Pobit model		Cox duration model	
	Ask orders	Bid orders	Ask orders	Bid orders
	dF/dx	dF/dx	Haz. Ratio	Haz. Ratio
Order factors				
$D_{aggressiveness}$	0.6060	0.5501	2.1772	2.2695
	0.000	0.000	0.000	0.000
Priority quantity	-0.1489	-0.1539	0.7034	0.6864
	0.000	0.000	0.000	0.000
Bid Ask	-0.0539	-0.0434	0.7648	0.7887
	0.000	0.000	0.000	0.000
Stock factors				
σ_{stock}	-0.0013	-0.0007	1.0060	1.0066
	0.000	0.000	0.000	0.000
D_{stock}	0.0852	0.0983	1.2081	1.2519
	0.000	0.000	0.000	0.000
$Return_{stock}$	1.2028	-0.8164	0.4103	2.3180
	0.000	0.000	0.000	0.000
Market factors				
Return $<\mu-2\sigma$	0.0072	0.0349	1.1381	1.0355
	0.033	0.000	0.000	0.000
Return $[\mu-2\sigma,\mu-\sigma[$	-0.0204	0.0433	0.9971	1.0003
	0.000	0.000	0.759	0.964
Return $]\mu+\sigma,\mu+2\sigma]$	0.0380	-0.0092	1.0166	1.0718
	0.000	0.000	0.024	0.000
Return $>\mu+2\sigma$	0.0904	-0.0722	0.8756	1.3147
	0.000	0.000	0.000	0.000
Observed probability	0.543	0.594		
Expected probability	0.610	0.669		
Pseudo R2	0.292	0.262		
Number of observations	684811	650455	159662	181991

Note: The line below the estimates of the coefficients associated with the coefficients of each variable presents the corresponding p-value of the significance test the coefficient.

(a) The joint null test was rejected at the 99% confidence level.

and the lowest ask quote (bid-ask spread), or indices to be constructed, such as changes in prices in consecutive bid and ask orders (transaction cost) or the impact of the volume of bid and ask orders on prices (price robustness). The analysis shows that the bid-ask spread in the Portuguese market stands at 60 basis points while transaction costs reach, on average, 4.11 basis points. Liquidity indices change from one corporation to the other, and depend the magnitude of changes in market daily returns. The group of low capitalisation corporations presents a bid-ask spread approximately fivefold that of the high capitalisation group, but this spread may change from 79 basis points to 56 basis points, depending on whether the daily index return lies more than two standard deviations away from the sample average, or within the interval that goes from minus one standard deviation to plus one standard deviation from the average. Liquidity indices calculated for the PSI-20 are within the same order of magnitude than those observed for major international markets. Similarly to most markets, the Portuguese market also reveals a U-shaped standard of intra-day liquidity.

The paper shows that market liquidity factors determine both the probability of execution and

the time of execution. The probability that an ask (bid) order will be executed increases by 60.6 (55.0) per cent submitted within the bid-ask spread. An investor executing an ask (bid) order of a stock belonging to the high capitalisation group will have 8.52 (9.83) per cent more probability of execution of the order.

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EXCHANGE RATE REGIMES: A GLOBAL PICTURE SINCE THE EMERGING MARKET CRISES IN THE MID 1990s*

*Rita Fradique Lourenço***

1. INTRODUCTION

The emerging market crises in the mid 1990s revived the discussion on the exchange rate regime choice. More recently, discussions on the future of the Chinese exchange rate regime or on the appropriate arrangements for the new European Union Member States again highlighted the relevance of this topic. The aim of this article is to go over the debate on exchange rate regimes in recent years both at the theoretical and empirical level. The survey is organized as follows: Section 2 presents a snapshot of the recent trends in the literature on the exchange rate regime choice. Section 3 summarizes the main theoretical arguments regarding the selection of regimes: the traditional approaches, such as the criteria behind the "Optimum Currency Areas" theory or the nature of shocks affecting the economies and the more recent contributions of the political economy or the "fear of floating" school. Section 4 reviews the main contributions from empirical research, regarding both the link between exchange rate regimes and macroeconomic performance and the determinants of the exchange rate regime choice. Section 5 concludes. The appendix provides a description of the official International Monetary Fund (IMF) exchange rate regime classification.

2. OVERVIEW OF THE LITERATURE

In the early 1990s the core thinking in the literature on exchange rate regimes was that the need to meet several objectives - flexibility versus commitment, growth versus inflation stabilization, and insulation from real shocks versus insulation from monetary shocks - pointed to compromise solutions within the fixed versus flexible dichotomy for emerging market countries and developing countries(1).

In the second half of the 1990s the sustainability of policies, credibility and crisis prevention began to be viewed as key criteria for judging exchange rate regimes. The idea that bipolar choices, either hard pegs or floating exchange rates, were better than inside solutions gained increasing support, basically on the grounds that intermediate regimes were hard to sustain and more crisis-prone. This approach has been called in the literature "bipolar view", "corner solution" or "hollowing out"(2). In the context of bipolar choices, the dominant opinion was that floating exchange rates were more adequate for most emerging market economies, with hard pegs reserved for special conditions. Hard pegs were regarded sustainable only if supported by a strong national consensus, and, as such, unfeasible or too constraining for many emerging market countries. Underlying these arguments was the fact that most financial crises, Mexico in 1994, Thailand, Indonesia and Korea in 1997, Rus-

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(1) See Aghevli et al. (1991).

(2) Original references on the "hollowing out" hypothesis are in Eichengreen (1994). See also Obstfeld and Rogoff (1995), Eichengreen (1999) and Goldstein (1999).

sia and Brazil in 1998 and Argentina and Turkey in 2001, involved an exchange rate peg of some kind, while countries that did not have pegged rates, such as South Africa, and in 1998 Israel, Mexico and Turkey avoided crises of the type. Given the concern to minimize the frequency and severity of crises, the hypothesis that intermediate regimes would vanish became almost undisputed for some time. The "bipolar view" appears to be a corollary of the impossible trinity principle, according to which a country cannot have three goals simultaneously: exchange rate stability, monetary independence, and financial market integration. Since financial markets have become more and more integrated internationally, this would inevitably push the choice down to giving up exchange rate stability, or giving up monetary independence. The empirical evidence on countries switching to corner solutions during the 1990s appeared to support this view(3).

However, what appeared to be a new consensus did not last for long. In the late 1990s, several authors started to question the "bipolar view". Frankel (1999) notes that while it may be true that a country cannot maintain both exchange rate stability and monetary independence altogether, this does not mean it cannot have half stability and half independence, especially because between the two extreme options of full capital controls and full financial integration there is a varying degree of capital mobility. At the same time, the strength of the empirical evidence pointing towards corner solutions started to be questioned based on the discrepancy between the official "*de jure*" and the actual "*de facto*" exchange rate regimes. Levy-Yeyati and Sturzenegger (2002a) argue and empirically verify that while intermediate regimes are inherently more vulnerable to capital flows, and therefore bound to disappear in a world with increasingly integrated capital markets, the "bipolar view" does not apply to non emerging market developing countries(4). In fact, the observed pattern indicates that floats are less prevalent among this latter group and that the movement towards the extremes was almost inexistent in this case, suggesting that exposure to strong capital flows may be necessary for the "bipolar view" argument to be valid. Even Fischer (2001), a former proponent of the "bipolar view", departs from his original position by recognizing that developing countries which are not very exposed to international capital flows still face a wide range of intermediate exchange rate regime options. Mussa *et al*. (2000) and Rogoff *et al*. (2003) refine the argument in favour of intermediate regimes arguing that the fact that less hard peg regimes may not be sustainable for many countries does not imply they are not viable or cannot play a useful role for a limited period of time, for example, as a nominal anchor during a disinflation process. In fact, successful disinflations from triple digit inflation have generally taken place with the use of an exchange rate anchor, especially in countries with chronic monetary instability. The exchange rate anchor sometimes takes the form of a very hard peg (as in a currency board) but it can also be a "softer" form of peg. Whatever the case may be it is necessary that these countries find a way to safely exit from the peg without a crisis(5).

