Banco de Portugal
EUROSYSTEM

Economic Bulletin | *Summer 2010*

Volume 16, Number 2

Available at
www.bportugal.pt
Publications

BANCO DE PORTUGAL

Edition

Economics and Research Department
Av. Almirante Reis, 71-6th
1150-012 Lisboa

www.bportugal.pt

Distribution

Administrative Services Department
Documentation, Editing and Museum Division
Editing and Publishing Unit
Av. Almirante Reis, 71-2nd
1150-012 Lisboa

Printing

Security Print

Lisbon, 2010

Printing

150

ISSN 0872-9786
Legal Deposit no. 241773/06

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Outlook for the Portuguese Economy: 2010-2011

OUTLOOK FOR THE PORTUGUESE ECONOMY: 2010-2011[1]

1. INTRODUCTION

The outlook for the Portuguese economy points to limited growth and strong deceleration of activity over the projection horizon, after the relatively strong momentum recorded in the first half of 2010 (Table 1). This outlook is conditional on the nature – in terms of magnitude and promptness – of the inevitable adjustment process that will characterise the Portuguese economy in the years ahead. Indeed, in the framework of a renewed increase in sovereign risk differentiation overall, the correction of national macroeconomic imbalances has become particularly urgent. The developments of the Portuguese economy in coming years will therefore be strongly determined by a combination of the necessary fiscal consolidation process and private sector deleveraging. These are essential to ensure sustained economic growth, even though implying short-term adjustment costs. Their implementation will be particularly demanding, not only due to the risk of occurring in an adverse international economic and financial context, but also due to persisting structural fragilities that contribute to low trend productivity growth in Portugal.

Evidence available confirms that – in a context of strongly supporting financing conditions as a result of policies adopted at a supranational level – the adjustment of economic agents' balance sheets has

Table 1

PROJECTIONS OF BANCO DE PORTUGAL: 2010-2011
Rate of change, per cent

	Weights 2009	EB Summer 2010			EB Spring 2010		
		2009	2010(p)	2011(p)	2009	2010(p)	2011(p)
Gross Domestic Product	100.0	-2.7	0.9	0.2	-2.7	0.4	0.8
Private consumption	65.8	-0.8	1.3	-0.9	-0.8	1.1	0.3
Public consumption	22.7	3.5	-0.9	-1.4	3.5	-0.7	-0.2
Gross Fixed Capital Formation	19.0	-11.1	-3.3	-1.6	-11.1	-6.3	0.3
Domestic demand	107.6	-2.5	0.0	-1.1	-2.5	-0.5	0.2
Exports	28.2	-11.6	5.2	3.7	-11.6	3.6	3.7
Imports	35.8	-9.2	1.7	-0.7	-9.2	0.2	1.4
Contribution to GDP growth (p.p.)							
Net exports		0.1	0.9	1.3	0.1	0.9	0.6
Domestic demand		-2.8	0.1	-1.2	-2.8	-0.6	0.2
of which:							
Changes in inventories		-0.6	0.0	0.0	-0.6	0.1	0.0
Current + capital account (% of GDP)		-9.4	-9.0	-8.2	-9.4	-8.8	-9.7
Trade balance (% of GDP)		-6.8	-6.2	-4.8	-6.8	-6.3	-5.8
Harmonised Index of Consumer Prices		-0.9	1.4	2.0	-0.9	0.8	1.5

Source: Banco de Portugal.
Notes: (p) – projected. For each aggregate, this table shows the projection corresponding to be the most likely value, conditional on the set of assumptions considered.

(1) This section is based on data available up to mid-June 2010. *INE* published the National Accounts according to the new benchmark year 2006 in the course of June, and released the breakdown of Quarterly National Accounts for Institutional Sectors on 29 June. The current projection exercise was therefore based on National Accounts with benchmark year 2000, which allows for full comparability with previous projections and facilitates the evaluation of some of the assumptions underlying the projections

not yet clearly started. Buoyant domestic demand in the first half of 2010, however, is not deemed to be sustainable. Underlying the present outlook is a strong deceleration of the Portuguese economy as of the second half of 2010, which is projected to sharpen in 2011. Such developments are likely to persist, given that this outlook does not envisage a significant adjustment of macroeconomic imbalances.

The dynamics of external and domestic demand contribute differently to developments in the Portuguese economy. On the one hand, relatively favourable developments are projected for exports, against the background of recovery in overall demand, in spite of a deceleration from the momentum gained in early 2010. On the other hand, domestic demand is projected to slow down in the course of 2010 and to decline in 2011, reflecting inter alia the impact of fiscal consolidation measures, continued adverse conditions in the labour market, heightened uncertainty surrounding household's income, and tighter credit conditions. Notwithstanding the positive contribution of net exports, external financing requirements will tend to remain high, with a growing weight in the income account deficit. The Harmonised Index of Consumer Prices (HICP) is projected to accelerate to 2.0 per cent in 2011, including the full pass-through of the announced increase in the Value Added Tax (VAT) rates.

Risks on economic activity are on the downside, particularly in 2011. This evaluation is due, inter alia, to the possible emergence of a further wave of systemic interaction between the real and financial sectors of the economies worldwide, in a context of sharp discrimination of sovereign risk and tensions in international financial markets. Another relevant risk factor is the possible need to adopt additional fiscal consolidation measures in a number of European countries, including Portugal. Finally, risks persist regarding the gradual macroeconomic adjustment underlying the present outlook, in a context in which the temporary measures adopted by the ECB – with a view to ensuring liquidity to the banking system and intervening in the euro area public debt markets facing major disruptions – have been fundamental to ensure the regular financing of the Portuguese economy. As regards inflation, risks are slightly on the downside, namely in 2010.

Vis-à-vis the spring 2010 issue of the Economic Bulletin, GDP growth was revised upwards for 2010 and downwards for 2011 (Table 1). The 2010 revision was chiefly based on information on the first half of 2010, revealing higher-than-expected growth, and on the revision of assumptions regarding external demand for Portuguese goods and services, which had consequences for export projections. The decline in Gross Fixed Capital Formation (GFCF) is forecast to be less marked, reflecting the dynamic effects associated with developments in the first half of 2010. Imports were also revised upwards, reflecting import-intensive exports and GFCF. The downward revision in GDP in 2011 is broadly based across all components of domestic demand. In spite of the downward revision of interbank money market rates, the new projection includes tighter credit conditions and a downward revision of disposable income. In this context, the present projection also incorporates some private sector deleveraging dynamics. As regards inflation, consumer prices are forecast to increase in 2010 and 2011, mostly due to the increase in VAT rates announced in May. Finally, the current and capital account deficit for 2011 was revised downwards, reflecting, to a large extent, less buoyant domestic demand.

2. CONJUNCTURAL DATA AND ASSUMPTIONS

The present outlook is based on data for recent developments in the Portuguese economy and on assumptions for the 2010-11 period.

Projections include data on the first quarter of 2010, taken from the Quarterly National Accounts of *Instituto Nacional de Estatística – INE* (Statistics Portugal), as well as conjunctural indicators for the second quarter. As regards the external environment of the economy, projections include an assump-

tion of a pick-up in external demand for Portuguese goods and services, which is based on the projections released by the European Central Bank in the June 2010 issue of the Monthly Bulletin. With regard to the domestic framework, prospects are clearly conditioned by the assumed public finance developments, which follow the usual rule in Eurosystem's projection exercises, according to which fiscal policy measures are only included provided that they have been approved in legal terms or show high probability of legislative approval, and have been specified in sufficient detail.

Finally, the projections assume that the conditions regarding the functioning of the economy in the next two years will likely lead to reestructuring in household and corporate balance sheets, and to a further limitation of the banking system leveraging.

Broadly favourable GDP developments in the first half of 2010

According to Statistics Portugal, GDP growth in the first quarter of 2010 stood at 1.8 per cent *vis-à-vis* the first quarter of 2009 (1.1 per cent from the previous quarter). Year-on-year developments were marked by the strong dynamics of private consumption, particularly associated with the increase in car purchase-related expenditure, and by a base effect associated with the strong fall in overall demand in the first quarter of 2009, particularly sharp in exports and GFCF. Imports accelerated in the first quarter of 2010, year-on-year, and import penetration growth remained virtually unchanged from the last quarter of 2009.

Data available for the second quarter of 2010 points to some deceleration of economic activity. Underlying these developments are lower contributions of domestic demand (excluding changes in inventories) and net exports. In particular, exports are envisaged to decelerate while imports will accelerate, in a context of some recovery in inventories, after the fall in the first quarter. Private consumption growth is projected to slow down, though to still high growth rates.

Stronger recovery in global economy and increase in long-term interest rates

After the strong contraction in 2009, external demand for Portuguese goods and services is forecast to increase over the projection horizon, although at lower growth rates than in the period preceding the international economic and financial crisis (Table 2 and Chart 1).

The assumptions were based on data compiled from financial markets in mid-June 2010. According to this data, interbank money market short-term interest rates will remain at low levels, namely in the second half of 2010, to increase slightly in yearly average terms in 2011.

Long-term interest rates, according to the present assumptions, will continue to increase up to the end of the projection horizon. The risk premium incorporated in this profile is higher than in the period preceding the international economic and financial crisis, but nonetheless lower than the peak observed in early May. The sovereign risk spread in the euro area was particularly sharp in late April and early May 2010, a period that saw an increase in risk aversion of international investors across a broad range of public and private debt markets.[2] In this context, the developments of sovereign risk in Portugal have been conditional on doubts regarding the sustainability of public finances, raised by unforeseen deficit and public debt hikes in 2009, combined with the maintenance of structural weaknesses. The cut in risk premium requires the maintenance of a credible fiscal consolidation strategy.

(2) In early May, against the background of serious renewed tensions in international financial markets, the Council of the European Union and the Member States agreed upon a package of measures with the aim of maintaining financial stability in Europe, including a financial stability mechanism. The Governing Council of the ECB, in turn, has decided to start intervening in the debt markets, in order to ensure market depth and liquidity in the segments facing larger disruptions and to re-establish the correct functioning of the monetary policy transmission mechanism.

Table 2

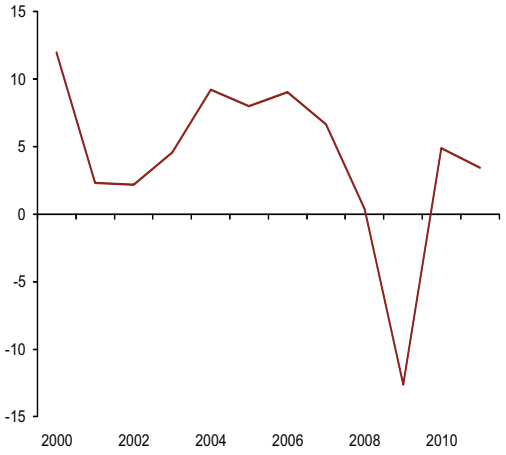
ASSUMPTIONS UNDERLYING THE PROJECTION EXERCISE

		EB Summer 2010			EB Spring 2010		
		2009	2010	2011	2009	2010	2011
External demand	yoy	-12.6	4.9	3.5	-12.6	3.5	3.7
Interest rate							
Short term	%	1.2	0.7	1.1	1.2	0.9	1.7
Long term	%	4.2	5.0	5.5	4.2	4.2	4.6
EUR exchange rate							
EUR effective	yoy	1.0	-7.5	-2.5	1.0	-3.3	-0.3
EUR-USD	aav	1.39	1.27	1.21	1.39	1.37	1.36
Oil price							
in USD	aav	61.9	76.7	80.1	62.0	79.8	83.8
in EUR	aav	44.1	60.5	66.0	44.2	58.4	61.6

Sources: Bloomberg, ECB, Thomson Reuters and Banco de Portugal calculations.
Notes: yoy - year-on-year rate of change, % - per cent, aav - annual average value. An increase in the exchange rate represents an appreciation.

Chart 1

EXTERNAL DEMAND FOR PORTUGUESE GOODS AND SERVICES
Per cent



Source: ECB.

Exchange rate assumptions in the projection horizon translate into a depreciation of the euro, either in effective terms or *vis-à-vis* the US dollar. According to data available in futures markets, the oil price per barrel is forecast to increase to around USD 80 in 2011 (approximately EUR 65), reflecting, *inter alia*, the recovery in global economic activity and, as a result, overall demand for commodities.

Growth prospects in the Portuguese economy are forecast to be negatively affected in the short run by the necessary fiscal consolidation process

Public finance assumptions reflect information included in the State Budget for 2010, the update of the Stability Programme, and the range of new fiscal consolidation measures announced in mid-May. Among the measures on the income side, it is worth highlighting the 1 percentage point increase in all VAT rates as of July, the introduction of changes in the personal income tax as of June (consisting

of a 1 per cent rise between the third and fourth income bracket and a 1.5 per cent increase from the fourth bracket upwards) and the 2.5 percentage point increase in the corporate income tax for taxable income exceeding EUR 2 million.

On the expenditure side, some measures envisaged in the Stability Programme will be brought forward, fiscal stimulus measures will be discontinued, hiring will be frozen, expenditure on goods and services by the central government will be cut down, and transfers to the regional and local governments and to the state corporate sector will be reduced. Such measures will tend to negatively affect growth the Portuguese economy in the short run. In particular, public consumption and investment in real terms will likely decline in 2010 and 2011, in the first case essentially due to the fall in the number of civil servants and to a very significant deceleration in expenditure in goods and services *vis-à-vis* 2009.

3. SUPPLY, DEMAND AND EXTERNAL ACCOUNTS

The current outlook incorporates a gradual adjustment of the Portuguese economy. However, substantial gaps between domestic demand and supply are expected to persist over the projection horizon.

On the supply side, projections reflect a recovery in total factor productivity, particularly in 2010, in a context of employment and investment reduction. On the demand side, economic growth is expected to be based on net exports, as the contribution of domestic demand is projected to decline over the projection horizon.

Economic growth mainly centred on the increase in total factor productivity

The current projections point to GDP growth of 0.9 per cent in 2010 and 0.2 per cent in 2011 (-2.7 per cent in 2009). This is lower than the midpoints of the projection ranges published by the ECB for the euro area in the June 2010 issue of the Monthly Bulletin, which stand at 1.0 and 1.2 per cent in 2010 and 2011 respectively (-4.1 per cent in 2009). At the sectoral level, economic activity growth in Portugal is projected to focus mostly on export-oriented manufacturing and services sector activities, against a background of a gradual recovery of economic activity worldwide. Activity in the construction sector and in those sectors mostly focusing on the domestic market should be constrained by the fall in domestic demand over the projection horizon, namely due to the expected developments of corporate investment and consumption expenditure.

Employment developments will be marked by limited growth of activity and labour demand in the 2010-2011 period. According to the present outlook, employment will fall by 1.1 and 0.3 per cent in 2010 and 2011 respectively, wherefore a negative contribution is anticipated for output growth. The fall in employment will probably be more marked in the public sector, in line with the assumptions of this projection exercise. The contribution of the capital stock to GDP growth will be rather limited, in the context of a fall in corporate investment. Therefore, economic growth will be based on the increase in total factor productivity, reflecting a more intensive use of both installed capital stock and labour input.[3]

The identification of the current cyclical position of the economy and potential output growth is subject to a higher than usual degree of uncertainty, in the context of the necessary adjustment of the Por-

(3) Behind this conclusion is a standard growth accounting framework with recourse to the Cobb-Douglas production function. For a discussion of the underlying methodology, see Almeida, V. and Félix, R. (2006), "Computing Potential Output and the Output Gap for the Portuguese Economy", Banco de Portugal, *Economic Bulletin*–Autumn.

tuguese economy. Even though the evaluation is rather sensitive to the assumptions and calculation methodologies, in particular after the sharp GDP fall in 2009, the available estimates point to potential output growth rates close to 1 per cent over the projection horizon (Chart 2).[4]

Limited GDP growth, in the context of export recovery

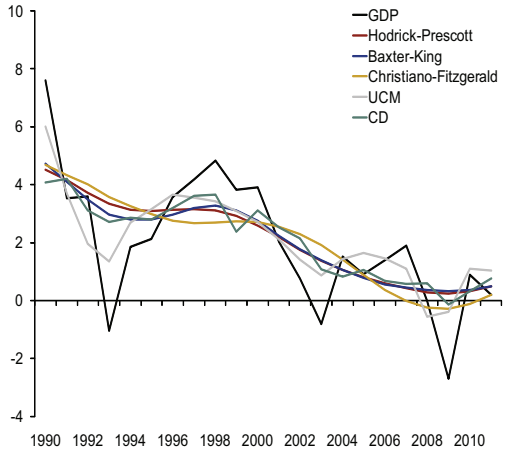
The outlook for economic activity in the 2010-2011 period incorporates an increase in the contribution of exports to GDP growth, in the context of rebounding external demand (Charts 3 and 4). The contribution of domestic demand is projected to be nil in 2010 and negative in 2011, influenced by public finance assumptions, which include a decline in public consumption and investment. Over the projection horizon, GDP growth in the private sector will likely be higher than growth of the overall economy.

After strong growth in the first half of 2010, private consumption will clearly decelerate over the year and decline in 2011, in line with the constraints imposed by the solvency conditions resulting from households' budget constraints. These intertemporal constraints reflect not only significantly tighter conditions on access to credit, but also new tax increases and heightened uncertainty as to future income, in a context of prevailing adverse conditions in the labour market. Nonetheless, relatively robust growth of private consumption in expected in 2010, reaching 1.3 per cent, after the 0.8 per cent fall in 2009. In 2011, private consumption is projected to decline by 0.9 per cent. In the euro area, the midpoints of the projection ranges published by the ECB in the June 2010 issue of the Monthly Bulletin stand at 0.1 and 0.7 per cent in 2010 and 2011 respectively (-1.2 per cent in 2009).

Real disposable income is projected to fall by 1.3 and 0.8 per cent in 2010 and 2011 respectively (1.9 per cent increase in 2009). Underlying these developments is, on the one hand, the adjustment of real wages to adverse conditions in the labour market. On the other hand, income is broadly conditional on public finance assumptions, in particular the impact on disposable income of the moderate growth of government transfers, as well as the increase in direct taxes.

Chart 2

POTENTIAL GDP GROWTH
Per cent

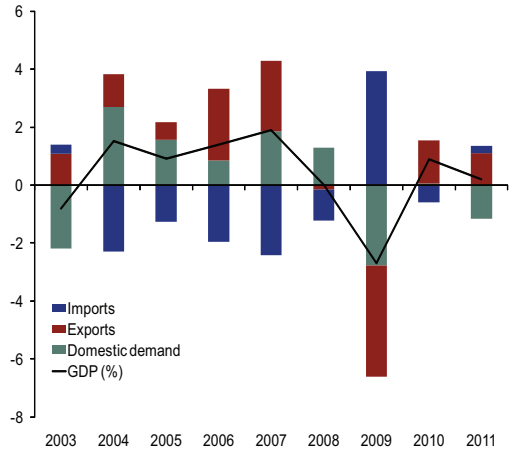


Sources: *INE* and Banco de Portugal.
Notes: **(i)** UCM stands for unobserved component methodology; **(ii)** CD stands for the methodology based on a Cobb-Douglas production function.

(4) The unobserved component methodology (UCM) is presented in Centeno, Novo and Maria (2009), "Unemployment: A supply, demand, and institutions approach", *in The Portuguese Economy in the Context of Economic, Financial and Monetary Integration*, Economics and Research Department, Banco de Portugal.

Chart 3

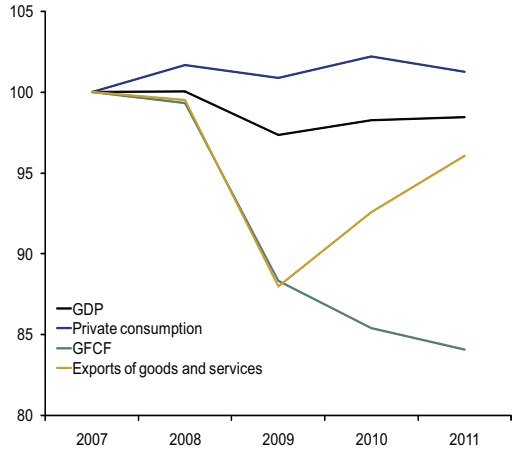
BREADKDOWN OF GDP GROWTH
Contribution to the rate of change



Sources: *INE* and Banco de Portugal.

Chart 4

GDP AND EXPENDITURE COMPONENTS
Index (2007=100)



Sources: *INE* and Banco de Portugal.

Consumption developments are projected to be particularly affected by the durable goods component, which is expected to grow by 3.0 per cent in 2010 and to decline by around 12 per cent in 2011 (-13.2 per cent in 2009). As usual, developments in consumption of non-durable goods are projected to be smoother. After 0.6 per cent growth in 2009, it is projected to grow by 1.2 per cent in 2010 and 0.2 per cent in 2011.

The present outlook points to a GFCF decrease of 3.3 per cent in 2010 and 1.6 per cent in 2011 (-11.1 per cent in 2009). This reduction is broadly based across public and private components and is the result, *inter alia*, of significantly tighter conditions on access to credit, deteriorating expectations regarding domestic demand developments, heightened uncertainty and higher risk associated with investment decisions, and the dynamic effects arising from the decrease occurred in 2009 and early 2010. As regards corporate investment, projections point to a fall of 2.0 per cent in 2010 and relative stability in 2011 (-14.1 per cent in 2009). In turn, residential investment is estimated to decline by 7.0 per cent in 2010 and 5.9 per cent in 2011 (-10.3 per cent in 2009). The assumptions considered for public finance include a decline in public investment in 2010 and 2011. In contrast, persistently low interest rate levels and the assumption of external demand recovery exert favourable effects on investment developments.

Exports of goods and services are expected to grow by 5.2 and 3.7 per cent in 2010 and 2011 respectively, after a fall of around 12 per cent in 2009 (see "Box 1 *The effects of an external demand shock in euro area countries*" of this Bulletin). Export developments are in line with the rise in external demand, in a framework in which no considerable changes are expected in external competitiveness of the Portuguese economy (See "Box 2 *Relative unit labour costs in Portugal: methodological issues and developments in the last decade*" of this Bulletin). These developments focus chiefly on goods exports growth, which, according to the present projections, will increase by 7.2 and 4.2 per cent in 2010 and 2011 respectively (-13.8 per cent in 2009). Exports of services, including tourism, are projected to grow by 1.0 and 2.6 per cent in 2010 and 2011 respectively (-6.5 per cent in 2009). Imports are projected to grow by 1.7 per cent in 2010 and to decline by 0.7 per cent in 2011 (-9.2 per cent in 2009). These developments imply some reduction in the degree of import penetration, albeit weaker than in 2009, which is conditional on the expected decline in demand components with higher import content.

The financing needs of the economy are expected to decline slightly, but to remain nonetheless at high levels

External financing needs of the Portuguese economy, measured by the combined current and capital account balance as a percentage of GDP, have remained at a high level for a protracted period. This is the counterpart of the imbalance between investment and domestic saving levels persisting in the Portuguese economy, particularly since 2003 (Chart 5). The current projections envisage some narrowing of this gap. External financing needs are therefore expected to decline to 9.0 per cent and 8.2 per cent of GDP in 2010 and 2011 respectively (9.4 per cent in 2009).

The trade balance deficit is projected to decline in 2010 and 2011 to 6.2 and 4.8 per cent of GDP respectively, compared with 6.8 per cent in 2009 (Chart 6). Excluding energy, the external trade deficit is estimated to fall to 2.3 per cent in 2010 and to an historical low of 0.5 per cent in 2011 (3.9 per cent in 2009). Expected developments in the trade balance reflect stronger dynamics in the external demand for Portuguese goods and services when compared to overall demand weighed by import content, which more than offsets the slight deterioration in terms of trade resulting from the increase in oil prices. The Portuguese high energy dependence and the relatively sharp sectoral energy-intensity within the euro area will continue to be elements of structural fragility of the Portuguese economy.

The improvement in the trade account balance is not expected to translate into an equivalent decline in external financing needs of the Portuguese economy. Indeed, combined current and capital account deficits have implied a continued deterioration of the international investment position of the Portuguese economy and a gradual increase in the income account deficit. This deficit, which stood at approximately 2 per cent of GDP in 2000, is projected to reach 4.3 per cent of GDP in 2010 and 5.0 per cent in 2011 (4.8 per cent in 2009). These developments are also conditional on the assumption of increasing interest rates over the projection horizon.

4. PRICES AND WAGES

HICP growth is projected to be relatively moderate in the 2010-2011 period, notwithstanding the assumptions of full pass-through of the increase in the VAT rates. The determinants of consumer prices do not suggest significant inflationary pressures, namely in 2010, with the exception of oil prices, for which a significant increase is expected this year.

Moderate growth in wages and consumer prices

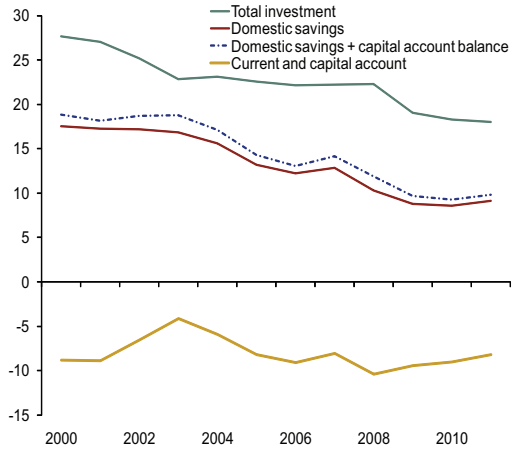
The HICP is projected to grow by 1.4 per cent in 2010 and by 2.0 per cent in 2011, after the reduction recorded in 2009 (-0.9 per cent). The midpoint of the projection ranges for the euro area, published by the ECB in the June 2010 issue of the Monthly Bulletin, stand at 1.5 and 1.6 per cent in 2010 and 2011 respectively (0.3 per cent in 2009).

The outlook for inflation reflects the increase in all VAT rates by 1 percentage point as of 1 July 2010. Under the assumption that this increase will be fully reflected in final consumer prices, the estimated impact on inflation is 0.4 percentage points in 2010 and 2011. It should be added that under unfavourable conditions in the labour market and limited economic growth prospects, the increase in the VAT rates is not assumed to pass through to nominal wages.

The energy component of the HICP is projected to increase by 10.2 per cent in 2010 and 5.0 per cent in 2011 (-8.0 per cent in 2009). In addition to the effect associated with the increase in the standard

Chart 5

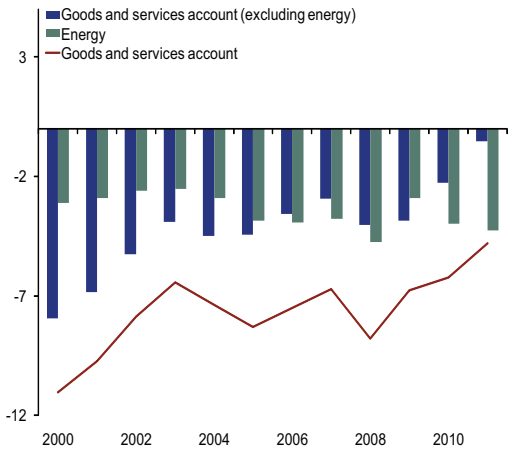
CURRENT AND CAPITAL ACCOUNT
As a percentage of GDP



Sources: *INE* and Banco de Portugal.

Chart 6

TRADE ACCOUNT
As a percentage of GDP



Sources: *INE* and Banco de Portugal.

VAT rate, these projections also reflect the expected rise in commodity prices, namely in oil, justified by prospects of gradual recovery in global economic activity. These dynamics will tend to swiftly pass through to energy import prices and to the energy component of the HICP.

Turning to the non-energy component of the HICP, the current projection points to an increase of 0.3 per cent in 2010 and 1.6 per cent in 2011 (-0.2 per cent in 2009). These projections, on the one hand, reflect the impact associated with the increase in the VAT rates, and, on the other hand, incorporate the effects associated with developments in the non-energy goods imports deflator, which is expected to continue to show a downward trend (-5.3 per cent and -1.8 per cent in 2009 and 2010 respectively). However, the increasing normalisation of international trade flows and the expected rise in international trade prices is expected to lead to a 1.8 per cent increase in this deflator in 2011.

In addition, projections for the HICP are conditional on expected developments in unit labour costs, which, on average, will be relatively stable over the 2010-2011 period, after the strong increase in 2009 (close to 3.5 per cent, in both the private sector and the overall economy). Projected developments in unit labour costs reflect, on the one hand, expectations of more intensive use of the labour input and increased productivity and, on the other hand, a deceleration in wages, given the deterioration of the labour market situation, characterised by an increase in the unemployment rate to historical highs. In the public sector, projections for nominal wages over the next two years are in line with public finance assumptions. Finally, some recovery is projected for profit margins over the projection horizon, after the heavy loss recorded in 2009.

5. UNCERTAINTY AND RISKS

The possibility that the assumptions in "Section 2 Conjunctural data and assumptions" may not materialise, or that idiosyncratic factors may occur that directly affect the macroeconomic scenario, justify a quantitative assessment of risks and uncertainty, which is presented in this section (Table 3).[5]

(5) The methodology used was published in Pinheiro, M. and Esteves, P. (2008), "On the uncertainty and risks of macroeconomic forecasts: Combining judgements with sample and model information", Banco de Portugal, *Working Paper* 21.

Risks of a new recession over the projection horizon are in place

As regards the assumptions underpinning the projections for the Portuguese economy, risk assessment includes the possibility that the euro exchange rate may depreciate by more than assumed for 2010 and 2011. In turn, the possible need for additional fiscal consolidation measures in different countries that are important markets for Portuguese exports underlies the possibility that the demand for goods and services produced by domestic firms may be weaker than assumed in the projections.

Considering the factors directly impacting on the domestic macroeconomic scenario, private consumption and investment were deemed to stand below the levels considered in central projections. Underlying this risk are different factors. First, there is a possibility that conditions on access to credit are significantly tighter than those envisaged in the current outlook, particularly in the context of a reduction in the leveraging degree of the banking system. Second, there is a risk that household disposable income stands below that envisaged in the projections, particularly in the case of a sharper deterioration of the labour market situation. Finally, there is a possibility that heightened uncertainty may contribute to a stronger than projected reduction in investment. As regards inflation risk assessment, it was considered that wage growth in 2011 may be lower than that envisaged in the current outlook, in a context of a sharper deterioration of labour market conditions. Additionally, a less than full pass-through of the recent increase in VAT rates to final consumer prices was also considered. Finally, turning to public finances in Portugal, the possibility that additional measures are necessary to reduce the public sector financing needs was taken into account.

According to the quantification of risks, the likelihood that GDP growth may fall below the present outlook stands at 54 per cent in 2010 and 63 per cent in 2011 (Table 4 and Chart 7). In line with this assessment, all domestic demand components are more likely than not to fall short of projections. A negative GDP change in 2010 has a likelihood below 15 per cent, which rises to over 50 per cent in 2011. Also, against the background of continued heightened differentiation of sovereign risk at the global level and strong pressures in international financial markets, a possible sharper adjustment of the Portuguese economy may imply a pronounced decline in economic activity in 2011. The quantification of risks to inflation points to slightly downward risks over the projection horizon (Table 4 and Chart 8).

Table 3

PROBABILITY OF AN OUTTURN BELOW THE PROJECTIONS
Per cent

	2010	2011
Conditioning variables		
Exchange rate	45	45
External demand	50	55
Endogenous variables		
Private consumption	55	60
GFCF	55	60
Wages	50	55
HICP	55	45

Source: Banco de Portugal.

Table 4

RISK FACTORS PROBABILITIES
Per cent

	Weights (%) 2009	2010	2011
Gross Domestic Product	100	54	63
Private consumption	66	55	64
GFCF	19	57	65
Exports	28	51	53
Imports	36	54	63
HICP		55	52

Source: Banco de Portugal.

Chart 7

GROSS DOMESTIC PRODUCT
Rate of change, per cent

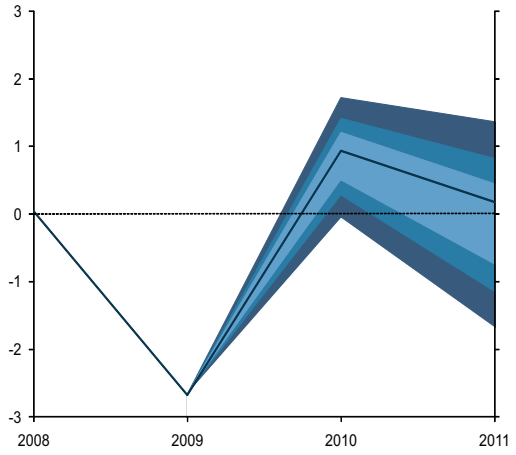
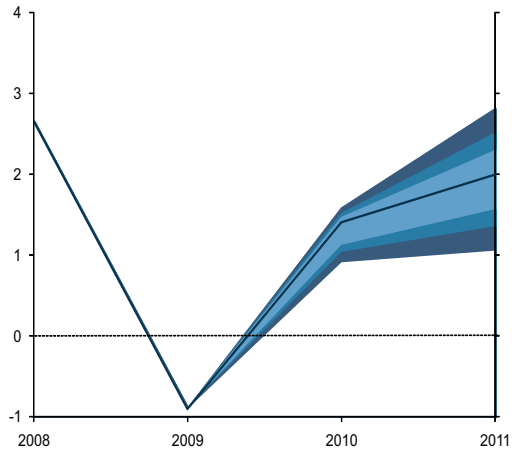
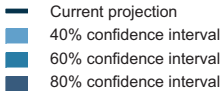


Chart 8

HARMONISED INDEX OF CONSUMER PRICES
Rate of change, per cent





Sources: *INE* and Banco de Portugal.

6. CONCLUSIONS

Financial integration in the euro area context has allowed for persistent significant gaps between domestic demand and supply in Portugal. Under normal conditions, in a monetary union, these gaps may gradually fade, for instance through gradual developments in the international competitiveness of the economy, due to changes in the cost and inflation differentials. However, their indefinite persistence does not constitute a sustainable situation.

Disturbances exacerbated as of late April in the sovereign debt market in Portugal and in other euro area countries that have translated into strong sovereign risk differentiation have strengthened the importance of credible fiscal strategies, fostering a sustained growth-oriented macroeconomic framework. In effect, recent developments confirm that the risk premium assigned by financial market participants may fluctuate sharply and imply potentially very negative adjustments in the economy's welfare level. In this context, the narrowing of the gap between investment and savings in Portugal, in both the public and private sectors, is fundamental to ensure improved financing conditions in international financial markets. Although involving economic adjustment costs in the short run, a credible fiscal consolidation strategy seems to be essential to contain the risk of unsustainability in public finances. In the private sector, significantly tighter conditions on access to credit, in a context of high indebtedness levels of households and the corporate sector, are also expected to spur endogenous adjustments leading to a situation more in line with medium term equilibrium.

Macroeconomic adjustments in the euro area context also depend on the relative operating conditions of the different Member State economies and namely on the role played by national institutions. The implementation of active policies aimed at reducing structural fragilities of the Portuguese economy assumes high relevance in this context. The increase in labour productivity, even though in the long run, will chiefly depend on the reform of the educational system and on the efficiency of

allocating workers to jobs in the economy, avoiding labour market segmentation. The increase in capital quality is in principle associated with the availability of qualified labour, given the complementarity between both production factors. However, export-oriented investment projects incorporating innovative technologies, as well as the dissemination of these technologies, may be important factors of improved quality of capital inputs. In this context, a major role is played by the implementation of changes to the institutional framework in which business activity develops, in order to better allocate internal resources and attract innovative projects. A crucial segment of this framework is related to the operating conditions of the labour and product markets and, in particular, their respective competition levels ("Box 3 *Macroeconomic impact of improving competition in the labour and product markets*" of this Bulletin). High competition in these markets, particularly as regards non-tradable goods and services sectors, leads to a better allocation of resources and lower production costs, creating more favourable conditions for economic activity.

This text is based on data available up to mid-June 2010.

Box 1. The effects of an external demand shock in euro area countries

After the contraction of the world economy and trade flows in 2009, more recently there has been a recovery, though at a different pace across regions. The recovery has been more robust than anticipated, in particular outside the euro area, supported by some normalisation of financial conditions but also by some improvement in economic agents' expectations. The euro area economy should benefit from the strengthening of the world economy, namely due to the increase in the demand for goods produced in the euro area.

Simulation of an external demand shock in a multi-country general equilibrium model

This box presents the analysis of the effects in the main euro area variables of an exogenous increase in demand outside the euro area, including indirect effects between euro area countries. The model used in the simulation is a dynamic general equilibrium model called EAGLE.[1] In this model the world consists of three blocs: the euro area, the United States (US) and the rest of the world. In the euro area there are two regions: region A and region B. Region A is the largest euro area region (60 per cent of population and around 2/3 of GDP). In terms of the structural characteristics, the main difference between the two euro area economies concerns the trade matrix: in region A more than 75 per cent of trade flows originate in or are directed to partners outside the euro area, while region B mostly trades with the other euro area economy (around 2/3).[2]

The effects of the considered shocks hinge on several factors. One worth stressing is the behaviour of the monetary and the fiscal authorities. In the EAGLE model the behaviour of the monetary authority in each bloc is assumed to be described by a Taylor rule that reacts both to inflation and GDP growth. In what regards the fiscal authority, there is a fiscal rule that guarantees the stability of public debt based on the non-distortionary tax (lump-sum).[3]

The simulation presented in this box can be seen as a situation where factors not present in the model, namely an increase in confidence, affect the decisions of agents, leading to an increase in demand outside the euro area. In particular, the exogenous increase in euro area external demand is simulated in the EAGLE model by means of shocks that induce a temporary increase in consumption (close to 2 per cent) and in investment (close to 5 per cent) outside the euro area. The shocks occur in the first quarter of the simulation and disappear gradually.[4] This stimulus leads to an increase in GDP outside the euro area slightly above 1.5 per cent (Chart 1).

The increase in external demand has a considerable effect in euro area activity that is different across regions in the monetary union

The increase in external demand towards both regions in the monetary union leads to a rise in euro area exports and to a favourable evolution of the trade balance, against a background of a real depreciation of the euro after the period the shock hits (Chart 2).

As expected, the increase in exports is mainly concentrated in destinations outside the euro area. The increase in total exports is larger in the euro area region that is more open to trade with countries outside the euro area, i.e. in region A (Chart 3). Note that extra euro area exports show a slightly higher increase in region B, given that in the economies outside the euro area the prices of goods produced in this region drop slightly more. However, total exports increase at a considerably lower pace in region B, given the lower weight of extra euro area exports in this economy.

The external demand shock has a considerable effect in GDP in both euro area economies, which is to a large extent the result of the favourable behaviour of exports. In what concerns the domestic demand components,

(1) *For a more detailed description see S. Gomes, P. Jacquinot and M. Pisani (2010), "The EAGLE - A model for policy analysis of macroeconomic interdependence in the euro area", Banco de Portugal, Working Paper 6.*

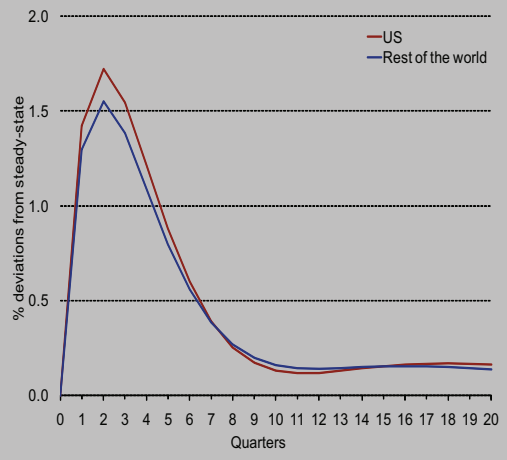
(2) *Note that the EAGLE model calibration used in this box is slightly different from the original, in particular in what concerns the size of the euro area regions and the trade matrix.*

(3) *Distortionary taxes are exogenously set and remain constant in the external demand shock simulation.*

(4) *The shocks are calibrated such that they fade out almost completely after three years.*

Chart 1

GDP OUTSIDE THE EURO AREA



Source: Banco de Portugal.

private consumption increases somewhat, given the rise in hours worked and the real wage in the euro area, and investment does not change significantly. Note that the fact that domestic demand does not change noticeably, with an actual fall of investment in region B, is associated with the need for the euro area to lend funds abroad due to the increase in aggregate demand outside the euro area. This effect is persistent given that the shock only disappears gradually.[5]

One should also mention that, even though the expansionary effect is particularly strong in the tradable goods sector, there is also some increase in production in the non-tradable sector. The reason for this lies on the assumption in the model of complementarity between this two types of goods in each economy, that implies that an increase in demand for one type of these goods translates into a rise in demand for the other type of goods. The positive effect on GDP is slightly higher in the region that is more open in terms of extra euro area exports (Chart 2). The other economy in the monetary union also benefits from a slight increase in intra euro area exports following the external demand shock. At the same time there is a small depreciation of the real exchange rate of the region that is more open to intra trade against the other region, which in a monetary union corresponds to a negative inflation differential.

The external demand shock leads to a small increase in euro area inflation, given the combination of several factors, namely the increase in production costs both in the tradable and non-tradable sectors, against a background of heightened demand for production inputs, and the rise in the price of imported goods.

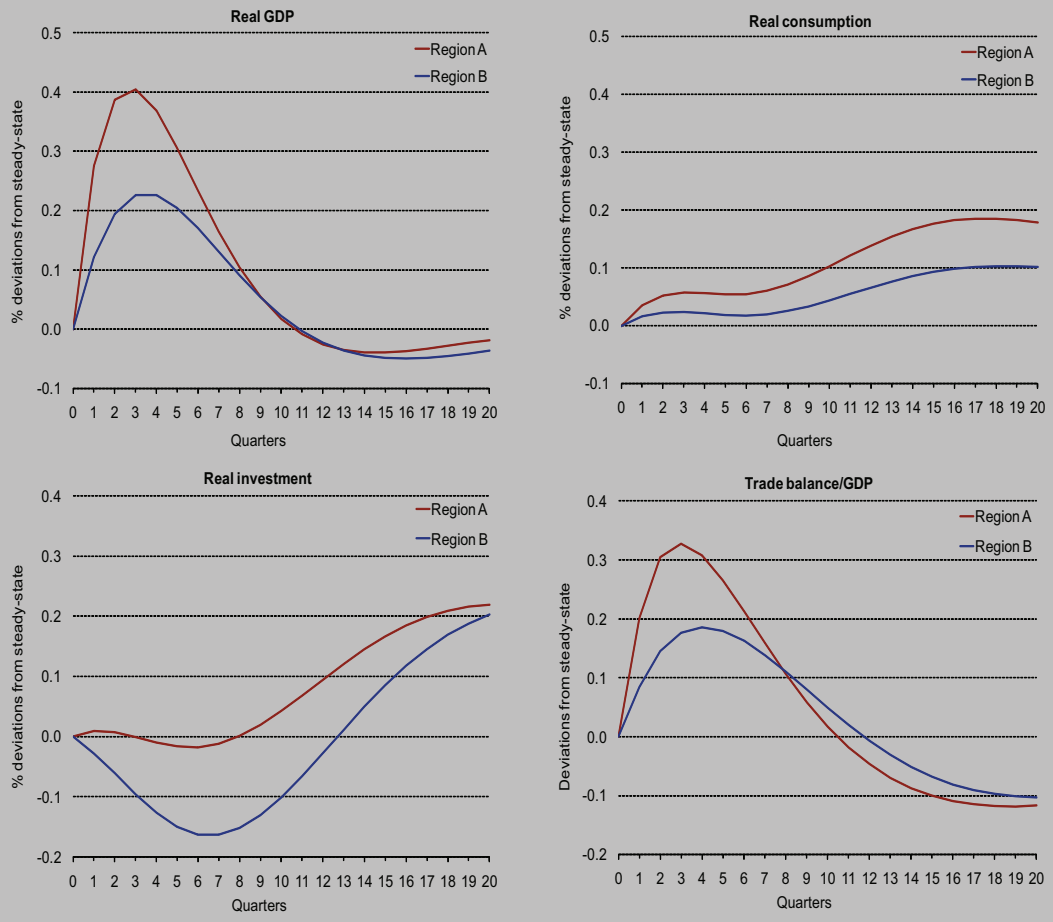
The increase in inflation and the expansion of GDP in the euro area lead the monetary authority to increase slightly the nominal interest rate (less than 10 basis points, maximum) that is lower than the increase in inflation thus leading to a fall in the real interest rate.

The simulation presented in this box illustrates that an exogenous increase in euro area external demand has a considerable effect in the euro area economy. Even though the shock is common to both regions in the euro area it has asymmetric effects in each economy in the monetary union because the transmission depends on the structural characteristics of each economy. In the EAGLE model, the monetary union regions have different structural characteristics, worth stressing the trade matrix of each region. Finally, one should mention that this analysis has a number of caveats. In particular the results are conditional on the model and the calibration chosen. Also, the simulation takes as a starting point a situation where the economies are at the steady-state, i.e. considering that no other shock is hitting the economies at the same time.

(5) *Another factor that shapes the response of investment is the existence of adjustment costs. If we increase these costs, the response of investment to the shock becomes smoother, and the fall in investment recorded in the first quarters after the shock may actually disappear.*

Chart 2

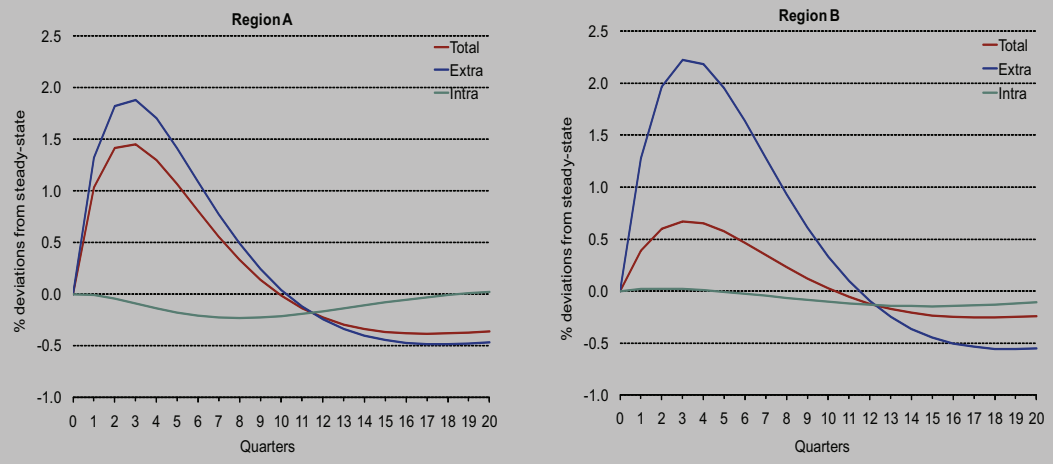
BEHAVIOUR OF SOME MACROECONOMIC VARIABLES IN THE EURO AREA



Source: Banco de Portugal.

Chart 3

EURO AREA EXPORTS BY DESTINATION



Source: Banco de Portugal.

Box 2. Relative unit labour costs in Portugal: methodological issues and developments in the last decade

In the last decade Portugal experienced low economic growth and real divergence vis-à-vis the euro area and the European Union. In the same period there was a marked deceleration of potential output in the Portuguese economy, likely associated with the interaction between the resilience of structural fragilities and the impact of negative economic shocks. Also, the real effective exchange rate, based on relative unit labour costs, recorded a real appreciation. This box intends to show the most recent developments in the real effective exchange rate index based on relative unit labour costs for the Portuguese economy. It also aims at discussing a few methodological options associated with its calculation.

The results show that there is a bias in the real effective exchange rate index stemming from the accounting methodology for general government transfers to the Portuguese civil servants pension scheme (Caixa Geral de Aposentações, CGA hereafter), within the scope of the National Accounts base 2000. This methodology was changed in the new National Accounts base (base 2006). According to a consistent series constructed with the most recent methodology and data from National Accounts, in the last decade there was a limited deterioration in the Portuguese economy's international competitiveness in terms of unit labour costs, which was lower than the deterioration recorded for the average of the euro area.

An economy's competitiveness is a complex and multi-faceted concept

Competitiveness, in general, is a quite broad and complex concept. According to the European Commission, a country's competitiveness relates to the ability of an economy to provide its citizens with sustained growth in living standards and broad access to jobs for those willing to work.[1]

This concept encompasses a range of factors. First, performance in terms of productivity is a key element associated with sustained growth in per capita output and the improvement of living standards. Other equally important factors are the quality of productive inputs, the ability to adapt in a context of openness and growing participation of new countries in international trade and the specific institutional framework of each country or region. In addition, in a narrower sense, competitiveness is often referred to as the ability to compete internationally, namely through comparative advantages of prices and costs. In the last decade the entry of new international competitors with low labour costs from Asia (particularly China) and the opening up of central and eastern European countries with relatively qualified labour forces illustrate the importance of these issues.[2]

Real effective exchange rate index as a competitiveness indicator

The effective exchange rate index deflated by relative unit labour costs is often interpreted as a competitiveness indicator, and an increase (decrease) in this index would mean a loss (gain) in competitiveness. However, this interpretation is somewhat limited. On the one hand, the effective exchange rate index deflated by relative unit labour costs must be interpreted as a competitiveness indicator in a narrow sense, referring to the international competition of national producers vis-à-vis partner countries. On the other hand, this indicator refers to price and cost competition, which is crucial for competitive capacity in international markets, particularly in the short term. In the long term, competitive capacity depends largely on revealed comparative advantages, a naturally broader concept.

(1) *For a more detailed discussion on the concept of competitiveness, see inter alia European Commission (2009) European Competitiveness Report, and Mauro, F. and Forster, K. (2008) Globalisation and the Competitiveness of the Euro Area, Occasional Paper Series No 97, European Central Bank.*

(2) *For more details, see Cabral, S. and Esteves, P. (2006), "Portuguese export market shares: an analysis by selected geographical and product markets", Banco de Portugal, Economic Bulletin-Summer.*

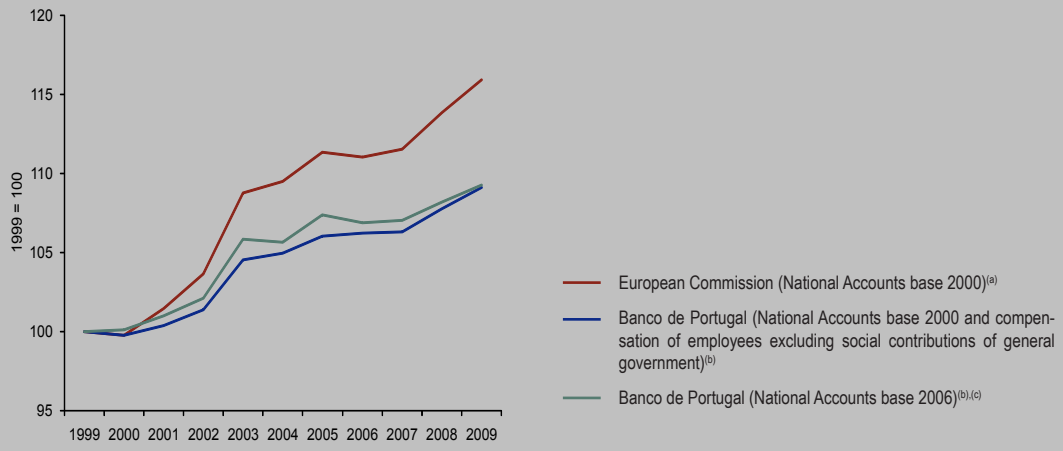
Growth of the real effective exchange rate index according to European Commission data

The effective exchange rate index deflated by unit labour costs assesses developments in unit labour costs in Portugal vis-à-vis unit labour costs in the major trading partners, converted into the same currency.[3]

According to European Commission data, vis-à-vis a group of 23 partner countries, the effective exchange rate index deflated by relative unit costs increased by around 16 per cent in Portugal in the period from 1999 to 2009 (Chart 1).[4] *Following sharper increases in 2002 and 2003, this index grew more moderately (4.4 per cent) from 2006 to 2009.*

Chart 1

EFFECTIVE EXCHANGE RATE INDEX DEFLATED BY RELATIVE UNIT LABOUR COSTS: PORTUGAL



Sources: AMECO, *INE*, OECD and Banco de Portugal.
Notes: (a) *Vis-à-vis* a group of 23 countries. (b) *Vis-à-vis* a group of 21 countries. (c) Series constructed by Banco de Portugal based on data from the National Accounts base 2006, reproducing the same methodology of the National Accounts base 2006 for the period prior to 2005. This series may be consulted on Banco de Portugal's website.

Method for accounting social contributions to the Caixa Geral de Aposentações sub-system in National Accounts (base 2000) biased developments in relative unit labour costs for the total economy

For the purpose of analysing international unit labour cost competitiveness, the method for accounting contributions to the civil servants pension scheme in the National Accounts base 2000 considerably biased developments in the real effective exchange rate index for the total economy.

Within the scope of the National Accounts base 2000, social contributions paid by general government as an employer largely reflected the general government subsidy to CGA. Each year, this transfer accounted for the amount needed to ensure the financial balance of the sub-system. In the last two decades there was a strong increase in expenditure on pensions of the responsibility of CGA. This reflected not only an increase in the number of retired employees but also an increase in average pensions (not accounted for by the annual update), essentially due to the rule for calculating the initial pension and the developments of pre-retirement wages.[5] *Given that*

(3) *For more details on the effective exchange rate index calculation methodology, see Gouveia, A. and Coimbra, C. (2004), "New effective exchange rate index for the Portuguese economy", Banco de Portugal, Economic Bulletin-December, .*

(4) *The database published by the European Commission is the so-called AMECO. For more details on the calculation methodology for the effective exchange rate indices released in this database, see http://ec.europa.eu/economy_finance/db_indicators/ameco/ index_en.htm. Results are qualitatively similar vis-à-vis a group of 35 partner countries.*

(5) *For more details, see Braz, C., Campos, M., Cunha, J., Moreira, S. and Pereira, M. (2009), "Public Finances in Portugal: trends and challenges" In: The Portuguese Economy in the Contextof Economic, Financial and Monetary Integration, Lisboa, Banco de Portugal, Economics and Research Department.*

from 2006 onwards CGA no longer accepted new subscribers, the upward trend of the number of retired employees and the associated expenditure on pensions occurred in parallel with a decline in the number of subscribers and their contributions.

These developments led to continued growth in the general government's subsidy to CGA, at a stronger pace than that of compensations net of social contributions in the public sector and the total economy, which significantly affected growth in compensation per employee, in both the public sector and the total economy. Based on data from the National Accounts base 2000 in the 1999-2009 period, compensation per employee in the public sector grew by 53.2 per cent including social contributions and by 27.3 per cent excluding contributions. In the same period, for the total economy there was a 5 p.p. difference in the growth of compensation per employee including and excluding social contributions from general government as an employer.

Although being considered as costs associated with labour input in the public sector, these social contributions to CGA are not directly related to compensations. In addition, there is no evidence that transfers to CGA have influenced the developments of compensations in the private sector. Hence, the inclusion of contributions to CGA in compensations overstates the rise in relative labour costs in Portugal, i.e. the deterioration in Portuguese international unit labour cost competitiveness. This was the methodological option adopted in the National Accounts base 2000, namely reflected in the European Commission series published in the AMECO database.

Within this context, in the last 10 years, for analytical purposes, Banco de Portugal adjusted compensations incorporated in unit labour costs in Portugal, by subtracting social contributions paid by general government as an employer. Based on this methodology and on data provided by INE (Statistics Portugal), the effective exchange rate index deflated by relative unit labour costs (vis-à-vis a group of 21 partner countries) rose by 9.1 per cent in the 1999-2009 period and by 2.7 per cent between 2006 and 2009 (Chart 1).[6]

Method for accounting social contributions to the Caixa Geral de Aposentações sub-system in the new National Accounts base (base 2006)

Recently, with the update of the National Accounts base (base 2006) the recording of transfers to CGA was changed. As was already the case in the private sector, general government, as an employer, is assumed to pay contributions to CGA according to an agreed fixed rate, applied to compensations of general government employees contributing to this sub-system. Hence, by definition, general government contributions to CGA evolve in line with compensation of employees in the new National Accounts base. The difference between these contributions and the previously considered value is accounted as transfer between general government entities, consolidating and no longer being included in labour costs.[7]

Data released by INE include this change in the accounting of social contributions of the civil servants sub-system only from 2006 onwards, as of when CGA ceased to accept new subscribers, which led to a break in the series that year. However, as already mentioned, the bias caused by the previous method for accounting general government transfers to CGA also occurred prior to 2006.

Based on Banco de Portugal calculations from data made available by INE, a consistent series was constructed for the 1999-2009 period. This series resulted from joining data released by INE for the 2005-2009 period with values that were adjusted by applying the current rule for the treatment of contributions to CGA for the period prior to 2005.[8] Based on these data, in the 1999-2009 period, compensation per employee in to the public sector grew by 29.9 per cent including general government social contributions. In the same period, for the whole economy,

(6) *Results are qualitatively similar to those obtained from National Accounts base 2006 data. In this case, the effective exchange rate index deflated by relative unit labour costs (vis-à-vis a group of 21 partner countries) rose by 9.9 per cent in the 1999-2009 period and by 3.3 per cent between 2006 and 2009.*

(7) *For more details, see www.ine.pt.*

(8) *Prior to 2005 the value of the compensation of civil servants contributing to CGA was assumed to be a fixed share of total civil servants compensation, equal to the one registered in 2005.*

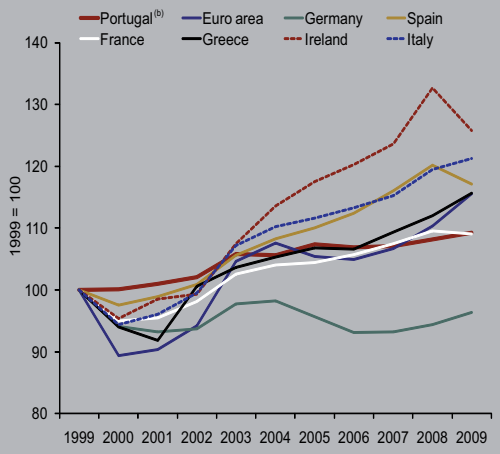
compensation per employee including these contributions grew by 40.6 per cent, i.e. around 5 p.p. below the previous method. The real effective exchange rate index based on relative unit costs (vis-à-vis a group of 21 partner countries) rose by 9.3 per cent in the 1999-2009 period and by 2.2 per cent between 2006 and 2009, close to the values published by Banco de Portugal using the previous adjustment methodology (Chart 1).

Growth of the real effective exchange rate index for Portugal lower than for the average of the euro area

The 9.3 per cent growth in the real effective exchange rate index for Portugal in the 1999-2009 period was 6.2 p.p. below that recorded in the average of the euro area. In comparison with other euro area countries, the deterioration in Portuguese international unit labour cost competitiveness was lower than that seen in Greece, Ireland, Italy and Spain, being close to that seen in France. By contrast, the real effective exchange rate index for Germany declined by around 4 per cent in accumulated terms in the last decade (Chart 2).

Chart 2

INTERNATIONAL COMPARISON OF DEVELOPMENTS IN THE EFFECTIVE EXCHANGE RATE INDEX DEFLATED BY RELATIVE UNIT LABOUR COSTS[(a)]



Sources: AMECO, *INE*, OECD and Banco de Portugal.
Notes: (a) *Vis-à-vis* a group of 23 countries, except for Portugal, where a group of 21 countries is considered. (b) Consistent series constructed with the methodology and data from the Portuguese National Accounts base 2006.

Box 3. The macroeconomic impact of improving competition in the labour and product markets

Over the past decade, the accumulation of macroeconomic imbalances has shown a number of structural fragilities in the Portuguese economy, namely in the quality of inputs and the institutional framework for economic activity, which may have prevented the pursuit of a real convergence process within the euro area.

This box describes the current situation in the labour and product markets in Portugal and discusses the scope for progress in light of a simplified competition model. It introduces some key concepts and motivates the main transmission channels of possible reforms that improve competition, which would result in lower economic rents[1] obtained by agents participating in these markets. Using a general equilibrium model, it presents the macroeconomic impacts of improving competition in the labour and non-tradable goods markets,[2] as well as a synthetic measure of their effects on the welfare of resident households. It is difficult to fully assess the impact of a set of reforms which could bring about such improving in competition in each of these markets. Some reforms result in a loss of aggregate welfare at the start of their implementation, which may, in some cases, be mitigated by social protection mechanisms. These mechanisms are not analysed in this box. Similarly, this model warrants some caution in assessing quantified results, given that its stylised nature does not take into account all interactions among relevant economic variables.

Current competition in the labour and product markets

The level of employment protection in the labour market is still among the highest, although the recent labour legislation reform has yielded, in several respects, significant progress towards convergence with the protection levels prevailing in the main developed economies. In addition, some factors which have been behind an increase in labour market segmentation in past years still persist.[3] The Employment Protection Legislation (EPL) indicators released by the OECD identify restrictions regarding individual dismissal as the main difference between labour market regulation in Portugal and in several developed economies. In addition, the current unemployment benefit system in Portugal is one of the most generous among developed economies, in particular in what concerns the duration of unemployment benefits. Together, these factors may have resulted in higher reservation wages and contributed to a continued increase in structural unemployment. Economic rents may emerge in the labour markets linked to public sector wage premium, particularly in lower wage levels, as well as to increases in the national minimum wage which are inconsistent with productivity developments. Finally, a persistently high level of permanent employment protection has fostered the systematic use of fixed-term contracts and implied a labour market segmentation, which hampers efficient staff management, in particular during periods of sharp contraction in demand, thus resulting in a dysfunctional labour market.

In the product market, different indicators point to levels of competition persistently lower than in several developed countries. In particular, Product Market Regulation (PMR) indicators published by the OECD suggest that Portugal is among the countries where economic regulation visibly hampers competition. A more detailed analysis reveals that this is due to the degree of State involvement in business activity, as well as entry barriers in several network industries (e.g. telecommunications, electricity or gas). In addition, available evidence points to a great scope for simplifying licensing processes, which would result in easier access to several markets and higher levels of competition. Finally, the effective implementation of legislation aimed at fostering competition also has some scope for progress which could be explored, in particular through a greater independence of regulatory agencies from policy-makers and regulated companies, as well as through the reinforcement of their powers regarding the actual implementation of legislation and its regulation.[4]

(1) *The concept of economic rent refers to the differential between the wage or price in the prevailing institutional framework and that which would prevail in a perfectly competitive environment in the labour or product market.*

(2) *This subject is also addressed in Almeida, V., Castro, G. and Félix, R. (2009), "The Portuguese economy in the European context: structure, shocks and policy", in The Portuguese Economy in the Context of Economic, Financial and Monetary Integration, Economics and Research Department, Banco de Portugal.*

(3) *For a more detailed analysis, see "Box 4.1 Employment protection: indicators and perceptions", Banco de Portugal, Annual Report 2009.*

(4) *Høj, J. (2007), "Competition law and policy indicators", Economics Department Working Paper No 568, OECD.*

Against this background, a way of promoting improved conditions for the international competitiveness of the Portuguese economy would be to introduce legislative reforms aimed at raising the level of competition in the product market and at reducing the prices of some goods and services which, although non-tradable, have a non-negligible effect on conditions for the production of tradable goods and services. In addition, further reforms of labour legislation in order to raise labour market efficiency may favour employment growth and a better allocation of resources available in the economy, which would have an impact on the production costs of firms and the competitiveness of the economy.

Competition mechanisms in a simplified model

Most neo-Keynesian general equilibrium models consider monopolistic competition in the labour and product markets in order to capture actual wage and price behaviours observed in data. The degree of persistence of price and wage growth over the business cycle, as well as permanent changes in their levels, which are not explained by changes in the fundamentals present in perfect competition models, would justify the inclusion of monopolistic competition mechanisms capable of capturing, albeit in a stylised manner, changes in the institutional framework and, in particular, in economic regulation and competition levels in the labour and product markets.

The introduction of monopolistic competition in macroeconomic general equilibrium models summarises in one parameter the degree of deviation from the behaviour under perfect competition. This parameter represents the elasticity of substitution between different output or labour varieties. An increase in the degree of substitution between varieties, which implies increased competition, may be interpreted in the light of Portuguese economic conditions in both the labour and product markets.

The introduction of monopolistic competition in the labour market captures, albeit in a very stylised manner,[5] changes in the level of legal employment protection, the wage-bargaining structure, and the legal framework for unemployment benefits or minimum wages. Those, by affecting reservation wages and employment, determine real wage fluctuations which are not merely explained through labour productivity developments. Maintaining a legal framework which improves the bargaining power of employees, thereby raising reservation wages and restricting labour supply, results in a wage mark-up[6] for these workers and reduces the employment levels prevailing in the economy.

The introduction of monopolistic competition in the product market captures the impact on price developments of economic regulation changes which affect the profit margins of firms[7] operating in a given sector. These changes reflect both the degree of competition among firms already present in the market and barriers to entry into that market. By maintaining low levels of competition, firms already present in the market achieve higher profit margins than in a free-entry market and obtain economic rents based on higher prices and lower production and employment levels.

Against this background, the introduction of reforms which change economic regulation with a view to raising the degree of competition in the labour and product markets tends to reduce the level of economic rents, raising employment and economic activity levels and resulting in a more efficient allocation of resources. In addition, in a small open economy this reallocation will tend to enhance international competitiveness and trigger a reduction in external borrowing requirements.

(5) *The modelling of institutions and mechanisms underlying the labour market in general equilibrium models with microeconomic fundamentals is still under development and subject to intense debate.*

(6) *The wage mark-up corresponds to the economic rent obtained by workers and which is the result of the market power given by the institutional framework prevailing in the labour market (e.g. the degree of permanent employment protection, the generosity of unemployment benefits or the minimum wage level). This wage mark-up is likely to take the form of higher wages and is positively associated with the level of labour market segmentation (e.g. a higher incidence of fixed-term contracts is associated with a higher wage gap between workers with different levels of contractual protection).*

(7) *The concept of profit margin used refers to the economic rent of firms, which corresponds to the difference between the revenue and the opportunity costs incurred by a firm. This is distinguished from accounting profit given that it includes the opportunity cost of capital. The profit margin of firms corresponds to the economic rent obtained by firms, which results from the market power derived from the institutional framework for business activity, namely the existence of barriers to entry into some markets. These market characteristics may either result from the normal functioning of the market (e.g. natural monopolies or economies of scale) or be introduced by inefficient regulation which protects incumbent firms.*

Impact on the Portuguese economy of improving labour and product market competition

A detailed analysis of the impact of improving labour and product market competition on the Portuguese economy implies the use of a macroeconomic model which captures the channels by which economic regulation changes, leading to an increase in labour and product market competition, are transmitted to households' consumption and labour decisions and firms' investment decisions in this new context. This analysis was based on simulations using a dynamic general equilibrium model which has been calibrated to the Portuguese economy (the PESSOA model).[8]

Results should be interpreted bearing in mind that general equilibrium models, like all economic models, are a stylised representation of reality and are based on simplifying assumptions, in particular regarding the labour market functioning. Simulations are carried out on the assumption of perfect foresight, i.e. assuming that, when regulation changes are announced, economic agents know with certainty whether they are permanent and their implementation path. In practice this is not the case. Economic agents learn the nature of the changes in question gradually.[9] *Therefore, the simulation results tend to reveal a more front-loaded impact than would be the case if reforms with the magnitudes considered were to be implemented.*

In order to quantify the impacts from regulation changes resulting in an increase in labour and product market competition, a reduction of 5 percentage points (p.p.) in the wage mark-up and in profit margins in the non-tradable goods sector was considered (from a starting level of 25 per cent for the wage mark-up and 20 per cent for the profit margin of the non-tradable goods sector).[10] *This calibration should be regarded as merely illustrative. Each reform is analysed separately in order to understand the transmission mechanisms and their impacts (Table 1).*

According to the model's results, the introduction of labour market reforms leading to a reduction of 5 p.p. in the wage mark-up has a significant impact on the increase in the output and employment level in the medium-term, despite the marginally negative short-run impact. The narrowing in the wage mark-up has a direct impact on the reduction in wages paid by firms producing both tradable and non-tradable goods, which pass through to consumer and capital goods prices, including exported goods. The introduction of these reforms therefore triggers a decrease in inflation in the short and medium term and a permanent real depreciation, enhancing the international competitiveness of domestic output, and leading to an increase in exports and a decline in the import content of domestic output. This has permanent positive effects on the goods and services account and a favourable effect on the international investment position of the Portuguese economy.

The reduction in the cost of labour input also stimulates job creation not only by reducing the capital intensity of production, which is limited by the decrease in the cost of capital, but mostly due to the increase in demand induced by growth in exports and private investment. This increase in demand for goods and the need to maintain a consistent level of employment imply that the decline in real wages is significantly lower than the narrowing of the wage mark-up.

The increase in household income prospects reflecting developments in wage income and dividends results in an increase in private consumption prospects in the medium and long-term. In the short-term, the introduction of these reforms implies a cut in private consumption, mainly reflecting a postponement of expenditure by households, as a result of the anticipated fall in consumer goods prices, which implies higher real return from savings.

(8) *For a detailed description of the characteristics of the PESSOA model, see Almeida, V., Castro, G. and Félix, R. (2008), "Improving competition in the non-tradable goods and labour markets: the Portuguese case", Banco de Portugal, Working Paper No 16, .*

(9) *The modelling of learning mechanisms by economic agents is one of the main fields of economic research and is subject to intense debate with a view to its integration in models that are regularly used in economic analysis. For a seminal approach, see Seppo Honkapohja and George W. Evans (2001), Learning and expectations in macroeconomics, Princeton University Press.*

(10) *Rent extraction in the product market is imminently concentrated in non-tradable goods sectors, since exposure to international trade and free entry mitigates possible rents in the tradable goods sector. In addition, it is difficult to quantify the specific impact of a range of actual policy measures on the above-mentioned wage and profit margins. This is not within the scope of the analysis of this Box.*

Table 1

THE MACROECONOMIC IMPACT OF IMPROVING COMPETITION IN THE LABOUR AND PRODUCT MARKETS
Deviations from the baseline scenario, per cent; inflation and international investment position, p.p.

	Years				
	1	2	5	10	20
Labour market reform					
GDP	-0.2	0.8	1.9	2.4	2.5
Private consumption	-0.8	-0.1	1.3	2.1	2.5
Private investment	0.1	1.2	2.5	2.2	1.9
Exports	0.6	1.7	2.0	2.5	2.4
Inflation	-0.4	-0.9	0.0	0.0	0.0
Real exchange rate	0.4	1.2	1.3	1.6	1.6
International investment position	-0.3	-0.1	0.6	1.5	3.7
Employment	0.0	1.5	2.4	2.6	2.6
Real wages	-0.9	-1.3	-0.6	-0.3	-0.1
Product market reform					
GDP	-0.8	0.8	2.3	3.6	4.2
Private consumption	-2.5	-1.4	0.7	2.2	3.1
Private investment	0.7	3.2	6.9	7.0	5.8
Exports	0.9	2.4	2.1	3.3	3.7
Inflation	-0.6	-1.6	-0.1	-0.2	0.0
Real exchange rate	0.6	1.6	1.4	2.2	2.5
International investment position	-0.7	-0.5	0.1	0.3	3.1
Employment	-0.4	1.8	2.4	2.7	2.6
Real wages	-1.1	-0.6	1.9	3.2	3.8

Source: Banco de Portugal.
Note: A positive value for the real exchange rate corresponds to a depreciation.

The introduction of reforms in product market regulation, which implies a permanent reduction of 5 p.p. in the profit margin of the non-tradable goods sector, has an impact that is qualitatively very similar to the above-mentioned impacts from labour market reforms in terms of economic activity, employment and the international competitiveness of the economy. However, the transmission mechanism has some specificities that should be highlighted. The cut in the profit margin of non-tradable goods has a direct impact on the reduction in production costs and, therefore, on consumer and capital goods prices, including exported goods. This impact indirectly affects the tradable goods sector, given that it reduces investment costs and, by lowering the costs of consumer goods, drives down nominal wages without necessarily implying a decline in the real value of wages. This effect on the tradable goods sector implies a more marked and protracted decrease in final goods prices than in the case of the labour market reform, which fuels a real exchange rate depreciation, but also determines a cut in consumption expenditure of households in the short-run, reflecting the anticipation of a higher real return from savings.

Another important aspect is the impact of the profit margin cut in the non-tradable goods sector on investment, employment and real wages. The marked fall in the price of final goods, namely capital goods, determines an increase in the capital intensity of output. This is reflected in a much higher increase in investment than in output, as well as in employment growth in line with the increase in economic activity. The increase in the amount of capital per worker raises the labour productivity, resulting in an increase in real wages.

Finally, the implementation of reforms aimed at fostering more efficient resource allocation in the labour and product markets should be assessed taking into account its impact on the welfare of households, which is the ultimate goal of economic reforms. The assessment of welfare, using the utility function included in the PESSOA model, implies choosing a discount rate which reflects the average planning horizon considered by the agents, and necessarily reflects a relative weighting of the short, medium and long term impacts of implementing the re-

forms.[11] This analysis points to visible welfare gains from implementing any of the reforms considered for planning horizons which reasonably value the medium and long terms (Table 2). Nevertheless, a perspective focusing on short-term impacts will tend to weigh more the short-run negative impacts of implementing any of the reforms, and even point to a loss of welfare. The adoption of this type of reforms thus tends to face some resistance. Their implementation requires a perspective of economic agents, in general, and economic policy authorities, in particular, oriented towards the medium and long term. In line with the metrics suggested by Lucas, R. E. (1987),[12] implementing reforms in both markets is likely to lead to welfare gains equivalent to a permanent increase in per capita consumption between 2.3 and 5.9 per cent for agents with average planning horizons from 16 to 40 years, implying losses for agents with planning horizons up to 5 years.

To sum up, the current situation in the labour and product markets in Portugal and the implementation of reforms bringing the country closer to the best practices in terms of competition may result in an increase in potential output, employment and international competitiveness, contributing to reduce the external imbalance of the Portuguese economy and ensuring the return to a path of convergence towards income levels closer to the EU average. The implementation of these reforms may lead to visible welfare gains, but may also face resistance due to their short-run impact. Nevertheless, the current analysis is subject to some caveats due to simplifying assumptions underlying the model considered. For example, improving competition in labour market may trigger an upsurge in total factor productivity, in particular stemming from increased investment in research and development, which is not considered in this analysis. In addition, the adoption of both labour and product market reforms may result in interactions which potentiates the impact, namely due to immediate cost sharing by workers and firms, thus facilitating their implementation. In line with Blanchard and Giavazzi (2000),[13] labour and product market reforms may interact with each other, given that ongoing low levels of competition may result in significant economic rents, which tend to be shared between firms and workers according to their bargaining power.

Table 2

THE IMPACT ON WELFARE OF IMPROVING COMPETITION IN THE LABOUR AND PRODUCT MARKETS
Equivalent change in *per capita* private consumption, per cent

	Discount rate		
	2.5%	6.3%	20%
Average planning horizon of agents (years)	40	16	5
Labour market reform	3.9	2.3	-0.2
Product market reform	5.9	2.7	-2.3

Source: Banco de Portugal.

(11) *For example, a discount rate of 2.5 per cent implies that the impact on the 10th year will have a weighting of around 80 per cent of the short-run impact, while a discount rate of 30 per cent implies that impacts will be negligible from the 8th year onwards.*

(12) *Lucas, R. E. (1987), Models of Business Cycles, Oxford, New York: Basil Blackwell.*

(13) *Olivier Blanchard and Francesco Giavazzi (2003), "Macroeconomic Effects Of Regulation And Deregulation In Goods and Labor Markets," The Quarterly Journal of Economics, MIT Press, vol. 118(3), pages 879-907, August.*

ARTICLES

MONETARY POLICY EFFECTS ON THE FLOW OF FUNDS OF NON-FINANCIAL CORPORATIONS AND HOUSEHOLDS IN PORTUGAL*

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*João Sousa***

1. INTRODUCTION

The recent financial crisis triggered a renewed interest in studying the interaction between real and financial factors. Understanding how agents' financial decisions respond to shocks is an important step to ascertain this interaction. This study uses flow of funds data from the national financial accounts compiled by Banco de Portugal to analyze the response of non-financial corporations and households in Portugal to a monetary policy shock. The aim is to obtain results that provide valuable indications for the study of the monetary policy transmission mechanism in Portugal and also for macroprudential analysis.

Similar studies were conducted for the US, Italy and the euro area (see Christiano *et al.*, 1996; Bonci and Columba, 2008; and Bonci, 2010). They analyze the effects of a monetary policy shock in a VAR model extended to include a range of flow of funds data from various economic sectors. Our approach is broadly similar. The main contribution is the development of an empirical model suitable for analyzing the transmission of a monetary policy shock to a small economy highly integrated with the euro area. Accordingly, we defined a VAR with two blocks, one for the euro area and one for Portugal and assumed that the euro area variables are exogenous to Portugal. This simple model is then used to assess how a wide range of variables from the flow of funds of the national financial accounts react to a monetary policy shock.

The results broadly confirm that the Portuguese economy reacts to a monetary policy shock in a similar way as found in other studies for other economies. After a contractionary monetary policy shock, net funds raised by non-financial corporations rise, reflecting an increase in the issue of financial liabilities that exceeds the increase in the acquisition of financial assets. As for households, we find that net funds raised also increase after a contractionary monetary policy shock, but in this case as a result of a decline in financial assets that is stronger than that of liabilities. We also find some puzzling effects. In particular, the short-run increase in loans to non-financial corporations and the higher acquisition of equity by non-financial corporations following a contractionary monetary policy shock. These results are also found in similar studies for other countries.

* We thank Nuno Alves, Ana Leal, Mário Centeno, Ferreira Machado and Nuno Ribeiro for useful comments. The opinions expressed in the article are those of the authors and do not necessarily coincide with those of Banco de Portugal or the Eurosystem. Any errors and omissions are the sole responsibility of the authors.

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2. BRIEF DESCRIPTION OF THE MODEL

The model used in this study is a VAR model with two blocks: one for the euro area (EA) and one for Portugal (PT). The euro area bloc influences the Portuguese bloc but is exogenous to it. This simplification is justified by the low weight of Portugal in the euro area economy. The structural model is given by the following system (omitting constants):

$$\begin{bmatrix} A_0 & 0 \\ A_1 & A_2 \end{bmatrix} \begin{bmatrix} Y_t^{AE} \\ Y_t^{PT} \end{bmatrix} = \begin{bmatrix} B(L) & 0 \\ C(L) & D(L) \end{bmatrix} \begin{bmatrix} Y_{t-1}^{AE} \\ Y_{t-1}^{PT} \end{bmatrix} + \begin{bmatrix} \varepsilon_t^{AE} \\ \varepsilon_t^{PT} \end{bmatrix} \quad (1)$$

Where Y_t is a vector of endogenous variables, A_0 is the matrix of contemporary relations of euro area variables, A_1 is the matrix of contemporary reaction of Portuguese variables to euro area ones, A_2 is the matrix of contemporary relations among Portuguese variables, $B(L)$, $C(L)$ and $D(L)$ are matrix polynomials in the lag operator L and $\boldsymbol{\varepsilon}_t$ is a vector of structural shocks. The zero restrictions impose the necessary exogeneity of the euro area bloc relative to Portugal.

The euro area bloc is assumed to be exogenous and therefore can be estimated autonomously, as if it were a single VAR. The VAR for the euro area includes the following endogenous variables: real GDP (y), the GDP deflator (py) and a nominal short-term interest rate which is the three-month Euribor $(r3m)$:[1]

$$Y^{AE} = \left(y_t, py_t, r3m_t\right) \quad (2)$$

The choice of these variables parallels that of other studies on the transmission mechanism of monetary policy in the euro area using VARs (see for instance Monticelli and Tristani, 1999, Peersman and Smets, 2001, Ciccarelli *et al.*, 2009, Weber *et al.*, 2009 and Bonci, 2010). The choice of a restricted set of variables is dictated by the relatively small size of the sample of quarterly flow of funds data, which covers only the period 1998:1-2009:2, and by the need to avoid as much as possible the pre-euro period for which there is more uncertainty in the identification of the monetary policy shock (see Boivin *et al.*, 2008 and Weber *et al.*, 2009).

All variables are seasonally adjusted and expressed in logarithms of the respective levels, except for the interest rate that is in levels. The VAR is estimated with two lags for each variable, whose choice was based on the usual lag selection information criteria and the verification of the absence of autocorrelation of the residuals (see Gameiro and Sousa, 2010).

We assumed that the central bank responds contemporaneously to changes in economic activity and prices in the euro area but monetary policy affects these variables with a certain lag (imposing the necessary restrictions on the matrix A_0).

Chart 1 presents the estimated monetary policy shocks in the euro area in the period under review.

(1) The real GDP is obtained from the Eurostat, the GDP deflator is obtained from the ECB Area Wide Model database and the three-month Euribor rate is obtained from Thomson Reuters (backdated to 1998 using the ECB Area Wide Model database).

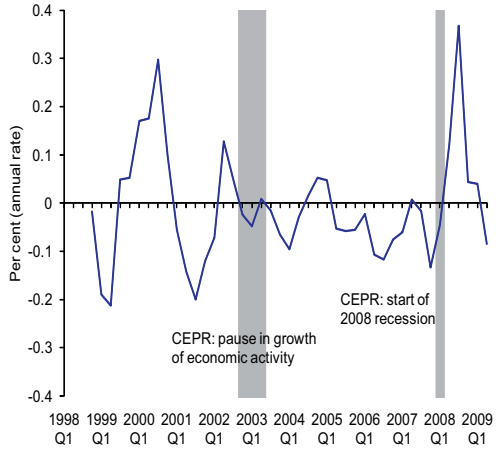
According to the estimates, the monetary policy stance was relatively tight throughout the year 2000, in the second quarter of 2002 and in the third quarter of 2008. The monetary policy shocks were relatively larger at the start of the euro. They became smaller and generally negative from the start of the "pause in growth" in economic activity that took place in 2003 and until the intensification of the financial turbulence in the second half of 2008. The monetary policy shocks became negative again in the second quarter of 2009, suggesting the return to an accommodative stance.

The responses of GDP and prices to the euro area monetary policy shock are in line with expectations (Chart 2). In the euro area, the typical monetary policy shock is around 30 basis points in the short-term interest rate and the effect of the shock vanishes after about 4 quarters. GDP falls in response to a contractionary monetary policy shock, reaching a trough after 5 quarters and returning to the baseline thereafter. The response of prices is more sluggish and more persistent, reaching a trough about 10 quarters after the shock.

The effects of a monetary policy shock in Portugal are obtained by estimating and simulating model (1) as a whole. The VAR bloc for Portugal includes as endogenous variables real GDP and the price level (measured by CPI).[2] We add to each equation the current value of the euro area real GDP and the 3 month-Euribor lagged one period as exogenous variables.[3] The Euribor is lagged one period to mimic the timing implicit in the euro area VAR in the transmission of monetary policy shocks to output and prices. The computation of the impulse responses for Portugal involves the simulation of the monetary policy shock in the euro area bloc (which implies a temporary increase in the short-term interest rate of about 30 basis points) and the analysis of its propagation to the Portuguese bloc. The exercise thus assumes that Portuguese economic agents expect the ECB to follow the monetary policy rule implicit in the euro area VAR.

Chart 1

ESTIMATED MONETARY POLICY SHOCKS IN THE EURO AREA
Three quarter centered moving average



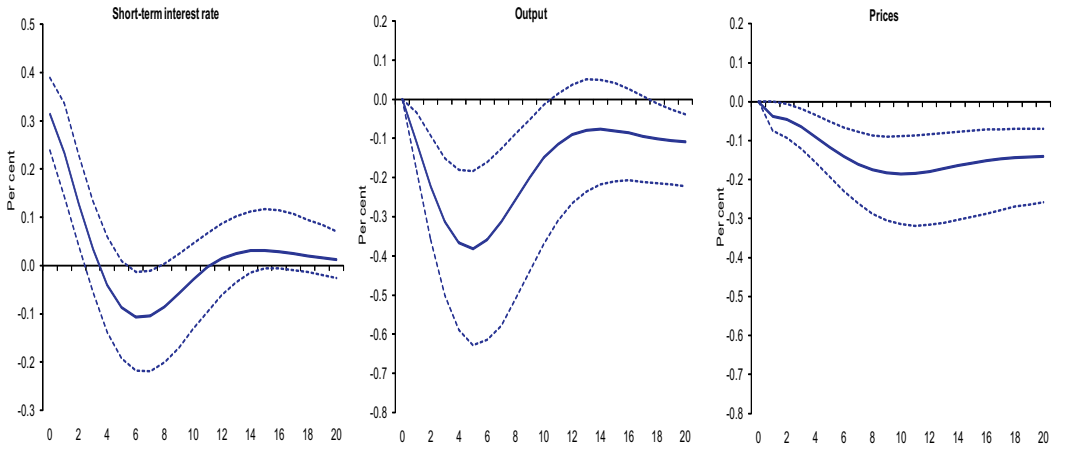
Sources: Gameiro and Sousa (2010) and CEPR.

(2) Data for Portuguese real GDP and prices are obtained from *Instituto Nacional de Estatística* (Statistics Portugal).

(3) This means that matrix A_1 has zeros in all columns except in the first one.

Chart 2

RESPONSES TO A CONTRACTIONARY MONETARY POLICY SHOCK: EURO AREA VARIABLES

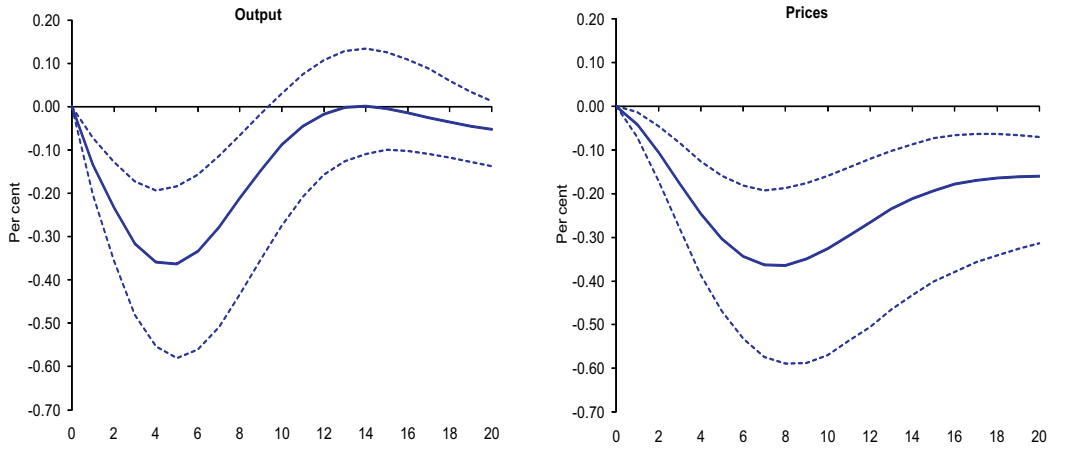


Note: Deviations from baseline. The full line represents the median impulse response using bootstrap (10 000 replications) and the dashed lines represent the 90% confidence band.

The results of the impact of a monetary policy shock on GDP and prices in Portugal are similar to those of the euro area (Chart 3). Real GDP drops with the trough being reached around 5 quarters after the shock, the price level also falls relative to baseline, reaching a minimum around 8 quarters after the shock. Compared to the euro area results, the effect of the monetary policy shock in Portugal is quicker and stronger on prices (a drop of around 0.4 p.p. compared with 0.2 p.p. in the euro area) but similar in the case of real GDP (a drop of around 0.4 p.p. of GDP).

Chart 3

EFFECT OF MONETARY POLICY SHOCK ON MACROECONOMIC VARIABLES IN PORTUGAL



Note: Deviations from baseline. The full line represents the median impulse response using bootstrap (10 000 replications) and the dashed lines represent the 90% confidence band.

3. THE EFFECTS OF A MONETARY POLICY SHOCK ON THE FLOW OF FUNDS OF NON-FINANCIAL CORPORATIONS AND HOUSEHOLDS

The main objective of this study is to determine the responses of Portuguese financial variables to a monetary policy shock. We used the National Financial Accounts compiled by Banco de Portugal, which provide a consistent statistical system of financial transactions and outstanding amounts in the Portuguese economy.

To analyze the effect of a monetary policy shock in the euro area on the borrowing and lending activities of the non-financial corporations and households in Portugal we resorted to the so-called "marginal approach". According to this approach, financial variables are individually added to the set of endogenous variables in the VAR for Portugal, implicitly admitting that they do not influence monetary policy in the euro area, but react contemporaneously to a monetary policy shock.

In line with Christiano *et al*. (1996), Bonci and Columba (2008) and Bonci (2010), we pay particular attention to the variable "net funds raised" by the different sectors, which corresponds to the difference between the issuance of financial liabilities and the acquisition of financial assets in a given period. This concept is linked to the Non-financial Accounts since for each sector the difference between fixed investment and gross savings gives rise to a net financial position towards the rest of the economy (i.e. borrowing requirements if positive or lending capacity if negative). It follows that the balance of Financial Accounts and Non-financial Accounts tends to be the same, except for possible statistical discrepancies. For any given sector:

$$I - S = \Delta FL - \Delta FA = Net\ funds\ raised$$

Where I represents the investment, S is saving, ΔFL the issuing of financial liabilities and ΔFA the acquisition of financial assets.

The original series have been seasonally adjusted and deflated using the GDP deflator (the base year is 1998).[4] The financial accounts are consolidated, so intra-sectoral transactions are netted out. According to the data, households have been in general net lenders, whereas non-financial corporations have been, with few exceptions, net borrowers. In the more recent period, with the turmoil in financial markets and the deteriorating economic activity, the net lending of households increased significantly, while the net borrowing by non-financial corporations declined, resulting in an increase in net savings of the domestic private non-financial sector.

Non-financial corporations

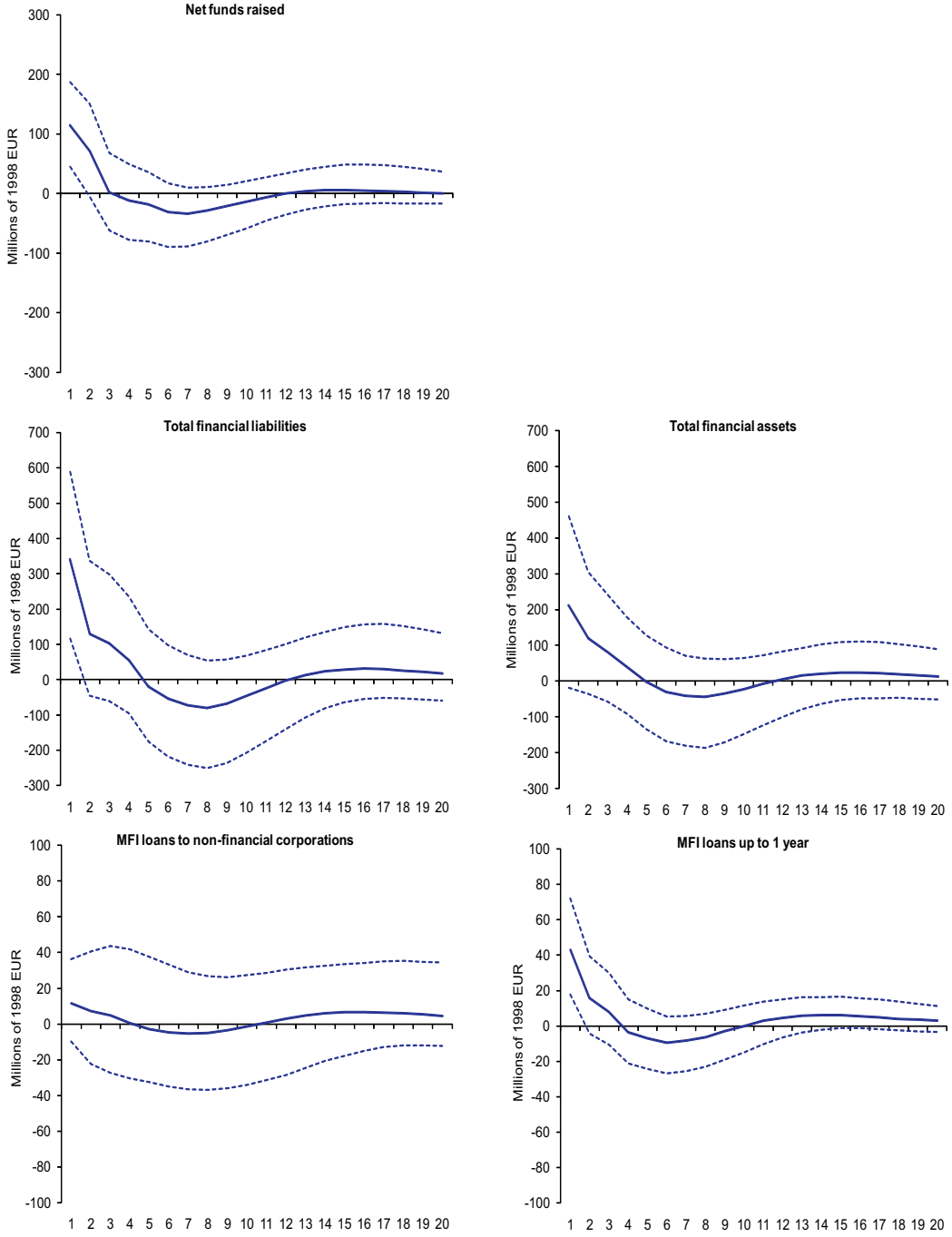
Starting with non-financial corporations, the impulse responses to a contractionary monetary policy shock of 30 basis points show an increase in net funds raised for two to three quarters after the shock (Chart 4). The maximum response corresponds to 6 percent of the average quarterly flows of this variable in the sample period. The increase in net funds raised by this sector after a contractionary

(4) The series were seasonally adjusted using the U.S. Census Bureau X12 seasonal adjustment program.

Chart 4

FINANCIAL FLOWS OF NON-FINANCIAL CORPORATIONS

Response to a contractionary monetary policy shock



Note: Deviations from baseline. The full line represents the median impulse response using bootstrap (10 000 replications) and the dashed lines represent the 90% confidence band. The flows on MFI loans are obtained from the relation between the outstanding amounts of bank loans, adjusted for securitisation operations, and the monthly transactions, which are calculated from the outstanding amounts corrected of reclassifications, write-offs/write-downs, exchange rate changes and price revaluations.

shock seems to be counter-intuitive. However, a similar result is found for the United States by Christiano *et al.* (1996) and for the euro area as a whole by Bonci (2010) (Table 1).[5] Note that the confidence level used to evaluate the statistical significance of impulse response in this study is higher than the one used in the studies mentioned, which use a confidence interval of one standard deviation.