The idea that, in the context of bipolar choices, floating exchange rate regimes were more appropriate to emerging market countries was also questioned by several authors. Calvo and Reinhart (2002), proponents of the "fear of floating" view argue that, because of worries about inflation pass through and dollarization in the domestic financial system, sometimes coupled with credibility problems, central banks deliberately avoid movements in the exchange rate even if they officially declare to be floating, which results in flexible regimes that are managed as if they are fixed.

To sum up, the recent trend in the literature regarding exchange rate regime choice suggests that for countries in early stages of integration to global capital markets, a wide variety of pegged regimes remains appropriate. For emerging market economies, intermediate regimes can be useful as temporary solutions such as in cases when countries confront the problem of stabilizing from very high levels of inflation. As permanent arrangements for emerging market economies, however, the choice will more likely fall in a "corner" regime, some moving towards hard peg regimes (like currency boards or even full dollarization or euroisation), while others will choose exchange

(3) See Fischer (2001) and Bubula and Ötker-Robe (2002).

(4) See also Masson (2000).

(5) See Duttagupta *et al*. (2004) and references therein.

rate flexibility. How countries resolve this choice depends on how they trade off the advantages of credibility, commitment, and reduced inflation volatility on the one hand, and some monetary autonomy and the benefits of reduced output volatility on the other.

3. THEORETICAL CONSIDERATIONS FOR THE SELECTING THE EXCHANGE RATE REGIME

3.1. Traditional Approach

The theory of "Optimum Currency Areas" (OCA) has been the earlier contribution to the debate on the merits of the various exchange rate regimes. This literature stemmed from the debate on the advantages and disadvantages of fixed versus flexible exchange rate arrangements in fostering price stability and insulating countries from the various types of shocks. The OCA identifies several criteria under which a country should choose to adopt a single currency or to irrevocably peg its exchange rate. Following the seminal contribution of Mundell (1961) who noted that a sufficient inter regional labour mobility within the area could take over the adjustment role played by flexible exchange rates, other criteria emerged like the size of the economy and its degree of openness, geographic and product diversification of trade, inflation differentials with major trading partners and the degree of business cycle synchronization. Later on, it became apparent that a new set of criteria was also particularly important for the decision to adopt an institutional commitment to a fixed rate. Frankel (1999) refers that a strong need to import monetary stability (due to either a history of hyperinflation, an absence of credible public institutions, or unusually large exposure to international investors) and the desire for further close integration with a particular neighbour or trading partner may explain the desire to fix exchange rates. However, he also argues that this is unlikely to be successful without the economy having an adequate level of foreign reserves, a strong and well supervised financial system, as well as fiscal discipline. These additional characteristics have to do with credibility and the need to secure access to international financial markets. That might explain for instance why the new Member States of the European Union have chosen various types of exchange rate regimes[6]. Also within the *Mercado Comun del Cono Sur* (*Mercosur*) and the Association of South East Asian Nations (ASEAN) groups, the desire to stabilize intra regional exchange rates to foster trade and capital flows may call for avoiding exchange rate swings between integrating countries[7].

Another strand of the more traditional literature emphasizes the importance of the nature of shocks[8]. The primary element is to identify which regime would be better in stabilizing macroeconomic performance, that is to reduce output volatility or in controlling inflation, in the presence of specific shocks. In this context, where domestic shocks are largely monetary in nature then fixed exchange rates are preferable because they help to discipline erratic policy makers. If shocks are mostly real or external, however, then flexibility is important to stabilize economy.

3.2. Recent contributions

The most recent contributions date from the mid-1990s and can be grouped under two main headings: political economy and "fear of floating". The first approach appeared with Collins (1996) and Edwards (1996) who argue that there are political economy considerations that affect the choice of exchange rate regimes. The authors find out that political instability indicators such as the frequency of government changes or the transfers of power between the governing and the opposition party influence the choice of the exchange rate regime.[9]. The second approach, appeared with Calvo and Reinhart, (2000, 2002) who emphasize

(6) See appendix.

(7) The *Mercosur* countries are Argentina, Brazil, Chile, Paraguay and Uruguay. The ASEAN countries are Brunei, Indonesia, Malaysia, Myanmar, the Philippines, Singapore and Thailand. Recently, the Bank for International Settlements (2003) presented an extensive work specifically on the economic, legal and practical issues involving the introduction of a shared regional currency or the adoption of a foreign currency. The compilation of papers includes studies on monetary regimes in Europe Middle East Africa and the ASEAN group. See also studies of Bayoumi and Mauro (1999) for the ASEAN group and Masson and Pattillo (2001) for West African countries.

(8) See for instance, seminal contributions of Aizenman and Frenkel (1982).

(9) The study by Collins (1996) refers to 24 Latin America and Caribbean countries over the period 1978-92 whereas that by Edwards (1996) applies to 63 countries over the 1980 1992.

that many countries claiming to have floating exchange rate systems, do not allow their exchange rate to float freely after all, and rather use interest rates and intervention policy to affect its behaviour[10].

The political economy approach argues that a country without political stability may have an incentive to let the currency fluctuate because it lacks the political ability and support to take the unpopular measures necessary to defend a peg. In fact, the decision to move to a more flexible exchange rate is partly a decision to de politicize exchange rate adjustments. Collins (1996) argues that in floating regimes (managed floating regimes included) adjustments in the exchange rates are less perceptible by economic agents and, thus, less costly in political terms than a devaluation under a peg. Edwards (1996) refers that the more politically unstable countries are, the lower the probability of selecting a pegged exchange rate system. In fact, stronger governments are in a better position to withstand the political costs of a (possible) currency crisis and, thus, are more willing to adopt a peg.

The "fear of floating" approach relates to a situation in which a country officially declares to be following an independently floating exchange rate regime but actually smoothes the exchange rate by means of market interventions, or interest rate policy. Calvo and Reinhart (2000, 2002) focus on the presence of currency mismatches in balance sheets and high exchange rate risk exposure as reasons for such behaviour. These currency mismatches happen because these countries face many difficulties to borrow abroad in their own currency even for domestic purposes and this implies that their financial sector tends (needs to) to hold a large fraction of their debt in foreign currency[11]. Indeed, countries with high unhedged foreign currency denominated debt have an incentive to peg to the foreign currency in which they have borrowed since exchange rate volatility would translate into financial and economic uncertainty. Moreover, Calvo and Reinhart (2000) note that exchange rate volatility is more costly to trade in emerging market countries because exporters and importers lack the tools to hedge exchange rate risk through futures instruments due to capital markets incompleteness. In addition, Hausmann et al. (2001) refer that emerging market countries may fear floating because they worry about the exchange rate pass through to domestic inflation, which if countries have inflation targeting frameworks becomes even more important. However, Detken and Gaspar (2003) cast some doubts on the attempts to identify "*de facto*" exchange rate regimes in terms of comparisons of unconditional volatility of exchange rates, interest rates and foreign reserves. On the basis of a theoretical model they argue that for a small open economy with perfect capital mobility pursuing the objective of price stability, a free floating exchange rate regime can appear, under certain circumstances, equivalent to a managed floating or even more intermediate regime. This happens in particular when there is a large real exchange rate elasticity of domestic demand and frequent shocks to the interest rate risk premium. In this case the regime would be falsely classified "*de facto*" as a managed floating and in such cases the argument of "fear of floating" would not apply.