Christiano *et al*. (1996) suggest that this result points to the existence of frictions that prevent firms from adjusting their nominal expenditures quickly after the shock. In particular, there are contracts in place that prevent firms from adapting their level of inventories immediately to the lower level of demand brought about by the monetary policy shock. Given that the possibility of financing through the use of internal funds is reduced after the shock – due to the negative impact on profits of a contractionary monetary policy shock - firms need to resort to external funds to finance their working capital.

The impulse response functions of the components of net funds raised by non-financial corporations show that they increase both the acquisition of financial assets and the issuance of liabilities, but with a much stronger impact on liabilities (Chart 4).

Looking further into the details of the breakdown of the liability side, it can be seen that after the monetary policy shock non-financial corporations increase their financing both through loans and via trade credit. One should, however, keep in mind that these loans include not only Monetary Financial Institutions (MFI) loans but also loans provided by other sectors, including households. Thus the increase in total loans after the shock could also reflect operations involving households, for instance loans provided by shareholders to corporations which have been found to be relevant in Portugal.

To better understand the response of loans to non-financial corporations after a monetary policy shock, we examined the data of MFI loans stemming from the monetary statistics.[6] The results su-

Table 1

IMPACT OF A CONTRACTIONARY MONETARY POLICY SHOCK

	US	Euro area	Italy	Portugal
	Christiano, Eichenbaum and Evans (1996)	Bonci (2010)	Bonci and Columba (2008)	Gameiro and Sousa (2010)
	Sample 1961:1992	Sample 1999Q1: 2009Q2	Sample 1980:2002	Sample 1998Q1: 2009Q2
	Response	Response	Response	Response
Non-financial corporations				
Net funds raised	Increase	Increase	Small increase	Increase
Financial liabilities	Increase	Increase	Decrease	Increase
Financial assets	Increase	Increase	Decrease	Increase
Households				
Net funds raised	Unchanged	Increase	Decrease	Increase
Financial liabilities	Small decrease	Decrease	Decrease	Decrease
Financial assets	Not significant	Decrease	Increase	Decrease

(5) It should be noted that the differences aross studies in Table 1 refflect not only differences across countries but also different sample periods. In fact, only Bonci (2010) uses a sample similar to the one of the current study.

(6) The flows on MFI loans are obtained from the relation between the outstanding amounts of bank loans, adjusted for securitisation operations, and the monthly transactions, which are calculated from the outstanding amounts corrected of reclassifications, write-offs/write-downs, exchange rate changes and price revaluations.

ggest that the response to a monetary policy shock of loans granted by MFIs to non-financial corporations is not statistically significant (Chart 4). This result contrasts with that obtained in Bonci (2010) for the euro area, according to which MFI loans to non-financial corporations decrease after a contractionary monetary policy shock. However, using data by maturity, we see that the statistically insignificant response of MFI loans masks different behaviours of short-term and long-term loans. In fact, very short-term MFI loans (with maturities up to one year) rise, but the response of longer maturity loans is statistically insignificant. This reaction of short-term financing is in line with the existence of frictions, as short-term loans are typically more associated with the financing of inventories and working capital (see Christiano *et al.*, 1996).

Giannone *et al*. (2009) put forward explanations for the increase in euro area MFIs loans to firms in response to monetary policy tightening, namely that this may be associated with the use of credit lines previously agreed and still available. Once committed, the conditions on funds from these credit lines can not generally be immediatly changed. Therefore, even after the monetary policy shock, corporations with pre-committed loan facilities might still be able to obtain funds on cheaper terms and be less subject to any quantitative restrictions on credit than other firms.

Turning now to the financial assets side, non-financial firms buy more equity after a contractionary monetary policy shock and, to a lesser extent, also grant more loans to other sectors. The higher accumulation of equity is a puzzling result. Bonci (2010) finds a similar result for the euro area, and tentatively argues that it might reflect augmented M&A activity, reflecting firms' willingness to reorganize themselves in view of the decreased profitability associated with the expected slowdown of economic activity. This kind of argument is more difficult to apply to the case of Portugal given that, contrary to the euro area data, the Portuguese flow of funds data used in this study are consolidated. Thus, shares and other equity acquired by non-financial corporations can only have been issued by the financial sector or by non-residents. A tentative explanation of this result is that it may reflect financial operations between firms located in Portugal and firms located abroad and belonging to the same economic group.

Households

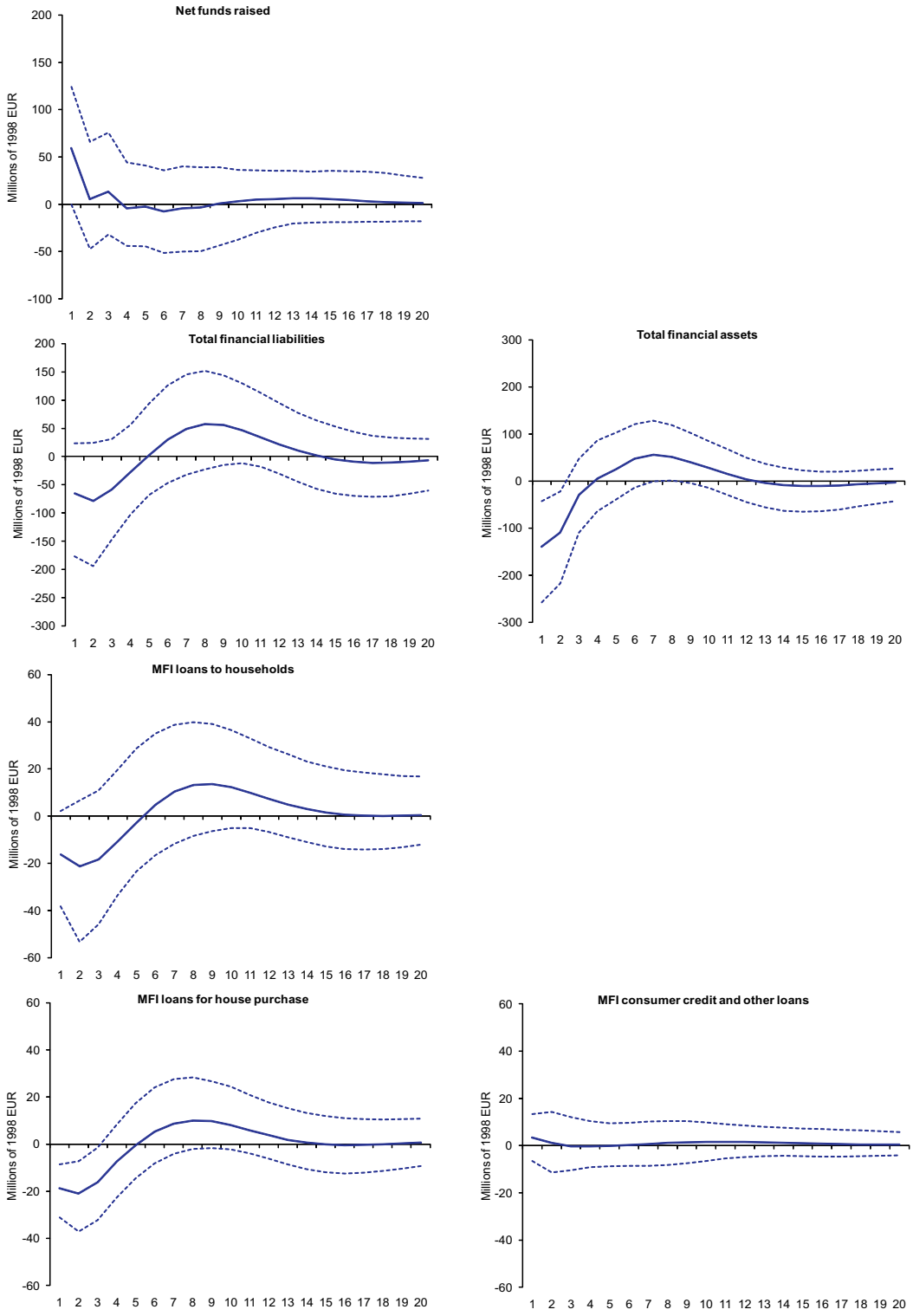
Chart 5 shows the impulse response of the financial assets and liabilities of households to a contractionary monetary policy shock. As non-financial corporations, households also significantly increase net funds raised. This behaviour could be related to consumption smoothing given that, typically, disposable income is negatively affected by the shock. The maximum effect is reached in the first quarter, corresponding to about 9 per cent of average quarterly flows in the sample period, and the impact vanishes from the third quarter onwards. In terms of components, the increase in net funds raised by households is the result of a decrease in the purchase of assets that exceeds the decrease in liabilities.

With respect to financial liabilities, households reduce the funds borrowed through loans in response to a monetary policy shock. A more detailed analysis of the loans, based on MFI data, shows a significant decrease in loans for house purchase, which lasts about a year after the shock (Chart 5). The

Chart 5

FINANCIAL FLOWS OF HOUSEHOLDS

Response to a contractionary monetary policy shock



Note: Deviations from baseline. The full line represents the median impulse response using bootstrap (10 000 replications) and the dashed lines represent the 90% confidence band. The flows on MFI loans are obtained from the relation between the outstanding amounts of bank loans, adjusted for securitisation operations, and the monthly transactions, which are calculated from the outstanding amounts corrected of reclassifications, write-offs/write-downs, exchange rate changes and price revaluations.

decrease in MFI loans to households for house purchase is probably a result of declining demand, but may also reflect tighter supply conditions, as credit institutions adjust credit conditions in response to a deteriorating macroeconomic outlook. The observed decrease in loans for house purchase in Portugal is consistent with the results for the euro area of Bonci (2010) and Giannone *et al.* (2009). In contrast, the response of consumer loans is not statistically significant, similar to the results found by Giannone *et al.* (2009) for the euro area. One explanation for this result is that bank interest rates on consumer loans contain a significant risk premium and, as shown in Castro and Santos (2010), seem to be less reactive and do not adjust fully to changes in money market interest rates.

Overall, in response to a contractionary monetary policy shock, households not only reduce the accumulation of financial assets but also carry out an adjustment in the composition of their asset portfolio. In particular, in the context of a deterioration of economic perspectives, households tend to reduce investment in financial assets with higher market risk in favour of financial assets with lower risk.

Evidence from other studies on the response of households is heterogeneous. The results of Bonci (2010) for the euro area are qualitatively similar to those obtained for Portugal. After a monetary policy shock households initially increase the net funds raised, reducing the acquisition of financial assets by more than they decrease their liabilities (Table 1). These results contrast with those of Bonci and Columba (2008) for Italy who conclude that a contractionary monetary policy shock reduces the net funds raised by households as a result of opposite movements in financial liabilities and financial assets (i.e., liabilities decrease and assets increase). On the other hand, Christiano *et al.* (1996) find a small or insignificant effect of the shock on US households' acquisition of financial assets or issuance of financial liabilities. Christiano *et al.* (1996) attribute this result to the limited participation of households in capital markets which prevents them from adjusting their financial assets and liabilities or net funds raised immediately after the monetary policy shock.

The contrast between the insignificant reaction of households in Christiano *et al*. (1996) and the results of other studies (including our study in Portugal) may in part be related to underlying differences in sample periods. In fact, over the last fifteen years the proportion of financial assets in the total wealth of households has significantly increased in several countries, including the United States, which suggests an increasing participation of households in capital markets. In Portugal, several studies provide evidence of an increased participation of households in the capital markets over time (see, for example, Cardoso *et al.*, 2008). Therefore, the rising share of these assets in household's portfolio may have increased their importance in the adjustment of this sector to shocks.

The responses of sub-components of the financial assets of households show that the reduction of financial assets is driven primarily by a significant decrease in the purchase of shares and other equity (including investment funds units) amounting to around 15 per cent of the average quarterly flows of this item in the sample period. This may reflect expectations of a deterioration of firms' profits following the shock. Note that shares (quoted and unquoted) and other equity are an important component of the financial portfolio of households in Portugal, with a weight similar to the deposits (nearly 34 percent before the recent financial crisis). The purchases of life insurance and pension

funds also decrease, which may partly reflect the fact that this type of insurance is required by credit institutions for loans for house purchase, which also decreases in response to monetary policy shock, as seen above.[7] On the other hand, households increase the holdings of deposits as well as the loans granted to other sectors.

4. CONCLUSIONS

This article examines the response of the flow of funds of firms and households in Portugal to a monetary policy shock. In the case of a contractionary shock, non-financial corporations and households initially increase net fund raised. In the case of non-financial corporations this reflects both a greater accumulation of assets and financial liabilities, but with a stronger impact on the liability side. This result is also found for the United States and the euro area and points to the existence of a degree of frictions that prevent firms from adjusting their costs quickly after the shock. In particular, this may reflect constraints imposed by existing contracts that prevent firms from adjusting immediately their level of inventories to a lower level of demand and which compels them to resort to external finance.

After a contractionary monetary policy shock, the net funds raised by households increase, reflecting a drop in the acquisition of financial assets that exceeds the decrease in liabilities. This is possibly related with consumption smoothing behaviour. Households also adjust the composition of their portfolios of financial assets, reducing investment in financial assets with greater market risk and increasing investment in less risky financial assets as is the case of deposits. The behaviour of households in Portugal is qualitatively similar to that found for the euro area, while for the United States the evidence points to a small effect or no significant impact of a monetary policy shock in the financial transactions of households.

(7) It should be noted that changes in households' pension funds assets result not only from changes in households contributions to pension funds but also from firms contributions, given that in the national financial accounts the contributions from firms are also assigned to the households sector.

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HOW TO MEASURE UNEMPLOYMENT? IMPLICATIONS FOR THE NAIRU*

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1. INTRODUCTION

In Portugal, between 1998 and 2009, the number of unemployed workers available to work, who did not search for a job, remained relatively stable at around 80 000 individuals. The standard definition of unemployment, by invoking the concept of "actively searching" for a job, does not include these individuals in the 530 000 unemployed workers identified in *Inquérito ao Emprego* in 2009. However, a comprehensive discussion of the concept of unemployment, both from an economic and a social policy perspective, requires a thorough analysis of the behavior of all non-employed workers.

The job flows approach to the labor market appeals to the concept of "waiting" for a new job to define unemployment (Blanchard and Diamond, 1992). The relevant distinction between activity and inactivity is no longer based on "actively searching" employment, focusing instead on the "productivity" of the periods of non-employment, measured for example by the transition rates to employment. In this paper, we show that individuals available to work, who did not search for a job, are much closer to the standard unemployment state than the inactivity state. However, this group of workers, designated as "marginally attached", constitutes a distinct labor market state. Additionally, using the non-accelerating inflation rate of unemployment (NAIRU), we show that a broader concept of unemployment – that includes the marginally attached – can be used to better explain the dynamics of inflation and output in Portugal.

The NAIRU can also be interpreted as the natural rate of unemployment, i.e. the rate that prevails in the economy given the microeconomic structures of the labor and product markets (see "Box 3 The increased competition in labor markets and product and its macroeconomic impact, "of this Bulletin). In the last decade, the NAIRU, calculated with the broad definition of unemployment increased continuously, reaching 9.2 per cent in 2009, far from the average of 7.3 per cent during the 80s and 90s. The NAIRU estimated with the standard definition of unemployment rose from 5.5 per cent in the same period to 8.1 per cent in 2009.

* We would like to thank Lucena Vieira for the computational assistance. The opinions expressed in the article are those of the authors and do not necessarily coincide with those of Banco de Portugal or the Eurosystem. Any errors and omissions are the sole responsibility of the authors.

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From a statistical viewpoint, the standard definition of unemployment follows a set of principles established by the International Labor Organisation (ILO). The definition of unemployment is based on the concept of job search. A worker without a job is considered unemployed if (s)he is available to work and has actively searched for a job during the reference period (usually the four weeks preceding the interview); otherwise, the worker is considered inactive. This definition may not capture all relevant dimensions of unemployment (Jones and Riddell 1999, Brandolini, Cipollone and Viviano 2006).

In the job flows approach to the labor market by Mortensen (1986), Pissarides (1990) and Blanchard and Diamond (1992), the notion of "active job search" is replaced by "productive waiting" for a new job. In these models, jobs are formed through the matching of workers available to work and the stock or the flow of job vacancies (Coles and Smith, 1998). This theoretical concept is more encompassing than the standard definition of unemployment based on active job search. The job flows approach assumes that the process of finding a job has an endogenous duration, which determines unemployment and wages.

The degree of heterogeneity in the pool of unemployed workers plays a crucial role in the context of the job flow approach. For example, unemployed workers differ in terms of duration of unemployment. Suppose, without loss of generality, that there are two levels of job search effort, low and high, and that short-term unemployed workers exert a greater effort while searching for jobs. The unemployment rate relevant to the functioning of the labor market would correspond to the sum of the two groups, weighted by the respective job search intensity. The job prospects of a newly unemployed worker improve with the proportion of those with low job search intensity. The same reasoning applies to the impact of unemployment insurance. There is ample evidence that individuals who receive unemployment insurance search with less intensity, resulting in longer periods of unemployment (Centeno and Novo, 2009a). Thus, a greater number of subsidized individuals results in a lower level of effective search, improving the employment prospects of the uninsured workers.

Marginally attached workers represent a significant proportion of the working population, about 20 per cent of unemployment in Europe (Brandolini *et al*. 2006). The relevance of the "active search" concept in the standard definition of unemployment in Portugal is widely discussed in Centeno and Fernandes (2004). Using the same approach in a more recent period, we show that the probability of transition to the employment of the marginally attached is quite close to that of the unemployed workers. However, the probability that an unemployed worker exits the labor force is much smaller. The differences in transition rates of marginal attached workers relatively to other inactive workers are quite significant, particularly the transitions to employment. Thus, a more detailed analysis of the behavior of marginally attached workers in the labor market seems justified.

In the most recent period, the observed increase in the unemployment rate was the result of a much lower rate of transition to employment of unemployed workers and a higher retention rate in unemployment. The behavior of the marginally attached group is much more stable over the business cycle; the rate of transition to employment of the marginally attached decreased much less during the recent recession, and in some quarters is even higher than the unemployed's. This could imply that

the use of the cyclical properties of the standard unemployment rate as an indicator of labor market conditions may fall short. In these circumstances, a definition of unemployment that includes the marginally attached workers could be a better measure to explain the dynamics of inflation.

2. ARE YOU UNEMPLOYED OR MARGINALLY ATTACHED?

This section characterizes marginally attachment and unemployment in Portugal. We highlight the differences in terms of national statistics treatment of the two groups of workers and test how behaviorally close these two groups are. The boundary of unemployment is thus discussed and we formally test the adequacy of a three state model of the labor market (with employed, unemployed and inactive workers) compared with a four state model (with employed, unemployed, marginally attached and other non-employed workers). Although the state of marginally attached is closer to the unemployed state than to the other non-employed workers, the groups are distinct, which points to the validity of a four-state model.

2.1. Recent evolution

An unemployed is defined as a non-employed person who wants to have a job and is actively searching for one. This concept gives rise to the standard definition of the unemployment rate, which is simply the ratio between total unemployment and the labour force.

Chart 1 depicts the breakdown of total unemployment by age groups. The most significant development over the last decade took place in the lower- and upper-tail of the age distribution. The share of old unemployed workers (above 45 years) increased from around 22 per cent in 1998, to around 30 per cent in 2009. Conversely, the share of young unemployed workers (below 25 years) decreased from levels around 30 per cent towards 18 per cent in 2009.

The standard definition of unemployment neglects marginal attached workers. These workers are also defined as non-employed persons who want to have a job, but did search actively for a job in the reference period.

The share by age of marginal attached workers reveals some regularities and proximities to unemployed workers. The differences in shares by age between the two are depicted in Chart 2. There are proportionally less unemployed workers than marginal attached workers among older workers (above 45 years), a gap that has been increasing over time, from -3 to -8 percentage points. The differential in the younger age bracket (below 25) decreased from 6 to 1 percentage points. The most significant change took place in the age group between 25 and 34, which increased from 1 to 7 percentage points.

Chart 3 depicts the breakdown of total unemployment according to four education levels: “no education”, “basic”, “secondary” and “college”. The increase in the education levels of the Portuguese workers took place in the “basic” and “college” groups (Alves, Centeno and Novo 2010). In 2009, these groups accounted for 17 and 15 per cent, respectively, which implies an increase of 7 percentage

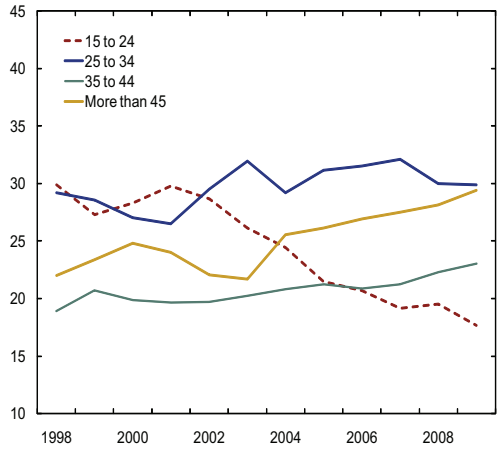
points in each group against the levels prevailing in 1998. The share of unemployed workers who have "basic" education levels decreased from 73 per cent in 1998, to 69 per cent in 2009, remaining with an higher weight on total unemployment than in the labour force. On the contrary, the share of unemployed workers who have "college" is lower in the labour force, although they increased 4 percentage points.

The differences between the shares of unemployed and marginal attached workers by education groups are depicted in Chart 4. Overall, the marginal attached are slightly less educated than the unemployed.

Chart 1

UNEMPLOYMENT BREAKDOWN, BY AGE

Shares in total unemployment, per cent

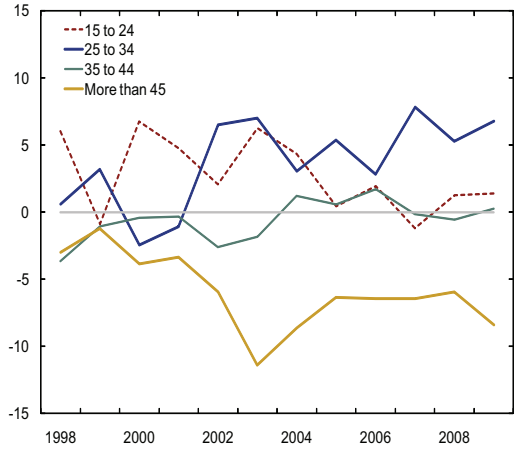


Source: *INE* (*Inquérito ao Emprego*).
Note: Annual data.

Chart 2

DIFFERENCES BETWEEN UNEMPLOYED AND MARGINAL ATTACHED, BY AGE

Differences of shares, percentage points

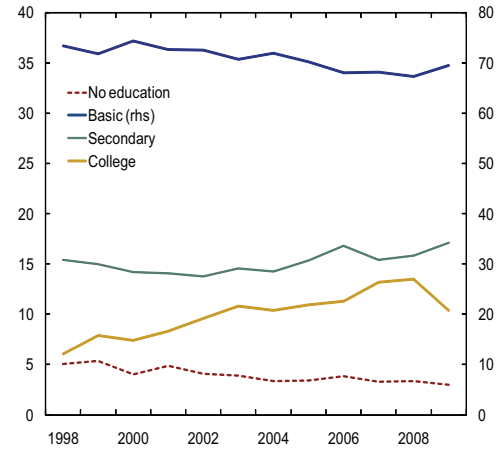


Source: *INE* (*Inquérito ao Emprego*).
Note: Annual data.

Chart 3

UNEMPLOYMENT BREAKDOWN, BY EDUCATION

Shares in total unemployment, per cent

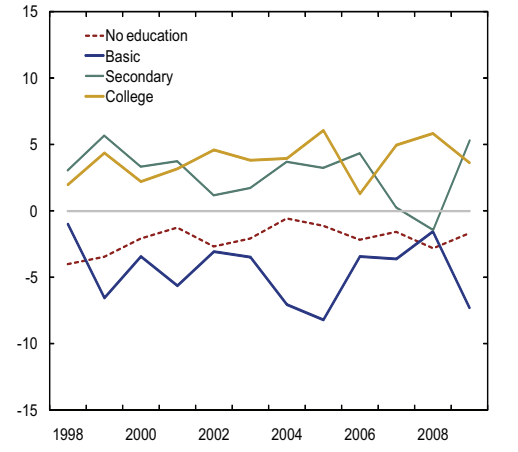


Source: *INE* (*Inquérito ao Emprego*).
Note: Annual data.

Chart 4

DIFFERENCES BETWEEN UNEMPLOYED AND MARGINAL ATTACHED, BY EDUCATION

Differences of shares, percentage points



Source: *INE* (*Inquérito ao Emprego*).
Note: Annual data.

The number of unemployed workers decreased between 1998 and 2000, but registered an upward trend thereafter, reaching almost 530 thousands workers in 2009 (Chart 5). The number of marginal attached workers decreased also between 1998 and 2000, but contrary to the number of unemployed workers, it remained relatively stable until 2009 (slightly below 80 thousand). As a result, the ratio between the two sets, which was around 35 per cent in 1998, decreased to less than 14 per cent in 2009.

2.2. The equivalence between unemployment and marginal attachment

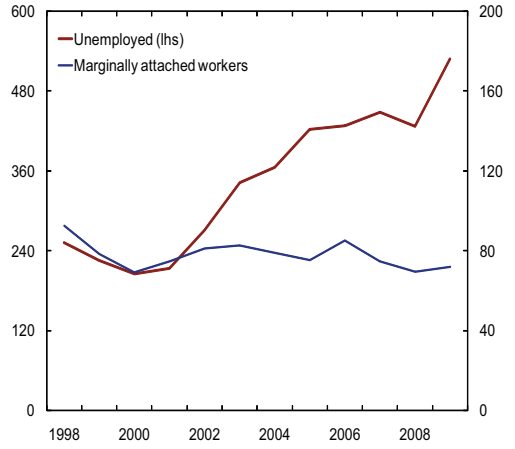
The approach follows the basic reference of Flinn and Heckman (1983) and has been applied to a number of countries. Jones and Riddell (1999) study the US and Canadian labor markets and Brandolini *et al*. (2006) study several European countries. This approach has been applied to Portugal in Centeno and Fernandes (2004).

We consider the existence of four distinct labor market states; employment E, unemployment U, marginal attached M, and non-attached to the labor force N. The states E and U use the conventional labor force survey definitions, and M and N are obtained by splitting non-participants into two subsets. The M group is defined as comprising all workers that, although not currently searching for a job, report they want a job.

The assessment of whether two labor market states are behaviorally equivalent amounts to testing whether the transition probabilities out of the two states to a third state are equal, either unconditionally or conditional on a set of observable variables. Let pUE denote the quarterly transition probability from U to E, and analogously for the other states. The equivalence of M and U states can be inferred by testing jointly the following conditions:

Chart 5

TOTAL UNEMPLOYMENT AND MARGINAL ATTACHED WORKERS
Thousands



Source: *INE* (*Inquérito ao Emprego*).
Note: Annual data.

$$pME = pUE, \quad (1)$$

$$pMN = pUN. \quad (2)$$

If M and U transit into both E and N at the same rates, then they can be pooled into a single state without any loss of information; behaviorally there will be no significant differences between M and U. If this is the case, the usual definition of unemployment based on the job search activity should be replaced by one based on the desire to work.

Similarly, we can also assess the equivalence of M and N by testing jointly the following conditions:

$$pME = pNE, \quad (3)$$

$$pMU = pNU. \quad (4)$$

If we fail to reject these hypotheses, the usual pooling of the M and N states into a single state, out-of-the-labor force, would be appropriate. It is unlikely that the marginal attached are both equivalent to the employed and the non-attached, but not that they differ from both the other two states. In the latter case, the U, M and N are distinct states in terms of labor market transitions, resulting in a case to consider them separately.

Table 1 reports the average exit rate from the three non-employment states (U, M, N) into the four labor market states (E, U, M, N). The top panel presents averages for the whole period (1998-2009), and the two remaining panels present averages for two sub periods (1998-2003, a booming period and 2004-2009, a recessive period). Overall, the M state represents an intermediate state between U and N. The marginally attached are quite close to the unemployed in terms of transitions into employment (14.4 versus 18.7 per cent), but they are much more likely to become employed than the non-attached individuals (only 1.1 per cent). However, they differ greatly from the unemployed in terms of labor force withdrawal; indeed their chances of moving to the non-attachment state are two times larger than those of unemployed workers (11.7 *versus* 25.5 per cent).

Chart 6 shows in greater detail the dynamics of the transition rates. During the sample period, and in line with macroeconomic developments, it is noticeable the reduction of the transition rates of unemployment to employment (pUE) and the increased retention rates in unemployment (pUU). By contrast, during the whole period, the transition rates involving M are much more stable.

To test the joint equivalence hypotheses, we estimate multinomial logit models of the determinants of transition probabilities into employment and the non-employment states. The method examines whether two different origin states give sets of estimated coefficients that are statistically non-significantly different from one another. The results are presented in Table 2. The estimated multinomial logit model contains as explanatory variables: age, gender, marital status, education and region of residence. The models are estimated separately for each quarter and we report the likelihood ratio statistics.

The tests clearly reject the equivalence of $M = N$ and $M = U$. Indeed, for all quarters, the large values of the likelihood ratio test statistics in columns (1) and (2) imply that we reject the equality hypothesis with confidence levels in excess of 99 per cent. This confirms that U, M and N are distinct

Table 1

AVERAGE TRANSITION RATES (QUARTERLY)
In proportion of total transitions from the state of origin

Transitions	To	E	U	M	N
From					
			1999-2009		
U		0.187	0.635	0.062	0.117
		0.036	*0.061*	*0.015*	*0.021*
M		0.144	0.221	0.380	0.255
		0.029	**0.039**	*0.047*	*0.036*
N		0.011	0.007	0.003	0.978
		0.003	*0.002*	*0.001*	*0.003*
			1999-2003		
U		0.218	0.576	0.074	0.131
		0.022	*0.031*	*0.012*	*0.021*
M		0.155	0.194	0.396	0.254
		0.033	*0.033*	*0.049*	*0.039*
N		0.013	0.006	0.003	0.977
		0.002	*0.002*	*0.001*	*0.004*
			2004-2009		
U		0.160	0.683	0.051	0.106
		0.020	*0.029*	*0.006*	*0.012*
M		0.135	0.243	0.367	0.255
		0.022	*0.029*	*0.041*	*0.033*
N		0.009	0.008	0.004	0.979
		0.001	*0.001*	*0.000*	*0.003*

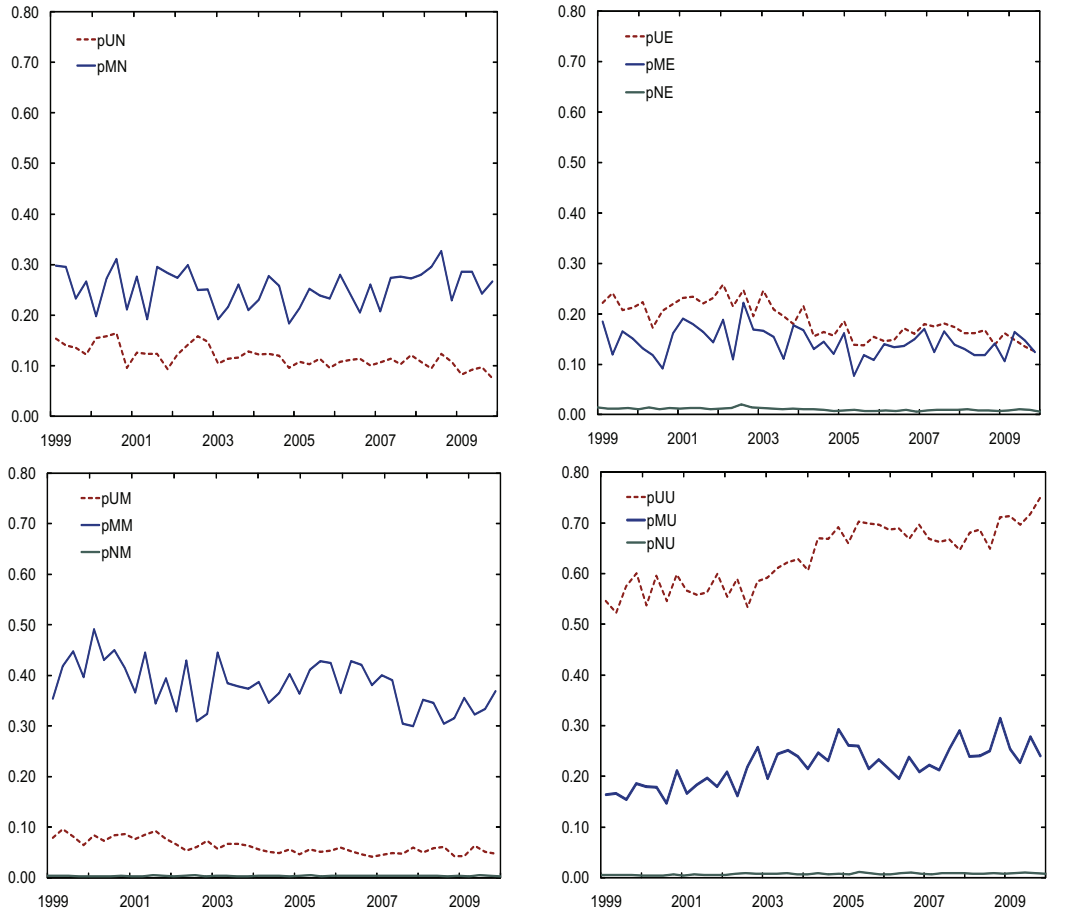
Source: *INE* (*Inquérito ao Emprego*).
Notes: E - Employed, U - Unemployment, M - Marginally active, N - Non-attached to the labour force. Standard deviations in italic. The transitions rates are computed from quarterly hazard rates of individuals in two consecutive surveys.

states. We obtain the same conclusions when estimating the models by gender (columns (3)-(6)). We also estimated binary logit models of transition rates into employment alone. The pattern of the test statistics is very similar, but we are not able to reject the equivalence of U and M in some quarters. An indication that the marginal attached may be closer to the labor market than what is implied by the formal definition of unemployment. The results reject the three-state model for the Portuguese labour market.

Next, we estimate the NAIRU for the Portuguese economy, using both the standard and the broader definition of unemployment, which incorporates marginally attached workers. We do a preliminary statistical assessment of which of the two definitions results in better fits for the inflation dynamics of the Portuguese economy in the sampling period.

Chart 6

TRANSITION RATES



Source: *INE* (*Inquérito ao Emprego*).
Notes: Quarterly data. For example, the transition rates pUN and pMN are the empirical hazard rates to non-participation from unemployment and marginal attachment, respectively.

3. NAIRU ESTIMATES

The NAIRU is computed using quarterly data for inflation, output and unemployment, the latter augmented with marginally attached workers. This database is presented in Section 3.1 Given the absence of a consistent time series for the unemployment rate over this time period, using the broad definition, this section recalls available data sets and clarifies the methodology behind its construction. The NAIRU is estimated in a system of equations based on a Phillips curve and an Okun's law. This approach is presented in Section 3.2 The framework draws on Apel and Jansson (1999a, 1999b), and has been used by Fabiani and Mestre (2004) and Centeno, Maria and Novo (2009), with euro area and Portuguese data, respectively. Finally, Section 3.3 reports the outcome and compares it with the previously computed NAIRU estimates that are based on the conventional definition of the unemployment rate.

Table 2

TEST STATISTICS FOR LIKELIHOOD RATIO TEST OF EQUIVALENCE

		Test		Test – Men		Test – Women	
		M = N	M = U	M = N	M = U	M = N	M = U
1999	Q1	3 700.7	1 118.1	2 099.6	544.5	1 547.7	579.1
	Q2	3 392.5	1 083.8	1 889.2	541.4	1 517.4	593.7
	Q3	3 364.5	839.5	1 856.8	368.9	1 470.6	453.6
	Q4	3 244.8	728.6	1 674.5	278.8	1 513.4	432.3
2000	Q1	2 473.3	933.1	1 326.0	394.1	1 111.6	554.6
	Q2	3 191.0	641.5	1 615.8	313.0	1 538.5	315.1
	Q3	2 938.5	837.3	1 657.7	467.0	1 265.2	370.0
	Q4	3 972.6	707.7	2 367.5	364.6	1 563.5	337.6
2001	Q1	2 855.6	778.4	1 573.4	391.0	1 246.2	359.7
	Q2	3 510.9	762.0	2 025.5	429.2	1 445.9	342.5
	Q3	3 454.5	741.9	1 989.9	376.3	1 464.4	384.1
	Q4	2 958.3	669.8	1 623.1	326.3	1 338.5	355.1
2002	Q1	3 290.0	971.7	1 868.2	459.0	1 445.6	520.4
	Q2	3 797.1	861.6	2 138.1	397.5	1 636.8	468.6
	Q3	4 847.4	1 125.4	2 766.7	574.1	2 060.6	534.1
	Q4	3 383.5	1 159.0	1 973.0	616.9	1 433.1	541.1
2003	Q1	3 670.0	1 462.6	2 098.0	693.5	1 560.4	722.0
	Q2	3 502.2	1 481.5	2 157.9	784.4	1 331.1	706.7
	Q3	3 539.8	1 483.7	2 019.9	735.6	1 501.0	728.8
	Q4	3 523.4	1 624.5	1 969.1	789.9	1 565.3	863.6
2004	Q1	2 709.9	1 386.4	1 403.7	697.3	1 296.2	714.7
	Q2	3 857.8	1 427.5	2 214.3	702.4	1 645.9	727.3
	Q3	3 233.6	1 638.3	1 756.9	853.2	1 482.4	785.3
	Q4	3 025.8	1 686.0	1 736.8	829.1	1 278.3	843.9
2005	Q1	3 032.8	1 966.1	1 712.2	1 046.8	1 310.4	899.3
	Q2	3 956.0	1 679.3	2 360.1	839.1	1 568.9	817.8
	Q3	2 589.8	1 565.3	1 479.8	827.2	1 085.6	746.9
	Q4	2 572.5	1 709.5	1 703.3	913.2	856.5	807.5
2006	Q1	2 746.7	1 609.3	1 601.1	838.6	1 163.6	800.6
	Q2	2 911.4	1 424.2	1 757.5	607.5	1 167.2	813.6
	Q3	3 333.9	1 548.4	1 840.5	768.7	1 492.1	754.2
	Q4	2 319.4	1 606.3	1 339.7	846.2	969.5	749.7
2007	Q1	2 505.5	1 819.5	1 436.1	959.2	1 067.6	859.2
	Q2	3 054.5	1 676.4	1 829.6	897.3	1 215.2	742.3
	Q3	2 950.3	1 603.9	1 763.3	851.9	1 170.8	745.0
	Q4	3 156.2	1 805.4	1 792.4	1 035.5	1 381.3	789.5
2008	Q1	3 045.5	1 739.2	1 784.5	893.6	1 269.2	870.6
	Q2	2 789.6	1 576.7	1 599.4	838.2	1 215.6	756.2
	Q3	2 716.9	1 588.0	1 601.9	939.0	1 113.1	659.6
	Q4	2 603.9	1 457.5	1 389.5	785.5	1 202.6	668.2
2009	Q1	2 870.6	1 809.0	1 745.4	916.7	1 113.3	887.2
	Q2	3 495.8	2 018.9	2 034.2	920.2	1 490.8	1 119.2
	Q3	3 121.3	1 837.7	1 824.5	923.6	1 300.9	930.7
	Q4	2 238.7	1 830.5	1 303.5	990.9	938.0	920.2

Source: *INE* (*Inquérito ao Emprego*).
Note: Quarterly data.

3.1. Database

Chart 7 plots inflation developments over the last 25 years, measured by the change in the private consumption deflator. It shows a pronounced downward trend with inflation rates decreasing from more than 20 per cent in the mid-80s to levels below 3 per cent over the 1996-2008 period. In 2009, against the international background of a severe economic and financial crisis, the inflation rate was negative, like in other advanced economies, including in the euro area.

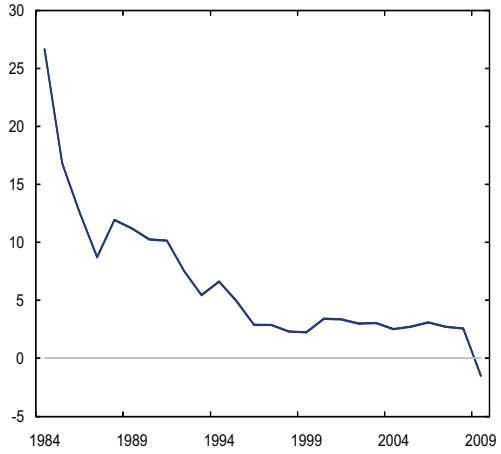
Real GDP displays an upward trend over the last 25 years (Chart 8). However, more recently, the economy has been marked by relatively low growth. In 2009, GDP contracted severely, similarly to developments in other advanced economies.

Chart 9 plots the conventional unemployment rate based of Banco de Portugal (BP) and of *Inquérito ao Emprego* (*IE*). Although both series are in line with international standards and coincide from 1998 onwards, they are different early on. The methodology behind the construction of the Banco de Portugal database can be found in Castro and Esteves (2004). This series was used to estimate the natural rate of unemployment in Centeno *et al*. (2009).

Early on the sample period, the unemployment rate does not depict a clear low frequency movement. However, this changed dramatically more recently. The unemployment rate recorded a highly persistent upward movement and in annual terms surpassed, since 2005, the previous maximum of 7.4 per cent, recorded in 1986, reaching 9.5 per cent in 2009.

Chart 7

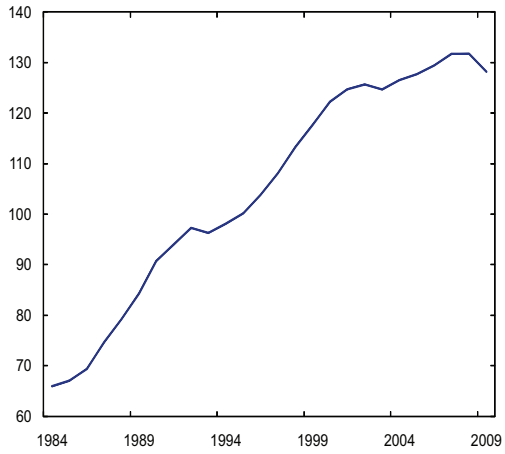
INFLATION RATE
Per cent



Source: Banco de Portugal.
Note: Annual data.

Chart 8

GROSS DOMESTIC PRODUCT
Real, EUR millions



Source: Banco de Portugal.
Note: Annual data.

The evolution of the unemployment rate according to the broad definition is plotted in Chart 10. There are two time series. The first is retrieved from the labor force survey. The series "Pinheiro (1999) and author's calculations" was constructed by assuming that:

i) between 1998 and 2009, all annual data coincide with *IE* data;

ii) between 1995 and 1997, the ratio between the marginally attached workers and the conventional definition of unemployed in *IE* data is the same as in the Banco de Portugal database;

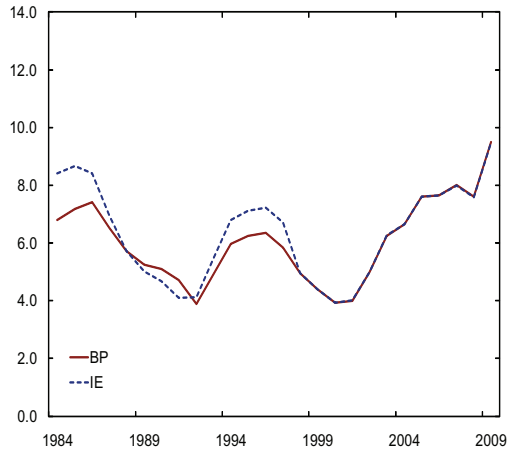
iii) before 1995: all data is derived from the rates of change included in Pinheiro (1999).

The computed annual figures are in general lower than those published by *IE* before 1998, as in the previous case (Chart 9). By including marginally attached workers, these unemployment rates are naturally higher than the standard unemployment rates.

Changes in the computed unemployment rate according to the broad concept have a negative correlation with the growth rate of real GDP, a feature already present using the standard definition. This resembles the simplest formulation of the Okun's law, which can be simply stated as a rule in which output and unemployment evolve in opposite directions (Mankiw 2003). As expected, Chart 11 confirms that the relationship between the unemployment rates, using the broad and the standard definition, is rather linear. However, this relationship is steeper than the 45 degrees line, which indicates that when the unemployment rate without marginally attached workers increase(decrease), the unemployment rate using the broad concept includes a tendency to increase(decrease) by more.

Chart 9

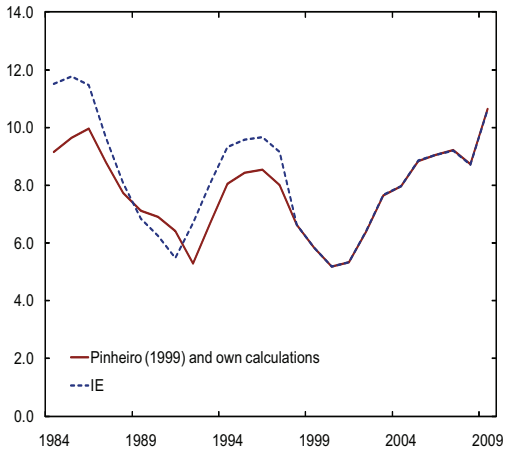
UNEMPLOYMENT RATES – STANDARD DEFINITION
Percentage of the labour force



Sources: *INE* (*Inquérito ao Emprego*). and Banco de Portugal.
Note: Annual data.

Chart 10

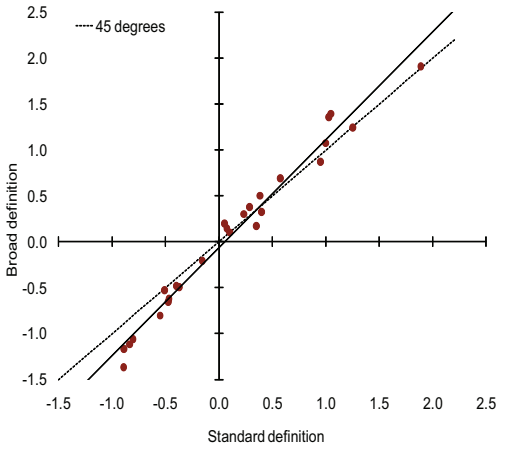
UNEMPLOYMENT RATES – BROAD DEFINITION
Percentage of the labour force, including marginally attached workers



Sources: *INE* (*Inquérito ao Emprego*), Pinheiro (1999) and authors' calculations
Note: Annual data.

Chart 11

UNEMPLOYMENT RATES – STANDARD AND BROAD DEFINITIONS



Source: Authors' calculations.
Note: Annual data.

3.2. Estimation framework

The NAIRU is estimated in a system of equations based on a Phillips curve and an Okun's law. The Phillips curve, linking inflation and unemployment, and Okun's law, linking output and unemployment, generate NAIRU estimates in which demand pressures with an impact on inflation are consistent with output developments.

The system of equations used herein has the following form:

$$\pi_t - \pi_t^e = A(L)(\pi_{t-1} - \pi_{t-1}^e) + \gamma(L)(U_{t-1} - \tilde{U}_{t-1}) + \delta(L)z_t + \varepsilon_t, \quad (5)$$

$$y_t - \tilde{y}_t = \theta(U_{t-1} - \tilde{U}_{t-1}) + \nu_t, \quad (6)$$

$$\tilde{U}_t = \tilde{U}_{t-1} + \zeta_{1t}, \quad (7)$$

$$\tilde{y}_t = \tilde{y}_{t-1} + \Delta_{t-1}, \quad (8)$$

$$\Delta_t = \Delta_{t-1} + \zeta_{2t}, \quad (9)$$

where:

i) π_t is actual inflation;

ii) π_t^e represents expected inflation and is assumed to be given by lagged inflation, *i.e.* $\pi_t^e = \pi_{t-1}$;

iii) $A(L)$, $\gamma(L)$ and $\delta(L)$ are polynomials in the lag operators;

iv) U_t is the actual rate of unemployment;

v) $\tilde{U}_t$ is the NAIRU;

vi) z_t is a vector of variables capturing supply shocks (which typically includes exogenous variables such as import prices);

vii) y_t is observed real output;

viii) $\tilde{y}_t$ represents potential output;

ix) θ is an unknown parameter (expected to be negative);

x) ε_t and ν_t are $i.i.d.$error terms.

xi) $\zeta_{1t} \sim N(0, \sigma_{\tilde{U}})$ and $\zeta_{2t} \sim N(0, \sigma_{\Delta})$ are independent error terms assumed to follow normal distributions, with unknown standard deviations $\sigma_{\tilde{U}}$ and σ_{Δ}, respectively;

Both $\tilde{U}_t$ and $\tilde{y}_t$ are treated as unobserved variables. The natural rate of unemployment $\tilde{U}_t$, originally envisaged in the seminal works of Friedman (1968) and Phelps (1968), can be assessed as a long-run or steady-state concept, around which the actual unemployment rate fluctuates. Potential output $\tilde{y}$ is an estimate of the level of output when the economy is operating at a high rate of resource use, without inflationary pressures (Arnold 2009).

Equation (5) represents a Phillips curve, and is based on the well-known "Triangle model" (Gordon 2008). The vertices of the triangle are "generalized inertia" $A(L)(\pi_{t-1} - \pi^{e}_{t-1})$, "demand pressures" $\gamma(L)(U_{t-1} - \tilde{U}_{t-1})$, and "supply shocks" $\delta(L)z_t$. "Generalized inertia" is presumably capturing the formulation of expectations and the impact of several microeconomic features of the economy such as existing contracts or input-output supply chains. Equation (5) assumes that $(U - \tilde{U})$ is lagged relatively to the dependent variable $\pi - \pi^{e}$, as in Laubach (2001) and Llaudes (2005), and not contemporaneous, as in the work of Gordon (2008).

The explicit treatment of "supply shocks" is another relevant feature of equation (5). If these shocks were not explicitly included in z, they would be subsumed in the error term (Katz and Krueger 1999), and the NAIRU would inherit, to some degree, the evolution and volatility of z. Moreover, it may not be possible to explain higher inflation without excess demand. On the contrary, if z is included, it could capture the sources of higher inflation even with a receding demand (see, for example, Layard, Nickell and Jackman (1991)).

In a Phillips curve framework, if the unemployment rate decreases to levels below the NAIRU, inflationary pressures from a tight labor market are expected to mount and higher inflation will emerge in the future. The converse also applies. In the long-run, without supply shocks, inflation converges to a stable value (although undefined), with the unemployment rate converging to the NAIRU.

Equation (6) represents an Okun's law. The structural relationship is basically assuming that cyclical developments in output $\left(y_t - \tilde{y}_t\right)$ should be captured by cyclical developments in unemployment $(U_{t-1} - \tilde{U}_{t-1})$. The first component is the output gap, the second the unemployment gap In this framework, if excessive strain is placed in the nation's resources, than the unemployment rate decreases to levels below the NAIRU, and this would be associated with output increasing above potential. Although Okun's law is usually taken as a relationship between output and unemployment, the link with inflation can be traced back to Okun (1962).

The economic relationships behind equations (5) and (6) do not include any information regarding the stochastic processes defining the behavior of the NAIRU $\tilde{U}_t$, or potential output $\tilde{y}_t$. The full system of equations is then completed with equations (7), (8) and (9) which are standard atheoretical laws of motion.

Equation (7) is a pure random walk (without any drift). This may be seen as an acceptable approximation to capture the presence of frequent permanent shocks (King and Morley 2007). The NAIRU estimates is conditioned by the values of the standard deviation $\sigma_{\tilde{U}}$. If $\sigma_{\tilde{U}} = 0$, then the NAIRU is constant throughout the entire sample. In this limiting case, changes in the unemployment gap are solely determined by changes in the actual unemployment rate. If $\sigma_{\tilde{U}} > 0$, the outcome would be closer to the view of Friedman (1968), who admitted that the natural rate varies over time. However, if $\sigma_{\tilde{U}}$ is too high, the NAIRU may depict excess volatility. The system can also be estimated in the intermediate situation where $\sigma_{\tilde{U}}$ is assumed to be higher then 0, from the outset, but under the a priori consideration that the estimated behavior of the NAIRU should be relatively smooth. The motivation behind the atheoretical law of motion (7), which assumes in particular that the NAIRU is integrated of order 1 and not 2, although the former is also common in the literature (Laubach 2001, Fabiani and Mestre 2004), is the absence of a low frequency movement over the sample period (see Chart 10).

Developments in potential output are defined in equations (8) and (9), which interact with equation (6). Given the absence of an error term in equation (8), this set up represents a restricted version of the standard "local linear trend" model (Harvey 1990). The objective is to estimate a smoother potential output. The interpretation of σ_{Δ} is similar to that of $\sigma_{\tilde{U}}$, but now applies to the change of potential output (given by Δ_t). The trend would be linear if $\sigma_{\Delta} = 0$.

3.3. Empirical results

The system of equations was written in state-space form and all unknown parameters and time series of the NAIRU and potential output were estimated using the Kalman filter and Maximum Likelihood (Harvey 1990, Hamilton 1994). These unobserved variables were computed using the Matlab toolbox E4 (Jerez, Sotoca and J. Casals 2007) and correspond to the smooth estimates Initial conditions for the filter are clarified in Casals and Sotoca (2001). Initial values for the parameters are derived by least squares, assuming a NAIRU and a potential output given by an HP filter. All variables not statistically significant were dropped out. The choice of the standard deviation $\sigma_{\tilde{U}}$, which has a discussion somehow akin to the choice of the smoothness parameter of an HP filter, was solved in the light of Gordon (1997, p 22), who stated that the "natural rate can move around as much as it likes, subject to the qualification that sharp quarter-to-quarter zig-zags are ruled out".

The sample period, which includes observed data ranging from 1984 Q1 to 2009 Q4, was extended until 2011 Q4 with autoregressive and moving average models for π_t, U_t and y_t, using procedures built in the TSW software (Caporello and Maravall 2004). There are two main motivations for doing this. First, to mitigate the end-point bias typical of the filters used in the estimation of latent variables. Second, to incorporate into our estimates the recent evolution of the Portuguese economy. This procedure projects low GDP growth and a moderate increase in the unemployment rate until the end of 2011.

Table 3 reports the parameter estimates underlying the NAIRU estimation. Chart 12 reports NAIRU estimates over the last 25 years using the broad definition of unemployment rate, and confronts it with the computed NAIRU presented in Centeno *et al*. (2009).

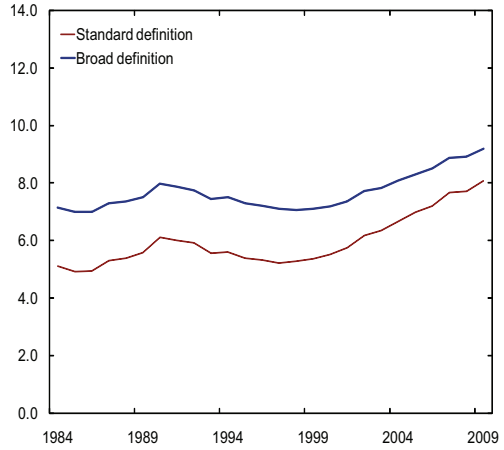
The reported NAIRU based on the standard definition of the unemployment rate fluctuates around 5.5 per cent until the late 90s, increasing thereafter to values slightly above 7 per cent. The estimates for the earlier period are consistent with the traditional view of a relatively stable outcome over the 80s and the 90s. The reported NAIRU based on the broad definition fluctuates 2 percentage points above over this period, and includes an upward shift in comparison with the former. In addition, the results point towards a greater proximity between the two over the last years. The differential was in 2009 around 1 percentage point.

Chart 13 plots the unemployment gap obtained from the system estimation and confronts it with the results obtained in Centeno *et al*. (2009). The differences are rather negligible, except that the unemployment gap based on the broad definition is slightly more volatile. Chart 14 depicts the expected negative correlation between the output and the unemployment gap. After a period where both the output and unemployment gaps were almost closed (2003-2008), recent developments indicate a widening similar to previous episodes of the business cycle.

It is important to measure the performance of both measures of unemployment in the system of equations. We would be attempting to answer the question of which unemployment measure fits better with the other aggregate variables included in the model. We re-run the system in (5) − (9) for the broad and standard unemployment measures without imposing a restriction on the $\sigma_{\tilde{U}}$ and σ_{Δ} parameters. Then, we evaluate the goodness of the two models using the Akaike and the Schwarz information criteria. In both cases, the broader NAIRU performs better, which can be seen as an indication that it is a more informative aggregate to understand the pressures of those out-of-work on other aggregate economic outcomes.

Chart 12

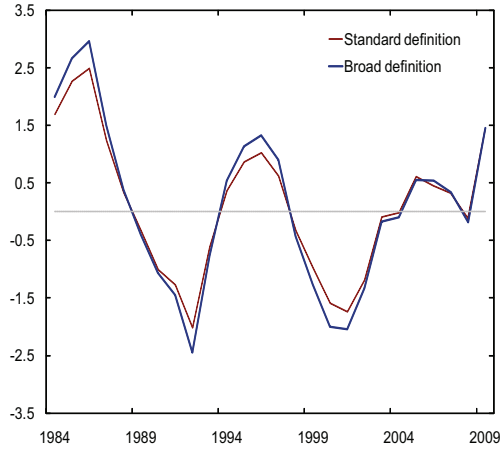
NAIRU ESTIMATES



Sources: *INE* (*Inquérito ao Emprego*) and autors' calculations.

Chart 13

UNEMPLOYMENT GAP
Percentage points



Sources: *INE* (*Inquérito ao Emprego*) and autors' calculations.
Note: Annual data.

Table 3

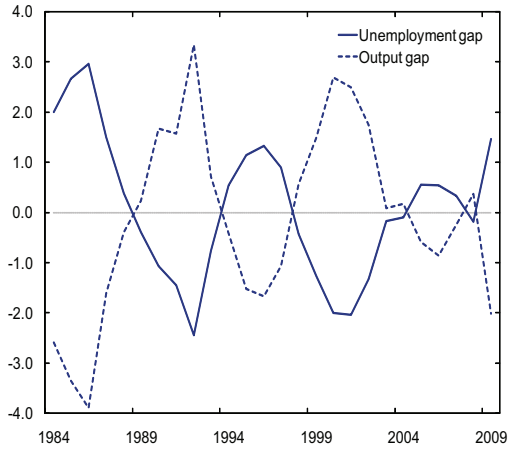
PHILLIPS CURVE AND OKUN'S LAW

	Phillips curve	Okun's law
Variable	$\Delta\pi_t$	$(y-\tilde{y}_t)$
	(1)	**(2)**
$\Delta\Delta\pi_{t-4}$	-0.7845 (0.0662) *0.0000*	
$\Delta\Delta\pi_{t-7}$	-0.1497 (0.052) *0.0049*	
$\Delta\Delta\pi_{t-8}$	-0.4931 (0.0751) *0.0000*	
$\Delta\Delta\pi_{t-12}$	-0.1568 (0.0528) *0.0037*	
$z_{1,t}$	0.4408 (0.1082) *0.0001*	
$z_{1,t-4}$	0.4270 (0.0987) *0.0000*	
$z_{2,t}$	0.1788 (0.0712) *0.0136*	
$(U_{t-1}-\tilde{U}_{t-1})$	-0.3064 (0.0412) *0.0000*	-1.3460 (0.0314) *0.0000*
Estimation period	1984 Q1–2011 Q4	1984 Q1–2011 Q4
Number of observations	112	112

Note: Standard errors in parentheses and p-values in italics. π is defined in yearly terms by the log change of the personal consumption deflator; $(U_{t-1}-\tilde{U}_{t-1})$ is the unemployment gap, defined as the difference between actual and the natural rate of unemployment; $(y-\tilde{y}_t)$ is the output gap, defined as the difference between actual and potential output; z_1 is defined in yearly terms by the log change in the ratio between the overall imports deflator and the whole economy GDP deflator; z_2 is defined in yearly terms by the log change in the relative consumer prices of energy and unprocessed food items.

Chart 14

OKUN'S LAW
Percentage points



Source: Authors' calculations.
Note: Annual data.

4. CONCLUSION

The concept of unemployment plays a central role in debates on economic and social policy. The difficulty of finding a definition of unemployment that captures all relevant aspects of this phenomenon should be interpreted as reflecting the great diversity of workers without a job searching for work. This is reflected in recent labor market theoretical approaches – efficiency wages and segmented labor market – that devote much attention to the heterogeneous behavior of the non-employed when they move between jobs.

In the Portuguese case, we showed that the conventional measure of unemployment may be insufficient to capture all the relevant boundaries of a measure of non-employment, both for economic and a social policy. Apart from the unemployed workers and inactive agents, we identified the marginally attached workers – those who want to work but did not actively search for a job – as a distinct group in the population. These individuals behave differently from the unemployed workers and other non-participants. They should not exclude from the analysis.

From a microeconomic perspective, the inclusion of these workers provides more adequate descriptions of the high degree of heterogeneity present in the labor market and the possible consequences for labor market policies, notably the unemployment insurance system. From a social policy perspective, it provides a more precise definition of policy objectives of social welfare.

Finally, from a macroeconomic perspective, the broad unemployment rate can be used to explain the dynamics of inflation, through the estimation of a NAIRU and potential output in the context of a system of equations that includes a Phillips curve and an Okun's Law.

The labor market of the 80s and 90s, characterized by low unemployment and high employment,

attracted to the work force large numbers of unskilled workers. This, in conjunction with the increased in demand for skilled labor due to technological development, generated a degree of wage inequality in Portugal, which is among the highest in modern economies (Alves *et al*. 2010) and could not be reversed with wage-setting institutions such as collective bargaining and minimum wage (Centeno and Novo 2009b). This market demand for higher qualifications generated incentives important to raise the level of education in the Portuguese labor market, reflecting the extraordinary increase of workers with higher education since the mid 90s. However, these processes are slow to build, and are not a solution for many workers already in employment.

More recently, the institutional scenario – which promotes the duality between permanent and fixed-term contracts – in interaction with global supply and demand, paved the way to the segmentation and polarization of the labour market. In fact, the signs of a significant and growing segmentation are evident in specific groups of workers with fixed-term contracts, self-employment and long-term unemployment. Workers with intermediate qualifications will probably be negatively affected, in the coming years, by the polarisation of labour demand, which is characterized by net job creation concentrated in low and high qualifications. None of these events will help alleviate the pressure on the NAIRU.

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ENERGY PRODUCTION AND CONSUMPTION IN PORTUGAL: STYLIZED FACTS*

*João Amador***

1. INTRODUCTION

Energy is of vital importance in all economies. As a matter of fact, energy is a basic input in virtually all production processes and an important final consumption item for households. Therefore, structural characteristics in terms of energy production and consumption, as well as shocks in prices or quantities, have a strong impact in most economic variables. The literature on the impact of energy in economic activity is wide and regained interest in the last years due to the increase and high volatility of its prices. Some recent papers on the macroeconomic impact and drivers of oil price shocks are Blanchard and Gali (2008), Kilian (2009) and Hamilton (2009).

There are multiple and interrelated dimensions involved in the analysis of the impact of energy in economies, ranging from microeconomic regulatory issues to macroeconomic impacts on GDP, inflation and the current account. The analysis of energy issues has its own specificities, though energy markets share many of the basic characteristics of other markets in the economy. The supply of energy implies the transformation of primary energy sources into types of energy that can be later used as inputs or as final households' consumption. For example, hydroelectric power can be used to produce electricity and crude oil can be transformed into liquid fuel for road, maritime or air transport. The extraction of primary energy sources and their transformation into different types of energy products is an economic activity by itself and contributes to the total gross value added and employment.

The energy sectors are typically associated with network industries. The investments required in energy extraction, transformation and distribution are typically high, leading to markets dominated by a small number of firms, which interact with an inelastic energy demand curve. This gives rise to important competition issues that are typically settled by specific regulatory authorities, either at the national or at the European level (see, for example, EC (2009)). As in other markets, primary and secondary energy supply is not only a function of energy endowments but it is also affected by energy price levels. In addition, the structure of primary and secondary energy production depends on the relative cost of each production technology, which may include not only economic and financial costs, in their strict sense.

In macroeconomic terms, the significant share of energy in total production costs and in households' total expenditure turn supply induced energy price shocks into important drivers of economic fluctua-

* The author thanks comments by Jorge Correia da Cunha and José Ramos Maria. The opinions expressed in the article are those of the author and do not necessarily coincide with those of Banco de Portugal or the Eurosystem. Any errors and omissions are the sole responsibility of the author.

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tions. Conversely, developments in international economic activity potentially affect energy prices through the demand of energy. Overall, energy shocks potentially affect producer costs, inflation and output, as well as external competitiveness and the terms of trade. The effect of energy shocks on the foreign account is naturally stronger for countries with higher energy dependence, i.e., those where domestic primary energy production covers a small share of final energy consumption. In these countries the current account balance is typically affected by swings in international energy prices through changes in the terms of trade, though in some cases a positive effect can emerge from a higher foreign demand by oil exporting countries. In addition, a high energy dependence exposes countries to episodes of severe energy shortages associated with political or military instability, with disrupting effects on economic activity.[1] Finally, environmental concerns have become stronger and emissions reducing policies have become important in the recent years, with direct consequences on energy production and consumption (see, for example, Tol (2008)). These issues will certainly shape energy policies and the energy sector over the next decades.

This article aims to characterize structural aspects in the Portuguese energy production and consumption patterns, taking a long term perspective and providing a comparison with other advanced countries. The data used in the article comes essentially from the International Energy Agency (IEA) database. We focus just on a set of aggregate stylized facts, including key indicators like energy dependence and energy intensity, but setting aside issues related with market structure and regulation, inflation and current account. Although very important, the later topics require autonomous and methodologically different papers. A broader analysis, including the characteristics of energy markets, regulatory issues and the impact of energy prices in activity and inflation in the euro area is presented in ECB (2010). In addition, taking a detailed and policy-oriented approach, AIE (2009) reviews recent energy developments in Portugal, including energy policies, sectoral analysis and energy technology. Neves and Esteves (2004) discuss the channels through which oil prices affect the economy and present estimates for the overall impact of an oil price increase on GDP and prices in the main developed countries and Portugal.

The article is organized as follows. In Section 2 we analyze the structure of primary energy production in Portugal and its foreign dependence. Section 3 presents the share of energy producing sectors in the Portuguese total gross value added and employment and describes the patterns of final energy production and consumption. Section 4 turns to the analysis of the links between economic activity and energy consumption (energy intensity). Section 5 concludes.

(1) For an extensive analysis of energy security issues see, for example, Bohi and Toman (1996).

2. PRIMARY SOURCES OF ENERGY AND SUPPLIERS

2.1 Primary energy production

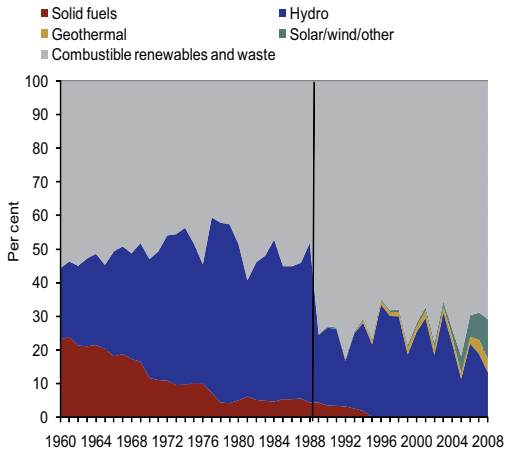
Primary energy production is the first stage in the energy production activity. The structure of primary energy production is very heterogeneous across countries and changes slowly along decades as it heavily depends on the endowment of natural resources and past investments in energy producing infrastructures such as dams or nuclear central facilities. The panel a) of Chart 1 presents the structure of primary energy production in Portugal from 1960 to 2008. "Combustible renewables and waste'' represent the largest share of domestic energy production with a share of about 70 per cent in 2008.[2] Primary energy production based on hydro power plants is the second largest domestic source of primary energy, with an average share of about 20 per cent in the last decade. This component is substantially volatile as it depends on the yearly amount of rain.[3] Solid fuels (coal and peat), represented around 20 per cent of primary energy production in Portugal in the beginning of the sixties, but recorded a declining trend and have virtually disappeared in the last decade. Renewable energies like the solar, wind and geothermal have significantly increased their importance, though they still represent a relatively small share in total domestic energy production (16 per cent in 2008).[4]

Panel b) of Chart 1 compares the structure of primary energy production in a set of advanced coun-

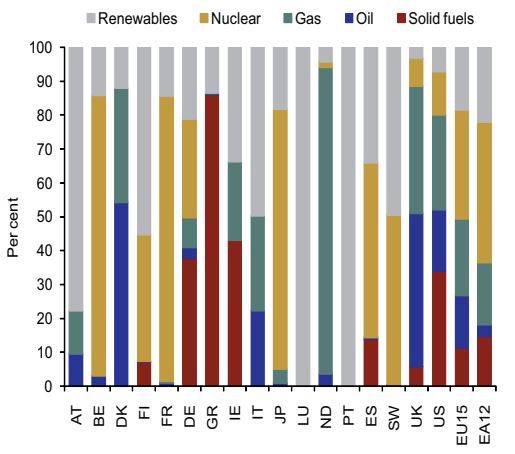
Chart 1

STRUCTURE OF PRIMARY PRODUCTION

(a) Portugal
(Break in 1989 due to reclassification of categories)



(b) Selected OECD countries (2008)



Sources: IEA (International Energy Agency) and author's calculations.

(2) According to the IEA methodology, combustible renewables and waste comprises solid biomass, liquid biomass, biogas, industrial waste and municipal waste. Biomass is defined as any plant matter used directly as fuel or converted into fuels (e.g. charcoal) or electricity and/or heat. Included here are wood, vegetal waste (including wood waste and crops used for energy production), ethanol, animal materials/wastes and sulphite lyes. Municipal waste comprises wastes produced by the residential, commercial and public service sectors that are collected by local authorities for disposal in a central location for the production of heat and/or power. Hospital waste is included in this category. Data under this heading are often based on incomplete information. Thus the data give only a broad impression of developments, and are not strictly comparable between countries. In some cases complete categories of vegetal fuel are omitted due to lack of information.

(3) Although other sources of energy can be used to partially refill dams, especially when there is low electricity demand (e.g. if wind power is being generated during hours of low electricity consumption - mix of primary energy sources), the yearly amount of rain clearly determines hydro electric production in the following periods.

(4) Different sources of energy are converted into a common unit of measurement, tonnes of oil equivalent (toe).

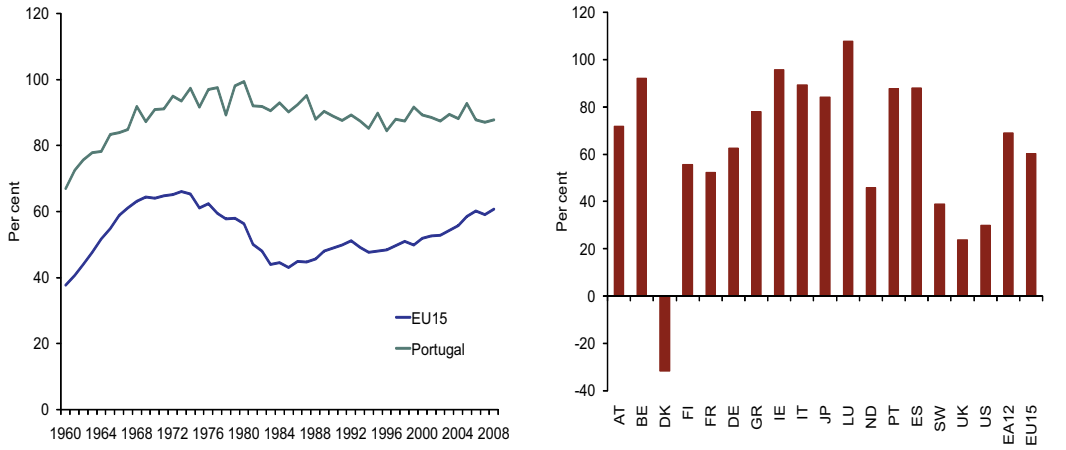
tries in 2008. Portugal and Luxembourg are the only countries with primary energy production relying entirely on renewable energies. Other countries poorly endowed with primary energy sources like oil, gas or solid fuels have adopted nuclear energy. This is the case of Belgium, Finland, France, Japan, Spain and Sweden. Other economies like Germany, Netherlands, UK and US have also adopted nuclear energy, despite relevant endowments of other energy sources. The Netherlands stands out as a country with a significant share of gas, while Denmark and the UK present significant shares of both gas and oil.

The comparison between the level of domestic energy production and total primary energy supply sets the degree of energy dependence, i.e., the share of energy supplied to the economy that is imported. Chart 2 reports the evolution of this indicator for Portugal and the EU15 since the sixties and also a comparison across a set of advanced countries in the recent years. The degree of energy dependence in Portugal has always been substantially higher than that observed in the EU15, around 84 per cent in the last three decades. This is partly the reflex of the structure of primary energy production, which bases solely on renewables, and it is related to the broader issue of poor total energy endowments. Nevertheless, the degree of energy dependence in Portugal is similar to that of Spain in the period 2006-2008 (88 per cent) and lower than that of Luxembourg, Ireland, Belgium and Italy. Denmark is the only net exporter of energy in the set of countries presented.

Energy dependence by type of product depends on several aspects. Firstly, countries' endowments determine net imports. For example, there will be low imports of locally abundant energy sources. Secondly, some countries import primary energy as an input to produce final energy that is subsequently exported. This is basically the case of the oil refining industry. Thirdly, energy imports depend on the technological choices related with the production of final energy for consumption, notably for

Chart 2

ENERGY DEPENDENCE



Sources: IEA (International Energy Agency) and author's calculations.

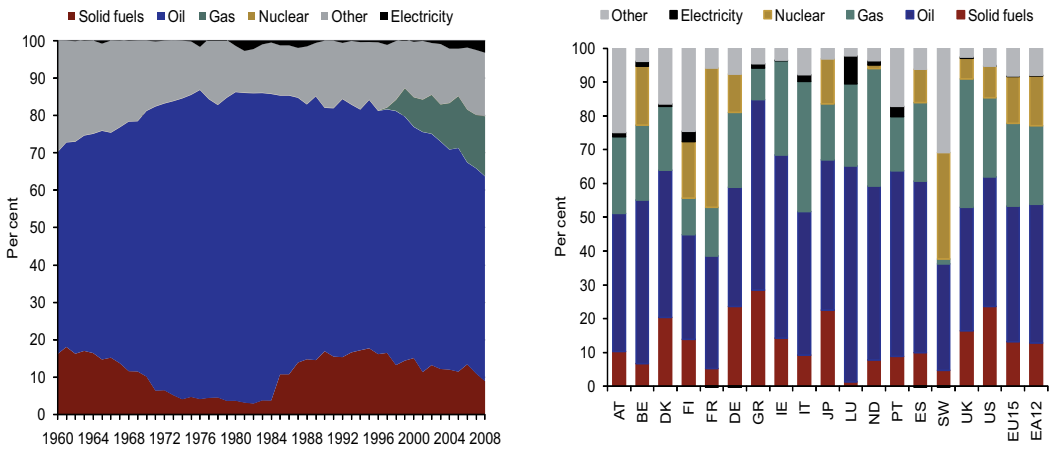
the production of electricity. More generally, the transformation of primary energy sources into energy for final consumption is dependent on the structural conditions, technological choices and countries' policies. It should be noted that, as in other markets, primary energy supply is not only a function of energy endowments but it is also affected by its prices. In addition, the structure of primary energy production also depends on the relative cost of each production technology, which may include not only economic and financial costs, in their strict sense. Moreover, primary energy production usually involves significant fixed costs, thus investment decisions in these markets typically consider a long-term horizon.

The structure of inland primary consumption, i.e. taking together the domestic primary production and the net energy imports, reveals that oil stands as the main source of primary energy consumed in the Portuguese economy (55 per cent in 2008) (see Chart 3).[5] Energy sources referred in the chart as "other", mostly comprising renewables, account for 17 per cent of total. Gas, which became part of the domestic consumption of primary energy in 1997, stands as the third largest component, with a share of 16 per cent in 2008. The inclusion of gas in the Portuguese bundle of primary energy sources is undoubtedly one of the significant changes occurred in the last decades, largely substituting oil imports. Solid fuels, represented around 10 per cent of total inland consumption in the last years, recording a slight decreasing trend since the mid-nineties. Finally, there is a residual share for electricity that is imported directly, i.e., not the result of a secondary domestic production process.

The structure of inland primary energy consumption across countries is generally more homogeneous than that of primary energy production. Panel b) of Chart 3 compares some advanced countries along this dimension in 2008. Some regularity emerges from this comparison. The majority of countries rely on oil and gas for more than half of total primary energy consumption. In addition, solid

Chart 3

STRUCTURE OF PRIMARY INLAND ENERGY CONSUMPTION



Sources: IEA (International Energy Agency) and author's calculations.

(5) Inland consumption differs from the final energy consumption due to international marine and aviation bunkers and stock changes.

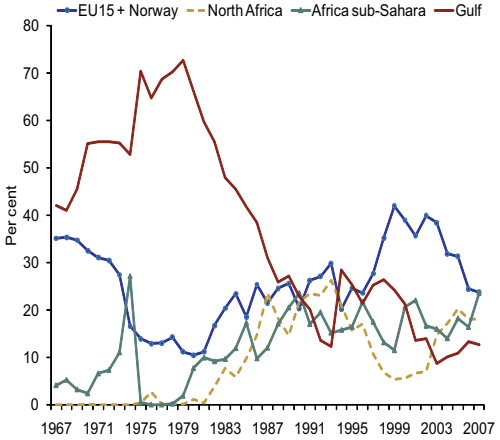
fuels tend to represent less than 20 per cent of total primary consumption. Finally, nuclear energy naturally plays a larger role in countries which have a lower share of fossil fuels.

2.2 Foreign suppliers

The choice of foreign energy suppliers depends on geographical aspects, types of products imported and energy security considerations. Although energy security involves several dimensions, the reliability and accessibility of energy sources are key aspects.[6] In this respect, in last decades Portugal has diversified the set of foreign energy suppliers, increasing overall energy security. Chart 4 plots the share of different regions in total energy imports in nominal terms from 1967 to 2008. The importance of the Gulf countries in Portuguese energy imports was very high during the seventies but dropped substantially afterwards and presently their weight is only slightly higher than 10 per cent. Conversely, European suppliers (EU15 plus Norway) increased their importance, with a peak of around 40 per cent in the late nineties. More recently, the North African and the sub-Saharan African regions significantly increased their importance, the former mainly as a supplier of gas.[7] The standard deviation of the shares presented in Chart 4 decreased from a maximum of 34.5 in 1979 to a minimum of 1.4 in 1990, standing presently around 5 per cent. Apart from these regions, Brazil and Russia presently represent 10 per cent of total energy imports.

Chart 4

FOREIGN ENERGY SUPPLIERS



Sources: CHELEM and author's calculations.

(6) Other dimensions of energy security include exposure to the volatility in prices and negotiating power, degree of electrical connectivity, etc. For a longer discussion of this issue and an energy security index for the euro area see Box 2 in ECB (2010).

(7) It should be noted that before February 2004, most gas imports from Nigeria arrived via the Huelva terminal in Spain, where they are regasified and sent by pipeline to Portugal. Since February 2004, gas imports arrive directly in Portugal at the Sines terminal.

3. ENERGY INDUSTRIES AND CONSUMPTION PATTERNS

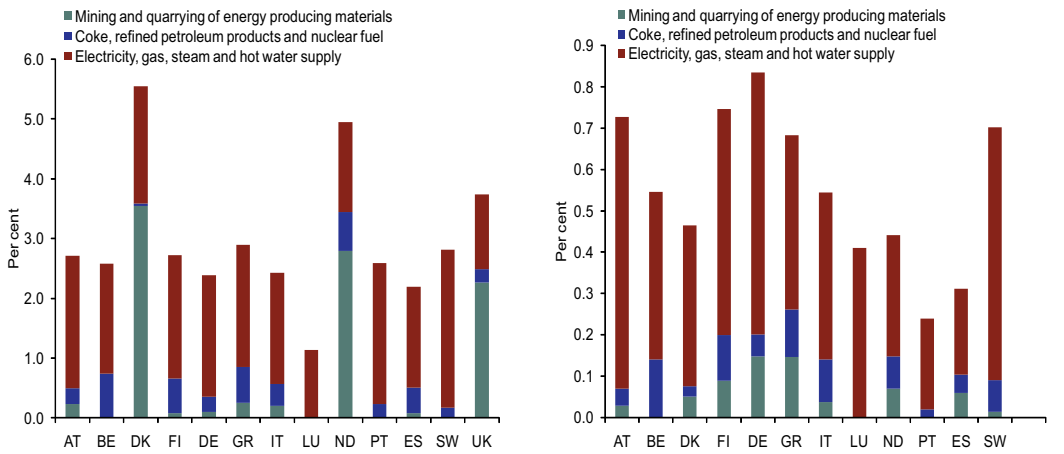
3.1 Gross value added and employment

Primary energy sources must be extracted and transformed into energy products suitable to be used as inputs in the production chain of firms or consumed by households. Therefore, the activities of extracting and transforming primary energy into final energy products are important in any economy. Nevertheless, figures for sectoral gross value added and employment are plagued by statistical problems, especially if a long period or a cross country comparison is required. The set of energy related industries comprises the sectors "mining and quarrying of energy producing materials", "coke, refined petroleum products and nuclear fuel" and "electricity, gas, steam and hot water supply" of the International Standard Industrial Classification of economic activities, Revision 3 (ISIC Rev. 3).

Chart 5 presents the share of these sectors in gross value added (GVA) and employment in a set of advanced countries for the average of the period 2004-2006. The sector of "electricity, gas, steam and hot water supply" is typically the largest energy sector, except in countries that have significant primary energy endowments and thus significant "mining and quarrying of energy producing materials" activities (Denmark, Netherlands and UK). With the exception of these three countries, the share of energy related industries in total GVA is lower than 3 per cent. In what concerns the share of employment in energy related industries on total employment in the economy, values are small (lower than 1 per cent) and "electricity, gas, steam and hot water supply" plays the largest role. As for the Portuguese economy, the share of energy related activities in total GVA is near the average (2.6 per cent) but their share in total employment is the lowest of all countries represented (0.22 per cent), with a slight declining trend along the last decades.

Chart 5

SHARE OF ENERGY SECTORS IN GVA AND EMPLOYMENT



Source: OECD (STAN).

3.2 Patterns of energy consumption

Households and firms consume a set of energy products. The panel a) of Chart 6 presents the structure of final energy consumption in Portugal by type of product. Oil is the dominant final energy product consumed in Portugal, with a share above 55 per cent in 2008. Nevertheless, this share has been decreasing since the mid-nineties. Electricity represents about one fifth of total final energy consumption, while "other" (mostly combustible renewables) represents about 17 per cent. Finally, there is a progressive usage of gas, which presently represents about 7 per cent of final energy consumption. In international terms oil is the dominant final energy product in consumption.

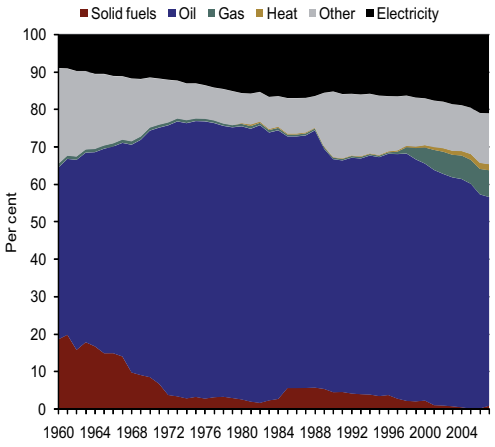
The structure of final energy consumption by sector is, inter alia, the reflex of the structure of the economy and its level of development. This latter factor is related with the type of technologies used in production and the profile of households' consumption. Since these are structural aspects in the economy, the sectoral structure of energy consumption evolves slowly along the decades. Panel a) of Chart 7 sector presents the evolution of this structure for the Portuguese economy since 1960. In the last two decades "industry" and "transport" represented each one third of total final energy consumption. The third largest consumption sector is "residential", with a share of around 16 per cent. "Commerce and public services" have increased their share, representing presently more than 10 per cent of total energy consumption, while the reverse trend is observed in "agriculture, forestry and fishing". The "non-specified" item is interpreted as a residual component.[8] Panel b) of Chart 7 sector shows that the structure of energy consumption by sector is not very different across countries.

The large importance of the transport sector in final domestic energy consumption reflects not only

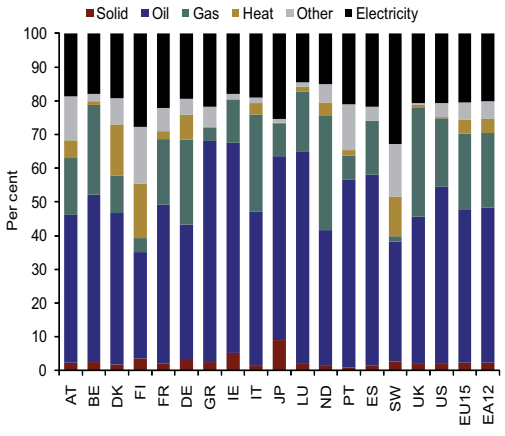
Chart 6

STRUCTURE OF FINAL ENERGY CONSUMPTION

(a) Portugal



(b) Selected OECD countries (2007)



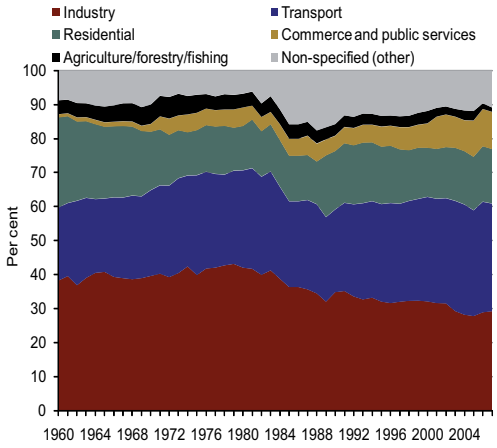
Sources: IEA (International Energy Agency) and author's calculations.

(8) This residual component includes: i) non-specified items, i.e., all fuel use not elsewhere specified as well as consumption in the above-designated categories for which separate figures have not been provided. Military fuel use for all mobile and stationary consumption is included here (e.g. ships, aircraft, road and energy used in living quarters) regardless of whether the fuel delivered is for the military of that country or for the military of another country; ii) non-energy use, which covers those fuels that are used as raw materials in the different sectors and are not consumed as a fuel or transformed into another fuel. These items are of difficult measurement and subject to reclassification, thus causing series breaks.

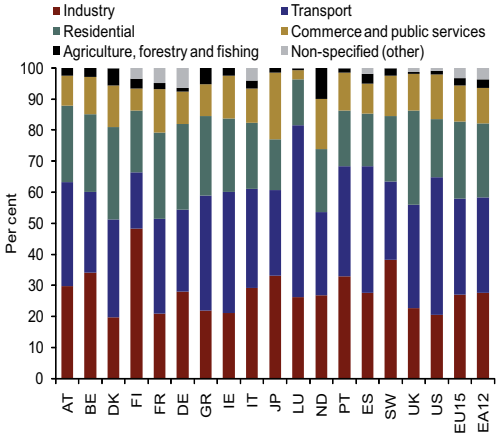
Chart 7

ENERGY CONSUMPTION BY SECTOR

(a) Portugal



(b) Selected OECD countries (2007)



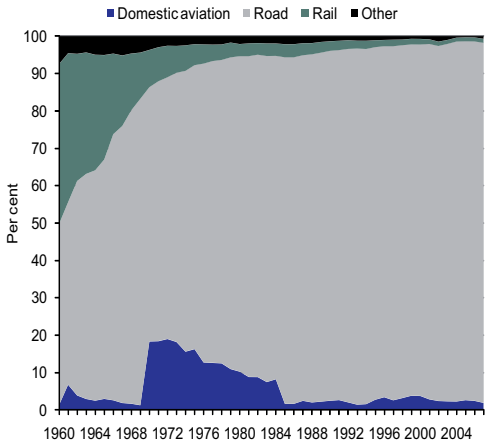
Sources: IEA (International Energy Agency) and author's calculations.

its share in the economy but mostly the fact that its underlying technology is energy-intensive. If this sector's energy consumption is broken down by type of transport further conclusions are drawn. Chart 8 reveals that the share of "road" in total domestic transport energy consumption is overwhelming in Portugal, with a share higher than 95 per cent.[9] This pattern is similar to that observed in other countries and in the euro area (see ECB (2010), first chapter).

A complementary approach to analyze final energy consumption in Portugal is to describe the energy profile of residential and industry sectors. As regards households, it is important to note that the item "other", basically comprising "combustible renewables and waste", is dominant. As mentioned

Chart 8

ENERGY CONSUMPTION BY TRANSPORT TYPE



Sources: IEA (International Energy Agency) and author's calculations.

(9) If "total aviation" is included in the transport sector (instead of just "domestic aviation"), the share of "road" drops to around 85 per cent.

above, this item is important in the structure of the domestic primary energy production, but this high share also reflects the existence of statistical problems as data under this heading are often based on incomplete information. Electricity plays an important role in the energy basket of households (35.5 per cent in the period 2004-2007). This item has been gaining importance in the last years, contrary to what is observed for oil products, whose share is presently slightly higher than 20 per cent. The consumption of gas is still small but it increased significantly in the last decade (see top panel of Table 1). This structure shows important differences relatively to the (non-weighted) average of the EU15. The share of electricity in the households' energy consumption bundle is lower in the EU15 (24.6 per cent in the period 2004-2007), while that of oil is relatively close. The largest difference concerns the share of gas, which is the largest household energy consumption item in many EU15 countries. In addition, the consumption of heat is non-negligible in the EU15 as it is in Portugal.[10]

In what concerns the energy profile of the industry sector, the lower panel of Table 1 reveals that electricity and oil play the leading roles, with shares in Portugal of 26 and 27 per cent in the period 2004-2007, respectively. Nevertheless the share of oil has been decreasing very substantially, having reached 41 per cent in the period 1992-1998. This has been compensated by the increase in the share of gas in industry energy consumption, which increased from a share of 0.7 per cent in 1992-98 to 16.9 per cent in 2004-07. Comparatively to the EU15 average, despite the recent developments, the Portuguese industrial energy consumption bundle has still a high share of oil and relatively lower shares of electricity and, mostly gas. As in the residential sector, the share of the item "other'' is comparatively high in Portugal.

Table 1

PATERNS OF CONSUMPTION OF RESIDENCIAL AND INDUSTRY SECTORS IN PORTUGAL AND THE EU15

	Portugal			EU15		
Consumption profile of residential	**1992-98**	**1999-03**	**2004-07**	**1992-98**	**1999-03**	**2004-07**
Electricity	26.1	31.5	35.5	21.3	22.7	24.6
Oil	27.1	24.2	21.3	25.6	22.9	19.8
Gas	1.8	4.1	6.3	35.5	39.6	42.9
Solid fuels	0.0	0.0	0.0	3.6	1.6	1.0
Heat	0.0	0.2	0.2	5.2	4.4	2.5
Other	45.0	40.0	36.7	8.8	8.8	9.3
Total	100	100	100	100	100	100
Consumption profile of industry	**1992-98**	**1999-03**	**2004-07**	**1992-98**	**1999-03**	**2004-07**
Electricity	22.8	22.6	26.1	30.1	31.7	33.1
Oil	41.3	37.4	27.0	19.2	17.0	15.8
Gas	0.7	12.3	16.9	30.8	34.1	31.6
Solid fuels	10.4	4.3	1.3	13.1	9.0	8.3
Heat	0.9	2.5	5.2	1.3	2.6	5.1
Other	23.8	21.0	23.5	5.6	5.7	6.1
Total	100	100	100	100	100	100

Sources: IEA (International Energy Agency) and author's calculations.
Note: EU15 - Average non-weighted.

(10) Heat production includes all heat produced by main activity producer combined heat and power (CHP) and heat plants, as well as heat sold by autoproducer CHP and heat plants to third parties.

4. ENERGY INTENSITY

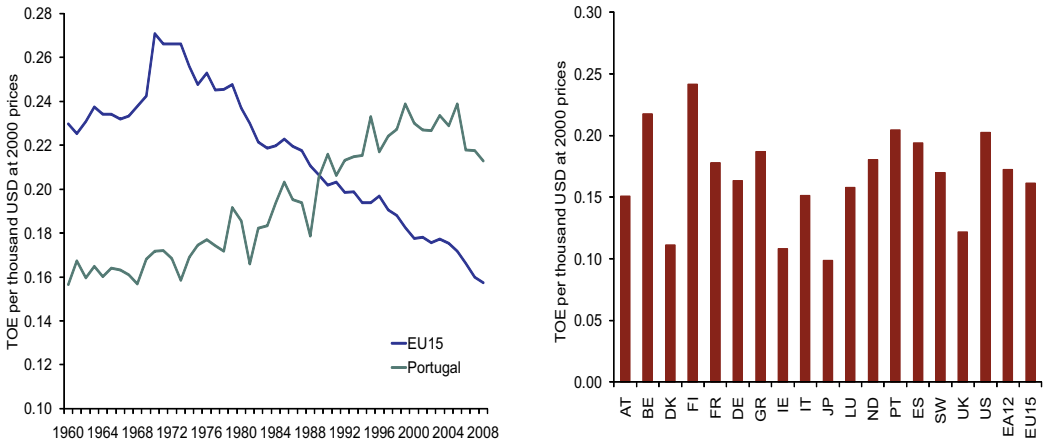
The ratio between energy consumption in an economy and its GDP level - the energy intensity - is a typical variable when energy stylized facts are analyzed. The economic literature refers that the path of energy intensity depends on a complex interaction between structural factors and cyclical developments. The list of factors affecting energy intensity over time is long and includes variables like the per capita GDP level, sectoral specialization of the economy, production technologies, average age of the capital stock, transportation patterns, climactic conditions and overall energy efficiency. Chima (2007) presents a list of references for the literature on the determinants of energy intensity and gives emphasis to the inverse U-shape relation between per capita GDP level and energy intensity. Less developed economies, with a high share of low-energy intensive activities and poor living conditions tend to show low energy intensity. The same reasoning explains that economies in catching up tend to show rising energy intensities and those more advanced, which make use of efficient production processes and energy saving technologies, may record declining energy intensities. Although many variables affect energy intensity, this indicator is often used as a proxy for energy efficiency, especially among similar countries.