(10) Calvo and Reinhart (2002) estimate the probability of the percent changes in the exchange rates, foreign exchange reserves and also in interest rates in countries with regimes within the third group of the pre-1999 IMF classification, i.e., managed floating and independently floating, against a benchmark of "unsuspicious" committed to floating countries: United States, Germany and Japan. The results confirm that many of the stated floats of the post-1980s turned out to be "*de facto*" much closer to pegged exchange rate regimes, since they exhibited a high volatility in foreign reserves (an indication of sizable stabilizing intervention) and low variability of the nominal exchange rate. Finally, Calvo and Reinhart (2002) note that countries that end up changing their interest rates the most are the ones that would be expected to move them the least, since they are regarded as following a floating or managed floating exchange rate regime. According to the authors, this high volatility in nominal and real interest rates suggests that countries do not only rely on foreign exchange market intervention to limit exchange rate fluctuations but also use interest rate policy.

(11) This is the "original sin": borrowers simply cannot borrow in domestic currency, especially long-term debt, because no lender at home or abroad is willing to extend credit in domestic currency.

4. EMPIRICAL RESULTS REGARDING EXCHANGE RATE REGIMES

4.1. Determinants of the choice of the exchange rate regime

Most of the empirical work regarding the determinants of the exchange rate regime choice concentrates on a particular aspect and a specific group of countries. Special attention has been paid to emerging market economies, in particular within the Mercosur and Asia, and the transition economies[12]. As to topics, the question of partial and full dollarization (the latter mostly in comparison to currency boards) has often been the object of empirical research[13]. However, recently, Levy Yeyati et al. (2002c) and Poirson (2001) have followed a completely new approach, employing models comprising a multiplicity of hypotheses as well as a wider range of countries.

Using their own regime classification, Levy-Yeyati et al. (2002c) test five main approaches concerning the selection of exchange rate regimes. These comprise the OCA theory; real shocks versus nominal shocks tradeoff; the political understanding that fixed exchange rates are a helpful tool for governments with poor nominal and institutional credibility; the impossible trinity view; and the implications of balance sheet effects on the costs of exchange rate variability in financially dollarized economies. Their results confirm that all these approaches, from the traditional to the more recent contributions, are empirically relevant for the choice of regime. Moreover, the fittingness of the underlying theories depends on the countries' characteristics, meaning that there is a difference between industrial and non industrial countries. In this sense, perceiving the role played by the countries' specific factors becomes fundamental before recommending the adoption of a particular exchange rate regime. In fact as they summarized "whatever the ultimate relevance of exchange rate regimes on economic performance is, ignoring or not fully understanding the role played by these variables and relying on fix-all recommendations may induce ill advised policies".

Poirson (2001), using the post-1999 IMF classification of regimes (see appendix), resort to a large number of explanatory variables to assess three different theoretical criteria considered to be behind the choice of regimes: the OCA theory, political economy issues and the "fear of floating" view[14]. The results confirm that recently highlighted criteria, such as political uncertainty, dollarization and exchange rate risk exposure weigh significantly on exchange rate decisions. For the traditional arguments, criteria like economic size, inflation, capital mobility, product diversification, adequacy of foreign reserves and external vulnerability all matter for the choice of exchange rate regimes; factors such as geographic trade concentration and economic development level, do not appear relevant to the choice of the exchange rate regime, or have only a small effect as in the case of trade openness. In the case of capital mobility, the findings confirm the view that increased financial integration tends to promote more flexible exchange rate regimes. The results are consistent with the "fear of floating" view, in the sense

(12) Given the accession of the new Member States to the European Union in May 2004, the IMF decided to drop the category of "transition economies" in the World Economic Outlook issue of April 2004. Formerly this group consisted of Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia and also Albania, Bosnia Herzegovina, Bulgaria, Croatia, former Yugoslav Republic of Macedonia, Romania, Serbia and Montenegro and the Commonwealth of Independent States and Mongolia.

(13) See for instance Berg and Borensztein (2000a, 2000b) or Calvo and Reinhart (1999, 2000). Winkler *et al*. (2004) focus on the sustained cases of euroization/dollarisation and also on those in which euroization/dollarisation was abandoned. In Domac et al. (2001) empirical findings suggest that transition economies that are more open to trade, that have lower budget deficits and that have made more progress in private sector entry and internal markets tend to adopt stricter exchange rate regimes. Berg and Borensztein (2000a, 2000b) or Calvo and Reinhart (1999b, 2000) indicate that countries highly integrated with the United States (or other country whose currency is to be adopted) or already highly dollarized "*de facto*" are most likely to find dollarization attractive. According to Bulír (2004) opening financial markets favours exchange rate flexibility by increasing the viability of a floating regime, as well as making it more difficult to maintain a peg.

(14) An akin Levy-Yeyati and Sturzenegger (2002a) approach is followed when calculating an indicator of the exchange rate regime flexibility based on observed volatility of exchange rate and reserves for 164 countries in 1998. The index is the ratio of the average absolute value of monthly nominal exchange rate depreciation to the average absolute value of the monthly change in reserves (normalized by the monetary base in the previous month). The results of this index are then compared with the new IMF classification of exchange rate regimes in January 1999 and used to evaluate the determinants of regimes.

that a high exchange rate risk exposure (measured by the existence of unhedged foreign currency liabilities) tends to be associated with less flexible exchange rate regimes. Also, countries with a high degree of partial dollarization (understood as currency substitution) are more likely to choose a more rigid exchange rate regime. Finally, both political uncertainty and a low level of foreign reserves appear to favour the selection of more flexible exchange rate regimes.

4.2. Exchange rate regimes and macroeconomic performance

In contrast to the large number of theoretical and conceptual discussions, few (and much less successful) studies have empirically investigated the links between macroeconomic performance and exchange rate regimes. One of the reasons for this incapability of data to provide a systematic analysis stems from the problems posed by the classification of the exchange regimes, although this might be too simplistic. Below we present some of the most conclusive works in this area. All studies are similarly comprehensive as to country coverage and period length.

Gosh et al. (1997) and Gosh *et al*. (2003) examine the links between exchange rate regimes, inflation and output growth[15]. The authors use the IMF "*de jure*" classification but combine it with a classification based on the real exchange rate behaviour so to differentiate between official and actual policies. The results are drawn using the broad three-way classification of regimes (pegged, intermediate and floating exchange rate regimes), as well as a more detailed one. The authors analyse inflation (measured by the yearly average inflation rate) and growth performance (measured by real GDP per capita growth), and also inflation and output volatility. Additional control variables such as broad money growth, short term nominal interest rates, employment and investment to GDP ratio, dollar imports and exports and the terms of trade were included. To control regime choice endogeneity they rely on a set of proxies for central bank independence, namely the turnover rate of the central bank governor. Empirically, the results are conclusive as to inflation (both in performance and volatility), while for GDP conclusions can only be taken in terms of volatility and not in terms of the growth rate. Inflation is both lower and more stable under pegged regimes than for the intermediate and floating regimes. The anti-inflationary benefits of pegging the exchange rate arise both from a slower money supply growth (that is the disciplinary effect) and a credibility effect. There are, however, two exceptions: in countries with very low inflation rates (generally high income countries) where credibility is gained from other mechanisms such as the absence of capital controls, and in countries frequently changing their parities, where credibility is low, it seems the choice of the nominal exchange rate regime seems to have only a small marginal effect. Evidence also seems to point to higher real GDP growth volatility and real GDP volatility under pegged exchange rate regimes than under intermediate or floating regimes, particularly in the case of higher-income countries (where nominal rigidities are likely to be more prevalent). Finally, regarding economic growth performance findings are not straightforward. In fact, per capita growth rates do not vary much across exchange rate regimes, although there is some evidence that intermediate regimes perform better than pegged regimes and floating regimes. All in all, the authors conclude by saying "perhaps the best one can say is that the growth performance of pegged exchange rate regimes is not worse than that of floating regimes". In a specific study on currency boards, Gosh *et al*. (2000) find out that in general, currency boards seem to exhibit better growth performance than other pegged regimes, but there is little evidence that this could be attributed to the exchange rate regime alone. Also, as expected, currency boards outperform other pegged regimes in terms of inflation (both in volatility and performance).

Domaç *et al*. (2001) findings on transition economies over the 1991-98 period are in line with Gosh et al. (1997) results, i.e., the exchange rate regime does make a difference for inflation performance, although it is not possible to take any con-

(15) The first study applies to 136 countries over the 1960-1990 period, while the second covers 165 countries over the 1970-1999 period.

(16) The transition economies in Domaç *et al*. (2001) correspond more or less to the group of "transition economies" defined in World Economic outlook prior to the April 2004 issue.

clusions as to which particular regime is superior, in terms of growth performance[16]. Even so, the results suggest that policy variables as well as other variables influencing economic activity do have different effects on economic growth depending on the exchange rate regime.

Levy-Yeyati and Sturzenegger (2001, 2002b) using a "*de facto*" classification of exchange rate regimes that reflects actual policies and distinguishing between long and short pegs (where a peg is defined as long if lasts for five or more years and as short if lasting less than five years), found a robust association between fixed exchange regimes and lower inflation rates, but only in the case of long pegs (where the regime has been in place for a period long enough to earn its credibility)[17]. In addition, they found that hard peg regimes deliver better inflation results than other types of pegs. In terms of economic growth, this study concludes that the exchange regime is only relevant for non industrial countries[18]. For these countries, floating exchange rate regimes display significantly higher growth rates than hard peg regimes. Moreover, floating exchange rate regimes also outperform short pegs. In fact, short pegs yield slower economic growth without providing significant gains in terms of inflation. Finally, compared to "*de facto*" floating exchange rate regimes, "*de facto*" pegs that discard the legal commitment to a fixed exchange rate benefit from higher growth performance (which could provide a justification for what the authors labelled as "fear of pegging").

Finally, Rogoff *et al*. (2003) using the classification proposed in Reinhart and Rogoff (2004) examine the performance of exchange rate regimes in terms of inflation and business cycles[19]. Results indicate that in developing countries, where there is low exposure to international capital movements, pegs and intermediate flexibility arrangements seem to be superior in terms of policy credibility and thus more suitable to achieve lower inflation. Additionally, it appears that this is accomplished with little cost in terms of growth, volatility, or more frequent crises. On the other hand, for emerging market countries where the exposure to international capital flows is higher, rigidity of regimes does not appear to deliver obvious gains in terms of lower inflation or higher growth[20]. In developed economies, free floats record faster growth than other regimes without incurring higher inflation. Based on these results the authors draw two main conclusions. First, the value of exchange rate flexibility is found to increase with financial maturity[21]. Second, the performance of any exchange rate regime can be enhanced with the consistent macroeconomic management.

To sum up, the abovementioned studies suggest that there is no straightforward relation between macroeconomic performance and the ex-

(17) Their classification of regimes, for a data set covering 183 countries that reported to the IMF over the period from 1974-2000, is derived using a cluster analysis technique through which homogeneous groups of observations were identified according to the similarity in the behaviour of three reference variables: exchange rate volatility, the volatility of changes in the exchange rate and the volatility of international reserves. The authors end up with four different groups comprising fixed exchange rate regimes (associated with changes in international reserves aimed at reducing the volatility in the nominal exchange rate), flexible exchange rate regimes (characterized by substantial volatility in nominal exchange rates with relatively stable reserves), crawling pegs (the case where changes in the nominal exchange rate occur with stable increments, i.e., a low volatility in the rate of changes of the exchange rate, together with active intervention in the foreign exchange reserves) and lastly, a dirty float (associated to the case where volatility is considerably high across all variables, with intervention only partially smoothing exchange rate fluctuations).

(18) The 22 industrial countries defined in Levy-Yeyati and Sturzenegger (2001, 2002b) are included in Table II A of the appendix. Non-industrial countries with some exceptions refer to Tables II B and C.

(19) The classification is more expanded (than the IMF's) and incorporates information on dual/parallel market exchange rates. This is important because by failing to look at market determined exchange rates, one often gets a false picture of the underlying monetary policy and the ability of the economy to adjust imbalances. Moreover, it separates the episodes of severe macroeconomic instability, identifying cases of "freely falling" and "hyperfloats": the first, equivalent to the independently floating category in the IMF terminology is applied for countries whose twelve month rate of inflation is above 40 per cent and accounts for episodes when, almost always due to high inflation, large downward shifts in the exchange rate occur on a routine basis for extended periods of time; the second, a special subcategory of "freely falling" accounts for episodes when inflation is over 50 per cent per month. This is also important because when countries experience situations of macroeconomic instability they often have very high inflation rates and this can be reflected in high and frequent exchange rate depreciations. Hence, not excluding the "freely falling" episodes may lead to distortions in any fixed versus flexible exchange rate regime comparisons.

(20) It also appears that more rigid systems were associated with more frequent banking and, especially, costly "twin" crises that included both financial sector and balance-of-payments turbulence.

change rate regime. While, in may cases, pegged exchange rate regimes appear to be associated with better inflation results, it is not possible to establish a clear link between economic growth and the exchange rate regime.

5. CONCLUSION

In the aftermath of the Asian and Latin American crises there was a strong belief that only fixed or floating exchange rate regimes would be appropriate for emerging market countries. Furthermore, it seemed that floating exchange rates would be preferable to hard peg exchange rate regimes, since the latter were seen as too constraining for most emerging market countries. Later on, these views have "softened" somehow, following the recognition that intermediate exchange rate regimes are viable and can be useful under particular circumstances, and also the observation that sometimes countries appear to "fear floating".

In the recent literature, the theoretical criteria presiding the choice of exchange rate regimes have gone beyond those emphasised in the "Optimum Currency Areas" theory, or those related with the nature of shocks affecting the economy. Recent contributions comprise political economy considerations and the "fear of floating" approach. Political economy theories show that politically unstable countries are more likely to choose a flexible exchange rate regime because they lack the political support and ability for taking the necessary measures to defend a peg. The "fear of floating" approach argues that countries facing a high exchange rate risk exposure due to a highly dollarized domestic financial system have an incentive to "*de facto*" peg their currencies, even if they officially have a floating exchange rate regime. Empirical studies suggest that both the more traditional arguments and the more recent criteria, such as those that put emphasis on the influence of political factors, are empirically relevant for the choice of the exchange rate regime.

The empirical literature has failed to establish a clear link between macroeconomic performance and the exchange rate regimes. This should not be surprising. Indeed, the exchange rate regime is part of a country's policy package and thus its performance and functioning crucially depend on the circumstances of the particular country in a particular moment. In other words, similar macroeconomic results can be achieved following completely different policy frameworks, within which the exchange rate regime is only one element. All exchange rate regimes are potential options provided compatibility with a wider policy framework is ensured. So, it seems that there are no clear-cut recommendations, nor any "straight jacket" solutions regarding the choice of a particular exchange rate regime.

(21) The advantage may reflect the fact that nominal rigidities are more pronounced as economies mature, giving an important role for flexible exchange rates in reallocating resources following real shocks. Moreover they add that with financial maturity, widespread availability of debt denominated in domestic currency and hedging instruments reduces the adverse consequences from currency mismatches that give rise to "fear of floating".

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APPENDIX

The International Monetary Fund classification

The official IMF classification of exchange rate regimes is a milestone in the literature regarding exchange rate regimes. This classification was firstly introduced in 1975, when following the collapse of the Bretton Woods system in 1973, member countries adopting the second amendment of the IMF's Articles of Agreement, were formally given freedom to choose their own form of exchange rate arrangements while accepting that their exchange rate and macroeconomic policies would foster balance of payments adjustments. The IMF would then keep countries' exchange rate policies under scrutiny and, on the other hand, countries were expected to provide the IMF with the information necessary for such surveillance. Countries were obliged to notify the IMF, within 30 days of becoming a member, of the adopted exchange rate arrangement and thereafter whenever there were changes. Based on these notifications and according to the degree of flexibility of the arrangements, the IMF drew the exchange rate classification scheme. This official or "*de jure*" classification comprised three major categories: pegged exchange rate arrangements, limited flexibility and more flexible arrangements[1]. The classification remained broadly unchanged between 1983 and 1998. However, in the context of the debate on the appropriateness of the so called bipolar choices vis-à-vis intermediate regimes it became apparent that several countries were following regimes that were completely different from the ones formally announced, which in turn reduced the transparency of members' policy actions, and complicated IMF surveillance over their exchange rate policies. Against this background and following an exhaustive examination of the "*de facto*" country practices for the period between 1994 and 1997, the IMF decided to alter its official exchange rate classification scheme in 1999[2].