Panel a) of Chart 9 plots the path of energy intensity in Portugal and in the EU15 from 1960 to 2008, measured in terms of toe per thousand USD 2000. Energy intensity in Portugal has recorded an ascending trend until the nineties, followed by a period of relative stabilization and then a decline in the latest years of the sample. The energy intensity in the EU15 showed a steady and significant declining trend since the mid-seventies. When compared with other advanced economies in the period 2006-08 (panel b) of Chart 9), Portugal shows a high energy intensity, equal to that of the USA but lower than that of Finland and Belgium.

An alternative way to look at energy intensity bases on the coefficients of the inverse Leontief matrix.

Chart 9

ENERGY INTENSITY



Sources: IEA (International Energy Agency) and author's calculations.

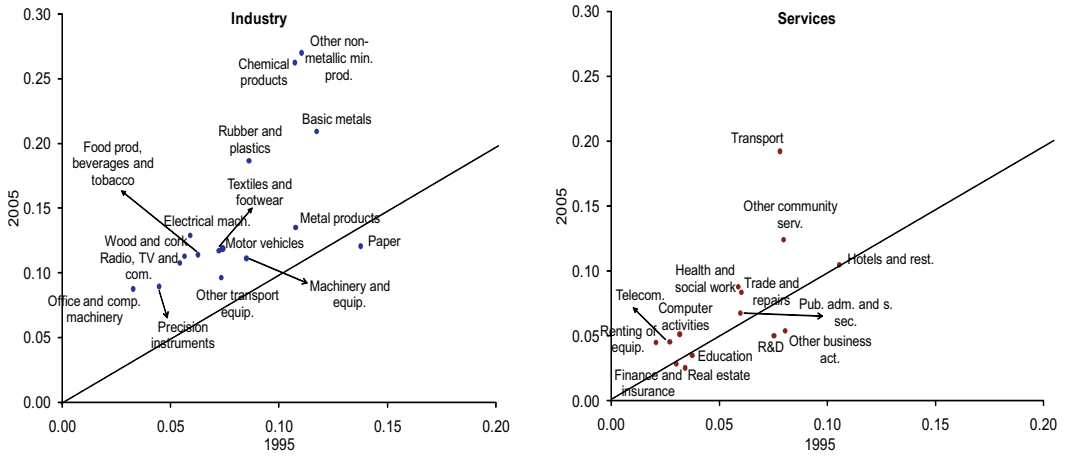
These coefficients provide information on the backward linkages of each sector, i.e., the response of the production in each sector to a unitary increase in demand of each of the other sectors, all of them in nominal terms. Chart 10 reports such responses from the part of final energy producing sectors, considered as "coke, refined petroleum products and nuclear fuel'' and "electricity, gas and water supply''. Although this measure can be interpreted as a proxy for the energy intensity of the different sectors, it faces some drawbacks. Notably, it is a nominal measure, thus it is clearly affected by energy price developments. Chart 10 reveals that the response of the energy sector in Portugal to higher demand in most sectors increased from 1995 to 2005, which is a result strongly affected by energy price increases in this period. In particular, sectors like "chemicals and chemical products'', "rubber and plastics products'', "other non-metallic mineral products'' and "transport and storage'' have recorded significant increases in energy intensity. In addition, Chart 10 shows that, with the exception of "transport and storage'', the energy intensity in services sectors is typically lower than that observed in manufacturing industries.

Nevertheless, if these coefficients are compared across countries for the same year (i.e., taking the same international energy prices) they reveal the differences in the response of energy sectors to higher demand in the other sectors of the economy. Therefore, it is possible to perform a cross-country comparison of energy efficiency, which is a competitiveness factor in international markets, as energy is usually an important component of firm's costs. Chart 11 reports the differences between the coefficients of the energy sector in the inverse Leontief matrix of Portugal relatively to those of, respectively, Germany, Spain and France in 2005. The coefficients in the Portuguese industries are typically higher than those of the other countries considered, though close to those observed in Spain. This also means that lower energy efficiency is broad based in terms of sectors.

The consumption of electricity per head is another stylized indicator, though with an interpretation that is more limited than energy intensity because, as previously mentioned, electricity presently repre-

Chart 10

EFFECT OF A NOMINAL UNIT INCREASE IN DEMAND OF THE DIFFERENT SECTORS ON THE NOMINAL PRODUCTION OF ENERGY SECTORS IN PORTUGAL

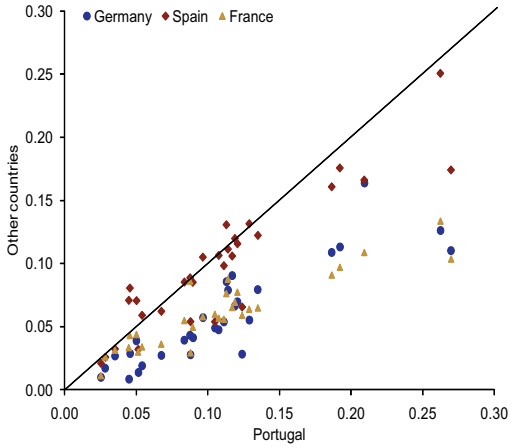


Source: OECD (STAN - ISIC Rev. 3).
Note: The calculations are based on the coefficients of the inverse Leontief matrix. These are nominal measures and thus affected by energy price developments.

Chart 11

EFFECT OF A NOMINAL UNIT INCREASE IN DEMAND OF THE DIFFERENT SECTORS ON THE NOMINAL PRODUCTION OF ENERGY SECTORS

Differences between Portugal and Germany, Spain and France



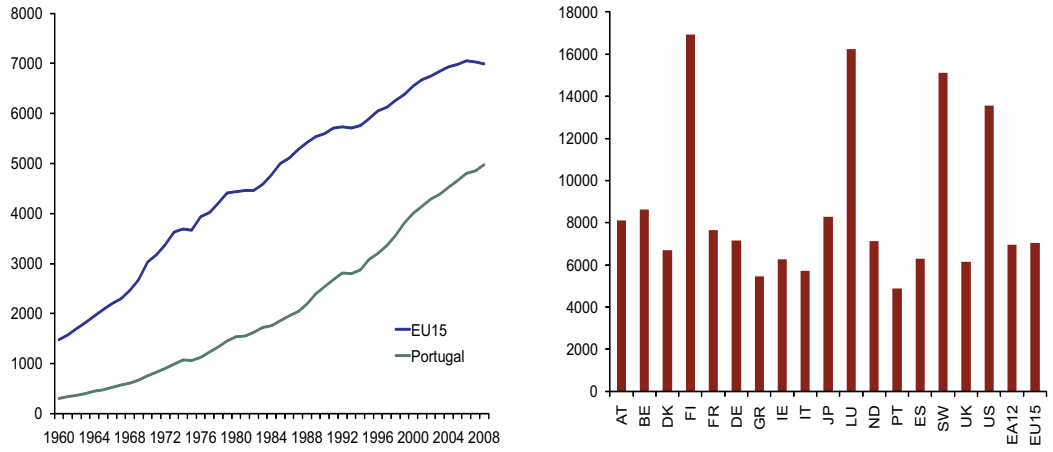
Source: OECD (STAN - ISIC Rev. 3).
Note: The calculations are based on the coefficients of the inverse Leontief matrix. Final energy producing sectors (considered as "coke, refined petroleum products and nuclear fuel" and "electricity, gas and water supply") are not represented.

sents only about one fifth of total final energy consumption. Chart 12 shows the path of this indicator for Portugal and compares with a set of advanced economies. Electricity consumption per head has increased steadily in Portugal and in the EU15 since the sixties. At present, such consumption in Portugal is about 30 per cent lower than in the EU15. When compared with other countries separately, Portugal records low electricity consumption per head.[11]

Chart 12

ELECTRICITY CONSUMPTION *PER CAPITA* (KWH *PER CAPITA*)

(a) Portugal (b) Selected OECD countries (2007)



Sources: IEA (International Energy Agency) and author's calculations.

(11) The high values of electricity consumption per head observed for some countries may have specific explanations. For example the climatic conditions should play a significant role in the cases of Finland and Sweden and the significant number of commuters that work and consume electricity in Luxembourg but are not residents, affect the level of the indicator.

5. CONCLUDING REMARKS

This article presents a set of stylized facts regarding energy production and consumption in Portugal, taking a long term perspective and comparing with a set of advanced economies. The links between energy related issues, competition in the respective markets, consumer prices and the current account are not discussed.

Portugal is a country characterized by a small primary energy production, deriving from non-existent fossil energy resources and no nuclear energy production. Primary energy production is entirely associated with renewable energies. This structural situation naturally leads to a high level of energy dependence, which is a feature also shown by other EU15 economies. Nevertheless, such high energy dependence does not pose immediate concerns about energy security as there is evidence on the diversification of foreign energy suppliers. In what concerns energy consumption patterns, the general picture is not much different from that observed in other European countries, with industry and transport representing the bulk of total energy consumption. The largest difference regarding the energy consumption bundles of the residential and industry sectors is the still small role played by gas.

Energy intensity in Portugal has recorded an ascending trend until the nineties, followed by a period of relative stabilization and then a decline in the latest years of the sample. Over the same period, the energy intensity in the EU15 showed a steady and significant declining trend. The comparison with other countries reveals that Portugal records a relatively high energy intensity, which is broad based in terms of sectors. Such underlying structural conditions, together with international high and volatile energy prices, will continue to stand as determinants of the potential growth of the Portuguese economy in the future.

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GAINS FROM IMPORT VARIETY: THE CASE OF PORTUGAL*

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1. INTRODUCTION

Several models were developed in the eighties to provide a theoretical basis for trade of different varieties of the same good, *i.e.*, horizontal intra-industry trade. In these models, goods are distinct due to certain attributes, but they are basically the same in terms of quality, cost and technology employed in their production. Trade between countries with similar endowments is basically driven by consumers' preferences for diversified consumption bundles ("love for variety") and by the existence of monopolistic competition with economies of scale in the production of each variety of the good (see, for instance, Dixit and Stiglitz (1977), Krugman (1979, 1980, 1981), Lancaster (1980) and Helpman (1981)). Even if the gains from trade through the import of new varieties have long been established in international trade theory, the empirical estimates of the impact of increased variety on aggregate welfare have appeared only recently. Within a monopolistic competition setting, consumers value additional varieties depending on their substitutability, which is captured by the elasticity of substitution. So the computation of the gains from imported variety requires the estimation of the elasticities of substitution between the varieties of each good, which is done using panel data methods. The statistical technique was first proposed by Feenstra (1994), which deals with the empirical methods needed to analyse the gains from trade due to expanding variety for an individual good, and was afterwards extended by Broda and Weinstein (2006) to a multi-good framework and implemented with data for the US.

Broda and Weinstein (2006) show that the growth in product variety was an important source of gains from trade in the US over the 1972-2001 period. The main idea is that conventional import price indices are mismeasured because they take as given the basket of imported varieties. New varieties lower aggregate prices, depending on their substitutability with other varieties and their expenditure share, with varieties being defined as goods originating from different countries. They find that the upward bias in the conventional import price index reached 28 per cent over the above mentioned period or 1.2 per cent per year and estimate the value to US consumers of the increased import varieties to amount to 2.6 per cent of GDP. Gaulier and Méjean (2006) used the same methodology to study the aggregate price effect of newly imported varieties for a sample of 28 advanced and emerging market economies and confirm the downward impact of changes in imported variety on import price

* The authors thank Nuno Alves, João Amador, Mário Centeno, Jorge Correia da Cunha, Ana Cristina Leal, José Ferreira Machado and João Sousa for their comments and suggestions. The opinions expressed in the article are those of the authors and do not necessarily coincide with those of Banco de Portugal or the Eurosystem. Any errors and omissions are the sole responsibility of the authors.

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levels. On average between 1994 and 2003, the appearance of new varieties leads to an unrecorded 0.2 per cent annual drop in import prices. However, their results vary strongly across countries, with the measurement bias being much higher in some emerging countries.

Following the methodology proposed by Feenstra (1994) and extended by Broda and Weinstein (2006), we estimate the gains from import variety growth for Portugal and other euro area countries in the period from 1995 to 2007. We use the BACI-CEPII database, which provides reconciled bilateral trade values (in US dollars) and quantities at the 6-digit of the 1992 Harmonized System (HS) classification.

The article is organized as follows. Section 2 reviews the methodology used to obtain the gains from imported variety, referring to Feenstra (1994) and Broda and Weinstein (2006), and describes the database used. Section 3 starts by describing the growth of variety in Portuguese imports. Then, the gains from new imported varieties in Portugal are examined in comparison with those obtained for other euro area countries. The remaining of the section details the results obtained for Portugal, examining the product dimension of the measurement bias of import prices. Section 4 presents some concluding remarks.

2. METHODOLOGY AND DATA

The growth of international trade has significantly broadened consumers' choice of goods in recent decades. As international trade expands, domestic consumers are able to acquire varieties of goods not available from domestic producers and this wider choice of goods increases consumers' welfare. The seminal work of Feenstra (1994) and its extension by Broda and Weinstein (2006) propose a methodology to quantify the gains from an increase in imported varieties using highly disaggregated trade data in a framework where consumers value variety. The main idea is that an increase in imports of new varieties of a given good results in a fall in aggregate import prices and this effect is stronger if new varieties are not close substitutes of existing ones. This effect is not captured by traditional import price indices, which are based on a fixed set of varieties, leading to a measurement bias. Using this bias, we can estimate what consumers would be willing to pay to access the wider range of varieties available in the most recent period. The empirical methodology to quantify the measurement bias of import prices due to the new imported varieties and its welfare gains can be decomposed into several steps that are described below.

The results of this methodology should be viewed with some caution, since they depend heavily on the assumptions adopted in the empirical strategy. The Broda and Weinstein (2006) methodology assumes that the number of domestic varieties is unaffected by the increase in imported varieties, so there are no dynamic and input-output effects resulting from increases in the number of imported varieties. This caveat is a direct consequence of using only trade data to evaluate the variety gains from trade, thus ignoring the domestic supply of differentiated varieties. This fact introduces an error in the estimated gains from imported variety (see Arkolakis *et al.* (2008) and Feenstra (2006) for a discussion). Ardelean and Lugovskyy (2010) extended Broda and Weinstein (2006) methodology by

allowing domestic and foreign varieties to be imperfect substitutes within each sector. They found that domestic productivity is an important factor in evaluating the variety gains from trade when foreign and domestic varieties are substitutes.[1]

2.1. Empirical strategy

Feenstra (1994) developed a methodology for measuring the impact of new varieties on an exact price index of a single imported good and Broda and Weinstein (2006) extended this methodology to the case of multiple goods obtaining an exact aggregate import price index that takes into account variety change. In this section, we follow closely Feenstra (1994) and Broda and Weinstein (2006) and briefly describe the empirical strategy. The first step is to precise the empirical definition of a "variety". We define a good as a 6-digit Harmonized System (HS6) category and a variety is defined as a good imported from a particular country, using Armington (1969)'s formulation of product differentiation by country. As discussed in Broda and Weinstein (2006), there are several definitions of variety in different theoretical and empirical frameworks, for instance, a brand produced by a firm, the output of a firm or the output of a country. The choice on the definition of variety used empirically is often determined by the availability of information. In our case, as in several international trade papers, variety is defined as specific good produced by a particular country, since it is not possible to obtain information on all individual firms exporting to Portugal.

As in Broda and Weinstein (2006), the preferences of the representative consumer can be described by a three-level utility function that aggregates imported varieties into imported goods, then aggregates these imported goods into a composite imported good and finally combines this imported good with a composite domestic good to generate utility. The specification of the bottom level subutility function derived from the consumption of an imported good g at time t, M_{gt}, is written as a nonsymmetric constant elasticity of substitution (CES) utility function over varieties of this good, with a variety defined as a good g imported from a country c:

$$M_{gt} = \left(\sum_{c \in C} d_{gct}^{1/\sigma_g} m_{gct}^{(\sigma_g - 1)/\sigma_g} \right)^{\sigma_g/(\sigma_g - 1)}, \qquad (1)$$

where m_{gct} is the subutility derived from the imported variety c of good g in period t, $d_{gct} > 0$ is the corresponding taste or quality parameter describing the consumer's preference for the differentiated variety c, and C denotes the set of available countries and hence potentially available varieties in period t. The elasticity of substitution among varieties of good g is given by σ_g, which is assumed to exceed unity.

The minimum unit-cost functions derived from this utility function can be used to obtain an exact price

(1) The authors found that in some US manufacturing sectors, such as electronics, variety gains are underestimated by more than 90 per cent with the standard methodology, that is, trade leads to larger gains from variety if the domestic sector is taken into account. In contrast, for other sectors, like machinery and transportation and wood and paper, variety gains are overestimated by around 40 per cent when neglecting the response of domestic variety. On average, the bias in variety gains from ignoring domestic varieties is relatively small, leading to an overestimation of 8 per cent between 1991 and 2001.

index for good g as shown in Diewert (1976). In the case of a CES function, Sato (1976) and Vartia (1976) show that the exact price index P_g can be written as a geometric mean of individual price changes using ideal log-change weights:

$$P_g = \prod_{c \in I_g} \left(\frac{p_{gct}}{p_{gct-1}} \right)^{\omega_{gct}}, \tag{2}$$

where p_{gct} is the price of variety c of good g in period t, $I_{gt} \subset C$ is the subset of all varieties of good g consumed in period t, $I_g = I_{gt} \cap I_{gt-1}$ is the set of common varieties consumed in both periods t and $t\text{-}1$ and ω_{gct} are ideal log-change weights computed using expenditure shares in the two periods (see appendix for a detailed definition).

The exact price index P_g in equation 2 accounts only for a fixed set of varieties I_g available in both periods. The idea of the index proposed initially by Feenstra (1994) is to correct this conventional price index P_g by multiplying it with an additional term which measures the influence of new and disappearing varieties of good g. As explained in Feenstra (1994), a useful way to interpret this effect of new and disappearing varieties is by treating the price of a variety before it is available as equal to its reservation price, *i.e.*, a price so high that demand equals zero.[2] Once the variety appears on the market, it has a lower price determined by supply and demand. As the price of new varieties falls from its reservation level to its actual price, this lowers the overall price index. In contrast, in the case of disappearing varieties, it is as if their price increases from its observed level to its reservation price, which implies a rise in the aggregated index.

The variety-adjusted import price index π_g is defined as:

$$\pi_g = P_g \left(\frac{\lambda_{gt}}{\lambda_{gt-1}} \right)^{1/(\sigma_g - 1)}, \tag{3}$$

where

$$\lambda_{gt} = \frac{\sum_{c \in I_g} s_{gct}}{\sum_{c \in I_{gt}} s_{gct}}, \tag{4}$$

$$\lambda_{gt-1} = \frac{\sum_{c \in I_g} s_{gct-1}}{\sum_{c \in I_{gt-1}} s_{gct-1}} \tag{5}$$

(2) In the case of a CES utility function, the reservation price tends to infinity.

λ_{gt} equals the fraction of expenditure in varieties that are available in both periods relative to the entire set of varieties in period t and hence it decreases when new varieties appear. If the new varieties have a substantial share of expenditure, then λ_{gt} will be small, and this will make the exact index π_g much lower than the index P_g. Symmetrically, λ_{gt-1} captures the impact of disappearing varieties. These dropped varieties lower λ_{gt-1} and increase the exact price π_g relative to the conventional price index P_g. Thus, the lambda ratio in equation 3 tends to get smaller if there are many new varieties and it tends to get larger if there are many disappearing varieties. The magnitude of the lambda ratio is determined entirely by the relative expenditure shares of new and disappearing varieties.

The exact price index π_g also depends on the elasticity of substitution between varieties of good g. If σ_g is high, the term $1/(\sigma_g-1)$ approaches zero and the bias term becomes close to unity, *i.e.*, the influence of variety change is less pronounced if varieties are close substitutes. On the contrary, when varieties are highly differentiated, new varieties are very valuable and disappearing varieties very costly, so changes in variety have a large effect on the exact price index.

In sum, this methodology assumes that there are only two determinants of how new import varieties affect the import price of a given good: the degree of similarity among varieties and the magnitude of the increase in varieties. The main intuition is that increasing the number of varieties of a good does not imply much gain if new varieties are close substitutes to existing ones or if the expenditure share of new varieties is small relative to existing ones. While the elasticities give us information on the former, the lambda ratios provide information on the magnitude of net variety creation in any given market. The upward bias in import prices from ignoring changes in variety increases with lower elasticities and lower lambda ratios.

After deriving the exact price index with variety change for each good g, the aggregate exact import price index for all goods can be obtained following Broda and Weinstein (2006):

$$\Pi^M = \prod_{g\in G}\left[P_g\left(\frac{\lambda_{gt}}{\lambda_{gt-1}}\right)^{1/(\sigma_g-1)}\right]^{\omega_{gt}} = CIPI\prod_{g\in G}\left(\frac{\lambda_{gt}}{\lambda_{gt-1}}\right)^{\omega_{gt}/(\sigma_g-1)}, \qquad (6)$$

where G is the set of goods that is assumed constant over time, ω_{gt} are ideal log-change weights for each good g, $CIPI = \prod_{g\in G}P_g^{\omega_{gt}}$ is the conventional import price index that does not account for the change in varieties.

The ratio of the corrected import price index and the conventional price index reflects the impact of variety growth on the exact aggregate import price index:

$$Bias = \frac{\Pi^M}{CIPI} = \prod_{g\in G}\left(\frac{\lambda_{gt}}{\lambda_{gt-1}}\right)^{\omega_{gt}/(\sigma_g-1)}. \qquad (7)$$

Broda and Weinstein (2006) named this geometric weighted average of the λ ratios as the aggregate import bias that results from ignoring new varieties in all product categories. If the $Bias$ is smaller than one, it means that the change of variety over time has lowered the exact import price index.

Assuming that the upper utility function is separable into a domestic good and the composite imported good, the overall price index of the economy can be written as:

$$\Pi = \left(\frac{p_t^D}{p_{t-1}^D} \right)^{\omega_t^D} \left(\Pi^M \right)^{\omega_t^M}, \tag{8}$$

where p_t^D is the price of a composite domestic good in period t, ω_t^M is computed as the logarithmic mean of the ratio of imports to Gross Domestic Product (GDP) in the two periods and ω_t^D is the corresponding weight of the domestic sector (see appendix).

Since there is no substitutability between domestic and imported varieties, the gains from variety (GFV) can be expressed as:

$$GFV = \frac{\Pi^{conv} - \Pi^{corr}}{\Pi^{corr}} = \left(\frac{1}{Bias} \right)^{\omega_t^M} - 1, \tag{9}$$

where Π^{conv} is the conventional overall price index of the economy assuming that the set of varieties is constant and Π^{corr} is the overall price index of the economy taking into account gains from imported variety, as defined in equation (8). So, the welfare effect of a fall in the exact import price can be computed by weighting the inverse of the aggregate lambda ratios with the fraction of imported goods relative to total economic activity. GFV represents the compensating variation required for consumers to be indifferent between the set of varieties available at the final and starting periods, that is, how much consumers are willing to pay to access the larger set of varieties available at the end of the period.

2.2. Data

The international trade data used in this article comes from the BACI - CEPII database, which provides reconciled bilateral values (in US dollars) and quantities at the 6-digit of the 1992 Harmonized System (HS) classification, including over 5000 products and 200 trading partners in each year.[3] The sample period starts in 1995 and ends in 2007. We make all computations at the HS 6-digit level in bilateral terms and then aggregate data at the industry level to allow sectoral analysis, using the 2-digits of the International Standard Industrial Classification (ISIC), rev.3. In addition, we also used the CEPII classification by transformation level based on the Broad Economic Categories of the United Nations, which includes five different stages of production: primary goods, processed goods,

(3) See Gaulier and Zignago (2009) for a detailed description of this database.

parts and components, investment goods and consumption goods. We restricted the analysis to non-energy imports by excluding all HS6 goods classified under chapter 27 of the HS "Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes". The reason was that trade in these sectors frequently accounts for a large share of a country's imports but it is very specific and its import values are frequently distorted due to highly volatile oil prices.

We obtain estimates for the elasticity of substitution from Broda *et al*. (2006) who report Portugal's elasticities of substitution at the 3-digit HS level estimated using the Generalized Method of Moments (GMM) of Hansen (1982). The use of these elasticities has some caveats. On the one hand, the elasticities of substitution estimated at a more aggregated level are likely to be smaller - implying less substitutability - and this can potentially bias upwards the estimated gains from variety. On the other hand, these elasticities are assumed constant at the level estimated using import data from 1994 to 2003, not considering changes in the differentiation of goods over time. Broda and Weinstein (2006) report a slight decrease in the median elasticities of substitution from the 1972-1988 period to the 1990-2001 period, indicating that goods imported by the US have become more differentiated. In our case, this shortcoming could be limited by the shorter time-span of our analysis.

3. MAIN RESULTS

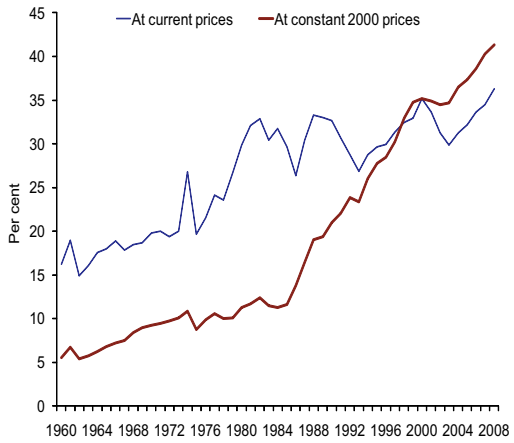
3.1. The growth of variety in Portuguese imports

The economic integration of Portugal increased substantially in the last decades, notably through the participation in trade arrangements like the European Free Trade Agreement (EFTA) in 1960, the European Economic Community (EEC) in 1986, and the European single market with the dismantlement of intra-EEC trade barriers and the adoption of a common trade policy in 1993, as well as through the participation in the euro area since its creation in 1999. The degree of openness of the Portuguese economy increased strongly over the last decades, with both imports and exports increasing their share in GDP, especially when measured at constant prices. The ratio of Portuguese imports of goods to GDP increased from 26.4 per cent in 1986 to 36.3 per cent in 2008 at current prices and from 13.8 per cent in 1986 to 41.3 per cent in 2008 at 2000 prices (Chart 1). The increase in imports to GDP ratio is visible in most economies over the last decades and results from several factors, including progressive trade liberalization, lower transport and communication costs, a greater variety of goods and services demanded by consumers and an increasing role of vertical specialization activities.

The growth of Portuguese imports was accompanied by an increase in the product varieties imported. Table 1 includes some preliminary evidence on the evolution of variety in Portuguese non-energy imports over the 1995-2007 period. Recall that, as mentioned in section 2, we define a good as a 6-digit HS category and a variety is defined as the import of a particular good from a specific country. The increase in the number of good-country pairs, *i.e.*, the number of varieties, in Portugal was driven by the increase in the number of supplying countries and not in the number of goods. This, to a large extent, reflects the fact that the number of goods is constrained by the product classification

Chart 1

PORTUGUESE IMPORTS OF GOODS
AS a percentage of GDP



Sources: European Commission (AMECO) and authors' calculations.

used. Given that Portugal already imported in 1995 almost all non-energy goods defined at the 6-digit HS category (4773 out of 4977 categories), the possibility of an increase in the number of varieties through the new goods dimension was fairly small. In fact, there was even a decline in the number of measured goods in Portuguese imports from 1995 to 2007 (from 4773 to 4492). This reduction was also observed in the other euro area countries considered. However, the number of imported varieties in Portugal increased by more than 16 per cent from 49557 in 1995 to 57560 in 2007. This growth of net variety resulted from an increase in the number of countries supplying each individual good, as reflected in the evolution of the median and the average number of countries exporting a good to Portugal from 1995 to 2007. In 1995 each good was imported from an average of 14.9 countries and in 2007 the average number of supplying countries rose to 18.8. These results contrast with those obtained by Broda and Weinstein (2006) for the US that show that the growth in the number of varieties from 1972 to 2001 reflected roughly in the same proportion the increase in the number of goods and in the number of countries supplying each good. Broda and Weinstein (2006) used a more detailed

Table 1

VARIETY IN PORTUGUESE IMPORTS OF GOODS
Excluding energy; 1995-2007 period

	Number of goods	Average number of varieties	Median number of varieties	Total number of varieties	Share in total imports
All goods 1995	4773	14.9	14	49557	100
All goods 2007	4492	18.8	17	57560	100
Common goods 1995	4433	15.1	14	47890	97.9
Common goods 2007	4433	18.9	17	57399	99.9
1995 not in 2007	340	8.1	7	1667	2.1
2007 not in 1995	59	4.4	4	161	0.1

Sources: CEPII (BACI) and authors' calculations.

classification defined at 8 or 10 digit categories, depending on the period. Our product classification at the 6-digit level may thus be underestimating the new goods expansion channel for variety growth in Portugal. However, given that the method proposed by Broda and Weinstein (2006) is designed to quantify the gains from new varieties within existing goods, but it is unable to quantify the introduction of entirely new goods, our level of disaggregation seems adequate.

Table 2 shows the thirty main origins of Portuguese non-energy imports in 2007, with the countries ranked both by the number of goods and by the value of goods exported to Portugal. The importance of European Union (EU) markets in Portuguese international trade over this period is clear from this table, as EU countries occupy the highest ranks in Portuguese imports. The countries ranked in the top 3, Spain, Germany and France, are the same in both years and according to both criteria. The EU countries ranked in the top 7 positions in 2007 are also the same in both criteria, although with some relative changes over the period. However, there were also significant changes in the relative importance of various countries as exporters to Portugal over this period. The emergence of new

Table 2

COUNTRIES RANKED BY THE NUMBER OF GOODS AND VALUE OF GOODS EXPORTED TO PORTUGAL
Excluding energy; 1995-2007 period

	Ranking by number of goods			Ranking by value of imports	
Country	1995	2007	Country	1995	2007
Spain	1	1	Spain	1	1
Germany	2	2	Germany	2	2
France	3	3	France	3	3
Italy	5	4	Italy	4	4
Netherlands	6	5	Netherlands	6	5
United Kingdom	4	6	Belgium-Luxembourg	7	6
Belgium-Luxembourg	7	7	United Kingdom	5	7
China	14	8	China	19	8
USA	8	9	Russian Federation	21	9
Switzerland	9	10	USA	8	10
Austria	12	11	Brazil	10	11
Sweden	10	12	Sweden	13	12
Denmark	11	13	Japan	9	13
Brazil	15	14	Austria	16	14
India	19	15	Norway	15	15
Turkey	27	16	Ireland	17	16
Japan	13	17	Turkey	29	17
Czech Rep.	28	18	Switzerland	11	18
Poland	35	19	India	20	19
Asia, nes	16	20	Czech Rep.	47	20
Canada	22	21	Rep. of Korea	12	21
Rep. of Korea	23	22	Denmark	14	22
Finland	17	23	Poland	43	23
Ireland	20	24	Finland	18	24
Hong Kong	18	25	Hungary	75	25
Thailand	25	26	South African Customs Union	30	26
Greece	29	27	Morocco	27	27
Israel	26	28	Argentina	25	28
Norway	21	29	Thailand	22	29
Morocco	33	30	Pakistan	28	30

Sources: CEPII (BACI) and authors' calculations.
Notas: The table reports rankings for the 30 countries that exported the highest number and the highest value of goods to Portugal in 2007. We define a good as a 6-digit Harmonized System (HS) category.

players in world trade in Central and Eastern Europe and in Asia is also visible in the ranks of the main countries of origin of Portuguese imports. Table 2 shows the strong emergence of China, which moved from the14th position to the 8th in terms of the number of goods and from 19th to 8th in terms of values of exports to Portugal, and the good performance of Turkey and, to a lesser extent, India. Some Central and Eastern European countries, like the Russian Federation, the Czech Republic, Poland and Hungary, also have advanced strongly as exporters to Portugal. On the contrary, developed countries like Japan, the USA and Switzerland, experienced declines in their ranks both in terms of the number of goods and the value of the goods they export to Portugal.

Counting new and disappearing varieties as in Table 1 offers clear evidence on the variety growth phenomenon. However, the measurement of the impact of net variety growth on import prices comprises two factors: the elasticity of substitution among different varieties of a good and shifts in expenditure shares among new, remaining, and disappearing varieties (the lambda ratios). The lambda ratio for a given good is only defined if at least one common variety is available at the start and the end of the period (that is, $I_g = I_{gt} \cap I_{gt-1} \neq 0$ in equations 4 and 5). That implies that one cannot calculate lambda ratios for a good for which only new and disappearing varieties exist. Other authors have solved the problem by defining goods at a more aggregated level whenever this happens. We opted for keeping only the common goods for which lambda ratios can be computed at the HS 6-digit level, since the loss of information is not significant. The number of goods dropped represents 3.4 per cent of common goods in both years and accounts for 1.2 per cent of the value of total Portuguese imports of common goods in 1995 and 0.2 per cent in 2007.

3.2. Gains from new imported varieties

Table 3 displays the main results for Portugal and other euro area countries of the aggregated price measurement bias due to the omission of net changes in variety and its resulting welfare gains, computed using the methodology described in section 2. The bias index described in equation 7 is below one for all countries analysed, meaning that not accounting for the net change in imported varieties leads to an overestimation of import prices over the period considered.[4]

In the Portuguese case, net changes in the variety of non-energy imported goods had a negative impact on import price indices of 2.3 per cent in cumulative terms over the 1995-2007 period. This corresponds to an average annual bias of 0.2 per cent, which is not captured by conventional import price measures based on a constant basket of varieties. Weighting the inverse of the index bias with the ratio of imports to GDP, as shown in equation 9, produces an estimate of the welfare gains due to variety increase as a ratio to GDP as depicted in the last column of Table 3. For Portugal, the value to consumers of import variety growth in the 1995-2007 period amounted to 0.7 per cent of GDP, which means that consumers in Portugal would be willing to spend 0.7 per cent of GDP in 2007 to have access to the larger set of imported varieties of 2007 instead of the 1995's set.

In our calculations, we have assumed that all HS 6-digit level goods within the same HS 3-digit cate-

(4) Belgium and Luxembourg are excluded from the analysis since Broda *et al.* (2006) do not report the elasticities of substitution for these two countries.

Table 3

IMPORT PRICE INDEX BIAS AND THE GAINS FROM VARIETY
Excluding energy; 1995-2007 period

	Number of observations	Median lambda	Median sigma	Bias			Import share on GDP	Welfare gains
				Index	In percentage	Annual average		
Portugal	4281	0.986	3.6	0.9772	2.3	0.2	28.3	0.7
France	4606	0.988	4.1	0.9962	0.4	0.0	23.9	0.1
Germany	4614	0.993	3.8	0.9976	0.2	0.0	20.5	0.0
Netherlands	4535	0.986	3.3	0.9999	0.0	0.0	41.8	0.0
Spain	4514	0.965	2.8	0.9681	3.2	0.2	19.8	0.6
Italy	4547	0.973	3.9	0.9928	0.7	0.1	17.7	0.1
Austria	4403	0.984	4.1	0.9902	1.0	0.1	31.6	0.3
Finland	4120	0.961	2.9	0.9627	3.7	0.3	23.9	0.9
Greece	4213	0.930	2.7	0.9358	6.4	0.5	19.4	1.3
Ireland	4259	0.957	4.2	0.9619	3.8	0.3	37.3	1.5

Sources: CEPII (BACI) and authors' calculations.
Note: The median sigmas presented above were computed from the 3-digit HS import demand elasticities of Broda *et al.* (2006).

gory share a common elasticity of substitution taken from Broda *et al.* (2006). A potential problem is that these 3-digit level elasticities may underestimate elasticities between varieties of goods defined at 6-digit level, because varieties of goods defined at a more disaggregated level will tend to be closer substitutes. Alternatively, we aggregated all HS6 data to the HS3 level and computed the import price bias for Portugal using only data at the 3-digit level. In this case, the results point to a cumulative fall of 1.1 per cent of the variety-adjusted import price index relative to the standard import price index over the 1995-2007 period. However, as using aggregated data may hide significant growth along the extensive margin of the variety dimension, the results of this alternative exercise may in turn lead to an underestimation of the actual bias.[5]

One reason for smaller import price bias estimated for Portugal compared to the one obtained by Broda and Weinstein (2006) for the US (respectively, 0.2 and 1.2 per cent per year) may be related with the time-period examined. For Portugal, the analysis covers only the period 1995-2007, thus missing earlier years of considerable structural change in Portuguese external trade, like the accession to the EEC in 1986. For the US, the analysis extends from 1972 to 2001, but the authors highlight that the gains are much higher between 1972 and 1988 than during the nineties (annual bias of 1.4 and 0.8 per cent, respectively), which they see as suggesting that much of the gains from globalization may have been realized prior to 1990. Our results are broadly in line with the ones obtained by Gaulier and Méjean (2006), which report that on average between 1994 and 2003, the appearance of new varieties lead to an unrecorded 0.2 per cent annual drop in import prices in a sample of 28 advanced and emerging market economies.

The measurement bias of import prices resulting from variety is higher in Portugal than in most euro area countries, with only Greece, Ireland, Finland and Spain displaying larger bias. For Greece, igno-

(5) In fact, all gains from import variety computed from international trade data tend to be underestimated as even highly disaggregated trade data hides some variety growth. For instance, Blonigen and Soderbery (2009) use very detailed market data of the US automobile sector and show that the gains from variety are 50 per cent higher if this more disaggregated data is used instead of standard international trade data.

ring new imported varieties leads to overestimation of the import price level of 6.4 per cent in cumulative terms, while neglecting the change in the set of imported varieties leads to an upward bias of the import price index of 3.8, 3.7 and 3.2 per cent in Ireland, Finland and Spain, respectively. Netherlands displays the lowest price measurement bias, with Germany and France also showing small bias. The stronger welfare gains from variety are also found in Ireland, Greece and Finland, with Netherlands and Germany showing basically no gains over this period.

The next subsection analyses in more detail the measurement bias of import prices in the Portuguese economy over the 1995-2007 period, identifying the individual industries for which this type of bias was more relevant.[6]

3.2.1. Product breakdown

This section examines the evolution of the bias from new varieties in Portuguese import prices in different sectors, using two distinct classifications: an industrial classification and a broader classification by economic categories. In addition, to complement the analysis, Table 4 includes the fifteen main positive and negative contributions to the measurement bias of Portuguese import prices from 1995 to 2007 at the product level, *i.e.*, at the HS6 level. The detailed results at the HS6 level can be easily aggregated to get different sectoral breakdowns. For every sector k the bias can be computed as:

$$Bias_k = \prod_{g \in K} \left(\frac{\lambda_{gt}}{\lambda_{gt-1}} \right)^{\omega_{gt}/(\sigma_g - 1)}, \qquad (10)$$

where K is the set of all g goods of sector k and $Bias = \prod_k Bias_k$.

Using the 2-digits of the ISIC rev.3, the measurement bias of import prices appears to be especially relevant in one industry, in the sense that it represents almost 45 per cent of the total bias over the 1995-2007 period (Table 5). This industry is the "Manufacture of basic metals" (ISIC 27). The substantial contribution of this sector reflected mainly the import bias estimated for several products of iron and steel comprised in chapter 72 of HS and, to a much lesser extent, for aluminium unwrought not alloyed (HS 760110). The second most important contribution at this breakdown level comes from the "Manufacture of textiles" (ISIC 17), mainly from products of cotton (chapter 52 of HS), in particular cotton yarn (HS 5205). Other industries also gave a significant contribution to the measurement bias of Portuguese import prices over this period, namely the "Manufacture of chemicals and chemical products" (ISIC 24), the "Manufacture of food products and beverages" (ISIC 15) and the "Manufacture of machinery and equipment, n.e.c." (ISIC 29).

We also use the CEPII classification by transformation level based on the Broad Economic Categories of the United Nations to examine the groups of products where the bias is more relevant (Chart

(6) See Mohler (2009) for a similar breakdown.

Table 4

PRODUCT BREAKDOWN OF THE IMPORT BIAS FROM NEW VARIETIES IN PORTUGAL
Excluding energy; 1995-2007 period; as a percentage of total bias

15 main positive contributions

HS6 code and name		ISIC rev3	Stage of production	
880240	Fixed wing aircraft, unladen weight > 15,000 kg	3530	Investment goods	12.9
760110	Aluminium unwrought, not alloyed	2720	Processed goods	6.4
721420	Bar/rod, iron or non-alloy steel, indented or twisted, nes	2710	Processed goods	6.4
720441	Waste from the mechanical working of iron or steel ne	2710	Primary goods	5.1
170111	Raw sugar, cane	1542	Processed goods	4.6
100590	Maize except seed corn	0111	Primary goods	4.3
720824	Hot rolled iron or non-alloy steel, coil, width >600mm, t <3mm thick, ne	2710	Processed goods	3.6
520513	Cotton yarn >85% single uncombed 232-192 dtex, not retail	1711	Processed goods	2.8
720429	Waste or scrap, of alloy steel, other than stainless	2710	Primary goods	2.6
440399	Logs, non-coniferous nes	0200	Primary goods	2.5
721070	Flat rolled iron or non-alloy steel, painted/plastic coated,width>600mm	2710	Processed goods	2.4
520512	Cotton yarn >85% single uncombed 714-232 dtex,not ret	1711	Processed goods	2.4
292610	Acrylonitrile	2411	Processed goods	2.3
852810	Colour television receivers/monitors/projectors	3230	Consumption goods	2.1
721331	Hot rolled bar/rod, iron or non-alloy steel, coiled width <14mm, C<0.25%	2710	Processed goods	2.0
	Total of these 15 products			62.4

15 main positive contributions

HS6 code and name		ISIC rev3	Stage of production	
440810	Veneer or ply sheet, coniferous (softwood) <6 mm thic	2021	Processed goods	-0.7
852790	Radio reception apparatus nes	3230	Investment goods	-0.7
721913	Hot rolled stainless steel coil, w >600mm, t 3-4.75mm	2710	Processed goods	-0.7
251612	Granite, merely cut into blocks etc	1410	Primary goods	-0.7
100630	Rice, semi-milled or wholly milled	1531	Consumption goods	-0.8
710812	Gold in unwrought forms non-monetary	2720	Processed goods	-0.8
480529	Paper, multi-ply, uncoated, nes	2101	Processed goods	-0.9
810890	Titanium, articles thereof, nes	2720	Processed goods	-1.2
841121	Turbo-propeller engines of a power < 1100 kW	3530	Parts and components	-1.2
520100	Cotton, not carded or combed	0111	Primary goods	-1.5
251020	Natural calcium phosphates, ground	1421	Primary goods	-1.9
470429	Chemical wood pulp, sulphite, non-coniferous, bleached	2101	Processed goods	-1.9
290321	Vinyl chloride (chloroethylene)	2411	Processed goods	-2.2
440121	Wood in chips, coniferous	2010	Primary goods	-2.8
890190	Cargo vessels other than tanker or refrigerated	3511	Investment goods	-23.3
	Total of these 15 products			-41.2

Sources: CEPII (BACI) and authors' calculations.
Note: Contribution of each product relative to the total import bias from increased variety over the 1995-2007 period, expressed as a percentage.

Table 5

SECTORAL BREAKDOWN OF THE IMPORT BIAS FROM NEW VARIETIES IN PORTUGAL
Excluding energy; 1995-2007 period; as a percentage of total bias

ISIC rev.3		
01	Agriculture, hunting and related service activities	4.3
02	Forestry, logging and related service activities	4.0
05	Fishing, aquaculture and service activities incidental to fishing	0.3
13	Mining of metal ores	-0.3
14	Other mining and quarrying	-2.2
15	Manufacture of food products and beverages	7.8
16	Manufacture of tobacco products	1.2
17	Manufacture of textiles	13.3
18	Manufacture of wearing apparel; dressing and dyeing of fur	0.1
19	Tanning and dressing of leather; manufacture of luggage, handbags and footwear	1.9
20	Manufacture of wood and cork; manufacture of articles of straw and plaiting	-1.8
21	Manufacture of paper and paper products	-3.4
22	Publishing, printing and reproduction of recorded media	-0.1
23	Manufacture of coke, refined petroleum products and nuclear fuel	0.0
24	Manufacture of chemicals and chemical products	9.7
25	Manufacture of rubber and plastics products	0.6
26	Manufacture of other non-metallic mineral products	2.5
27	Manufacture of basic metals	44.9
28	Manufacture of fabricated metal products, except machinery and equipment	3.1
29	Manufacture of machinery and equipment n.e.c.	7.2
30	Manufacture of office, accounting and computing machinery	1.3
31	Manufacture of electrical machinery and apparatus n.e.c.	1.9
32	Manufacture of radio, television and communication equipment and apparatus	5.3
33	Manufacture of medical, precision and optical instruments, watches and clocks	2.1
34	Manufacture of motor vehicles, trailers and semi-trailers	3.9
35	Manufacture of other transport equipment	-8.4
36	Manufacture of furniture; manufacturing n.e.c.	1.2
37	Recycling	-0.4
74	Other business activities	0.0
92	Recreational, cultural and sporting activities	0.0
	Total	100

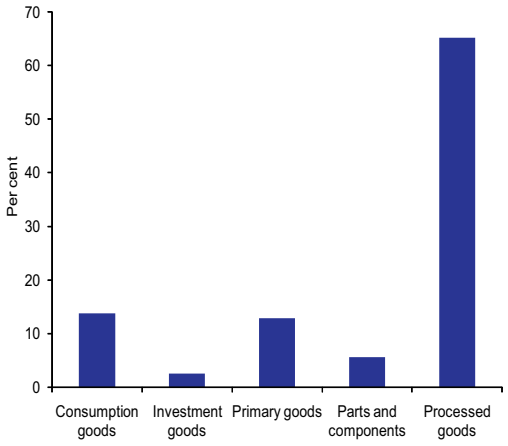
Sources: CEPII (BACI) and authors' calculations.
Note: Contribution of each sector relative to the total import bias from increased variety over the 1995-2007 period, expressed as a percentage.

2). Imports of processed goods, where several of the metal and textiles products described above are included, gave the highest contribution to the measurement bias of Portuguese import prices over the 1995-2007 period, corresponding to 65.2 per cent of the total. Consumption goods represented 13.7 per cent of the total measurement bias and its major individual contribution resulted from imports of colour television receivers/monitors/projectors (HS 852810). The contribution of primary goods amounted to 12.9 per cent, reflecting some of the metal products mentioned above and also imports of products of agriculture, forestry and logging. The very small contribution of investment goods masks a very heterogeneous behaviour of its components. The most substantial positive contribution at the product level came from fixed wing aircraft (HS6 880240), but the most negative contribution to the total bias also resulted from an investment good, namely cargo vessels other than tanker or refrigerated (HS6 890190), as can be seen in Table 4.

Chart 2

BREAKDOWN BY MAIN STAGES OF PRODUCTION OF THE IMPORT BIAS FROM NEW VARIETIES IN PORTUGAL

Excluding energy; 1995-2007 period; as a percentage of total bias



Sources: CEPII (BACI) and authors' calculations.
Note: Contribution of each stage relative to the total import bias from increased variety over the 1995-2007 period, expressed as a percentage.