This "*de facto*" classification has been official since January 1999 and includes eight categories (see, IMF (1999) and IMF (2003)). The system ranks exchange rate regimes on the basis of the degree of flexibility of the arrangement or formal or informal commitment to a given exchange rate path. The arrangements span from the more rigid regimes or hard pegs, to the more flexible or floating regimes, while the remaining categories are called soft pegs[3]. In addition to the exchange rate regimes, countries are also classified according to the monetary policy framework followed. This provides greater transparency in the classification scheme and illustrates that different types of exchange rate regimes are compatible with similar monetary policy frameworks. For the monetary policy framework the IMF distinguishes five alternatives: exchange rate anchor, monetary aggregate anchor, inflation targeting framework, IMF supported or other monetary programme and other[4]. The IMF also provides additional specific information, namely when the regime operating "*de facto*" in the country is different from its "*de jure*" regime or when the country maintains an exchange arrangement involving more than one market, or has adopted multiple nominal anchors in conducting

(1) The first group included regimes where the exchange rate was fixed against either a single currency, usually a major currency as the US dollar and the French franc, or a currency composite, described as a weighted composite from the currencies of major trading or financial partners. The second group referred to regimes where the exchange rate was allowed to move within certain bands vis-à-vis a single currency or within a cooperative arrangement (specifically applied to countries in the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS)). The third group included both managed floating and independently floating exchange rate regimes, depending on whether there was limited or full market determination of the exchange rate (see IMF (1999)).

(2) In particular, the IMF (1999) analysed changes in the exchange rate arrangements that affected the official classification and other currency adjustments, namely devaluations in exchange rates, changes in bands, the adoption of new currencies and multiple currency practices.

(3) Hard pegs comprise exchange arrangements with no separate legal tender and currency board arrangements. Soft pegs include other conventional fixed peg arrangements, pegged exchange rates within horizontal bands, crawling pegs, exchange rate within crawling bands and also tightly managed floats (a particular case of the managed floating regimes). Floating regimes consist of other managed floating with no pre-determined path for the exchange rate (excluding tightly managed floating) and independently floating.

monetary policy. Hence, the new "de facto" IMF classification combines available information on the exchange rate and monetary policy framework and on the authorities' formal and informal policy intentions with data on actual exchange rate and reserves movements to reach a judgment about the actual exchange rate regime.

The evolution of exchange rate regimes in the last decade, 1990-2001, under the IMF "*de facto*" classification shows that there has been a trend away from soft pegs towards floating regimes, and to a lesser extent, hard pegs (Table I). This trend might give some support to the "bipolar view" idea that intermediate regimes will eventually disappear. Indeed, the share of soft pegs decreased from 64 per cent in 1990 to 30 per cent in 2001, which corresponds to increases in the floating regimes from 20 to 44 per cent and from 16 to 26 per cent in the hard pegs(5). Also, the new information regarding the monetary policy framework indicates that as countries move towards greater exchange rate flexibility they tend to adopt additional anchors to ensure price stability(6). The supplementary information also suggests that excluding the euro area countries, all other countries with pegged exchange rate regimes use the exchange rate as nominal anchor in the monetary policy framework. Finally, "*de facto*" exchange rate classification indicates that the shift away from intermediate regimes has been more pronounced in countries that have already gained access to capital markets, i.e. developed and emerging market countries, and less evident in the other IMF members.

The classification of the exchange rate regime for 187 countries covered in the 2003 edition of the Annual Report on Exchange Arrangements and Exchange Restrictions is provided in Table II where countries are listed in three groups: advanced economies, emerging market economies and all other economies.

(4) The IMF (2003) describes these IMF-supported or other monetary programme as involving the implementation of monetary and exchange rate policy within a framework that establishes floors for international reserves and ceilings for net domestic assets of central bank. United States, Switzerland and Japan or the euro area countries are examples of countries included in "Other" category.

(5) In the case of hard pegs this increase is to a large extent explained by the creation of the euro area.

(6) For a description of the issues and the recent experience in inflation targeting emerging market economies under flexible exchange rates see Ho and McCauley (2003).

Table I

EXCHANGE RATE ARRANGEMENTS

Percent

	1990	1998	2001
"*De Facto*" classification			
Hard pegs	16	18	26
Soft pegs	64	46	30
Floating regimes	20	36	44
Total	100	100	100
"*de jure*"classification[a]			
Pegged regimes[b]	65	45	-
of which: limited flexibility	9	9	-
Floating regimes	35	56	-
of which: managed floating	16	25	-
of which: independently floating	18	31	-
Total	100	100	-

Sources: IMF, World Economic and Financial Surveys (2003).
(a) Not updated since 1998.
(b) Includes arrangements with no separate legal tender, currency boards, conventional fixed pegs and horizontal bands, regimes with limited flexibility within a band and the European Monetary System's (EMS) Exchange Rate Mechanism (ERM).

Table II A

ADVANCED ECONOMIES[a], [b]

Exchange arrangement			
Euro area		Other	
Germany	With no separate legal tender	Australia	Independently floating
Austria	With no separate legal tender	Canada	Independently floating
Belgium	With no separate legal tender	Cyprus+	Pegged exchange rate within horizontal bands
Spain	With no separate legal tender	Denmark	Pegged exchange rate within horizontal bands (ERM II)
France	With no separate legal tender	Hong Kong SAR	Currency board arrangement
Greece	With no separate legal tender	Iceland	Independently floating
Ireland	With no separate legal tender	Japan	Independently floating
Luxembourg	With no separate legal tender	New Zealand	Independently floating
Italy	With no separate legal tender	Norway	Independently floating
Portugal	With no separate legal tender	Singapore	Managed floating
		Sweden	Independently floating
		Switzerland	Independently floating
Netherlands	With no separate legal tender	United Kingdom	Independently floating
Finland	With no separate legal tender	United States	Independently floating

Sources: IMF (World Economic Outlook (2004), Annual Report on Exchange Arrangements and Exchange Restrictions (2003).
(a) Economies listed according to the IMF World Economic Outlook (2004), of which, Canada, France, Germany, Italy, Japan, United Kingdom and the United States correspond to the major advanced economies.
(b) The new Member States to the European Union are marked with a +.

Table II B

EMERGING MARKET ECONOMIES (a)

Exchange arrangement			
Africa		Asia	
South Africa	Independently floating	China	Other conventional fixed peg arrangement
		India	Managed floating
		Indonesia	Managed floating
Morocco	Other conventional fixed peg arrangement	Korea[b]	Independently floating
		Malaysia	Other conventional fixed peg arrangement
		Pakistan	Managed floating
Nigeria	Managed floating	Philippines	Independently floating
		Sri Lanka	Independently floating
		Thailand	Managed floating

Exchange arrangement			
Europe & Middle East (c)		Latin America	
Bulgaria	Currency board arrangement	Argentina	Managed floating
Egypt	Pegged exchange rate in horizontal bands	Brazil	Independently floating
Hungary+	Pegged exchange rate in horizontal bands	Chile	Independently floating
Israel[b]	Exchange rates within crawling bands	Colombia	Independently floating
Jordan	Other conventional fixed peg arrangement	Ecuador	With no separate legal tender
Poland+	Independently floating	Mexico	Independently floating
Czech Republic+	Managed floating	Panama	With no separate legal tender
Russian Federation	Managed floating	Peru	Independently floating
Turkey	Independently floating	Venezuela	Independently floating

Sources: Annual Report on Exchange Arrangements and Exchange Restrictions (2003).

(a) As in Fischer (2001), the criterion used was to choose economies listed in the Morgan Stanley Capital International (MSCI) for "Emerging Markets" and/or JP Morgan Emerging Markets Bond Index (EMBI+) indices.

(b) According to the classification in the IMF World Economic Outlook (2004), Israel and Korea are included in the subgroup "other advanced economies".

(c) The new Member States to the European Union are marked with a +.

Table II C

ALL OTHER ECONOMIES[a]

	Exchange arrangement
Antigua and Barbuda, Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Republic of Congo, Côte d'Ivoire, Dominica, El Salvador, Equatorial Guinea, Gabon, Grenada, Guinea-Bissau, Kiribati, Mali, Marshall Islands, Federal States of Micronesia, Niger, Palau, San Marino, Senegal, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Timor-Leste and Togo.	With no separate legal tender
Bosnia and Herzegovina, Brunei Darussalam, Djibout, Estonia+[b] and Lithuania+[b].	Currency board arrangement
Aruba, Bahamas, Kingdom of Bahrain, Bangladesh, Barbados, Belize, Bhutan, Botswana, Cape Verde, Comoros, Eritrea, Fiji, Guinea, Kuwait, Latvia+, Lebanon, Lesotho, Lybian Arab Jamahiriya, Macedonia, Maldives, Malta+[c], Namibia, Nepal, Netherlands Antilles, Oman, Qatar, Samoa, Saudi Arabia, Seychelles, Sudan, Suriname, Swaziland, Syrian Arab Republic, Turkmenistan, Ukraine, United Arab Emirates, Vanuatu and Zimbabwe.	Other conventional fixed peg arrangement
Tonga.	Pegged exchange rate within horizontal bands
Bolivia, Costa Rica, Nicaragua, Solomon Islands and Tunisia.	Crawling peg
Belarus, Honduras, Romania[c] and Slovenia+[b].	Exchange rates within crawling bands
Afghanistan, Algeria, Angola, Azerbaijan, Burundi, Cambodia, Croatia, Dominican Republic, Ethiopia, Gambia, Ghana, Guatemala, Guyana, Haiti, Iran, Iraq, Jamaica, Kazakhstan, Kenya, Kyrgyz Republic, Lao PDR, Mauritania, Mauritius, Moldova, Mongolia, Myanmar, Paraguay, Rwanda, Serbia and Montenegro[d], São Tomé and Príncipe, Slovak Republic+, Tajikistan, Trinidad and Tobago, Uzbequistan, Vietnam and Zambia.	Managed floating
Albania, Armenia, Democratic Republic of Congo, Georgia, Liberia, Madagascar, Malawi, Mozambique, Papua New Guinea, Sierra Leone, Somalia, Tanzania, Uganda, Uruguay, and Republic of Yemen.	Independently floating

Source: IMF Annual Report on Exchange Arrangements and Exchange Restrictions (2003).

(a) The new Member States of the European Union are marked with a +.

(b) The currencies of these countries, the Estonian kroon, the Lithuanian litas and the Slovenian tolar, participate in the Exchange Rate Mechanism II (ERM II) since June 2004.

(c) Malta pegs to a basket of currencies with heavy weight on the euro. Romania operates a "*de facto*" regime different from the "*de jure*" regime.

(d) The Federal Reserve of Yoguslavia was renamed Serbia and Montenegro on February 4, 2003.

Chronology of major financial policy measures

January

12 January (Regulation no. 12/2003 of the Stock Market Commission 12/2003, Official Gazette no. 9, Series II)	Establishes the rules on the assessment of assets integrating the wealth of risk capital funds, as well as on the data reporting by the latter and risk capital companies to the Stock Market Commission. This regulation enters into force on 1 January 2004.
12 January (Notice of Banco de Portugal no. 14/2003, Official Gazette no. 9, Series I - B)	Defines the new contribution system for the Mutual Agricultural Credit Guarantee Fund by the Central Agricultural Credit Bank and Mutual Agricultural Credit Banks. Revokes Notice no. 4/99, of 5 May.
15 January (Law no. 3/2004, Official Gazette no. 12, Series I - A)	Approves the outline law for public institutions. Establishes principles and rules governing services and funds with legal personality that integrate the indirect administration of the State and Autonomous Regions. It acknowledges the existence of special regimes, given the specificity of the objectives pursued by certain types of public institutions, including, inter alia, the Banco de Portugal and funds operating with it. This law enters into force on the 1st of the month following its publication.
16 January (Regulation no. 13/2003 of the Stock Market Commission, Official Gazette no. 13, Series II)	Establishes, pursuant to the provisions set forth in article 4, 2), (b) of Decree-Law no. 319/2002, of 28 December, the regime governing the accounts of risk capital funds. This regulation enters into force on 1 January 2005.
17 January (Regulation no.14/2003 of the Stock Market Commission, Official Gazette no. 14, Series II)	Defines the contents of the prospectus of issuance and admission to trading of risk capital fund units, in compliance with article 4, 2), (d) of Decree-Law no. 319/2002, of 28 December.
19 January (Decision no. 2097/2004, Official Gazette no. 25, Series II)	Pursuant to the provisions set forth in article 67, 2) of Law no. 107-B/2003, of 31 December, authorises the Portuguese Government Debt Agency to conduct repos based on securities representing the direct public debt quoted in the special public debt market (MEDIP – *mercado especial de dívida pública*) up to 2,500,000,000 euros.
21 January (Regulation no. 15/2003 of the Stock Market Commission, Official Gazette no. 17, Series II)	Regulates several matters laid down in the legal framework of undertakings for collective investment (UCI) approved by Decree-Law no. 252/2003, of 17 October. It standardises and systematises, in a single law, the set of rules applicable to mutual funds and establishes the legal framework of a new type of UCI – the special investment funds (SIF). It also stipulates a transitional regime applicable to UCI previously set up. This law enters into force on 1 January 2004.
26 January (Regulation no. 16/2003 of the Stock Market Commission, Official Gazette no. 21, Series II)	Establishes the regime governing the accounts of undertakings for collective investment (UCI), whose legal framework was approved by Decree Law no. 252/2003, of 17 October. This regulation, apart from the exception envisaged in it, enters into force on 1 January 2004.
27 January (Circular Letter of Banco de Portugal no. 3/2004/DMR)	Provides information on timetables of reserve maintenance periods and on notification dates for 2004 (monthly reporting), following changes in the operational framework of the Eurosystem monetary policy made by Regulations ECB/2003/9, of 12 September, and ECB/2003/10, of 18 September. Revokes Circular Letter no. 31/DMR, of 20 October 2000.
28 January (Circular Letter of Banco de Portugal no. 4/2004/DMR)	Informs that the rate of return of the Certificates of Deposit, Series B, to prevail in the quarter started on 4 February 2004, is set at 2.02%.

February

13 February (Circular-Letter of the Banco de Portugal no. 14/04/DSBDR)	Provides information on the understanding of the Banco de Portugal as to the accounting of autonomous warrants, which are equivalent to derivative financial instruments and should be dealt with similarly to option contracts.

16 February (Circular-Letter of the Banco de Portugal no. 2/2004/DMR)	Provides information on the reserve maintenance period calendar, as well as on the dates of notification in 2004 (monthly report). Revokes Circular Letter no. 31/2000/DMR, of 20 October 2000.
16 February (Instruction of the Banco de Portugal no. 1/2004)	Determines the terms of access to the information relating to cheques users who may offer risk, for the purposes of credit risk evaluation of natural or legal persons.
16 February (Instruction of the Banco de Portugal no. 2/2004)	Determines the obligations for the collection and/or supply of information to the Banco de Portugal, within the scope of the limitations to credit granting established in Articles 85 and 109 of the Legal Framework of Credit institutions and Financial Companies.
19 February (Circular-Letter of the Banco de Portugal no. 5/DMR)	Informs of the changes introduced in Instruction no. 1/99 (Money Markets - Intervention Operations Market), which is enclosed in attachment in full version with the changes introduced, and will be effective as of 8 March 2004.