4. CONCLUSIONS

The gains from trade through the import of new varieties have long been established in international trade theory. However, structural empirical estimates of the impact of this increased variety on welfare have appeared more recently. The methodology proposed by Feenstra (1994) and extended by Broda and Weinstein (2006) allows to quantify the effect that newly imported varieties have on import prices and, hence, on aggregate welfare. The main idea is that imports of new varieties of a good lead to a decline in import prices and this effect is not captured by conventional import price indices based on a fixed set of varieties, leading to a measurement bias. This methodology assumes that there are two determinants of how new import varieties affect the price index: the magnitude of the increase in varieties and the degree of substitutability among varieties. The methodology does not take into account the impact of new imported varieties on domestic variety, since the number of domestic varieties is assumed to be unaffected by the new foreign varieties. Therefore, the interpretation of the results should be made with caution, as changing domestic varieties have also an impact on aggregate welfare that is not accounted for in this analysis.

The degree of openness of the Portuguese economy increased strongly over the last decades, with both imports and exports increasing their ratio to GDP. The growth of Portuguese imports was accompanied by an increase in the number of varieties imported. The increase in variety of Portuguese imports resulted from the rise in the number of trading partners supplying a specific good, as the number of imported goods decreased slightly from 1995 to 2007.

Following the methodology proposed by Feenstra (1994) and extended by Broda and Weinstein (2006), this article estimates the gains from import variety for Portugal and other euro area countries

in the period from 1995 to 2007. Our results show that for all euro area countries the import price index is biased upwards due to the omission of newly imported varieties. Ignoring the net change of imported varieties led to an upward bias of the Portuguese import price index of 2.3 per cent in cumulative terms, an average annual bias of 0.2 per cent. The value to Portuguese consumers of the increased set of imported varieties between 1995 and 2007 is estimated to reach 0.7 per cent of GDP. The gains from import variety in Portugal are among the highest in the euro area, with Ireland, Greece, Finland and Spain displaying also large gains.

In Portugal, the measurement bias of import prices is especially relevant in the "Manufacture of basic metals", which represents almost 45 per cent of the total bias over the 1995-2007 period. The second most significant contribution comes from the sector "Manufacture of textiles", accounting for more than 13 per cent of the total. Important contributions are also found in other industries, namely "Manufacture of chemicals and chemical products", "Manufacture of food products and beverages" and "Manufacture of machinery and equipment, n.e.c.". Investment goods as a whole give a very small contribution to the total bias but have a rather heterogeneous behaviour of its components.

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APPENDIX

Log-Change Ideal Weights

The weights ω_{gct} used in equation 2 to compute the exact price index P_g as a geometric mean of individual price changes are ideal log-change weights. These weights are computed using expenditure shares in the two periods as follows:

$$\omega_{gct} = \frac{\frac{s_{gct} - s_{gct-1}}{\ln s_{gct} - \ln s_{gct-1}}}{\sum_{c \in I_g} \left(\frac{s_{gct} - s_{gct-1}}{\ln s_{gct} - \ln s_{gct-1}} \right)}, \tag{A.1}$$

$$s_{gct} = \frac{p_{gct} x_{gct}}{\sum_{c \in I_g} p_{gct} x_{gct}}, \tag{A.2}$$

where p_{gct} is the price of variety c of good g in period t, x_{gct} is the quantity of variety c of good g imported in period t, $I_{gt} \subset C$ is the subset of all varieties of good g consumed in period t and $I_g = I_{gt} \cap I_{gt-1}$ is the set of common varieties consumed in both periods t and t-1.

The numerator in equation A.1 is the logarithmic mean of the shares s_{gct} and s_{gct-1} and lies between them. Then, the weights ω_{gct} are normalized versions of logarithmic means and add up to unity.

The ideal import share ω_t^M used to calculate the welfare gains in equation 8 is computed as the logarithmic mean of the ratio of imports to Gross Domestic Product (GDP) in the two periods:

$$\omega_t^M = \frac{s_{Mt} - s_{Mt-1}}{\ln s_{Mt} - \ln s_{Mt-1}}, \tag{A.3}$$

where

$$s_{Mt} = \frac{\sum_{g \in G} \sum_{c \in I_{gt}} p_{gct} x_{gct}}{GDP_t}. \tag{A.4}$$

The numerator in equation A.4 represents the value of total goods imported in year t and the denominator is the nominal GDP in year t, both in current US dollars.

QUARTERLY SERIES FOR THE PORTUGUESE ECONOMY

Updating 1977-2009

QUARTERLY SERIES FOR THE PORTUGUESE ECONOMY: 1977-2009

As has been the case in the Summer issues of the *Economic Bulletin*, this section releases updated quarterly long series for the Portuguese economy. The update released in this Bulletin incorporates not only the year 2009 but also the usual statistical revisions of the most recent data from annual series and the associated quarterly indicators. In particular, it includes the new National Accounts base 2006 series released by Statistics Portugal in June 2010, for the period from 1995 to 2009.[1]

The methodology underlying the construction of these series did not undergo significant changes *vis-à-vis* that presented in detail in the article "Quarterly series for the Portuguese economy: 1977-2003" published in the June 2004 issue of the *Economic Bulletin*.

Quarterly series for the 1977-2009 period are presented in the following tables, with as much detail as the previous publication. An electronic version is available on the **website** of Banco de Portugal.

(1) For more details on the main methodological changes underlying National Accounts base 2006, see the release "Nova Série de Contas Nacionais Portuguesas para o período 1995-2007", provided on the website of Statistics Portugal on 9 June 2010.

MAIN EXPENDITURE COMPONENTS

	1977				1978				1979			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	594.3	634.2	671.1	696.2	728.9	758.2	804.4	857.4	885.0	935.1	1 002.5	1 099.0
Public consumption	119.6	123.9	130.0	137.8	146.9	156.1	165.4	174.4	183.8	195.1	209.0	225.5
GFCF	290.9	320.7	327.3	332.6	319.1	340.1	367.9	413.9	483.1	546.0	593.4	592.8
Change in inventories	27.7	30.5	36.1	44.5	55.7	56.2	46.1	25.4	-6.0	-15.8	-4.1	29.2
Exports of goods and services	132.9	145.7	152.5	164.5	175.3	189.8	214.6	250.5	282.1	324.7	364.9	400.2
Goods	86.7	94.9	98.8	104.2	110.3	121.2	134.7	160.7	179.9	206.6	231.0	255.3
Services	46.2	50.8	53.8	60.3	65.0	68.6	79.9	89.8	102.1	118.2	134.0	145.0
Imports of goods and services	226.8	266.3	276.1	296.3	302.6	305.7	333.9	357.7	383.9	435.7	505.8	563.7
Goods	194.6	228.8	236.4	254.3	257.5	259.7	283.6	304.4	325.7	370.6	424.9	473.4
Services	32.2	37.5	39.7	42.0	45.1	46.0	50.4	53.3	58.2	65.1	81.0	90.3
GDP	938.5	988.6	1 040.9	1 079.2	1 123.2	1 194.8	1 264.4	1 364.0	1 444.1	1 549.5	1 660.0	1 783.0
Previous year prices (EUR millions)												
Private consumption (residents)					673.9	673.2	681.4	690.4	809.3	819.3	832.8	848.7
Public consumption					131.2	133.1	135.3	137.4	167.1	170.2	173.8	177.7
GFCF					291.3	295.2	300.9	317.3	418.0	445.9	458.7	432.1
Change in inventories					52.3	54.3	46.5	28.7	1.2	-11.9	-10.5	5.4
Exports of goods and services					159.2	163.6	174.9	191.8	246.6	268.8	285.0	291.8
Goods					99.5	103.6	108.2	120.4	154.9	168.1	176.9	182.1
Services					59.7	59.9	66.7	71.4	91.7	100.7	108.1	109.7
Imports of goods and services					273.9	266.1	266.2	270.7	326.2	344.5	368.1	381.8
Goods					234.2	227.9	227.2	231.7	276.3	291.7	306.6	317.9
Services					39.7	38.2	39.0	39.0	49.8	52.8	61.5	63.9
GDP					1 034.0	1 053.3	1 072.7	1 095.0	1 315.9	1 347.8	1 371.7	1 373.9
Chain-linked volume (reference year 2006)												
Private consumption (residents)					9 464.2	9 454.6	9 569.4	9 695.6	9 813.6	9 935.4	10 099.1	10 291.7
Public consumption					2 654.7	2 693.2	2 736.3	2 779.8	2 824.3	2 877.2	2 937.5	3 004.1
GFCF					3 768.4	3 818.4	3 892.1	4 104.8	4 520.0	4 822.1	4 960.2	4 673.1
Exports of goods and services					1 403.8	1 442.5	1 542.8	1 691.9	1 806.0	1 969.1	2 087.6	2 137.3
Goods					764.4	796.3	831.5	925.5	975.3	1 058.6	1 113.9	1 146.6
Services					755.7	758.6	844.6	903.7	986.1	1 083.3	1 162.9	1 180.0
Imports of goods and services					1 875.6	1 822.2	1 822.8	1 853.7	1 850.4	1 954.4	2 088.0	2 165.9
Goods					1 487.7	1 447.7	1 443.1	1 471.7	1 462.9	1 544.1	1 623.0	1 682.9
Services					410.7	395.1	403.5	403.6	412.7	437.5	509.0	529.1
GDP					17 123.1	17 442.4	17 764.3	18 132.8	18 745.3	19 200.4	19 540.6	19 572.2
Deflator (2006=1)												
Private consumption (residents)					0.0770	0.0802	0.0841	0.0884	0.0902	0.0941	0.0993	0.1068
Public consumption					0.0553	0.0580	0.0604	0.0627	0.0651	0.0678	0.0712	0.0751
GFCF					0.0847	0.0891	0.0945	0.1008	0.1069	0.1132	0.1196	0.1269
Exports of goods and services					0.1249	0.1316	0.1391	0.1481	0.1562	0.1649	0.1748	0.1873
Goods					0.1443	0.1522	0.1620	0.1736	0.1845	0.1951	0.2073	0.2226
Services					0.0860	0.0904	0.0946	0.0993	0.1036	0.1091	0.1152	0.1229
Imports of goods and services					0.1614	0.1678	0.1832	0.1929	0.2075	0.2229	0.2423	0.2603
Goods					0.1731	0.1794	0.1965	0.2068	0.2227	0.2400	0.2618	0.2813
Services					0.1099	0.1164	0.1249	0.1320	0.1410	0.1487	0.1590	0.1707
GDP					0.0656	0.0685	0.0712	0.0752	0.0770	0.0807	0.0849	0.0911

MAIN EXPENDITURE COMPONENTS

	1980				1981				1982			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	1 180.9	1 267.5	1 333.4	1 394.2	1 475.7	1 552.1	1 649.2	1 737.5	1 814.7	1 907.7	1 975.4	2 049.1
Public consumption	244.1	263.2	281.5	298.8	314.8	330.1	345.2	360.8	377.9	398.1	422.0	449.2
GFCF	575.4	570.9	587.1	642.6	741.1	808.2	867.7	885.2	936.3	959.4	993.4	1 019.8
Change in inventories	84.0	117.8	130.4	122.0	92.5	77.2	76.1	89.3	116.7	128.0	123.1	102.0
Exports of goods and services	439.5	452.4	466.7	469.6	485.5	512.8	524.3	541.6	552.9	585.8	658.1	696.1
Goods	280.8	288.0	289.7	292.2	298.1	313.3	324.1	335.7	354.9	379.4	443.6	470.0
Services	158.7	164.4	177.1	177.4	187.5	199.5	200.2	206.0	198.0	206.4	214.5	226.2
Imports of goods and services	627.7	683.0	727.5	773.1	814.6	932.0	940.0	953.8	1 019.2	1 097.1	1 147.4	1 142.5
Goods	515.8	565.5	596.9	634.3	663.4	767.1	776.5	785.3	851.7	919.3	967.4	961.8
Services	111.9	117.5	130.6	138.8	151.2	165.0	163.5	168.6	167.5	177.8	180.0	180.7
GDP	1 896.3	1 988.8	2 071.7	2 154.0	2 295.1	2 348.4	2 522.6	2 660.7	2 779.3	2 881.9	3 024.6	3 173.8
Previous year prices (EUR millions)												
Private consumption (residents)	1 039.3	1 063.8	1 080.7	1 089.1	1 318.0	1 329.5	1 335.3	1 342.7	1 634.1	1 649.3	1 652.1	1 649.5
Public consumption	214.9	219.6	223.9	227.8	283.5	286.7	289.1	290.9	343.6	346.4	350.2	354.8
GFCF	499.6	464.4	464.3	485.5	650.9	676.7	707.2	713.8	853.0	835.9	830.4	821.3
Change in inventories	35.7	56.8	68.6	71.1	64.3	65.7	75.4	93.4	119.7	125.2	110.1	74.2
Exports of goods and services	379.2	377.3	378.3	365.4	444.6	448.9	446.4	450.4	505.2	518.0	537.3	565.7
Goods	241.0	238.9	234.7	226.7	274.4	275.6	279.7	284.2	327.4	338.9	363.4	386.6
Services	138.2	138.4	143.6	138.6	170.2	173.3	166.7	166.1	177.8	179.0	173.8	179.1
Imports of goods and services	546.0	560.0	576.8	583.8	723.1	734.2	752.4	771.8	964.8	970.4	952.2	949.2
Goods	449.1	461.4	471.2	477.2	591.9	600.2	621.7	639.3	810.6	817.4	806.1	804.0
Services	96.9	98.7	105.6	106.6	131.2	134.0	130.7	132.5	154.1	153.0	146.1	145.1
GDP	1 622.7	1 621.9	1 639.1	1 655.1	2 038.1	2 073.4	2 101.1	2 119.5	2 490.8	2 504.5	2 527.9	2 516.4
Chain-linked volume (reference year 2006)												
Private consumption (residents)	10 637.8	10 888.5	11 061.8	11 147.9	11 136.7	11 234.1	11 283.4	11 345.7	11 463.4	11 570.4	11 589.8	11 571.5
Public consumption	3 075.5	3 143.6	3 204.2	3 259.8	3 306.2	3 344.0	3 371.9	3 393.0	3 412.0	3 440.0	3 477.7	3 523.2
GFCF	4 279.6	3 978.1	3 977.3	4 159.0	4 490.7	4 669.4	4 879.4	4 925.3	4 898.7	4 800.3	4 769.1	4 716.6
Exports of goods and services	2 211.2	2 199.9	2 205.8	2 130.5	2 127.1	2 147.5	2 135.6	2 154.7	2 096.1	2 149.1	2 229.3	2 347.3
Goods	1 185.7	1 175.4	1 155.1	1 115.7	1 104.6	1 109.2	1 125.7	1 144.2	1 155.0	1 195.5	1 282.0	1 363.8
Services	1 221.8	1 223.3	1 268.7	1 225.3	1 240.3	1 263.0	1 215.0	1 210.7	1 104.8	1 112.7	1 080.4	1 113.1
Imports of goods and services	2 329.2	2 389.0	2 460.4	2 490.4	2 486.9	2 525.2	2 587.7	2 654.6	2 717.5	2 733.3	2 682.1	2 673.6
Goods	1 777.9	1 826.4	1 865.3	1 889.3	1 883.7	1 910.0	1 978.4	2 034.5	2 114.9	2 132.5	2 103.0	2 097.7
Services	621.5	632.7	677.1	683.3	687.4	702.4	684.9	694.4	658.4	653.4	624.2	620.0
GDP	19 427.5	19 417.7	19 622.7	19 814.7	19 671.2	20 011.5	20 278.9	20 456.2	20 383.5	20 495.3	20 687.6	20 592.8
Deflator (2006=1)												
Private consumption (residents)	0.1110	0.1164	0.1205	0.1251	0.1325	0.1382	0.1462	0.1531	0.1583	0.1649	0.1704	0.1771
Public consumption	0.0794	0.0837	0.0878	0.0917	0.0952	0.0987	0.1024	0.1063	0.1108	0.1157	0.1213	0.1275
GFCF	0.1345	0.1435	0.1476	0.1545	0.1650	0.1731	0.1778	0.1797	0.1911	0.1999	0.2083	0.2162
Exports of goods and services	0.1988	0.2056	0.2116	0.2204	0.2283	0.2388	0.2455	0.2514	0.2638	0.2726	0.2952	0.2966
Goods	0.2368	0.2450	0.2508	0.2619	0.2698	0.2824	0.2879	0.2934	0.3073	0.3173	0.3460	0.3446
Services	0.1299	0.1344	0.1396	0.1448	0.1512	0.1580	0.1647	0.1701	0.1792	0.1855	0.1985	0.2032
Imports of goods and services	0.2695	0.2859	0.2957	0.3104	0.3275	0.3691	0.3633	0.3593	0.3750	0.4014	0.4278	0.4273
Goods	0.2901	0.3096	0.3200	0.3357	0.3522	0.4016	0.3925	0.3860	0.4027	0.4311	0.4600	0.4585
Services	0.1800	0.1858	0.1929	0.2032	0.2199	0.2348	0.2387	0.2428	0.2543	0.2721	0.2884	0.2914
GDP	0.0976	0.1024	0.1056	0.1087	0.1167	0.1174	0.1244	0.1301	0.1364	0.1406	0.1462	0.1541

MAIN EXPENDITURE COMPONENTS

	1983				1984				1985			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	2 203.8	2 321.6	2 493.1	2 677.9	2 788.4	2 957.0	3 156.1	3 221.9	3 371.9	3 493.4	3 582.2	3 748.8
Public consumption	478.6	507.7	535.2	561.1	586.8	615.0	647.7	686.0	729.4	777.0	826.2	874.7
GFCF	1 115.0	1 190.0	1 279.5	1 282.8	1 228.9	1 326.0	1 382.3	1 473.4	1 497.3	1 529.0	1 587.5	1 649.1
Change in inventories	64.8	35.1	12.8	-2.1	-9.5	-12.0	-9.8	-2.7	9.3	16.8	20.0	18.8
Exports of goods and services	772.8	856.4	977.2	1 078.0	1 181.6	1 293.4	1 415.0	1 516.7	1 657.1	1 722.5	1 739.4	1 794.9
Goods	522.1	588.3	676.4	749.9	827.3	903.0	995.8	1 063.9	1 152.2	1 208.2	1 217.5	1 247.7
Services	250.7	268.1	300.8	328.1	354.3	390.4	419.2	452.9	505.0	514.3	521.8	547.3
Imports of goods and services	1 170.9	1 223.9	1 357.3	1 474.7	1 531.8	1 617.3	1 747.8	1 819.2	1 911.4	1 943.2	1 906.9	2 001.1
Goods	975.4	1 024.1	1 136.3	1 244.5	1 277.2	1 354.1	1 463.1	1 519.4	1 593.9	1 606.9	1 578.5	1 655.8
Services	195.5	199.8	221.0	230.2	254.6	263.3	284.7	299.8	317.5	336.3	328.4	345.2
GDP	3 464.1	3 686.8	3 940.4	4 123.1	4 244.5	4 562.1	4 843.5	5 076.1	5 353.6	5 595.5	5 848.4	6 085.2
Previous year prices (EUR millions)												
Private consumption (residents)	1 937.5	1 928.6	1 921.4	1 904.9	2 391.7	2 386.4	2 395.3	2 392.1	3 012.1	3 023.4	3 034.1	3 078.5
Public consumption	424.3	428.0	429.6	429.3	521.0	520.3	521.7	525.8	646.1	656.3	667.4	678.1
GFCF	990.4	1 003.6	994.3	929.8	1 093.0	1 122.5	1 107.1	1 116.0	1 339.4	1 326.5	1 342.0	1 350.3
Change in inventories	17.7	-21.0	-41.9	-44.9	-30.1	-21.0	-17.5	-19.7	-27.6	-25.6	-13.6	8.4
Exports of goods and services	704.3	724.0	750.0	777.4	999.2	1 045.5	1 080.6	1 115.3	1 473.9	1 483.0	1 475.9	1 494.9
Goods	482.9	501.1	520.1	541.3	692.9	721.1	749.9	771.7	1 026.0	1 043.7	1 038.1	1 049.0
Services	221.4	222.8	229.9	236.2	306.3	324.4	330.7	343.6	447.9	439.3	437.8	445.8
Imports of goods and services	1 075.5	1 040.4	1 023.7	987.5	1 259.3	1 268.4	1 300.9	1 306.3	1 723.7	1 753.9	1 744.1	1 809.4
Goods	906.4	877.1	858.8	828.9	1 041.4	1 052.0	1 075.8	1 080.2	1 440.3	1 464.2	1 466.8	1 523.6
Services	169.1	163.3	164.9	158.6	217.9	216.3	225.1	226.1	283.3	289.7	277.3	285.8
GDP	2 998.6	3 022.8	3 029.6	3 009.0	3 715.4	3 785.4	3 786.3	3 823.1	4 720.3	4 709.7	4 761.7	4 800.7
Chain-linked volume (reference year 2006)												
Private consumption (residents)	11 553.2	11 500.2	11 457.1	11 359.1	11 314.1	11 289.1	11 331.3	11 316.2	11 242.7	11 284.7	11 324.8	11 490.6
Public consumption	3 568.0	3 599.6	3 613.1	3 610.3	3 600.6	3 595.8	3 605.2	3 633.6	3 678.4	3 736.7	3 799.7	3 860.5
GFCF	4 860.9	4 925.7	4 880.0	4 563.5	4 318.2	4 435.0	4 374.0	4 409.2	4 341.3	4 299.2	4 349.4	4 376.3
Exports of goods and services	2 492.3	2 562.0	2 654.0	2 751.1	2 836.5	2 968.0	3 067.7	3 166.2	3 281.7	3 302.0	3 286.2	3 328.4
Goods	1 464.2	1 519.5	1 576.9	1 641.1	1 693.8	1 762.9	1 833.3	1 886.5	1 942.8	1 976.3	1 965.7	1 986.4
Services	1 155.5	1 163.2	1 200.0	1 232.6	1 268.1	1 343.0	1 369.1	1 422.6	1 496.8	1 468.2	1 463.0	1 489.9
Imports of goods and services	2 637.7	2 551.6	2 510.7	2 421.8	2 438.7	2 456.3	2 519.3	2 529.8	2 552.1	2 596.9	2 582.3	2 679.1
Goods	2 069.4	2 002.5	1 960.8	1 892.4	1 884.1	1 903.4	1 946.4	1 954.4	1 972.6	2 005.2	2 008.8	2 086.7
Services	612.4	591.2	597.1	574.3	611.4	607.0	631.6	634.4	638.6	653.0	625.0	644.0
GDP	20 773.3	20 940.8	20 988.2	20 845.7	20 402.8	20 787.0	20 791.9	20 994.4	20 915.7	20 868.9	21 099.4	21 271.9
Deflator (2006=1)												
Private consumption (residents)	0.1907	0.2019	0.2176	0.2358	0.2465	0.2619	0.2785	0.2847	0.2999	0.3096	0.3163	0.3263
Public consumption	0.1341	0.1410	0.1481	0.1554	0.1630	0.1710	0.1796	0.1888	0.1983	0.2079	0.2174	0.2266
GFCF	0.2294	0.2416	0.2622	0.2811	0.2846	0.2990	0.3160	0.3342	0.3449	0.3556	0.3650	0.3768
Exports of goods and services	0.3101	0.3343	0.3682	0.3918	0.4166	0.4358	0.4613	0.4790	0.5050	0.5216	0.5293	0.5393
Goods	0.3566	0.3872	0.4290	0.4570	0.4884	0.5122	0.5432	0.5639	0.5930	0.6114	0.6194	0.6281
Services	0.2170	0.2305	0.2507	0.2661	0.2794	0.2907	0.3062	0.3183	0.3374	0.3503	0.3567	0.3673
Imports of goods and services	0.4439	0.4797	0.5406	0.6089	0.6281	0.6584	0.6938	0.7191	0.7490	0.7483	0.7385	0.7469
Goods	0.4713	0.5114	0.5795	0.6576	0.6779	0.7114	0.7517	0.7774	0.8080	0.8013	0.7858	0.7935
Services	0.3192	0.3380	0.3702	0.4008	0.4164	0.4337	0.4507	0.4726	0.4972	0.5150	0.5255	0.5360
GDP	0.1668	0.1761	0.1877	0.1978	0.2080	0.2195	0.2330	0.2418	0.2560	0.2681	0.2772	0.2861

MAIN EXPENDITURE COMPONENTS

	1986				1987				1988			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	3 956.3	4 212.0	4 353.1	4 562.1	4 682.6	4 935.5	5 058.4	5 271.0	5 657.6	5 957.2	6 263.7	6 634.3
Public consumption	920.7	961.3	996.9	1 028.4	1 060.1	1 099.7	1 151.4	1 215.6	1 290.6	1 356.5	1 428.2	1 506.1
GFCF	1 624.8	1 728.7	1 797.5	1 931.6	2 050.2	2 205.4	2 306.8	2 494.5	2 649.6	2 838.1	3 004.6	3 122.5
Change in inventories	13.2	18.8	35.8	64.1	103.7	134.4	156.2	169.1	173.1	163.0	138.8	100.6
Exports of goods and services	1 823.7	1 902.0	1 992.4	2 120.0	2 205.1	2 364.3	2 456.8	2 576.9	2 677.5	2 724.7	2 914.7	3 085.1
Goods	1 245.9	1 310.1	1 357.8	1 445.0	1 503.2	1 585.9	1 655.4	1 739.2	1 820.6	1 881.2	2 009.3	2 116.5
Services	577.8	591.9	634.6	675.0	701.9	778.4	801.4	837.7	856.9	843.5	905.4	968.6
Imports of goods and services	1 987.2	2 017.0	2 072.0	2 335.9	2 489.1	2 705.4	2 946.5	3 159.3	3 417.1	3 523.5	3 839.4	3 923.0
Goods	1 664.7	1 662.4	1 723.2	1 938.7	2 087.6	2 261.8	2 485.1	2 659.3	2 882.0	2 976.0	3 252.3	3 289.9
Services	322.5	354.6	348.8	397.2	401.5	443.6	461.3	500.0	535.1	547.4	587.1	633.1
GDP	6 351.5	6 805.8	7 103.8	7 370.4	7 612.6	8 033.8	8 183.2	8 567.8	9 031.2	9 515.9	9 910.6	10 525.5
Previous year prices (EUR millions)												
Private consumption (residents)	3 651.2	3 774.3	3 822.0	3 924.8	4 455.6	4 595.3	4 609.5	4 686.8	5 313.2	5 431.2	5 504.5	5 647.7
Public consumption	833.0	841.9	848.7	853.5	993.3	1 004.0	1 021.2	1 044.3	1 194.1	1 212.6	1 234.3	1 259.5
GFCF	1 544.3	1 572.3	1 615.8	1 668.7	1 943.9	2 040.4	2 111.2	2 210.7	2 499.6	2 620.1	2 657.6	2 729.8
Change in inventories	40.3	71.8	102.9	133.6	164.0	181.3	185.7	177.0	155.2	135.4	117.5	101.5
Exports of goods and services	1 773.9	1 816.4	1 888.5	1 956.4	2 117.8	2 204.9	2 227.7	2 250.6	2 471.7	2 502.8	2 626.7	2 756.8
Goods	1 229.4	1 271.1	1 312.4	1 356.8	1 448.7	1 477.4	1 495.8	1 507.9	1 673.3	1 732.6	1 818.8	1 916.9
Services	544.4	545.3	576.1	599.6	669.1	727.5	731.9	742.7	798.4	770.2	807.9	840.0
Imports of goods and services	2 074.0	2 217.0	2 343.6	2 556.9	2 446.7	2 597.9	2 732.6	2 882.8	3 245.8	3 391.3	3 508.7	3 596.1
Goods	1 761.3	1 883.0	2 016.9	2 192.0	2 063.4	2 184.8	2 310.5	2 427.4	2 733.9	2 873.7	2 962.9	3 022.1
Services	312.7	333.9	326.7	364.8	383.3	413.1	422.1	455.5	511.9	517.6	545.8	574.0
GDP	5 768.6	5 859.7	5 934.3	5 980.2	7 227.8	7 428.0	7 422.7	7 486.5	8 388.0	8 510.8	8 631.8	8 899.2
Chain-linked volume (reference year 2006)												
Private consumption (residents)	11 661.8	12 054.9	12 207.4	12 535.8	12 638.9	13 035.3	13 075.6	13 294.8	13 862.6	14 170.5	14 361.6	14 735.2
Public consumption	3 915.5	3 957.4	3 989.0	4 011.6	4 035.4	4 078.6	4 148.7	4 242.6	4 353.7	4 421.2	4 500.4	4 592.5
GFCF	4 282.0	4 359.8	4 480.4	4 627.3	4 871.5	5 113.4	5 290.8	5 540.2	5 745.1	6 021.9	6 108.0	6 274.1
Exports of goods and services	3 386.2	3 467.5	3 605.1	3 734.6	3 834.8	3 992.6	4 034.0	4 075.4	4 101.8	4 153.4	4 359.1	4 575.1
Goods	2 005.4	2 073.4	2 140.7	2 213.1	2 279.6	2 324.8	2 353.8	2 372.7	2 408.1	2 493.4	2 617.5	2 758.6
Services	1 542.8	1 545.3	1 632.7	1 699.0	1 732.4	1 883.7	1 895.2	1 923.1	1 902.7	1 835.6	1 925.5	2 001.8
Imports of goods and services	2 781.5	2 973.2	3 143.0	3 429.0	3 585.2	3 806.8	4 004.2	4 224.4	4 486.7	4 687.8	4 850.1	4 970.9
Goods	2 209.7	2 362.4	2 530.3	2 750.0	2 908.8	3 079.9	3 257.1	3 421.9	3 647.8	3 834.4	3 953.4	4 032.3
Services	603.2	644.1	630.2	703.8	695.2	749.2	765.7	826.1	860.5	870.1	917.5	964.8
GDP	21 215.2	21 550.3	21 824.6	21 993.3	22 648.5	23 275.8	23 259.0	23 459.1	23 986.0	24 337.1	24 683.3	25 448.0
Deflator (2006=1)												
Private consumption (residents)	0.3393	0.3494	0.3566	0.3639	0.3705	0.3786	0.3869	0.3965	0.4081	0.4204	0.4361	0.4502
Public consumption	0.2351	0.2429	0.2499	0.2564	0.2627	0.2696	0.2775	0.2865	0.2964	0.3068	0.3174	0.3279
GFCF	0.3794	0.3965	0.4012	0.4174	0.4209	0.4313	0.4360	0.4503	0.4612	0.4713	0.4919	0.4977
Exports of goods and services	0.5386	0.5485	0.5527	0.5677	0.5750	0.5922	0.6090	0.6323	0.6528	0.6560	0.6686	0.6743
Goods	0.6213	0.6319	0.6343	0.6529	0.6594	0.6822	0.7033	0.7330	0.7560	0.7545	0.7677	0.7672
Services	0.3745	0.3830	0.3887	0.3973	0.4052	0.4132	0.4229	0.4356	0.4504	0.4595	0.4702	0.4838
Imports of goods and services	0.7144	0.6784	0.6592	0.6812	0.6943	0.7107	0.7358	0.7479	0.7616	0.7516	0.7916	0.7892
Goods	0.7533	0.7037	0.6810	0.7050	0.7177	0.7344	0.7630	0.7771	0.7901	0.7762	0.8227	0.8159
Services	0.5347	0.5506	0.5534	0.5644	0.5775	0.5921	0.6025	0.6052	0.6219	0.6292	0.6399	0.6561
GDP	0.2994	0.3158	0.3255	0.3351	0.3361	0.3452	0.3518	0.3652	0.3765	0.3910	0.4015	0.4136

MAIN EXPENDITURE COMPONENTS

	1989				1990				1991			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	6 754.4	6 929.8	7 223.6	7 426.1	7 838.5	8 255.9	8 678.1	9 093.8	9 562.8	10 041.0	10 453.2	10 762.3
Public consumption	1 591.0	1 673.4	1 754.5	1 834.3	1 913.0	2 012.9	2 135.7	2 283.6	2 458.1	2 614.6	2 746.3	2 848.6
GFCF	3 195.7	3 270.9	3 394.2	3 511.9	3 625.8	3 753.7	3 871.6	3 950.8	3 999.0	4 073.4	4 284.0	4 434.1
Change in inventories	48.2	43.0	84.9	173.9	310.0	367.9	347.6	249.0	72.2	-45.5	-104.2	-103.9
Exports of goods and services	3 346.3	3 458.5	3 677.4	3 891.0	4 097.1	4 225.1	4 259.5	4 345.5	4 253.7	4 357.6	4 403.9	4 430.3
Goods	2 307.3	2 421.2	2 549.4	2 699.4	2 822.5	2 898.2	2 924.4	2 906.1	2 871.9	2 867.0	2 933.9	2 982.3
Services	1 038.9	1 037.3	1 128.0	1 191.6	1 274.6	1 327.0	1 335.0	1 439.4	1 381.7	1 490.6	1 469.9	1 448.1
Imports of goods and services	4 081.7	4 180.8	4 417.9	4 601.3	5 024.7	4 953.0	5 246.5	5 468.9	5 444.2	5 510.2	5 749.7	5 762.1
Goods	3 478.0	3 498.1	3 694.3	3 877.0	4 206.7	4 134.8	4 344.4	4 589.6	4 566.7	4 577.3	4 710.5	4 747.8
Services	603.7	682.7	723.5	724.3	818.0	818.2	902.1	879.2	877.5	932.9	1 039.2	1 014.3
GDP	10 853.9	11 194.7	11 716.7	12 236.0	12 759.7	13 662.5	14 046.0	14 453.8	14 901.6	15 531.0	16 033.4	16 609.3
Previous year prices (EUR millions)												
Private consumption (residents)	6 272.4	6 309.6	6 414.3	6 503.2	7 410.3	7 589.1	7 776.8	7 931.0	8 964.2	9 208.2	9 405.3	9 514.2
Public consumption	1 467.6	1 495.1	1 517.7	1 534.9	1 761.9	1 788.2	1 827.5	1 880.9	2 241.5	2 299.9	2 336.0	2 349.1
GFCF	2 968.3	2 987.5	2 978.1	3 033.5	3 405.9	3 480.6	3 501.6	3 545.5	3 791.0	3 806.1	3 906.6	4 005.2
Change in inventories	87.4	103.5	149.9	226.5	333.3	381.4	370.8	301.5	173.5	89.1	48.5	51.6
Exports of goods and services	3 184.2	3 235.4	3 402.9	3 546.3	3 959.7	4 045.0	4 033.3	4 074.9	4 150.5	4 259.8	4 267.6	4 313.7
Goods	2 209.7	2 285.6	2 390.6	2 494.6	2 749.5	2 812.6	2 825.8	2 813.7	2 857.3	2 887.7	2 941.3	3 017.8
Services	974.5	949.8	1 012.3	1 051.7	1 210.2	1 232.4	1 207.4	1 261.2	1 293.2	1 372.1	1 326.3	1 296.0
Imports of goods and services	3 812.5	3 918.2	4 051.0	4 198.9	4 827.1	4 969.3	5 158.2	5 209.3	5 360.4	5 519.1	5 739.0	5 867.0
Goods	3 240.6	3 286.7	3 394.6	3 550.7	4 040.1	4 191.9	4 316.3	4 398.2	4 511.9	4 627.4	4 749.6	4 901.8
Services	571.9	631.4	656.4	648.2	787.1	777.4	841.9	811.0	848.5	891.7	989.5	965.2
GDP	10 167.3	10 213.0	10 411.9	10 645.3	12 044.0	12 315.0	12 351.8	12 524.6	13 960.2	14 144.1	14 224.9	14 366.8
Chain-linked volume (reference year 2006)												
Private consumption (residents)	14 618.6	14 705.3	14 949.2	15 156.4	15 543.0	15 917.9	16 311.6	16 635.1	17 048.2	17 512.4	17 887.1	18 094.3
Public consumption	4 698.4	4 786.4	4 858.8	4 913.8	4 950.9	5 024.7	5 135.3	5 285.4	5 478.5	5 621.2	5 709.4	5 741.4
GFCF	6 171.5	6 211.6	6 192.0	6 307.1	6 337.2	6 476.2	6 515.4	6 597.0	6 465.2	6 491.1	6 662.4	6 830.5
Exports of goods and services	4 800.5	4 877.7	5 130.2	5 346.3	5 552.4	5 672.1	5 655.6	5 714.0	5 540.0	5 685.9	5 696.3	5 757.9
Goods	2 901.3	3 001.0	3 138.9	3 275.4	3 394.1	3 472.0	3 488.3	3 473.4	3 420.4	3 456.8	3 521.0	3 612.5
Services	2 090.0	2 037.0	2 171.0	2 255.4	2 354.9	2 398.0	2 349.4	2 454.0	2 298.9	2 439.1	2 357.6	2 303.7
Imports of goods and services	4 925.6	5 062.1	5 233.7	5 424.9	5 767.0	5 936.8	6 162.5	6 223.5	6 240.3	6 425.1	6 681.1	6 830.0
Goods	4 042.3	4 099.8	4 234.3	4 429.1	4 667.2	4 842.6	4 986.4	5 080.9	5 113.0	5 243.9	5 382.3	5 554.8
Services	897.3	990.7	1 029.9	1 017.0	1 132.7	1 118.7	1 211.6	1 167.2	1 149.6	1 208.1	1 340.6	1 307.7
GDP	25 678.1	25 793.4	26 295.9	26 885.4	27 400.0	28 016.6	28 100.3	28 493.4	28 471.1	28 846.1	29 010.9	29 300.3
Deflator (2006=1)												
Private consumption (residents)	0.4620	0.4712	0.4832	0.4900	0.5043	0.5187	0.5320	0.5467	0.5609	0.5734	0.5844	0.5948
Public consumption	0.3386	0.3496	0.3611	0.3733	0.3864	0.4006	0.4159	0.4320	0.4487	0.4651	0.4810	0.4961
GFCF	0.5178	0.5266	0.5482	0.5568	0.5721	0.5796	0.5942	0.5989	0.6185	0.6275	0.6430	0.6492
Exports of goods and services	0.6971	0.7091	0.7168	0.7278	0.7379	0.7449	0.7531	0.7605	0.7678	0.7664	0.7731	0.7694
Goods	0.7953	0.8068	0.8122	0.8242	0.8316	0.8347	0.8383	0.8367	0.8397	0.8294	0.8333	0.8255
Services	0.4971	0.5093	0.5196	0.5283	0.5413	0.5533	0.5682	0.5865	0.6011	0.6111	0.6235	0.6286
Imports of goods and services	0.8287	0.8259	0.8441	0.8482	0.8713	0.8343	0.8514	0.8788	0.8724	0.8576	0.8606	0.8436
Goods	0.8604	0.8532	0.8725	0.8753	0.9013	0.8538	0.8713	0.9033	0.8932	0.8729	0.8752	0.8547
Services	0.6728	0.6891	0.7026	0.7122	0.7221	0.7314	0.7446	0.7533	0.7633	0.7722	0.7752	0.7757
GDP	0.4227	0.4340	0.4456	0.4551	0.4657	0.4877	0.4999	0.5073	0.5234	0.5384	0.5527	0.5669

MAIN EXPENDITURE COMPONENTS

	1992				1993				1994			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	11 044.6	11 526.2	11 725.7	12 001.5	12 182.7	12 289.2	12 602.2	12 848.9	13 008.6	13 312.3	13 505.5	13 799.9
Public consumption	2 917.9	2 987.7	3 059.1	3 130.8	3 201.2	3 263.8	3 319.0	3 369.4	3 419.9	3 476.1	3 540.9	3 614.3
GFCF	4 733.3	4 829.7	4 888.9	4 795.7	4 584.4	4 603.9	4 389.0	4 387.9	4 497.6	4 608.2	4 644.9	5 073.3
Change in inventories	-44.5	-21.0	-33.4	-81.8	-166.1	-192.6	-161.5	-72.6	74.0	178.0	239.4	258.3
Exports of goods and services	4 520.3	4 529.7	4 428.0	4 337.9	4 319.5	4 330.9	4 614.3	4 758.9	4 786.4	5 060.9	5 232.5	5 468.4
Goods	3 082.7	3 113.3	3 045.2	3 011.3	3 000.2	3 052.6	3 218.0	3 350.5	3 470.2	3 702.1	3 915.7	4 132.6
Services	1 437.6	1 416.3	1 382.7	1 326.7	1 319.3	1 278.3	1 396.3	1 408.4	1 316.3	1 358.8	1 316.8	1 335.9
Imports of goods and services	5 923.2	5 932.6	5 969.9	5 865.3	5 914.8	5 810.0	5 978.5	6 276.3	6 301.1	6 504.7	6 789.3	7 192.0
Goods	4 912.2	4 941.2	4 902.3	4 846.6	4 693.9	4 671.8	4 783.8	4 984.4	5 211.8	5 407.5	5 698.4	5 918.0
Services	1 011.0	991.5	1 067.6	1 018.7	1 220.9	1 138.2	1 194.7	1 291.8	1 089.3	1 097.2	1 090.9	1 273.9
GDP	17 248.5	17 919.6	18 098.3	18 318.8	18 207.0	18 485.3	18 784.6	19 016.3	19 485.3	20 130.9	20 373.9	21 022.3
Previous year prices (EUR millions)												
Private consumption (residents)	10 574.8	10 755.8	10 801.4	10 957.8	11 817.9	11 787.1	11 874.8	11 874.7	12 452.8	12 569.8	12 582.0	12 674.8
Public consumption	2 703.4	2 693.9	2 688.3	2 686.6	3 020.5	3 028.6	3 042.0	3 060.6	3 336.5	3 358.3	3 375.8	3 389.4
GFCF	4 589.3	4 659.6	4 650.5	4 514.6	4 488.2	4 447.7	4 183.4	4 110.9	4 361.5	4 462.6	4 472.4	4 832.7
Change in inventories	98.4	121.6	121.3	97.5	50.2	23.9	18.7	34.5	71.3	99.7	119.7	131.2
Exports of goods and services	4 509.2	4 510.6	4 464.1	4 387.4	4 329.1	4 296.8	4 448.4	4 544.5	4 651.6	4 821.4	4 977.6	5 121.8
Goods	3 099.6	3 152.8	3 144.0	3 119.0	3 037.6	3 048.3	3 116.1	3 227.7	3 389.8	3 534.7	3 733.7	3 873.0
Services	1 409.7	1 357.8	1 320.0	1 268.5	1 291.5	1 248.5	1 332.3	1 316.8	1 261.8	1 286.7	1 243.9	1 248.8
Imports of goods and services	6 076.7	6 229.7	6 369.8	6 309.4	6 063.2	5 886.4	5 871.6	6 065.2	6 102.1	6 305.5	6 623.1	6 982.2
Goods	5 056.0	5 211.7	5 268.5	5 232.8	4 813.0	4 725.9	4 710.7	4 821.9	5 046.7	5 246.4	5 556.6	5 728.5
Services	1 020.7	1 018.0	1 101.3	1 076.6	1 250.1	1 160.5	1 160.9	1 243.4	1 055.4	1 059.1	1 066.5	1 253.7
GDP	16 398.4	16 511.8	16 355.9	16 334.6	17 642.7	17 697.7	17 695.7	17 559.9	18 771.6	19 006.3	18 904.4	19 167.7
Chain-linked volume (reference year 2006)												
Private consumption (residents)	18 274.9	18 587.6	18 666.5	18 936.8	19 007.9	18 958.4	19 099.4	19 099.2	18 998.6	19 177.0	19 195.6	19 337.2
Public consumption	5 714.8	5 694.8	5 682.9	5 679.3	5 686.6	5 701.8	5 727.1	5 762.0	5 803.1	5 841.0	5 871.5	5 895.1
GFCF	7 229.4	7 340.0	7 325.8	7 111.7	6 763.8	6 702.9	6 304.6	6 195.3	6 304.0	6 450.1	6 464.3	6 985.1
Exports of goods and services	5 862.2	5 864.1	5 803.5	5 703.9	5 645.6	5 603.5	5 801.2	5 926.5	5 929.9	6 146.4	6 345.5	6 529.4
Goods	3 726.0	3 790.0	3 779.5	3 749.3	3 729.9	3 743.1	3 826.3	3 963.3	4 099.2	4 274.4	4 515.0	4 683.5
Services	2 288.3	2 204.1	2 142.7	2 059.0	2 018.3	1 951.0	2 082.0	2 057.8	1 894.0	1 931.4	1 867.2	1 874.6
Imports of goods and services	7 080.3	7 258.5	7 421.7	7 351.3	7 450.5	7 233.3	7 215.1	7 453.0	7 469.2	7 718.2	8 107.0	8 546.5
Goods	5 787.6	5 965.8	6 030.9	5 989.9	5 837.4	5 731.8	5 713.3	5 848.1	6 100.8	6 342.3	6 717.2	6 925.0
Services	1 322.4	1 319.0	1 426.8	1 394.8	1 670.3	1 550.5	1 551.1	1 661.2	1 401.2	1 406.1	1 415.9	1 664.5
GDP	30 061.3	30 269.2	29 983.3	29 944.4	29 638.5	29 730.9	29 727.6	29 499.4	29 885.2	30 258.8	30 096.6	30 515.8
Deflator (2006=1)												
Private consumption (residents)	0.6044	0.6201	0.6282	0.6338	0.6409	0.6482	0.6598	0.6727	0.6847	0.6942	0.7036	0.7136
Public consumption	0.5106	0.5246	0.5383	0.5513	0.5629	0.5724	0.5795	0.5848	0.5893	0.5951	0.6031	0.6131
GFCF	0.6547	0.6580	0.6674	0.6743	0.6778	0.6869	0.6962	0.7083	0.7134	0.7144	0.7185	0.7263
Exports of goods and services	0.7711	0.7724	0.7630	0.7605	0.7651	0.7729	0.7954	0.8030	0.8072	0.8234	0.8246	0.8375
Goods	0.8273	0.8215	0.8057	0.8031	0.8044	0.8155	0.8410	0.8454	0.8465	0.8661	0.8673	0.8824
Services	0.6283	0.6426	0.6453	0.6443	0.6537	0.6552	0.6706	0.6844	0.6950	0.7036	0.7052	0.7126
Imports of goods and services	0.8366	0.8173	0.8044	0.7979	0.7939	0.8032	0.8286	0.8421	0.8436	0.8428	0.8375	0.8415
Goods	0.8487	0.8283	0.8129	0.8091	0.8041	0.8151	0.8373	0.8523	0.8543	0.8526	0.8483	0.8546
Services	0.7645	0.7517	0.7482	0.7304	0.7310	0.7341	0.7702	0.7776	0.7774	0.7803	0.7705	0.7654
GDP	0.5738	0.5920	0.6036	0.6118	0.6143	0.6218	0.6319	0.6446	0.6520	0.6653	0.6770	0.6889

MAIN EXPENDITURE COMPONENTS

	1995				1996				1997			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	14 064.3	14 393.6	14 356.0	14 501.2	14 843.0	15 045.5	15 411.0	15 519.5	15 873.3	16 011.1	16 434.6	16 622.0
Public consumption	3 691.3	3 781.8	3 863.2	3 934.2	3 997.8	4 060.0	4 125.1	4 197.7	4 281.3	4 376.7	4 483.0	4 596.7
GFCF	5 003.9	5 133.2	5 023.1	5 099.9	5 098.7	5 375.4	5 659.8	5 873.7	6 072.7	6 479.0	6 699.1	6 811.5
Change in inventories	235.5	208.7	196.6	177.4	160.2	137.1	98.4	162.5	112.9	101.6	92.2	176.3
Exports of goods and services	5 861.4	5 742.4	5 988.5	6 272.7	6 335.7	6 315.9	6 326.6	6 385.6	6 546.5	6 955.7	7 138.5	7 432.8
Goods	4 409.1	4 279.3	4 468.3	4 755.9	4 860.2	4 850.5	4 856.4	4 859.8	5 024.0	5 312.3	5 472.8	5 709.1
Services	1 452.3	1 463.0	1 520.2	1 516.8	1 475.5	1 465.4	1 470.2	1 525.8	1 522.6	1 643.5	1 665.7	1 723.8
Imports of goods and services	7 426.8	7 453.3	7 296.0	7 601.7	7 796.5	7 864.3	8 011.9	8 369.7	8 499.3	8 844.8	9 278.1	9 694.1
Goods	6 174.9	6 212.7	6 070.5	6 295.3	6 580.2	6 615.3	6 755.9	7 045.8	7 270.5	7 517.6	7 882.2	8 157.0
Services	1 251.9	1 240.6	1 225.5	1 306.4	1 216.3	1 249.0	1 256.0	1 323.9	1 228.8	1 327.3	1 396.0	1 537.1
GDP	21 429.6	21 806.4	22 131.4	22 383.7	22 638.9	23 069.6	23 609.1	23 769.3	24 387.5	25 079.3	25 569.4	25 945.3
Previous year prices (EUR millions)												
Private consumption (residents)	13 523.6	13 756.5	13 650.6	13 679.6	14 647.5	14 692.4	14 911.2	14 923.2	15 565.4	15 601.5	15 908.5	15 986.6
Public consumption	3 549.7	3 579.1	3 610.6	3 643.6	3 901.9	3 928.1	3 944.6	3 955.4	4 133.5	4 162.9	4 212.6	4 281.0
GFCF	4 874.6	4 977.4	4 860.9	4 852.0	4 961.1	5 221.4	5 479.1	5 682.9	5 910.9	6 282.3	6 402.3	6 529.8
Change in inventories	134.3	138.4	143.6	149.8	168.8	145.4	103.2	166.3	105.7	92.3	82.1	155.1
Exports of goods and services	5 685.4	5 475.0	5 752.6	6 051.9	6 301.8	6 385.1	6 487.5	6 492.2	6 480.4	6 808.8	6 824.3	7 069.1
Goods	4 274.8	4 056.0	4 268.2	4 574.2	4 862.7	4 961.6	5 068.7	5 016.8	4 995.1	5 226.4	5 240.2	5 459.8
Services	1 410.6	1 419.0	1 484.4	1 477.6	1 439.1	1 423.6	1 418.8	1 475.4	1 485.3	1 582.3	1 584.1	1 609.3
Imports of goods and services	7 360.6	7 371.5	7 218.4	7 388.9	7 649.9	7 701.7	7 933.5	8 230.9	8 447.1	8 712.6	8 938.7	9 324.6
Goods	6 091.3	6 124.3	5 995.2	6 101.6	6 416.2	6 472.6	6 723.1	6 998.2	7 198.5	7 443.0	7 594.5	7 924.5
Services	1 269.2	1 247.1	1 223.2	1 287.3	1 233.7	1 229.1	1 210.4	1 232.7	1 248.5	1 269.5	1 344.2	1 400.1
GDP	20 407.0	20 554.9	20 800.0	20 987.9	22 331.3	22 670.7	22 992.1	22 989.0	23 748.9	24 235.2	24 491.0	24 696.9
Chain-linked volume (reference year 2006)												
Private consumption (residents)	19 344.5	19 677.7	19 526.2	19 567.6	19 963.4	20 024.6	20 322.7	20 339.1	20 640.7	20 688.6	21 095.6	21 199.3
Public consumption	5 914.1	5 963.0	6 015.6	6 070.6	6 123.1	6 164.1	6 190.0	6 207.0	6 228.9	6 273.1	6 348.0	6 451.1
GFCF	6 785.6	6 928.6	6 766.5	6 754.1	6 669.0	7 018.9	7 365.3	7 639.2	7 706.3	8 190.5	8 346.9	8 513.2
Exports of goods and services	6 903.6	6 648.2	6 985.3	7 348.6	7 363.6	7 460.9	7 580.5	7 586.0	7 662.6	8 050.9	8 069.2	8 358.7
Goods	4 935.2	4 682.7	4 927.7	5 281.0	5 382.3	5 491.7	5 610.3	5 552.9	5 666.2	5 928.6	5 944.2	6 193.4
Services	2 003.6	2 015.4	2 108.3	2 098.7	1 988.8	1 967.3	1 960.8	2 038.9	1 990.5	2 120.5	2 122.8	2 156.6
Imports of goods and services	8 749.3	8 762.2	8 580.2	8 783.0	8 959.3	9 020.0	9 291.4	9 639.7	9 730.4	10 036.2	10 296.7	10 741.3
Goods	7 145.9	7 184.6	7 033.0	7 157.9	7 392.9	7 457.9	7 746.5	8 063.5	8 175.4	8 453.1	8 625.1	8 999.9
Services	1 641.9	1 613.3	1 582.4	1 665.3	1 596.7	1 590.8	1 566.5	1 595.4	1 571.3	1 597.7	1 691.6	1 762.1
GDP	30 418.5	30 638.9	31 004.3	31 284.4	31 389.6	31 866.7	32 318.5	32 314.1	32 627.8	33 295.9	33 647.3	33 930.3
Deflator (2006=1)												
Private consumption (residents)	0.7270	0.7315	0.7352	0.7411	0.7435	0.7514	0.7583	0.7630	0.7690	0.7739	0.7791	0.7841
Public consumption	0.6242	0.6342	0.6422	0.6481	0.6529	0.6587	0.6664	0.6763	0.6873	0.6977	0.7062	0.7125
GFCF	0.7374	0.7409	0.7423	0.7551	0.7645	0.7658	0.7684	0.7689	0.7880	0.7910	0.8026	0.8001
Exports of goods and services	0.8490	0.8638	0.8573	0.8536	0.8604	0.8465	0.8346	0.8418	0.8544	0.8640	0.8847	0.8892
Goods	0.8934	0.9139	0.9068	0.9006	0.9030	0.8832	0.8656	0.8752	0.8867	0.8960	0.9207	0.9218
Services	0.7249	0.7259	0.7210	0.7228	0.7419	0.7449	0.7498	0.7483	0.7649	0.7750	0.7846	0.7993
Imports of goods and services	0.8488	0.8506	0.8503	0.8655	0.8702	0.8719	0.8623	0.8683	0.8735	0.8813	0.9011	0.9025
Goods	0.8641	0.8647	0.8631	0.8795	0.8901	0.8870	0.8721	0.8738	0.8893	0.8893	0.9139	0.9063
Services	0.7624	0.7690	0.7745	0.7845	0.7618	0.7851	0.8018	0.8298	0.7820	0.8307	0.8252	0.8723
GDP	0.7045	0.7117	0.7138	0.7155	0.7212	0.7239	0.7305	0.7356	0.7474	0.7532	0.7599	0.7647

MAIN EXPENDITURE COMPONENTS

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	16 901.7	17 302.6	17 600.4	18 039.0	18 349.5	18 626.3	19 056.8	19 325.8	19 881.5	20 035.3	20 432.0	20 627.3
Public consumption	4 711.8	4 818.8	4 916.2	5 006.8	5 100.2	5 214.7	5 355.8	5 524.5	5 709.9	5 887.8	6 047.7	6 183.6
GFCF	7 199.1	7 392.5	7 471.0	7 793.6	7 784.7	7 924.9	8 222.5	8 408.6	8 974.4	8 567.4	8 885.8	8 810.7
Change in inventories	215.6	258.8	304.3	388.9	446.9	487.9	422.9	373.7	290.4	311.5	174.7	180.7
Exports of goods and services	7 595.6	7 793.7	7 879.5	7 556.2	7 789.4	7 851.7	8 129.4	8 367.2	8 894.9	8 835.2	9 348.9	9 759.7
Goods	5 678.3	5 845.4	5 805.3	5 651.5	5 772.9	5 828.7	6 069.8	6 190.7	6 615.8	6 495.1	6 980.3	7 182.0
Services	1 917.2	1 948.3	2 074.2	1 904.8	2 016.4	2 023.0	2 059.6	2 176.5	2 279.1	2 340.1	2 368.6	2 577.7
Imports of goods and services	10 032.6	10 269.8	10 280.9	10 458.5	10 527.3	10 731.2	11 343.7	11 791.1	12 735.1	12 263.5	12 685.4	13 148.1
Goods	8 409.9	8 761.4	8 781.4	8 874.5	9 011.8	9 208.3	9 745.0	10 146.8	10 997.1	10 479.0	10 918.7	11 318.0
Services	1 622.7	1 508.4	1 499.6	1 584.0	1 515.4	1 522.9	1 598.7	1 644.4	1 738.1	1 784.5	1 766.8	1 830.0
GDP	26 591.2	27 296.6	27 890.5	28 326.0	28 943.4	29 374.2	29 843.7	30 208.7	31 016.0	31 373.7	32 203.7	32 414.0
Previous year prices (EUR millions)												
Private consumption (residents)	16 670.8	16 962.1	17 143.6	17 458.8	18 148.3	18 272.9	18 548.6	18 704.1	19 511.9	19 425.2	19 620.3	19 711.8
Public consumption	4 606.6	4 685.2	4 750.5	4 798.8	4 991.2	5 027.1	5 067.6	5 117.7	5 430.9	5 494.1	5 558.0	5 619.5
GFCF	7 113.7	7 195.4	7 248.9	7 586.1	7 781.3	7 792.1	7 978.0	8 101.1	8 657.5	8 225.9	8 422.0	8 305.3
Change in inventories	211.3	254.8	301.3	387.4	453.7	498.9	435.6	387.7	295.7	322.5	186.0	199.3
Exports of goods and services	7 467.7	7 574.6	7 778.5	7 551.8	7 816.8	7 879.9	8 099.2	8 243.6	8 681.7	8 403.4	8 777.2	9 099.4
Goods	5 636.0	5 736.8	5 831.6	5 748.6	5 844.6	5 894.8	6 072.0	6 131.2	6 457.4	6 154.3	6 514.6	6 652.1
Services	1 831.7	1 837.8	1 946.8	1 803.3	1 972.2	1 985.1	2 027.2	2 112.5	2 224.3	2 249.1	2 262.7	2 447.3
Imports of goods and services	10 071.7	10 332.9	10 483.9	10 762.8	10 851.7	10 983.9	11 305.9	11 598.6	12 095.6	11 523.7	11 573.7	11 709.9
Goods	8 470.9	8 826.2	8 977.7	9 146.7	9 276.9	9 413.1	9 675.9	9 949.6	10 428.3	9 847.4	9 930.6	10 036.5
Services	1 600.8	1 506.8	1 506.2	1 616.1	1 574.8	1 570.8	1 630.1	1 649.1	1 667.3	1 676.2	1 643.0	1 673.4
GDP	25 998.4	26 339.1	26 738.8	27 020.2	28 339.5	28 486.9	28 823.1	28 955.5	30 482.2	30 347.5	30 989.8	31 225.5
Chain-linked volume (reference year 2006)												
Private consumption (residents)	21 466.9	21 842.1	22 075.7	22 481.6	22 831.3	22 988.0	23 334.9	23 530.5	23 998.1	23 891.4	24 131.3	24 243.9
Public consumption	6 570.8	6 683.0	6 776.1	6 845.0	6 895.3	6 944.9	7 000.8	7 070.1	7 151.7	7 235.0	7 319.1	7 400.1
GFCF	8 941.0	9 043.7	9 110.9	9 534.8	9 546.8	9 560.1	9 788.2	9 939.1	10 395.8	9 877.5	10 112.9	9 972.9
Exports of goods and services	8 549.7	8 672.1	8 905.5	8 646.1	8 818.1	8 889.2	9 136.7	9 299.6	9 763.9	9 450.9	9 871.3	10 233.6
Goods	6 216.0	6 327.1	6 431.7	6 340.1	6 438.3	6 493.6	6 688.8	6 754.0	7 137.3	6 802.3	7 200.5	7 352.5
Services	2 344.4	2 352.2	2 491.7	2 308.0	2 387.5	2 403.1	2 454.1	2 557.3	2 634.6	2 664.0	2 680.0	2 898.7
Imports of goods and services	11 316.4	11 610.0	11 779.5	12 092.9	12 373.9	12 524.7	12 891.8	13 225.6	13 900.0	13 242.8	13 300.2	13 456.7
Goods	9 412.3	9 807.1	9 975.5	10 163.3	10 483.9	10 637.8	10 934.7	11 244.0	11 847.9	11 188.0	11 282.6	11 402.9
Services	1 931.5	1 818.0	1 817.3	1 949.8	1 904.7	1 899.9	1 971.6	1 994.5	2 062.6	2 073.7	2 032.6	2 070.1
GDP	34 370.9	34 821.4	35 349.7	35 721.7	36 102.1	36 289.9	36 718.2	36 886.9	37 596.6	37 430.5	38 222.7	38 513.3
Deflator (2006=1)												
Private consumption (residents)	0.7873	0.7922	0.7973	0.8024	0.8037	0.8103	0.8167	0.8213	0.8285	0.8386	0.8467	0.8508
Public consumption	0.7171	0.7211	0.7255	0.7314	0.7397	0.7509	0.7650	0.7814	0.7984	0.8138	0.8263	0.8356
GFCF	0.8052	0.8174	0.8200	0.8174	0.8154	0.8290	0.8400	0.8460	0.8633	0.8674	0.8787	0.8835
Exports of goods and services	0.8884	0.8987	0.8848	0.8740	0.8833	0.8833	0.8898	0.8997	0.9110	0.9349	0.9471	0.9537
Goods	0.9135	0.9239	0.9026	0.8914	0.8967	0.8976	0.9075	0.9166	0.9269	0.9548	0.9694	0.9768
Services	0.8178	0.8283	0.8324	0.8253	0.8446	0.8418	0.8392	0.8511	0.8651	0.8784	0.8838	0.8893
Imports of goods and services	0.8866	0.8846	0.8728	0.8648	0.8508	0.8568	0.8799	0.8915	0.9162	0.9261	0.9538	0.9771
Goods	0.8935	0.8934	0.8803	0.8732	0.8596	0.8656	0.8912	0.9024	0.9282	0.9366	0.9677	0.9926
Services	0.8401	0.8297	0.8252	0.8124	0.7956	0.8015	0.8109	0.8244	0.8427	0.8606	0.8692	0.8840
GDP	0.7737	0.7839	0.7890	0.7930	0.8017	0.8094	0.8128	0.8190	0.8250	0.8382	0.8425	0.8416

MAIN EXPENDITURE COMPONENTS

	2001				2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	20 956.4	21 169.0	21 241.9	21 507.9	21 795.5	22 001.5	22 291.1	22 304.7	22 408.7	22 494.3	22 801.5	23 094.2
Public consumption	6 294.6	6 394.7	6 492.1	6 589.3	6 686.0	6 775.2	6 854.5	6 922.8	6 983.6	7 034.9	7 092.4	7 162.1
GFCF	8 678.0	9 081.5	9 177.5	9 331.2	9 208.7	9 132.4	8 860.7	8 776.2	8 588.8	8 338.0	8 463.2	8 456.6
Change in inventories	293.8	317.7	344.0	46.6	62.7	98.6	91.9	-48.2	-88.3	18.1	-72.3	-3.8
Exports of goods and services	9 521.9	9 480.4	9 231.1	9 519.7	9 463.1	9 761.1	9 790.7	9 782.7	9 959.3	9 673.5	9 922.7	10 075.4
Goods	7 124.8	7 005.8	6 803.4	6 935.6	6 904.7	7 202.5	7 192.4	7 238.4	7 413.6	7 173.8	7 315.0	7 470.1
Services	2 397.1	2 474.6	2 427.7	2 584.1	2 558.4	2 558.6	2 598.2	2 544.3	2 545.6	2 499.7	2 607.7	2 605.3
Imports of goods and services	12 971.4	13 152.7	12 840.5	12 567.4	12 550.1	12 676.0	12 651.4	12 592.3	12 392.3	11 933.6	12 421.5	12 640.5
Goods	11 200.2	11 343.2	11 094.9	10 833.2	10 781.0	10 886.8	10 916.4	10 848.6	10 696.0	10 265.8	10 738.0	10 920.4
Services	1 771.2	1 809.5	1 745.6	1 734.2	1 769.1	1 789.2	1 735.0	1 743.7	1 696.3	1 667.8	1 683.6	1 720.1
GDP	32 773.3	33 290.5	33 646.0	34 427.3	34 666.0	35 092.8	35 237.5	35 145.8	35 459.8	35 625.1	35 785.9	36 144.0
Previous year prices (EUR millions)												
Private consumption (residents)	20 410.2	20 495.0	20 458.8	20 649.5	21 495.2	21 541.2	21 543.8	21 430.6	21 922.6	21 925.9	22 100.9	22 241.2
Public consumption	6 116.6	6 167.6	6 211.1	6 245.5	6 531.9	6 548.3	6 556.7	6 559.2	6 822.6	6 822.3	6 833.5	6 858.7
GFCF	8 521.7	8 889.8	8 927.4	9 119.8	9 107.4	8 921.2	8 596.7	8 496.4	8 430.7	8 290.3	8 403.9	8 303.9
Change in inventories	323.1	365.9	415.9	59.2	72.4	113.8	97.4	-44.4	-63.1	12.5	-48.2	-2.5
Exports of goods and services	9 452.4	9 294.6	9 208.9	9 537.6	9 541.3	9 761.3	9 745.6	9 793.8	10 000.2	9 823.3	10 132.8	10 283.9
Goods	7 066.5	6 845.8	6 808.3	7 000.8	7 002.0	7 251.6	7 233.3	7 328.1	7 520.2	7 375.0	7 581.7	7 761.2
Services	2 385.9	2 448.8	2 400.6	2 536.8	2 539.3	2 509.7	2 512.3	2 465.7	2 480.0	2 448.3	2 551.2	2 522.8
Imports of goods and services	12 732.9	12 888.9	12 895.5	12 842.4	12 796.4	12 840.1	12 901.7	12 770.8	12 309.4	12 216.4	12 740.0	12 987.4
Goods	11 000.5	11 125.5	11 199.1	11 139.3	11 038.4	11 077.0	11 210.2	11 076.6	10 636.0	10 569.0	11 071.4	11 294.1
Services	1 732.4	1 763.4	1 696.4	1 703.1	1 758.0	1 763.1	1 691.5	1 694.2	1 673.5	1 647.3	1 668.6	1 693.3
GDP	32 091.2	32 324.2	32 326.7	32 769.1	33 951.9	34 045.6	33 638.4	33 464.9	34 803.5	34 657.9	34 683.0	34 697.8
Chain-linked volume (reference year 2006)												
Private consumption (residents)	24 263.7	24 364.5	24 321.5	24 548.1	24 692.1	24 744.8	24 747.9	24 617.8	24 504.3	24 508.0	24 703.7	24 860.4
Public consumption	7 471.0	7 533.4	7 586.5	7 628.5	7 659.5	7 678.7	7 688.6	7 691.6	7 694.2	7 693.8	7 706.5	7 734.9
GFCF	9 760.1	10 181.7	10 224.8	10 445.0	10 198.0	9 989.5	9 626.1	9 513.9	9 215.6	9 062.1	9 186.3	9 077.0
Exports of goods and services	10 089.0	9 920.6	9 829.1	10 179.9	10 113.9	10 347.1	10 330.4	10 381.6	10 612.4	10 424.7	10 753.2	10 913.6
Goods	7 382.4	7 151.9	7 112.7	7 313.8	7 276.2	7 535.6	7 516.5	7 615.0	7 890.5	7 738.2	7 955.0	8 143.3
Services	2 713.2	2 784.7	2 729.9	2 884.6	2 855.0	2 821.8	2 824.7	2 772.3	2 725.1	2 690.3	2 803.4	2 772.2
Imports of goods and services	13 501.3	13 666.7	13 673.7	13 617.4	13 523.2	13 569.4	13 634.5	13 496.2	13 224.9	13 124.9	13 687.5	13 953.3
Goods	11 506.0	11 636.7	11 713.7	11 651.2	11 543.7	11 584.2	11 723.4	11 583.7	11 371.2	11 299.6	11 836.7	12 074.8
Services	2 004.8	2 040.7	1 963.2	1 970.9	1 986.9	1 992.6	1 911.7	1 914.7	1 856.3	1 827.3	1 850.9	1 878.3
GDP	38 346.2	38 624.6	38 627.6	39 156.3	39 170.5	39 278.7	38 808.9	38 608.6	38 708.6	38 546.7	38 574.5	38 591.0
Deflator (2006=1)												
Private consumption (residents)	0.8637	0.8688	0.8734	0.8761	0.8827	0.8891	0.9007	0.9060	0.9145	0.9178	0.9230	0.9290
Public consumption	0.8425	0.8488	0.8557	0.8638	0.8729	0.8823	0.8915	0.9000	0.9077	0.9144	0.9203	0.9260
GFCF	0.8891	0.8919	0.8976	0.8934	0.9030	0.9142	0.9205	0.9225	0.9320	0.9201	0.9213	0.9316
Exports of goods and services	0.9438	0.9556	0.9392	0.9351	0.9357	0.9434	0.9478	0.9423	0.9385	0.9279	0.9228	0.9232
Goods	0.9651	0.9796	0.9565	0.9483	0.9490	0.9558	0.9569	0.9505	0.9396	0.9271	0.9196	0.9173
Services	0.8835	0.8886	0.8893	0.8958	0.8961	0.9067	0.9198	0.9177	0.9341	0.9291	0.9302	0.9398
Imports of goods and services	0.9608	0.9624	0.9391	0.9229	0.9280	0.9342	0.9279	0.9330	0.9370	0.9092	0.9075	0.9059
Goods	0.9734	0.9748	0.9472	0.9298	0.9339	0.9398	0.9312	0.9365	0.9406	0.9085	0.9072	0.9044
Services	0.8835	0.8867	0.8891	0.8799	0.8904	0.8979	0.9076	0.9107	0.9138	0.9127	0.9096	0.9158
GDP	0.8547	0.8619	0.8710	0.8792	0.8850	0.8934	0.9080	0.9103	0.9161	0.9242	0.9277	0.9366

MAIN EXPENDITURE COMPONENTS

	2004				2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	23 429.6	23 777.1	24 012.8	24 376.8	24 547.2	24 939.6	24 954.0	25 405.0	25 770.3	26 046.2	26 336.7	26 593.3
Public consumption	7 251.2	7 371.9	7 522.0	7 694.8	7 867.7	8 005.2	8 089.9	8 116.2	8 107.5	8 094.2	8 095.6	8 124.1
GFCF	8 569.6	8 681.1	8 720.2	8 728.8	8 720.0	8 905.6	8 842.3	8 944.9	9 108.1	9 065.1	8 892.6	8 824.3
Change in inventories	101.3	359.7	281.4	368.4	289.9	266.4	203.8	152.5	404.1	262.8	261.6	259.5
Exports of goods and services	10 217.5	10 571.8	10 424.4	10 661.0	10 215.9	10 582.3	10 840.0	11 030.6	11 778.2	12 285.6	12 710.6	12 938.2
Goods	7 487.0	7 659.9	7 714.6	7 952.9	7 481.4	7 728.3	7 947.8	8 005.5	8 514.8	8 903.9	9 225.1	9 329.8
Services	2 730.4	2 911.9	2 709.8	2 708.1	2 734.5	2 854.0	2 892.2	3 025.2	3 263.4	3 381.7	3 485.5	3 608.5
Imports of goods and services	12 930.5	13 476.1	13 620.4	14 267.2	13 689.1	14 219.6	14 437.1	14 844.7	15 745.5	15 815.9	16 102.9	16 020.8
Goods	11 186.4	11 669.2	11 735.2	12 337.3	11 800.6	12 206.9	12 435.2	12 700.0	13 436.3	13 512.4	13 789.7	13 629.4
Services	1 744.2	1 806.9	1 885.1	1 929.9	1 888.5	2 012.8	2 001.9	2 144.7	2 309.2	2 303.5	2 313.2	2 391.4
GDP	36 638.7	37 285.4	37 340.5	37 562.7	37 951.7	38 479.5	38 492.7	38 804.5	39 422.6	39 938.0	40 194.2	40 718.7
Previous year prices (EUR millions)												
Private consumption (residents)	23 107.5	23 253.8	23 386.9	23 480.1	24 163.3	24 440.3	24 177.0	24 408.9	25 243.8	25 341.7	25 478.2	25 572.8
Public consumption	7 135.0	7 196.4	7 272.2	7 357.0	7 662.1	7 716.8	7 736.3	7 719.0	7 995.2	7 964.4	7 950.9	7 961.9
GFCF	8 509.5	8 451.8	8 456.9	8 423.5	8 622.0	8 750.4	8 560.4	8 608.9	8 880.0	8 803.8	8 652.7	8 609.9
Change in inventories	99.1	355.3	281.3	373.1	298.6	276.1	210.9	156.6	397.1	256.3	253.9	251.4
Exports of goods and services	10 205.6	10 437.7	10 221.5	10 387.0	10 135.8	10 562.6	10 599.9	10 670.0	11 432.3	11 785.0	12 070.0	12 326.0
Goods	7 519.5	7 583.7	7 579.8	7 770.5	7 410.9	7 732.7	7 759.3	7 729.2	8 264.3	8 519.1	8 684.1	8 815.2
Services	2 686.1	2 854.0	2 641.7	2 616.5	2 724.9	2 829.9	2 840.6	2 940.8	3 168.0	3 266.0	3 385.9	3 510.9
Imports of goods and services	12 876.7	13 179.5	13 292.0	13 800.2	13 546.5	13 967.5	13 897.0	14 111.0	15 111.3	15 213.7	15 507.2	15 468.3
Goods	11 164.8	11 411.2	11 456.6	11 931.1	11 699.1	12 016.0	11 978.6	12 070.8	12 856.5	12 981.0	13 267.8	13 147.0
Services	1 711.9	1 768.3	1 835.4	1 869.0	1 847.3	1 951.6	1 918.4	2 040.1	2 254.8	2 232.6	2 239.4	2 321.3
GDP	36 180.1	36 515.5	36 326.7	36 220.6	37 335.3	37 778.7	37 387.6	37 452.4	38 837.1	38 937.6	38 898.5	39 253.7
Chain-linked volume (reference year 2006)												
Private consumption (residents)	25 086.9	25 245.7	25 390.2	25 491.4	25 583.3	25 876.6	25 597.8	25 843.3	26 015.4	26 116.9	26 258.4	26 355.8
Public consumption	7 780.1	7 847.1	7 929.7	8 022.2	8 108.7	8 166.5	8 187.2	8 168.9	8 132.9	8 101.6	8 087.8	8 099.0
GFCF	9 186.9	9 124.6	9 130.1	9 094.1	9 078.1	9 213.3	9 013.3	9 064.4	9 128.3	9 042.7	8 882.2	8 836.9
Exports of goods and services	10 997.0	11 247.1	11 014.1	11 192.4	10 759.3	11 212.4	11 252.0	11 326.4	11 936.8	12 304.8	12 602.2	12 868.8
Goods	8 122.3	8 191.6	8 187.4	8 393.4	7 911.2	8 254.7	8 283.1	8 251.0	8 671.9	8 939.3	9 112.4	9 250.0
Services	2 877.9	3 057.9	2 830.4	2 803.4	2 850.4	2 960.3	2 971.4	3 076.2	3 264.9	3 365.5	3 489.8	3 618.8
Imports of goods and services	14 076.8	14 407.8	14 530.8	15 086.2	14 496.4	14 947.0	14 871.5	15 100.5	15 698.9	15 805.6	16 111.0	16 069.6
Goods	12 202.8	12 472.1	12 521.7	13 040.3	12 524.0	12 863.1	12 823.2	12 921.9	13 377.0	13 506.6	13 805.0	13 679.2
Services	1 875.0	1 936.8	2 010.4	2 047.2	1 973.5	2 084.9	2 049.4	2 179.5	2 321.9	2 299.0	2 306.0	2 390.4
GDP	39 065.6	39 427.7	39 223.9	39 109.3	39 342.0	39 809.2	39 397.1	39 465.4	39 921.7	40 023.1	39 980.0	40 348.6
Deflator (2006=1)												
Private consumption (residents)	0.9339	0.9418	0.9457	0.9563	0.9595	0.9638	0.9748	0.9830	0.9906	0.9973	1.0030	1.0090
Public consumption	0.9320	0.9394	0.9486	0.9592	0.9703	0.9802	0.9881	0.9935	0.9969	0.9991	1.0010	1.0031
GFCF	0.9328	0.9514	0.9551	0.9598	0.9606	0.9666	0.9810	0.9868	0.9978	1.0025	1.0012	0.9986
Exports of goods and services	0.9291	0.9400	0.9465	0.9525	0.9495	0.9438	0.9634	0.9739	0.9867	0.9984	1.0086	1.0054
Goods	0.9218	0.9351	0.9423	0.9475	0.9457	0.9362	0.9595	0.9702	0.9819	0.9960	1.0124	1.0086
Services	0.9488	0.9523	0.9574	0.9660	0.9593	0.9641	0.9733	0.9834	0.9995	1.0048	0.9988	0.9971
Imports of goods and services	0.9186	0.9353	0.9373	0.9457	0.9443	0.9513	0.9708	0.9831	1.0030	1.0007	0.9995	0.9970
Goods	0.9167	0.9356	0.9372	0.9461	0.9422	0.9490	0.9697	0.9828	1.0044	1.0004	0.9989	0.9964
Services	0.9302	0.9329	0.9377	0.9427	0.9569	0.9654	0.9768	0.9840	0.9945	1.0019	1.0031	1.0004
GDP	0.9379	0.9457	0.9520	0.9605	0.9647	0.9666	0.9770	0.9833	0.9875	0.9979	1.0054	1.0092

MAIN EXPENDITURE COMPONENTS

	2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption (residents)	27 051.7	27 518.5	27 757.3	28 307.4	28 755.7	28 952.0	29 176.7	28 794.6	27 975.5	27 838.3	27 927.7	28 183.8
Public consumption	8 171.7	8 228.3	8 278.7	8 320.6	8 360.8	8 414.7	8 482.1	8 618.1	8 811.9	8 762.0	8 901.1	8 929.2
GFCF	9 283.1	9 186.9	9 380.6	9 778.6	9 624.7	9 769.7	9 652.9	9 103.8	8 150.3	8 167.2	8 441.2	7 920.1
Change in inventories	133.8	344.5	286.9	239.8	298.4	464.3	483.6	359.4	-16.0	-44.9	220.0	332.6
Exports of goods and services	13 354.5	13 528.8	13 727.5	13 902.9	14 375.3	14 317.4	14 391.8	12 769.6	11 176.5	11 401.3	12 161.7	12 133.9
Goods	9 558.6	9 606.4	9 650.5	9 738.8	10 113.5	10 132.2	10 235.5	8 704.3	7 427.2	7 656.6	8 445.0	8 339.5
Services	3 795.8	3 922.4	4 076.9	4 164.1	4 261.8	4 185.2	4 156.3	4 065.3	3 749.4	3 744.7	3 716.8	3 794.5
Imports of goods and services	16 222.3	16 797.2	17 234.6	17 790.8	18 397.1	18 693.8	19 140.4	17 013.7	14 531.9	14 329.3	15 607.6	15 271.7
Goods	13 809.0	14 302.8	14 659.1	15 125.4	15 706.4	15 938.9	16 344.7	14 284.7	12 042.7	11 749.6	13 135.7	12 775.1
Services	2 413.3	2 494.3	2 575.5	2 665.4	2 690.7	2 754.8	2 795.6	2 729.0	2 489.2	2 579.8	2 471.9	2 496.6
GDP	41 772.5	42 009.8	42 196.3	42 758.4	43 017.8	43 224.4	43 046.7	42 631.7	41 566.4	41 794.6	42 044.1	42 227.9
Previous year prices (EUR millions)												
Private consumption (residents)	26 598.9	26 754.2	26 915.0	27 127.1	28 087.0	28 076.4	28 287.1	28 158.8	28 431.8	28 499.5	28 708.7	28 929.9
Public consumption	8 123.8	8 149.8	8 162.0	8 159.6	8 253.5	8 261.4	8 287.1	8 385.3	8 722.0	8 647.1	8 761.3	8 767.3
GFCF	9 175.9	9 054.4	9 134.1	9 466.5	9 458.0	9 382.0	9 204.3	8 889.1	8 455.5	8 454.8	8 630.2	8 080.9
Change in inventories	133.0	342.1	283.6	235.1	292.8	451.2	466.2	344.1	-15.8	-43.9	213.6	321.7
Exports of goods and services	13 150.4	13 290.5	13 474.8	13 564.0	14 048.8	13 896.8	13 849.3	12 565.2	11 690.2	12 067.8	12 825.1	12 665.8
Goods	9 432.3	9 485.7	9 519.6	9 596.7	9 942.6	9 864.4	9 862.9	8 618.2	7 760.3	8 133.9	8 989.6	8 676.1
Services	3 718.1	3 804.9	3 955.2	3 967.3	4 106.3	4 032.5	3 986.5	3 947.0	3 929.9	3 933.9	3 835.5	3 989.7
Imports of goods and services	16 219.4	16 674.9	17 051.7	17 251.4	17 647.4	17 628.7	17 930.5	16 758.9	15 662.1	15 705.2	17 146.0	16 822.0
Goods	13 842.1	14 247.3	14 559.5	14 680.6	15 071.8	14 986.2	15 299.3	14 140.0	13 126.9	13 077.8	14 622.4	14 292.5
Services	2 377.3	2 427.7	2 492.2	2 570.8	2 575.6	2 642.5	2 631.3	2 618.9	2 535.2	2 627.4	2 523.6	2 529.5
GDP	40 962.6	40 916.1	40 917.9	41 300.9	42 492.8	42 439.1	42 163.5	41 583.5	41 621.6	41 920.2	41 992.9	41 943.5
Chain-linked volume (reference year 2006)												
Private consumption (residents)	26 599.0	26 754.2	26 915.0	27 127.1	27 264.6	27 254.3	27 458.9	27 334.3	26 866.9	26 930.9	27 128.5	27 337.6
Public consumption	8 123.8	8 149.8	8 162.0	8 159.6	8 152.4	8 160.2	8 185.6	8 282.6	8 440.1	8 367.6	8 478.1	8 484.0
GFCF	9 175.9	9 054.4	9 134.1	9 466.5	9 257.4	9 183.0	9 009.0	8 700.5	8 012.0	8 011.3	8 177.5	7 657.0
Exports of goods and services	13 150.4	13 290.5	13 474.8	13 564.0	13 782.4	13 633.3	13 586.7	12 326.8	11 161.7	11 522.3	12 245.3	12 093.3
Goods	9 432.3	9 485.7	9 519.6	9 596.7	9 808.5	9 731.3	9 729.8	8 501.9	7 480.2	7 840.4	8 665.2	8 363.1
Services	3 718.1	3 804.9	3 955.2	3 967.3	3 974.1	3 902.7	3 858.1	3 819.9	3 667.3	3 671.0	3 579.2	3 723.1
Imports of goods and services	16 219.4	16 674.9	17 051.7	17 251.4	17 427.6	17 409.1	17 707.2	16 550.2	14 774.6	14 815.2	16 174.4	15 868.7
Goods	13 842.1	14 247.3	14 559.5	14 680.6	14 924.2	14 839.5	15 149.5	14 001.6	12 418.7	12 372.2	13 833.4	13 521.4
Services	2 377.3	2 427.7	2 492.2	2 570.8	2 504.4	2 569.4	2 558.5	2 546.5	2 352.3	2 437.9	2 341.6	2 347.0
GDP	40 962.6	40 916.1	40 917.9	41 300.9	41 324.4	41 272.2	41 004.1	40 440.1	39 713.9	39 998.8	40 068.2	40 021.1
Deflator (2006=1)												
Private consumption (residents)	1.0170	1.0286	1.0313	1.0435	1.0547	1.0623	1.0626	1.0534	1.0413	1.0337	1.0295	1.0310
Public consumption	1.0059	1.0096	1.0143	1.0197	1.0256	1.0312	1.0362	1.0405	1.0441	1.0471	1.0499	1.0525
GFCF	1.0117	1.0146	1.0270	1.0330	1.0397	1.0639	1.0715	1.0463	1.0173	1.0195	1.0322	1.0344
Exports of goods and services	1.0155	1.0179	1.0188	1.0250	1.0430	1.0502	1.0593	1.0359	1.0013	0.9895	0.9932	1.0034
Goods	1.0134	1.0127	1.0138	1.0148	1.0311	1.0412	1.0520	1.0238	0.9929	0.9766	0.9746	0.9972
Services	1.0209	1.0309	1.0308	1.0496	1.0724	1.0724	1.0773	1.0642	1.0224	1.0201	1.0384	1.0192
Imports of goods and services	1.0002	1.0073	1.0107	1.0313	1.0556	1.0738	1.0809	1.0280	0.9836	0.9672	0.9650	0.9624
Goods	0.9976	1.0039	1.0068	1.0303	1.0524	1.0741	1.0789	1.0202	0.9697	0.9497	0.9496	0.9448
Services	1.0151	1.0275	1.0334	1.0368	1.0744	1.0722	1.0927	1.0717	1.0582	1.0582	1.0557	1.0637
GDP	1.0198	1.0267	1.0312	1.0353	1.0410	1.0473	1.0498	1.0542	1.0466	1.0449	1.0493	1.0551

PRIVATE CONSUMPTION (RESIDENTS)

	1977				1978				1979			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	594.3	634.2	671.1	696.2	728.9	758.2	804.4	857.4	885.0	935.1	1 002.5	1 099.0
Durables	69.1	76.7	77.3	76.6	82.4	84.6	91.1	92.0	100.7	103.0	115.4	131.3
Non-durables	525.1	557.5	593.8	619.6	646.5	673.6	713.3	765.4	784.3	832.1	887.2	967.7
Previous year prices (EUR millions)												
Private consumption					673.9	673.2	681.4	690.4	809.3	819.3	832.8	848.7
Durables					76.3	75.7	78.8	77.6	95.7	93.1	97.6	102.0
Non-durables					597.6	597.5	602.6	612.8	713.6	726.3	735.2	746.7
Chain-linked volume (reference year 2006)												
Private consumption					9 464.2	9 454.6	9 569.4	9 695.6	9 813.6	9 935.4	10 099.1	10 291.7
Durables					917.4	910.3	948.0	932.7	1 013.8	985.8	1 034.2	1 080.7
Non-durables					8 591.6	8 590.2	8 662.6	8 810.1	8 835.6	8 992.6	9 103.2	9 245.5
Deflator (2006=1)												
Private consumption					0.0770	0.0802	0.0841	0.0884	0.0902	0.0941	0.0993	0.1068
Durables					0.0898	0.0929	0.0961	0.0987	0.0993	0.1045	0.1115	0.1215
Non-durables					0.0752	0.0784	0.0823	0.0869	0.0888	0.0925	0.0975	0.1047

GROSS FIXED CAPITAL FORMATION

	1977				1978				1979			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	290.9	320.7	327.3	332.6	319.1	340.1	367.9	413.9	483.1	546.0	593.4	592.8
Machinery and equipment	49.1	66.0	71.5	78.2	75.7	83.3	85.7	82.1	85.8	96.5	109.4	114.4
Transport material	41.6	45.9	46.7	49.2	48.0	50.9	48.5	51.8	50.3	55.1	55.1	59.6
Construction	187.2	193.0	192.7	188.5	179.2	189.2	216.3	263.5	329.2	375.4	407.4	397.4
Other	13.0	15.7	16.5	16.7	16.3	16.6	17.4	16.5	17.8	19.0	21.5	21.5
Previous year prices (EUR millions)												
Gross fixed capital formation					291.3	295.2	300.9	317.3	418.0	445.9	458.7	432.1
Machinery and equipment					68.6	72.8	71.3	65.1	76.5	83.1	88.9	85.9
Transport material					40.5	39.8	34.7	34.0	40.8	42.3	40.2	41.3
Construction					168.1	168.6	181.6	206.2	286.0	304.9	313.2	289.3
Other					14.1	14.0	13.2	12.0	14.7	15.6	16.4	15.7
Chain-linked volume (reference year 2006)												
Gross fixed capital formation					3 768.4	3 818.4	3 892.1	4 104.8	4 520.0	4 822.1	4 960.2	4 673.1
Machinery and equipment					423.1	448.7	440.0	401.3	400.7	435.3	466.0	450.0
Transport material					383.4	377.0	328.8	321.9	288.9	299.9	284.5	292.4
Construction					3 083.5	3 092.3	3 330.9	3 782.8	4 481.0	4 777.5	4 907.7	4 531.7
Other					191.5	190.2	179.5	163.0	159.7	169.0	177.4	170.8
Deflator (2006=1)												
Gross fixed capital formation					0.0847	0.0891	0.0945	0.1008	0.1069	0.1132	0.1196	0.1269
Machinery and equipment					0.1789	0.1856	0.1949	0.2047	0.2141	0.2216	0.2348	0.2541
Transport material					0.1251	0.1350	0.1475	0.1609	0.1741	0.1837	0.1935	0.2039
Construction					0.0581	0.0612	0.0649	0.0697	0.0735	0.0786	0.0830	0.0877
Other					0.0851	0.0875	0.0967	0.1010	0.1115	0.1123	0.1213	0.1257

PRIVATE CONSUMPTION (RESIDENTS)

	1980				1981				1982			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	1 180.9	1 267.5	1 333.4	1 394.2	1 475.7	1 552.1	1 649.2	1 737.5	1 814.7	1 907.7	1 975.4	2 049.1
Durables	152.0	163.6	182.8	188.3	196.5	205.1	207.3	219.0	214.9	234.9	231.0	238.5
Non-durables	1 028.9	1 103.9	1 150.6	1 205.9	1 279.2	1 347.0	1 441.9	1 518.5	1 599.7	1 672.9	1 744.5	1 810.6
Previous year prices (EUR millions)												
Private consumption	1 039.3	1 063.8	1 080.7	1 089.1	1 318.0	1 329.5	1 335.3	1 342.7	1 634.1	1 649.3	1 652.1	1 649.5
Durables	125.8	128.2	134.9	133.5	172.8	172.7	165.8	167.8	198.1	207.8	197.8	197.5
Non-durables	913.5	935.6	945.8	955.7	1 145.2	1 156.9	1 169.6	1 174.9	1 435.9	1 441.5	1 454.2	1 452.0
Chain-linked volume (reference year 2006)												
Private consumption	10 637.8	10 888.5	11 061.8	11 147.9	11 136.7	11 234.1	11 283.4	11 345.7	11 463.4	11 570.4	11 589.8	11 571.5
Durables	1 149.5	1 171.1	1 233.0	1 219.4	1 201.3	1 200.2	1 152.3	1 166.8	1 129.8	1 184.8	1 128.0	1 126.2
Non-durables	9 520.1	9 750.7	9 856.6	9 959.8	9 970.6	10 072.4	10 183.1	10 229.2	10 398.1	10 438.7	10 530.8	10 514.3
Deflator (2006=1)												
Private consumption	0.1110	0.1164	0.1205	0.1251	0.1325	0.1382	0.1462	0.1531	0.1583	0.1649	0.1704	0.1771
Durables	0.1322	0.1397	0.1482	0.1544	0.1636	0.1709	0.1799	0.1877	0.1903	0.1982	0.2047	0.2118
Non-durables	0.1081	0.1132	0.1167	0.1211	0.1283	0.1337	0.1416	0.1484	0.1538	0.1603	0.1657	0.1722

GROSS FIXED CAPITAL FORMATION

	1980				1981				1982			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	575.4	570.9	587.1	642.6	741.1	808.2	867.7	885.2	936.3	959.4	993.4	1 019.8
Machinery and equipment	129.3	139.3	149.2	161.0	177.6	184.8	205.8	204.9	217.4	229.0	232.9	229.7
Transport material	60.4	65.2	72.0	78.5	98.7	104.2	110.2	110.9	105.7	107.3	107.2	108.2
Construction	361.8	341.4	338.6	373.9	430.0	483.1	511.7	532.8	575.0	584.2	610.8	637.5
Other	24.0	25.1	27.3	29.2	34.9	36.1	40.0	36.7	38.2	38.9	42.6	44.4
Previous year prices (EUR millions)												
Gross fixed capital formation	499.6	464.4	464.3	485.5	650.9	676.7	707.2	713.8	853.0	835.9	830.4	821.3
Machinery and equipment	110.9	110.1	118.0	124.4	162.9	162.5	179.2	179.8	196.7	194.0	191.4	185.3
Transport material	54.1	54.9	59.5	61.6	85.9	85.9	89.9	92.6	102.3	101.2	99.7	98.7
Construction	313.4	278.4	264.3	275.8	372.2	398.6	406.1	410.2	519.0	506.1	503.7	499.6
Other	21.2	21.1	22.5	23.8	29.8	29.8	31.9	31.2	35.1	34.5	35.7	37.6
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	4 279.6	3 978.1	3 977.3	4 159.0	4 490.7	4 669.4	4 879.4	4 925.3	4 898.7	4 800.3	4 769.1	4 716.6
Machinery and equipment	478.4	475.1	509.3	536.7	562.9	561.3	619.3	621.4	601.7	593.6	585.7	567.1
Transport material	286.4	290.6	315.4	326.0	379.3	379.1	396.8	408.8	377.2	373.2	367.6	364.2
Construction	3 882.7	3 448.4	3 273.9	3 416.4	3 686.7	3 948.1	4 022.6	4 063.2	4 167.9	4 064.3	4 044.6	4 012.1
Other	180.1	178.9	190.6	201.9	211.9	212.1	227.1	221.7	207.3	204.2	210.8	222.2
Deflator (2006=1)												
Gross fixed capital formation	0.1345	0.1435	0.1476	0.1545	0.1650	0.1731	0.1778	0.1797	0.1911	0.1999	0.2083	0.2162
Machinery and equipment	0.2703	0.2931	0.2929	0.2999	0.3155	0.3291	0.3322	0.3297	0.3613	0.3858	0.3977	0.4050
Transport material	0.2108	0.2243	0.2284	0.2407	0.2603	0.2750	0.2778	0.2712	0.2803	0.2875	0.2915	0.2972
Construction	0.0932	0.0990	0.1034	0.1094	0.1166	0.1224	0.1272	0.1311	0.1380	0.1437	0.1510	0.1589
Other	0.1332	0.1403	0.1433	0.1446	0.1645	0.1702	0.1762	0.1655	0.1843	0.1907	0.2018	0.1997

PRIVATE CONSUMPTION (RESIDENTS)