March

5 March (Circular-Letter of the Banco de Portugal no. 18/04/DSBDR)	Informs that the Banco de Portugal will raise no objections that institutions, if they so wish, may recognise beforehand as income of the parent undertaking the dividend to be distributed by their subsidiaries during the fiscal year when the profits are generated, provided that certain requirements are fulfilled, according to the International Accounting Standard "IAS18".
10 March (Regulation (EC) no. 501/2004 of the European Parliament and of the Council, OJ L no. 81)	Adopts measures on quarterly financial accounts for general government.
10 March (Decree-Law no. 50/2004, Official Gazette no. 50, Series I, A)	Introduces changes in articles 8 to 11, 53 and 55 of the Organic Law of the Banco de Portugal, approved by Decree-Law no. 5/98, of 31 January.
24 March (Decree-Law no. 66/2004, Official Gazette no. 71, Series I, A)	Introduces changes in the Stock Market Code, approved by Decree-Law no. 486/99, of 13 November.
24 March (Circular-Letter of the Banco de Portugal no. 25/2004/DSB)	Recommends that credit institutions and financial corporations shall examine with particular care the operations contracted with natural or legal persons, resident or established in certain countries and territories, within the scope of money laundering preventive measures. Revokes Circular-Letter no. 70/2003/DSB, of 28 July 2003.
25 March (Decree-Law no. 68/2004, Official Gazette no. 72, Series I, A)	Lays down the requirements governing advertising and information to consumers in the context of house purchase.
25 March (Decree-Law no. 69/2004, Official Gazette no. 72, Series I, A)	Sets forth the rules governing monetary securities known as commercial paper. This Decree-Law enters into force 30 days following its publication.
25 March (Decree-Law no. 70/2004, Official Gazette no. 72, Series I, A)	Introduces changes in the legal system governing autonomous warrants, laid down in Decree-Law no. 172/99, of 20 May, which is published again, in attachment, with the amendments introduced.

April

20 April (Decree-Law no. 88/2004, Official Gazette no. 93, Series I - A)	Transposes into Portuguese law Directive 2001/65/EC of the European Parliament and of the Council of 27 September as regards the valuation rules for the annual and consolidated accounts of certain types of companies as well as of banks and other financial institutions. This Decree-Law shall be applicable to the accounts and management reports of the fiscal years started on or after 1 January 2004.

21 April (Guideline of the European Central Bank (2004/501/EC) OJ L 205)	Amends Guideline ECB/2001/3 on a Trans-European Automated Real-Time Gross settlement Express Transfer system (TARGET). This guideline is addressed to the national central banks of participating Member States and comes into force on 1 May 2004 (ECB/2004/4).
29 April (Commission Directive 2004/72/EC, OJ L 162)	Adopts measures regarding the implementation of Directive 2003/6/EC of the European Parliament and of the Council as regards accepted market practices, the definition of inside information in relation to derivatives on commodities, the drawing up of lists of insiders, the notification of managers' transactions and the notification of suspicious transactions. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 12 October 2004 at the latest. This Directive shall enter into force on the day of its publication in the Official Journal of the European Union.
29 April (Circular Letter of the Banco de Portugal no. 7/04/DMR)	Informs that the rate of return of the Certificates of Deposit, Series B, to prevail in the quarter started on 4 May 2004, is set at 2.00%.
29 April (Resolution of the Assembly of the Republic no. 35/2004, Official Gazette no. 101, Series I - A)	Approves for ratification, the decision of the Council of 21 March 2003, meeting in the composition of Heads of State or Government, as regards an amendment to Article 10.2 of the Statute of the European System of Central Banks and of the European Central Bank.
30 April (Circular Letter of the Banco de Portugal no.38/04/DSB)	Makes known the understanding of the Banco de Portugal as regards the deadlines for the revaluation of real estate acquired in repayment of own claims.
30 April (Circular Letter of the Banco de Portugal no.39/04/DSB)	Clears doubts on the provisioning system of credit default swaps.

May

6 May (Regulation No. 1/2004 of the Stock Market Commission, Official Gazette no. 122, Series II - A)	Implements the legal framework of commercial paper, as amended by Decree-Law No. 69/2004 of 25 March, establishing a simplified treatment of public offers and of the compulsory means used by the issuers in compliance with their duty to disclose information.
6 May (Regulation No. 2/2004 of the Stock Market Commission, Official Gazette no. 121, Series II)	Fixes the rate to be applicable on the simplified prior registration of the public offer of commercial paper.
8 May (Decree-Law No. 105/2004, Official Gazette no. 108, Series I - A)	Approves the legal framework of financial collateral arrangements and transposes into Portuguese law Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on financial collateral arrangements. This Decree-Law also stipulates that the common or special regimes should be subsidiarily applied to other types of pledge or reporting. This Decree-Law shall enter into force on the 30th day following its publication.
12 May (Circular-Letter of the Banco de Portugal No. 41/04/DSBDR)	Informs that according to the understanding of the Banco de Portugal, the risks of *Entidade Gestora de Reservas Estratégicas de Produtos Petrolíferos*, E.P.E. (EGREP) (management entity of strategic oil reserves), may be subject to a 0% weighting, for the purposes of the calculation of the solvency ratio and of the limits to large exposures.
17 May (Instruction of the Banco de Portugal no. 11/2004)	Lays down the rules governing the acquisition of transferable securities by mutual guarantee companies for their own portfolio.
24 May (Notice of the Banco de Portugal no. 2/2004, Official Gazette no. 137, Series I, B)	Amends part I (5) of the annex to Notice no. 1/93, of 8 June, in the wake of the publication of Commission Directive 2004/69/EC, of 27 April, which introduced changes in the list of multilateral development banks for the purpose of risk weighting for the calculation of the solvency risk, adding the Multilateral Investment Guarantee Agency to the list in question.

27 May (Regulation of the Stock Market Commission no. 3/2004, Official Gazette no. 136, Series II)	Regulates the changes introduced in the Stock Market Code, as regards the disclosure of post-business and market fostering data, by Decree-Law no. 66/2004, of 24 March, which establishes a system for market safety (establishing a separation between market management functions, on the one hand, and central counterpart and clearing house functions, on the other hand).
27 May (Regulation of the Stock Market Commission no. 4/2004, Official Gazette no. 136, Series II)	Updates the overall framework of the media suitable for the compulsory disclosure of information; reporting requirements shall be listed according to the nature of the respective issuing corporation. Amended by Rectification no. 1181/2004, of 11 June, Official Gazette no. 146, Series II, of 23 June 2004.
27 May (Regulation of the Stock Market Commission no. 5/2004, Official Gazette no. 136, Series II)	Updates the system governing autonomous warrants, following the changes introduced in the respective system by Decree-law no. 70/2004, of 25 March, which amended Decree-Law no. 172/99, of 20 May.

June

1 June (Notice no. 6670/2004, Official Gazette no. 143, Series II)	Within the scope of article 27 of Decree-Law no. 349/98, of 11 November, under the rewording laid down in Decree-Law no. 320/2000 of 15 December, and in tandem with the provisions laid down in no. 10, b) of Executive Order no. 1177/2000, of 15 December, it communicates to the public that the reference rate for the calculation of interest relief grants to be in force as from 1 July 2004 is set at 3.651%.
9 June (Circular-Letter of the Banco de Portugal no. 48/04/DSBDR)	Clarifies doubts on the provisioning system of "credit default swaps", established in Circular-Letter no. 39/04/DSBDR, of 30 April.
21 June (Circular-Letter of the Banco de Portugal no. 7/2004/DET)	Recommends that credit institutions should take the necessary measures with a view to eliminating irregular proceedings in taking deposits in cash and over-the-counter operations. The Bank is willing to provide information and/or training sessions on the good recognition of euro banknotes.
29 de June (Decree-Law no. 151/2004, Official Gazette no. 151, Series I, A)	Introduces changes in Decree-Law no. 319/2002 of 28 December, which regulates the setting up and the activity of risk capital companies and risk capital funds.
29 June (Circular Letter of the Banco de Portugal no. 52/04/DSBDR)	Informs that the report on the internal control system, as well as the respective auditors' opinion, may be exceptionally sent by the financial institutions covered until the end of July 2004.

July

1 July (Guideline of the European Central Bank 2004/546/EC, Official Journal of the European Union no. 241, Series L)	Guideline of the European Central Bank on the Eurosystem's provision of reserve management services in euro to non-European Union central banks, countries outside the European Union and international organisations (ECB/2004/13). This guideline enters into force on 5 July 2004, its provisions becoming effective as from 1 January 2005.
1 July (Notice of the Ministry of Finance/Portuguese Government Debt Agency no. 7527/2004, Official Gazette no. 165, Series II)	Informs institutions holding perpetual loan certificates of the real value of these certificates in the period from 1 July to 31 December 2004.
8 July (Instruction of the Banco de Portugal no. 14/2004 (distributed with Circular Letter no. 60/04/DSBDR))	Introduces changes in Instruction no. 120/96 and, following the extension period granted under Article 114 of the Legal Framework of Credit Institutions and Financial Companies approved by Decree-Law no. 298/92 of 31 December, shortens the deadline for the deduction from own funds of the value (net of provisions) of real estate received in repayment of own credit. This Instruction enters into force on 14 July, from which date the changes

	referred to will apply to new authorisations to be granted by Banco de Portugal.
8 July (Circular Letter of the Banco de Portugal no. 61/04/DSBDR)	Informs that the extension period of the deadline for the disposal of real estate received by credit institutions in repayment of own credit may be shortened to one year, as laid down in Article 114 of the Legal Framework of Credit Institutions and Financial Companies approved by Decree-Law no. 298/92 of 31 December. This change shall be effective with regard to extension requests to be submitted to the Banco de Portugal after the date of issue of this Circular Letter.
9 July (Notice of the Banco de Portugal no. 3/2004, Official Gazette no. 160, Series I - B)	In use of the powers conferred on it by Article 3 of Decree-Law no. 163/94 of 4 June, the Bank sets forth the minimum ratio of the amount of wealth managing companies' own funds to the overall amount of the portfolios they manage, defining the valuation criteria of these portfolios. Replaces Executive Order no. 422-C/88 of 4 July.
16 July (Law no. 27/2004, Official Gazette no. 166, Series I - A)	Introduces changes in Article 48 of Law no. 11/2004 of 27 March, which sets up the preventive and repressive system regarding money laundering.
17 July (Law no. 29/2004, Official Gazette no. 167, Series I - A)	Authorises the Government to regulate the liquidation of credit institutions and financial companies. These legislative powers shall prevail for 120 days.
26 July (Circular Letter of the Banco de Portugal no. 68/04/DSBDR)	Provides information on the position of the Banco de Portugal as to the demarcation of activities allowed to credit institutions and financial companies within the scope of the trading of non-financial products.
28 July (Circular Letter of the Banco de Portugal no. 8/DMR)	Following Circular Letter no. 347/DMR of 27 October 1999, informs that the rate of return of the Certificates of Deposit, Series B, to prevail in the quarter started on 4 August 2004, is 2.00 %.
28 July (Circular Letter of the Banco de Portugal no. 69/04/DSBDR)	Recommends that credit institutions and financial companies carefully examine operations conducted with natural or legal persons residing or established in certain countries or territories, within the scope of measures to prevent money laundering. Revokes Circular Letter no. 25/04/DSB of 24 March.
30 July (Circular Letter of the Banco de Portugal no. 70/04/DSB)	Informs that the document issued by the Official Auditors' Association in Circular no. 44/04 on the "Report on the Internal Control System of Financial Entities - guidelines on the work to be done and the report to be issued" must be understood as guidance for its members, and cannot interfere with the responsibilities the Law confers upon them in their capacity as auditors.

August

28 July (Notice of Banco de Portugal no. 4/2004, Official Gazette no. 188, Series I - B)	Extends into 2004 the possibility envisaged in Notice no. 4/2002 of 25 June of certain provisions being registered against reserves.
4 August (Circular Letter of Banco de Portugal no. 11/2004/DET)	Makes known the creation by Banco de Portugal of a regular institutional communication channel, for the disclosure of qualified information on euro banknotes, and asks the parties concerned to appoint contact persons for this purpose.
6 August (Circular Letter of Banco de Portugal no. 72/04/DSBDR)	Makes known the understanding of Banco de Portugal regarding pre-contractual information to be provided by credit institutions, within the scope of financing requests channelled by suppliers of goods and services subscribed by their customers.
13 August (Circular Letter of Banco de Portugal no. 73/04/DSBDR)	Informs the institutions that wish to use the possibility envisaged in Notice no. 4/2004 of 11 August, that they can annul the registration, in the profit

	and loss account, of the provisions set up in the first half of this year, registering them simultaneously against reserves.
16 August (Instruction of Banco de Portugal no. 16/2004)	In order to guarantee the consistency of information disclosed to the public, credit institutions should include a minimum set of indicators whenever they publish quantitative information on the issues to which such indicators refer.
24 August (Instruction of Banco de Portugal no. 17/2004)	Establishes information requirements on portfolios of assets managed by wealth management companies and by mutual fund management companies. Revokes Instruction no. 80/96, published in BNBP no. 1 of 17 June 1996.
24 August (Instruction of Banco de Portugal no. 18/2004)	Defines the periodical notification and information requirements on securitisation transactions. Revokes Instruction no. 29/2001, published in BNBP no. 12 of 17 December 2001.
31 August (Executive Order no. 1018/2004, Official Gazette no. 220, Series II)	Implements the broadly based relief of stock market continuous supervision rates. The present Executive Order enters into force on 1 October 2004.

September

8 September (Regulation of the Stock Market Commission no. 6/2004, Official Gazette no. 222, Series II)	Introduces changes in Regulation no. 7/2003, which changed the system governing the rates applicable to the services provided by the Stock Market Commission. The present regulation enters into force on 1 October 2004.
15 September (Instruction of the Banco de Portugal no. 19/2004)	Informs that institutions shall report immediately any situation deemed to be relevant within the carrying on of their activity and having an impact on their profitability and financial soundness.

October

7 October (Notice of Banco de Portugal No. 5/2004, Official Gazette No. 236, Series I - B)	Sets at 0.0375% the base contributory rate for the calculation of annual contributions to the Deposit Guarantee Fund for 2005.
15 October (Instruction of Banco de Portugal No. 21/2004, BNBP No. 10/2004)	Sets at 33% the limit for the irrevocable payment commitment to be applied in contributions to the Deposit Guarantee Fund for 2005.
15 October (Circular Letter No. 89/2004/DSB)	Clarifies reporting requirements for transactions with other entities of a financial group.

November

29 November (Circular-Letter of the Banco de Portugal No. 10/DMR)	Provides information, according to the provisions laid down in Article no. 5 (4) of the Regulation of the European Central Bank of 12 September on the application of minimum reserves (BCE/2003/9), on the time limits for notification and the calendars of maintenance periods for minimum reserves in 2005 (monthly reporting).
29 de November (Circular-Letter of the Banco de Portugal No. 11/DMR)	Provides information, according to the provisions laid down in Article no. 5 (4) of the Regulation of the European Central Bank of 12 September on the application of minimum reserves (BCE/2003/9), on the time limits for notification and the calendars of maintenance periods for minimum reserves in 2005 (quarterly reporting).

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