	1983				1984				1985			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	2 203.8	2 321.6	2 493.1	2 677.9	2 788.4	2 957.0	3 156.1	3 221.9	3 371.9	3 493.4	3 582.2	3 748.8
Durables	271.0	277.6	290.9	300.0	295.4	313.0	344.9	349.7	368.0	378.6	391.3	410.8
Non-durables	1 932.7	2 044.0	2 202.1	2 378.0	2 493.0	2 644.0	2 811.2	2 872.2	3 003.9	3 114.8	3 191.0	3 338.0
Previous year prices (EUR millions)												
Private consumption	1 937.5	1 928.6	1 921.4	1 904.9	2 391.7	2 386.4	2 395.3	2 392.1	3 012.1	3 023.4	3 034.1	3 078.5
Durables	236.1	230.0	225.2	217.1	263.7	266.3	277.3	274.8	324.1	321.7	323.6	330.1
Non-durables	1 701.4	1 698.6	1 696.2	1 687.9	2 128.0	2 120.1	2 118.0	2 117.3	2 688.0	2 701.7	2 710.5	2 748.4
Chain-linked volume (reference year 2006)												
Private consumption	11 553.2	11 500.2	11 457.1	11 359.1	11 314.1	11 289.1	11 331.3	11 316.2	11 242.7	11 284.7	11 324.8	11 490.6
Durables	1 173.5	1 142.9	1 119.0	1 078.8	1 044.5	1 054.9	1 098.6	1 088.7	1 066.3	1 058.4	1 064.7	1 086.0
Non-durables	10 436.4	10 419.6	10 404.8	10 353.6	10 349.2	10 310.6	10 300.5	10 297.1	10 249.1	10 301.2	10 334.9	10 479.6
Deflator (2006=1)												
Private consumption	0.1907	0.2019	0.2176	0.2358	0.2465	0.2619	0.2785	0.2847	0.2999	0.3096	0.3163	0.3263
Durables	0.2310	0.2429	0.2600	0.2781	0.2828	0.2967	0.3139	0.3212	0.3451	0.3577	0.3675	0.3783
Non-durables	0.1852	0.1962	0.2116	0.2297	0.2409	0.2564	0.2729	0.2789	0.2931	0.3024	0.3088	0.3185

GROSS FIXED CAPITAL FORMATION

	1983				1984				1985			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	1 115.0	1 190.0	1 279.5	1 282.8	1 228.9	1 326.0	1 382.3	1 473.4	1 497.3	1 529.0	1 587.5	1 649.1
Machinery and equipment	244.5	256.2	291.3	275.5	250.8	294.9	304.5	337.9	325.9	320.2	332.8	374.1
Transport material	125.4	128.1	134.9	133.0	111.6	109.7	111.2	118.3	119.9	117.7	129.2	138.5
Construction	689.5	745.5	783.2	811.3	814.9	869.7	914.8	960.5	991.8	1 030.3	1 057.4	1 060.6
Other	55.6	60.2	70.0	63.0	51.6	51.6	51.7	56.7	59.7	60.8	68.2	75.9
Previous year prices (EUR millions)												
Gross fixed capital formation	990.4	1 003.6	994.3	929.8	1 093.0	1 122.5	1 107.1	1 116.0	1 339.4	1 326.5	1 342.0	1 350.3
Machinery and equipment	223.7	225.0	228.1	189.6	216.6	243.8	236.5	243.0	295.6	291.2	295.2	313.4
Transport material	116.1	113.4	108.3	96.2	98.8	94.1	90.8	90.6	110.4	108.6	116.5	118.8
Construction	601.6	613.6	606.2	601.6	733.9	741.1	740.0	741.1	879.9	871.0	871.9	855.4
Other	49.1	51.7	51.7	42.4	43.7	43.5	39.8	41.4	53.5	55.8	58.4	62.6
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	4 860.9	4 925.7	4 880.0	4 563.5	4 318.2	4 435.0	4 374.0	4 409.2	4 341.3	4 299.2	4 349.4	4 376.3
Machinery and equipment	577.9	581.2	589.3	489.9	454.2	511.2	495.8	509.4	490.2	482.9	489.5	519.7
Transport material	401.5	392.3	374.6	332.8	284.3	270.9	261.4	260.8	263.9	259.4	278.5	284.0
Construction	4 070.3	4 151.3	4 101.7	4 070.2	3 971.4	4 010.6	4 004.6	4 010.2	3 953.9	3 913.6	3 917.8	3 843.7
Other	252.6	265.9	266.0	218.4	176.2	175.2	160.4	166.7	171.6	178.9	187.1	200.9
Deflator (2006=1)												
Gross fixed capital formation	0.2294	0.2416	0.2622	0.2811	0.2846	0.2990	0.3160	0.3342	0.3449	0.3556	0.3650	0.3768
Machinery and equipment	0.4230	0.4407	0.4944	0.5624	0.5523	0.5769	0.6143	0.6632	0.6648	0.6630	0.6798	0.7197
Transport material	0.3123	0.3267	0.3601	0.3998	0.3925	0.4050	0.4256	0.4535	0.4544	0.4536	0.4638	0.4877
Construction	0.1694	0.1796	0.1910	0.1993	0.2052	0.2169	0.2284	0.2395	0.2508	0.2633	0.2699	0.2759
Other	0.2202	0.2262	0.2632	0.2884	0.2928	0.2947	0.3222	0.3403	0.3479	0.3399	0.3643	0.3781

PRIVATE CONSUMPTION (RESIDENTS)

	1986				1987				1988			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	3 956.3	4 212.0	4 353.1	4 562.1	4 682.6	4 935.5	5 058.4	5 271.0	5 657.6	5 957.2	6 263.7	6 634.3
Durables	391.2	446.9	476.7	511.4	568.8	633.3	622.4	658.6	775.6	884.4	928.8	1 034.0
Non-durables	3 565.1	3 765.1	3 876.5	4 050.7	4 113.8	4 302.2	4 436.0	4 612.3	4 881.9	5 072.8	5 334.8	5 600.3
Previous year prices (EUR millions)												
Private consumption	3 651.2	3 774.3	3 822.0	3 924.8	4 455.6	4 595.3	4 609.5	4 686.8	5 313.2	5 431.2	5 504.5	5 647.7
Durables	362.8	397.8	411.3	437.4	524.5	564.8	540.1	570.2	710.8	784.8	796.1	862.2
Non-durables	3 288.4	3 376.5	3 410.7	3 487.4	3 931.1	4 030.5	4 069.5	4 116.6	4 602.4	4 646.4	4 708.4	4 785.5
Chain-linked volume (reference year 2006)												
Private consumption	11 661.8	12 054.9	12 207.4	12 535.8	12 638.9	13 035.3	13 075.6	13 294.8	13 862.6	14 170.5	14 361.6	14 735.2
Durables	1 001.5	1 098.2	1 135.3	1 207.5	1 276.0	1 374.0	1 313.8	1 387.1	1 531.8	1 691.3	1 715.5	1 857.9
Non-durables	10 754.9	11 042.9	11 155.0	11 405.7	11 428.9	11 718.1	11 831.3	11 968.4	12 371.8	12 490.2	12 656.9	12 864.1
Deflator (2006=1)												
Private consumption	0.3393	0.3494	0.3566	0.3639	0.3705	0.3786	0.3869	0.3965	0.4081	0.4204	0.4361	0.4502
Durables	0.3906	0.4069	0.4199	0.4235	0.4458	0.4609	0.4737	0.4748	0.5063	0.5229	0.5414	0.5565
Non-durables	0.3315	0.3410	0.3475	0.3551	0.3599	0.3671	0.3749	0.3854	0.3946	0.4061	0.4215	0.4353

GROSS FIXED CAPITAL FORMATION

	1986				1987				1988			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)	1 624.8	1 728.7	1 797.5	1 931.6	2 050.2	2 205.4	2 306.8	2 494.5	2 649.6	2 838.1	3 004.6	3 122.5
Gross fixed capital formation	358.4	423.4	441.4	502.1	518.6	579.2	622.0	678.2	727.1	773.9	823.8	829.4
Machinery and equipment	152.3	172.5	202.6	223.2	260.0	287.1	264.0	308.6	318.7	340.8	352.2	383.3
Transport material	1 036.1	1 045.2	1 060.4	1 108.4	1 172.3	1 236.6	1 312.5	1 392.7	1 468.9	1 586.6	1 671.7	1 758.5
Construction	78.0	87.5	93.2	98.0	99.2	102.5	108.3	115.0	134.9	136.8	156.9	151.3
Other												
Previous year prices (EUR millions)	1 544.3	1 572.3	1 615.8	1 668.7	1 943.9	2 040.4	2 111.2	2 210.7	2 499.6	2 620.1	2 657.6	2 729.8
Gross fixed capital formation	342.9	382.3	399.6	431.9	501.1	552.1	600.0	613.9	686.7	713.2	717.8	728.6
Machinery and equipment	146.0	156.0	180.8	186.9	241.0	258.0	236.6	261.6	300.4	317.3	317.5	348.2
Transport material	985.1	958.3	958.4	972.3	1 109.4	1 133.0	1 175.4	1 231.4	1 391.4	1 461.1	1 491.5	1 516.6
Construction	70.3	75.7	77.1	77.7	92.4	97.3	99.2	103.8	121.1	128.4	130.8	136.4
Other												
Chain-linked volume (reference year 2006)	4 282.0	4 359.8	4 480.4	4 627.3	4 871.5	5 113.4	5 290.8	5 540.2	5 745.1	6 021.9	6 108.0	6 274.1
Gross fixed capital formation	502.4	560.2	585.4	632.8	662.5	729.8	793.1	811.5	858.3	891.4	897.0	910.6
Machinery and equipment	313.6	335.2	388.5	401.7	462.0	494.8	453.6	501.6	512.9	541.9	542.1	594.5
Transport material	3 719.0	3 617.6	3 618.0	3 670.5	3 817.4	3 898.9	4 044.9	4 237.6	4 352.7	4 570.9	4 666.1	4 744.5
Construction	196.2	211.3	215.1	216.8	217.5	229.0	233.4	244.1	263.3	279.2	284.3	296.6
Other												
Deflator (2006=1)												
Gross fixed capital formation	0.3794	0.3965	0.4012	0.4174	0.4209	0.4313	0.4360	0.4503	0.4612	0.4713	0.4919	0.4977
Machinery and equipment	0.7134	0.7559	0.7540	0.7935	0.7829	0.7936	0.7842	0.8357	0.8472	0.8682	0.9184	0.9109
Transport material	0.4856	0.5147	0.5214	0.5556	0.5628	0.5802	0.5821	0.6153	0.6214	0.6289	0.6497	0.6448
Construction	0.2786	0.2889	0.2931	0.3020	0.3071	0.3172	0.3245	0.3286	0.3375	0.3471	0.3583	0.3706
Other	0.3974	0.4143	0.4334	0.4520	0.4561	0.4478	0.4643	0.4711	0.5123	0.4902	0.5520	0.5100

PRIVATE CONSUMPTION (RESIDENTS)

	1989				1990				1991			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	6 754.4	6 929.8	7 223.6	7 426.1	7 838.5	8 255.9	8 678.1	9 093.8	9 562.8	10 041.0	10 453.2	10 762.3
Durables	1 027.1	940.1	972.7	997.8	1 064.0	1 120.7	1 193.3	1 226.1	1 296.5	1 362.1	1 446.1	1 452.1
Non-durables	5 727.4	5 989.7	6 250.9	6 428.3	6 774.6	7 135.2	7 484.8	7 867.7	8 266.3	8 679.0	9 007.1	9 310.2
Previous year prices (EUR millions)												
Private consumption	6 272.4	6 309.6	6 414.3	6 503.2	7 410.3	7 589.1	7 776.8	7 931.0	8 964.2	9 208.2	9 405.3	9 514.2
Durables	982.5	897.6	910.8	917.7	1 034.2	1 064.2	1 114.8	1 126.2	1 241.9	1 290.4	1 360.3	1 351.4
Non-durables	5 289.9	5 412.0	5 503.5	5 585.4	6 376.1	6 524.9	6 661.9	6 804.8	7 722.3	7 917.8	8 045.0	8 162.8
Chain-linked volume (reference year 2006)												
Private consumption	14 618.6	14 705.3	14 949.2	15 156.4	15 543.0	15 917.9	16 311.6	16 635.1	17 048.2	17 512.4	17 887.1	18 094.3
Durables	1 843.3	1 684.0	1 708.6	1 721.7	1 827.5	1 880.5	1 969.9	1 990.0	2 068.2	2 149.1	2 265.4	2 250.7
Non-durables	12 758.3	13 052.8	13 273.5	13 471.1	13 735.7	14 056.2	14 351.5	14 659.2	14 990.3	15 369.7	15 616.7	15 845.4
Deflator (2006=1)												
Private consumption	0.4620	0.4712	0.4832	0.4900	0.5043	0.5187	0.5320	0.5467	0.5609	0.5734	0.5844	0.5948
Durables	0.5572	0.5583	0.5693	0.5795	0.5822	0.5960	0.6058	0.6161	0.6269	0.6338	0.6384	0.6452
Non-durables	0.4489	0.4589	0.4709	0.4772	0.4932	0.5076	0.5215	0.5367	0.5514	0.5647	0.5768	0.5876

GROSS FIXED CAPITAL FORMATION

	1989				1990				1991			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	3 195.7	3 270.9	3 394.2	3 511.9	3 625.8	3 753.7	3 871.6	3 950.8	3 999.0	4 073.4	4 284.0	4 434.1
Machinery and equipment	815.2	857.9	888.2	942.4	991.2	1 002.7	1 073.0	1 094.7	1 127.9	1 124.4	1 135.6	1 139.1
Transport material	359.7	345.2	373.1	407.4	392.2	417.6	393.3	430.6	396.0	432.6	446.5	455.2
Construction	1 863.8	1 916.0	1 964.1	1 992.6	2 058.9	2 156.3	2 210.6	2 231.5	2 270.6	2 318.9	2 483.6	2 634.5
Other	157.0	151.8	168.8	169.5	183.5	177.1	194.8	194.0	204.5	197.5	218.3	205.3
Previous year prices (EUR millions)												
Gross fixed capital formation	2 968.3	2 987.5	2 978.1	3 033.5	3 405.9	3 480.6	3 501.6	3 545.5	3 791.0	3 806.1	3 906.6	4 005.2
Machinery and equipment	765.3	800.5	814.9	872.3	978.8	1 002.9	1 062.1	1 109.7	1 091.2	1 095.6	1 103.5	1 105.8
Transport material	337.9	331.1	328.4	350.4	382.5	404.2	375.4	407.7	410.1	442.0	439.6	447.6
Construction	1 722.4	1 710.2	1 689.6	1 657.8	1 876.5	1 901.9	1 889.2	1 839.6	2 092.1	2 063.0	2 155.0	2 241.8
Other	142.6	145.8	145.2	153.0	168.1	171.5	175.0	188.5	197.5	205.5	208.5	210.0
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	6 171.5	6 211.6	6 192.0	6 307.1	6 337.2	6 476.2	6 515.4	6 597.0	6 465.2	6 491.1	6 662.4	6 830.5
Machinery and equipment	863.1	902.7	919.0	983.8	1 024.9	1 050.2	1 112.1	1 161.9	1 140.4	1 145.0	1 153.2	1 155.6
Transport material	530.8	520.1	515.8	550.5	545.2	576.1	535.1	581.1	561.7	605.3	602.1	613.1
Construction	4 869.1	4 834.4	4 776.3	4 686.3	4 648.7	4 711.8	4 680.1	4 557.4	4 494.3	4 431.9	4 629.4	4 815.8
Other	276.2	282.5	281.3	296.3	295.2	301.2	307.3	331.0	325.4	338.6	343.5	346.0
Deflator (2006=1)												
Gross fixed capital formation	0.5178	0.5266	0.5482	0.5568	0.5721	0.5796	0.5942	0.5989	0.6185	0.6275	0.6430	0.6492
Machinery and equipment	0.9445	0.9503	0.9665	0.9579	0.9671	0.9548	0.9648	0.9421	0.9891	0.9820	0.9847	0.9857
Transport material	0.6776	0.6636	0.7233	0.7401	0.7195	0.7248	0.7350	0.7409	0.7050	0.7146	0.7416	0.7425
Construction	0.3828	0.3963	0.4112	0.4252	0.4429	0.4576	0.4723	0.4896	0.5052	0.5232	0.5365	0.5470
Other	0.5685	0.5375	0.6000	0.5721	0.6216	0.5879	0.6339	0.5863	0.6283	0.5833	0.6354	0.5935

PRIVATE CONSUMPTION (RESIDENTS)

	1992				1993				1994			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	11 044.6	11 526.2	11 725.7	12 001.5	12 182.7	12 289.2	12 602.2	12 848.9	13 008.6	13 312.3	13 505.5	13 799.9
Durables	1 552.8	1 655.8	1 602.2	1 711.9	1 628.0	1 578.7	1 602.5	1 589.5	1 633.8	1 682.8	1 651.8	1 770.7
Non-durables	9 491.8	9 870.4	10 123.5	10 289.6	10 554.7	10 710.5	10 999.7	11 259.4	11 374.8	11 629.5	11 853.7	12 029.3
Previous year prices (EUR millions)												
Private consumption	10 574.8	10 755.8	10 801.4	10 957.8	11 817.9	11 787.1	11 874.8	11 874.7	12 452.8	12 569.8	12 582.0	12 674.8
Durables	1 524.0	1 597.2	1 523.2	1 601.7	1 563.9	1 492.7	1 486.0	1 450.5	1 563.0	1 593.5	1 542.8	1 626.5
Non-durables	9 050.9	9 158.5	9 278.2	9 356.1	10 254.0	10 294.4	10 388.8	10 424.1	10 889.8	10 976.3	11 039.2	11 048.2
Chain-linked volume (reference year 2006)												
Private consumption	18 274.9	18 587.6	18 666.5	18 936.8	19 007.9	18 958.4	19 099.4	19 099.2	18 998.6	19 177.0	19 195.6	19 337.2
Durables	2 395.1	2 510.3	2 394.0	2 517.3	2 353.7	2 246.4	2 236.4	2 183.0	2 203.2	2 246.2	2 174.8	2 292.8
Non-durables	15 867.9	16 056.7	16 266.5	16 403.1	16 652.2	16 717.9	16 871.1	16 928.6	16 805.9	16 939.4	17 036.4	17 050.4
Deflator (2006=1)												
Private consumption	0.6044	0.6201	0.6282	0.6338	0.6409	0.6482	0.6598	0.6727	0.6847	0.6942	0.7036	0.7136
Durables	0.6483	0.6596	0.6693	0.6800	0.6917	0.7027	0.7165	0.7281	0.7416	0.7492	0.7596	0.7723
Non-durables	0.5982	0.6147	0.6224	0.6273	0.6338	0.6407	0.6520	0.6651	0.6768	0.6865	0.6958	0.7055

GROSS FIXED CAPITAL FORMATION

	1992				1993				1994			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	4 733.3	4 829.7	4 888.9	4 795.7	4 584.4	4 603.9	4 389.0	4 387.9	4 497.6	4 608.2	4 644.9	5 073.3
Machinery and equipment	1 125.7	1 120.3	1 138.3	1 113.3	1 059.8	1 145.8	1 068.1	1 074.8	1 059.7	1 014.7	974.6	1 029.2
Transport material	506.5	514.8	504.0	465.4	437.6	445.6	397.9	412.2	434.6	489.5	439.3	647.2
Construction	2 866.2	2 976.8	3 007.6	3 006.4	2 879.2	2 803.2	2 715.8	2 696.6	2 772.2	2 881.2	3 000.4	3 149.5
Other	235.0	217.8	238.9	210.6	207.8	209.3	207.1	204.4	231.0	222.8	230.5	247.5
Previous year prices (EUR millions)												
Gross fixed capital formation	4 589.3	4 659.6	4 650.5	4 514.6	4 488.2	4 447.7	4 183.4	4 110.9	4 361.5	4 462.6	4 472.4	4 832.7
Machinery and equipment	1 145.9	1 166.2	1 197.4	1 167.6	1 092.1	1 145.4	1 076.3	1 045.5	1 012.6	971.9	951.2	979.7
Transport material	495.5	492.9	477.7	436.7	441.3	452.7	397.1	391.0	437.0	488.8	438.4	639.2
Construction	2 727.4	2 779.7	2 754.0	2 704.0	2 754.7	2 640.2	2 515.5	2 477.7	2 692.2	2 773.8	2 860.0	2 959.5
Other	220.4	220.8	221.4	206.3	200.0	209.4	194.6	196.7	219.7	228.1	222.8	254.3
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	7 229.4	7 340.0	7 325.8	7 111.7	6 763.8	6 702.9	6 304.6	6 195.3	6 304.0	6 450.1	6 464.3	6 985.1
Machinery and equipment	1 163.0	1 183.5	1 215.2	1 184.9	1 152.6	1 208.8	1 135.8	1 103.4	1 071.3	1 028.3	1 006.3	1 036.5
Transport material	682.3	678.6	657.8	601.3	580.8	595.8	522.6	514.6	571.4	639.1	573.2	835.7
Construction	5 161.6	5 260.5	5 211.8	5 117.3	4 821.1	4 620.7	4 402.4	4 336.3	4 411.5	4 545.3	4 686.6	4 849.5
Other	361.4	362.0	363.0	338.3	315.8	330.6	307.3	310.6	335.2	348.0	340.0	388.1
Deflator (2006=1)												
Gross fixed capital formation	0.6547	0.6580	0.6674	0.6743	0.6778	0.6869	0.6962	0.7083	0.7134	0.7144	0.7185	0.7263
Machinery and equipment	0.9680	0.9466	0.9367	0.9396	0.9195	0.9479	0.9404	0.9741	0.9892	0.9868	0.9685	0.9930
Transport material	0.7423	0.7586	0.7663	0.7740	0.7534	0.7479	0.7614	0.8009	0.7607	0.7660	0.7665	0.7744
Construction	0.5553	0.5659	0.5771	0.5875	0.5972	0.6067	0.6169	0.6219	0.6284	0.6339	0.6402	0.6494
Other	0.6502	0.6016	0.6582	0.6225	0.6582	0.6329	0.6740	0.6581	0.6891	0.6404	0.6781	0.6378

PRIVATE CONSUMPTION (RESIDENTS)

	1995				1996				1997			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	14 064.3	14 393.6	14 356.0	14 501.2	14 843.0	15 045.5	15 411.0	15 519.5	15 873.3	16 011.1	16 434.6	16 622.0
Durables	1 711.5	1 803.1	1 772.7	1 698.6	1 877.6	1 859.1	1 968.3	1 968.9	2 028.2	2 033.7	2 120.8	2 144.2
Non-durables	12 352.8	12 590.5	12 583.3	12 802.6	12 965.5	13 186.4	13 442.7	13 550.6	13 845.1	13 977.3	14 313.8	14 477.8
Previous year prices (EUR millions)												
Private consumption	13 523.6	13 756.5	13 650.6	13 679.6	14 647.5	14 692.4	14 911.2	14 923.2	15 565.4	15 601.5	15 908.5	15 986.6
Durables	1 653.7	1 722.3	1 681.0	1 600.6	1 851.4	1 824.6	1 918.1	1 903.3	1 988.2	1 985.4	2 063.1	2 082.5
Non-durables	11 869.9	12 034.3	11 969.6	12 079.0	12 796.1	12 867.8	12 993.1	13 019.8	13 577.3	13 616.1	13 845.3	13 904.1
Chain-linked volume (reference year 2006)												
Private consumption	19 344.5	19 677.7	19 526.2	19 567.6	19 963.4	20 024.6	20 322.7	20 339.1	20 640.7	20 688.6	21 095.6	21 199.3
Durables	2 188.1	2 278.8	2 224.2	2 117.8	2 334.6	2 300.7	2 418.7	2 400.0	2 449.3	2 445.9	2 541.7	2 565.6
Non-durables	17 172.3	17 410.1	17 316.5	17 474.8	17 638.1	17 737.0	17 909.6	17 946.5	18 197.8	18 249.9	18 557.1	18 635.9
Deflator (2006=1)												
Private consumption	0.7270	0.7315	0.7352	0.7411	0.7435	0.7514	0.7583	0.7630	0.7690	0.7739	0.7791	0.7841
Durables	0.7822	0.7912	0.7970	0.8021	0.8043	0.8081	0.8138	0.8204	0.8281	0.8315	0.8344	0.8358
Non-durables	0.7193	0.7232	0.7267	0.7326	0.7351	0.7434	0.7506	0.7551	0.7608	0.7659	0.7713	0.7769

GROSS FIXED CAPITAL FORMATION

	1995				1996				1997			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	5 003.9	5 133.2	5 023.1	5 099.9	5 098.7	5 375.4	5 659.8	5 873.7	6 072.7	6 479.0	6 699.1	6 811.5
Machinery and equipment	1 074.2	1 106.3	1 093.1	1 125.3	1 187.7	1 179.7	1 235.7	1 303.8	1 339.0	1 400.0	1 473.3	1 514.4
Transport material	432.2	522.7	472.4	510.2	499.1	542.4	568.4	601.6	619.8	710.7	737.9	819.1
Construction	3 253.4	3 277.2	3 210.7	3 234.5	3 162.3	3 418.3	3 598.7	3 721.5	3 841.2	4 103.1	4 192.8	4 190.1
Other	244.0	227.0	247.0	229.9	249.6	235.0	257.0	246.9	272.7	265.3	295.1	287.9
Previous year prices (EUR millions)												
Gross fixed capital formation	4 874.6	4 977.4	4 860.9	4 852.0	4 961.1	5 221.4	5 479.1	5 682.9	5 910.9	6 282.3	6 402.3	6 529.8
Machinery and equipment	1 065.0	1 087.8	1 103.0	1 098.4	1 127.8	1 129.2	1 186.7	1 247.2	1 300.9	1 364.0	1 410.4	1 489.3
Transport material	422.2	511.7	454.1	485.1	493.5	535.4	561.2	588.8	604.9	690.9	716.0	791.5
Construction	3 157.9	3 148.1	3 074.3	3 038.6	3 101.8	3 319.0	3 490.7	3 602.1	3 745.6	3 960.0	4 000.6	3 965.8
Other	229.5	229.8	229.6	229.9	237.9	237.8	240.5	244.7	259.6	267.4	275.3	283.2
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	6 785.6	6 928.6	6 766.5	6 754.1	6 669.0	7 018.9	7 365.3	7 639.2	7 706.3	8 190.5	8 346.9	8 513.2
Machinery and equipment	1 081.7	1 104.9	1 120.3	1 115.6	1 133.9	1 135.3	1 193.1	1 253.9	1 250.3	1 311.0	1 355.6	1 431.4
Transport material	550.0	666.6	591.6	632.0	621.5	674.3	706.8	741.6	750.5	857.3	888.4	982.2
Construction	4 947.7	4 932.3	4 816.7	4 760.7	4 651.2	4 976.9	5 234.3	5 401.3	5 460.1	5 772.7	5 831.8	5 781.1
Other	347.6	348.0	347.6	348.2	349.2	349.0	353.0	359.2	370.4	381.5	392.9	404.1
Deflator (2006=1)												
Gross fixed capital formation	0.7374	0.7409	0.7423	0.7551	0.7645	0.7658	0.7684	0.7689	0.7880	0.7910	0.8026	0.8001
Machinery and equipment	0.9930	1.0013	0.9757	1.0086	1.0475	1.0391	1.0357	1.0397	1.0709	1.0679	1.0869	1.0580
Transport material	0.7859	0.7842	0.7985	0.8072	0.8031	0.8043	0.8042	0.8113	0.8258	0.8289	0.8306	0.8340
Construction	0.6576	0.6644	0.6666	0.6794	0.6799	0.6868	0.6875	0.6890	0.7035	0.7108	0.7190	0.7248
Other	0.7021	0.6523	0.7104	0.6603	0.7146	0.6733	0.7279	0.6873	0.7362	0.6953	0.7510	0.7124

PRIVATE CONSUMPTION (RESIDENTS)

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	16 901.7	17 302.6	17 600.4	18 039.0	18 349.5	18 626.3	19 056.8	19 325.8	19 881.5	20 035.3	20 432.0	20 627.3
Durables	2 257.8	2 371.3	2 463.4	2 635.8	2 721.2	2 750.8	2 817.1	2 807.9	3 048.7	2 857.9	2 907.8	2 952.6
Non-durables	14 643.9	14 931.4	15 137.0	15 403.3	15 628.3	15 875.5	16 239.7	16 517.9	16 832.8	17 177.4	17 524.2	17 674.7
Previous year prices (EUR millions)												
Private consumption	16 670.8	16 962.1	17 143.6	17 458.8	18 148.3	18 272.9	18 548.6	18 704.1	19 511.9	19 425.2	19 620.3	19 711.8
Durables	2 245.8	2 339.9	2 422.2	2 575.5	2 699.5	2 719.7	2 781.0	2 760.3	2 996.1	2 801.6	2 831.0	2 872.4
Non-durables	14 425.1	14 622.2	14 721.4	14 883.3	15 448.8	15 553.1	15 767.6	15 943.7	16 515.8	16 623.7	16 789.2	16 839.4
Chain-linked volume (reference year 2006)												
Private consumption	21 466.9	21 842.1	22 075.7	22 481.6	22 831.3	22 988.0	23 334.9	23 530.5	23 998.1	23 891.4	24 131.3	24 243.9
Durables	2 697.7	2 810.8	2 909.6	3 093.8	3 194.4	3 218.4	3 290.8	3 266.4	3 501.8	3 274.4	3 308.9	3 357.2
Non-durables	18 763.4	19 019.9	19 148.8	19 359.4	19 605.8	19 738.2	20 010.4	20 233.9	20 455.0	20 588.5	20 793.6	20 855.8
Deflator (2006=1)												
Private consumption	0.7873	0.7922	0.7973	0.8024	0.8037	0.8103	0.8167	0.8213	0.8285	0.8386	0.8467	0.8508
Durables	0.8369	0.8437	0.8466	0.8520	0.8519	0.8547	0.8560	0.8596	0.8706	0.8728	0.8788	0.8795
Non-durables	0.7805	0.7850	0.7905	0.7956	0.7971	0.8043	0.8116	0.8164	0.8229	0.8343	0.8428	0.8475

GROSS FIXED CAPITAL FORMATION

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	7 199.1	7 392.5	7 471.0	7 793.6	7 784.7	7 924.9	8 222.5	8 408.6	8 974.4	8 567.4	8 885.8	8 810.7
Machinery and equipment	1 570.3	1 743.6	1 734.1	1 737.9	1 729.6	1 773.9	1 880.7	1 924.6	1 999.1	2 037.5	2 091.6	2 038.5
Transport material	820.3	845.7	858.0	987.2	930.3	952.5	969.0	962.8	1 063.4	991.9	971.6	1 064.5
Construction	4 487.7	4 488.9	4 531.0	4 726.8	4 749.3	4 831.1	4 972.4	5 133.2	5 494.3	5 138.5	5 400.7	5 306.9
Other	320.9	314.2	347.9	341.8	375.4	367.4	400.4	388.1	417.5	399.5	421.8	400.9
Previous year prices (EUR millions)												
Gross fixed capital formation	7 113.7	7 195.4	7 248.9	7 586.1	7 781.3	7 792.1	7 978.0	8 101.1	8 657.5	8 225.9	8 422.0	8 305.3
Machinery and equipment	1 597.0	1 696.6	1 696.0	1 742.6	1 810.5	1 809.1	1 894.6	1 918.8	1 935.7	1 935.8	1 974.1	1 876.4
Transport material	824.9	848.8	861.1	963.1	912.8	922.9	928.8	913.7	1 034.1	963.2	937.3	1 024.0
Construction	4 393.8	4 343.6	4 376.4	4 554.6	4 698.0	4 690.4	4 777.2	4 887.2	5 295.5	4 936.2	5 123.3	5 020.5
Other	298.0	306.4	315.4	325.8	359.9	369.7	377.5	381.4	392.2	390.6	387.2	384.4
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	8 941.0	9 043.7	9 110.9	9 534.8	9 546.8	9 560.1	9 788.2	9 939.1	10 395.8	9 877.5	10 112.9	9 972.9
Machinery and equipment	1 491.4	1 584.5	1 583.9	1 627.5	1 677.5	1 676.2	1 755.5	1 777.8	1 824.0	1 824.1	1 860.2	1 768.1
Transport material	993.7	1 022.5	1 037.4	1 160.2	1 095.5	1 107.5	1 114.6	1 096.5	1 196.6	1 114.6	1 084.6	1 185.0
Construction	6 148.0	6 077.7	6 123.6	6 373.0	6 369.6	6 359.3	6 476.9	6 626.0	6 948.7	6 477.3	6 722.8	6 587.9
Other	411.8	423.4	435.8	450.3	467.6	480.3	490.4	495.5	495.3	493.3	489.0	485.5
Deflator (2006=1)												
Gross fixed capital formation	0.8052	0.8174	0.8200	0.8174	0.8154	0.8290	0.8400	0.8460	0.8633	0.8674	0.8787	0.8835
Machinery and equipment	1.0528	1.1004	1.0948	1.0678	1.0311	1.0583	1.0713	1.0825	1.0960	1.1170	1.1244	1.1529
Transport material	0.8254	0.8271	0.8271	0.8509	0.8492	0.8600	0.8694	0.8780	0.8887	0.8898	0.8958	0.8983
Construction	0.7299	0.7386	0.7399	0.7417	0.7456	0.7597	0.7677	0.7747	0.7907	0.7933	0.8034	0.8056
Other	0.7792	0.7422	0.7983	0.7592	0.8029	0.7648	0.8165	0.7833	0.8430	0.8100	0.8626	0.8257

PRIVATE CONSUMPTION (RESIDENTS)

	2001				2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	20 956.4	21 169.0	21 241.9	21 507.9	21 795.5	22 001.5	22 291.1	22 304.7	22 408.7	22 494.3	22 801.5	23 094.2
Durables	2 829.9	2 791.3	2 719.4	2 745.5	2 772.9	2 781.3	2 675.1	2 544.3	2 462.4	2 422.1	2 510.6	2 524.9
Non-durables	18 126.5	18 377.7	18 522.5	18 762.4	19 022.6	19 220.2	19 616.0	19 760.4	19 946.3	20 072.3	20 290.9	20 569.3
Previous year prices (EUR millions)												
Private consumption	20 410.2	20 495.0	20 458.8	20 649.5	21 495.2	21 541.2	21 543.8	21 430.6	21 922.6	21 925.9	22 100.9	22 241.2
Durables	2 785.8	2 729.3	2 638.7	2 642.5	2 716.9	2 699.9	2 570.3	2 431.2	2 429.9	2 386.0	2 470.5	2 477.1
Non-durables	17 624.4	17 765.7	17 820.2	18 007.0	18 778.4	18 841.3	18 973.5	18 999.4	19 492.7	19 539.8	19 630.4	19 764.0
Chain-linked volume (reference year 2006)												
Private consumption	24 263.7	24 364.5	24 321.5	24 548.1	24 692.1	24 744.8	24 747.9	24 617.8	24 504.3	24 508.0	24 703.7	24 860.4
Durables	3 182.4	3 117.9	3 014.3	3 018.7	3 022.5	3 003.6	2 859.5	2 704.7	2 614.1	2 567.0	2 657.8	2 665.0
Non-durables	21 058.1	21 226.9	21 292.0	21 515.2	21 654.9	21 727.4	21 879.9	21 909.8	21 891.7	21 944.6	22 046.4	22 196.4
Deflator (2006=1)												
Private consumption	0.8637	0.8688	0.8734	0.8761	0.8827	0.8891	0.9007	0.9060	0.9145	0.9178	0.9230	0.9290
Durables	0.8892	0.8953	0.9021	0.9095	0.9174	0.9260	0.9355	0.9407	0.9420	0.9436	0.9446	0.9474
Non-durables	0.8608	0.8658	0.8699	0.8721	0.8784	0.8846	0.8965	0.9019	0.9111	0.9147	0.9204	0.9267

GROSS FIXED CAPITAL FORMATION

	2001				2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	8 678.0	9 081.5	9 177.5	9 331.2	9 208.7	9 132.4	8 860.7	8 776.2	8 588.8	8 338.0	8 463.2	8 456.6
Machinery and equipment	2 130.6	2 123.3	2 050.5	2 017.1	1 969.1	1 956.4	1 904.4	1 898.5	1 815.6	1 754.4	1 837.3	1 851.3
Transport material	889.3	945.4	893.1	922.8	863.2	865.6	802.5	784.2	734.1	767.8	746.6	748.8
Construction	5 235.6	5 602.2	5 787.6	5 942.8	5 881.6	5 817.6	5 627.3	5 587.5	5 514.8	5 316.1	5 356.8	5 347.9
Other	422.6	410.5	446.4	448.6	494.8	492.9	526.5	506.0	524.3	499.7	522.5	508.6
Previous year prices (EUR millions)												
Gross fixed capital formation	8 521.7	8 889.8	8 927.4	9 119.8	9 107.4	8 921.2	8 596.7	8 496.4	8 430.7	8 290.3	8 403.9	8 303.9
Machinery and equipment	2 109.3	2 126.1	2 094.0	2 135.7	2 002.5	1 980.9	1 933.9	1 930.6	1 854.6	1 834.9	1 937.5	1 929.0
Transport material	859.7	911.3	863.8	882.2	867.4	843.1	773.4	765.2	726.4	759.4	738.8	744.9
Construction	5 150.4	5 446.9	5 552.9	5 666.9	5 764.6	5 608.9	5 394.5	5 306.5	5 345.8	5 197.9	5 230.6	5 130.0
Other	402.3	405.5	416.8	434.9	472.8	488.2	494.9	494.1	503.9	498.1	496.9	500.0
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	9 760.1	10 181.7	10 224.8	10 445.0	10 198.0	9 989.5	9 626.1	9 513.9	9 215.6	9 062.1	9 186.3	9 077.0
Machinery and equipment	1 879.4	1 894.3	1 865.8	1 902.9	1 815.0	1 795.5	1 752.9	1 749.9	1 707.0	1 688.8	1 783.3	1 775.5
Transport material	962.6	1 020.4	967.1	987.8	935.7	909.4	834.3	825.4	767.9	802.8	781.0	787.4
Construction	6 452.7	6 824.2	6 957.0	7 099.9	6 981.9	6 793.3	6 533.6	6 427.0	6 237.5	6 064.8	6 103.0	5 985.7
Other	481.6	485.5	498.9	520.6	543.6	561.3	568.9	568.0	559.2	552.8	551.4	554.8
Deflator (2006=1)												
Gross fixed capital formation	0.8891	0.8919	0.8976	0.8934	0.9030	0.9142	0.9205	0.9225	0.9320	0.9201	0.9213	0.9316
Machinery and equipment	1.1337	1.1209	1.0990	1.0600	1.0849	1.0896	1.0865	1.0849	1.0637	1.0388	1.0303	1.0427
Transport material	0.9238	0.9265	0.9234	0.9342	0.9226	0.9518	0.9620	0.9500	0.9560	0.9565	0.9559	0.9509
Construction	0.8114	0.8209	0.8319	0.8370	0.8424	0.8564	0.8613	0.8694	0.8841	0.8765	0.8777	0.8935
Other	0.8775	0.8457	0.8947	0.8616	0.9102	0.8781	0.9255	0.8909	0.9377	0.9039	0.9475	0.9166

PRIVATE CONSUMPTION (RESIDENTS)

	2004				2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	23 429.6	23 777.1	24 012.8	24 376.8	24 547.2	24 939.6	24 954.0	25 405.0	25 770.3	26 046.2	26 336.7	26 593.3
Durables	2 542.5	2 590.0	2 657.1	2 698.7	2 743.9	2 897.6	2 651.7	2 790.6	2 857.2	2 865.8	2 822.5	2 846.4
Non-durables	20 887.1	21 187.2	21 355.7	21 678.1	21 803.3	22 041.9	22 302.3	22 614.4	22 913.1	23 180.4	23 514.3	23 747.0
Previous year prices (EUR millions)												
Private consumption	23 107.5	23 253.8	23 386.9	23 480.1	24 163.3	24 440.3	24 177.0	24 408.9	25 243.8	25 341.7	25 478.2	25 572.8
Durables	2 516.5	2 548.6	2 604.3	2 628.6	2 711.4	2 858.6	2 597.3	2 712.0	2 812.9	2 809.5	2 760.0	2 780.9
Non-durables	20 591.0	20 705.2	20 782.6	20 851.5	21 451.9	21 581.7	21 579.7	21 696.8	22 430.8	22 532.2	22 718.3	22 791.9
Chain-linked volume (reference year 2006)												
Private consumption	25 086.9	25 245.7	25 390.2	25 491.4	25 583.3	25 876.6	25 597.8	25 843.3	26 015.4	26 116.9	26 258.4	26 355.8
Durables	2 664.6	2 698.6	2 757.6	2 783.4	2 818.9	2 972.0	2 700.3	2 819.6	2 870.6	2 867.0	2 816.4	2 837.8
Non-durables	22 424.2	22 548.5	22 632.8	22 707.8	22 763.9	22 901.6	22 899.5	23 023.8	23 144.8	23 249.9	23 442.1	23 518.0
Deflator (2006=1)												
Private consumption	0.9339	0.9418	0.9457	0.9563	0.9595	0.9638	0.9748	0.9830	0.9906	0.9973	1.0030	1.0090
Durables	0.9542	0.9597	0.9635	0.9696	0.9734	0.9750	0.9820	0.9897	0.9953	0.9996	1.0022	1.0030
Non-durables	0.9315	0.9396	0.9436	0.9547	0.9578	0.9625	0.9739	0.9822	0.9900	0.9970	1.0031	1.0097

GROSS FIXED CAPITAL FORMATION

	2004				2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)	8 569.6	8 681.1	8 720.2	8 728.8	8 720.0	8 905.6	8 842.3	8 944.9	9 108.1	9 065.1	8 892.6	8 824.3
Gross fixed capital formation	1 904.7	1 898.1	1 915.3	1 972.5	1 926.6	1 971.6	1 961.4	1 963.3	2 009.3	2 012.2	1 969.5	2 070.8
Machinery and equipment	740.0	742.2	700.2	771.8	741.5	760.4	769.7	812.4	793.6	889.9	819.6	785.3
Transport material	5 385.0	5 512.8	5 550.9	5 451.5	5 502.0	5 646.4	5 564.5	5 638.3	5 748.6	5 616.1	5 529.0	5 401.1
Construction	539.8	528.0	553.8	533.0	550.0	527.2	546.7	531.0	556.6	546.9	574.5	567.0
Other												
Previous year prices (EUR millions)	8 509.5	8 451.8	8 456.9	8 423.5	8 622.0	8 750.4	8 560.4	8 608.9	8 880.0	8 803.8	8 652.7	8 609.9
Gross fixed capital formation	1 934.4	1 897.1	1 938.8	1 978.1	1 954.4	2 008.4	1 979.7	1 990.4	1 984.0	2 038.8	2 097.8	2 115.1
Machinery and equipment	736.2	737.2	695.4	766.3	736.4	755.8	744.5	786.9	790.5	866.3	797.7	769.2
Transport material	5 315.1	5 287.5	5 291.5	5 151.9	5 402.1	5 463.2	5 317.4	5 312.2	5 566.7	5 355.2	5 208.2	5 169.9
Construction	523.9	530.1	531.1	527.2	529.2	522.9	518.8	519.4	538.9	543.5	549.0	555.7
Other												
Chain-linked volume (reference year 2006)	9 186.9	9 124.6	9 130.1	9 094.1	9 078.1	9 213.3	9 013.3	9 064.4	9 128.3	9 042.7	8 882.2	8 836.9
Gross fixed capital formation	1 853.3	1 817.6	1 857.6	1 895.2	1 886.5	1 938.7	1 911.0	1 921.3	1 942.1	1 995.7	2 053.5	2 070.5
Machinery and equipment	771.0	772.0	728.3	802.6	766.2	786.4	774.6	818.8	806.3	883.8	813.8	784.6
Transport material	6 019.8	5 988.5	5 993.1	5 834.9	5 879.7	5 946.2	5 787.5	5 781.8	5 826.7	5 605.3	5 451.4	5 411.4
Construction	565.5	572.2	573.3	569.1	559.9	553.4	549.0	549.6	553.1	557.9	563.5	570.4
Other												
Deflator (2006=1)												
Gross fixed capital formation	0.9328	0.9514	0.9551	0.9598	0.9606	0.9666	0.9810	0.9868	0.9978	1.0025	1.0012	0.9986
Machinery and equipment	1.0277	1.0443	1.0310	1.0408	1.0212	1.0169	1.0263	1.0218	1.0346	1.0083	0.9591	1.0002
Transport material	0.9598	0.9614	0.9615	0.9616	0.9677	0.9669	0.9937	0.9923	0.9843	1.0070	1.0072	1.0009
Construction	0.8946	0.9206	0.9262	0.9343	0.9358	0.9496	0.9615	0.9752	0.9866	1.0019	1.0142	0.9981
Other	0.9546	0.9228	0.9661	0.9366	0.9823	0.9528	0.9957	0.9660	1.0062	0.9803	1.0195	0.9940

PRIVATE CONSUMPTION (RESIDENTS)

	2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Private consumption	27 051.7	27 518.5	27 757.3	28 307.4	28 755.7	28 952.0	29 176.7	28 794.6	27 975.5	27 838.3	27 927.7	28 183.8
Durables	2 919.5	3 077.0	2 932.2	2 963.3	3 001.7	2 928.4	2 933.4	2 872.1	2 429.9	2 444.9	2 509.8	2 576.7
Non-durables	24 132.2	24 441.5	24 825.0	25 344.1	25 754.0	26 023.6	26 243.3	25 922.5	25 545.6	25 393.3	25 417.9	25 607.0
Previous year prices (EUR millions)												
Private consumption	26 598.9	26 754.2	26 915.0	27 127.1	28 087.0	28 076.4	28 287.1	28 158.8	28 431.8	28 499.5	28 708.7	28 929.9
Durables	2 909.8	3 065.0	2 931.4	2 972.5	3 029.6	2 957.9	2 963.3	2 897.4	2 428.9	2 467.7	2 550.9	2 638.8
Non-durables	23 689.2	23 689.2	23 983.6	24 154.6	25 057.4	25 118.5	25 323.8	25 261.4	26 002.9	26 031.8	26 157.8	26 291.1
Chain-linked volume (reference year 2006)												
Private consumption	26 599.0	26 754.2	26 915.0	27 127.1	27 264.6	27 254.3	27 458.9	27 334.3	26 866.9	26 930.9	27 128.5	27 337.6
Durables	2 909.8	3 065.0	2 931.4	2 972.5	3 026.2	2 954.6	2 960.0	2 894.1	2 449.4	2 488.6	2 572.5	2 661.1
Non-durables	23 689.2	23 689.2	23 983.6	24 154.6	24 238.8	24 297.8	24 496.4	24 436.1	24 383.3	24 410.4	24 528.5	24 653.5
Deflator (2006=1)												
Private consumption	1.0170	1.0286	1.0313	1.0435	1.0547	1.0623	1.0626	1.0534	1.0413	1.0337	1.0295	1.0310
Durables	1.0033	1.0039	1.0003	0.9969	0.9919	0.9912	0.9910	0.9924	0.9920	0.9825	0.9756	0.9683
Non-durables	1.0187	1.0318	1.0351	1.0492	1.0625	1.0710	1.0713	1.0608	1.0477	1.0403	1.0363	1.0387

GROSS FIXED CAPITAL FORMATION

	2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Gross fixed capital formation	9 283.1	9 186.9	9 380.6	9 778.6	9 624.7	9 769.7	9 652.9	9 103.8	8 150.3	8 167.2	8 441.2	7 920.1
Machinery and equipment	2 120.6	2 130.7	2 194.2	2 233.5	2 279.3	2 310.6	2 306.7	2 114.4	1 887.5	1 930.0	2 067.3	1 689.1
Transport material	835.7	917.4	914.8	934.6	917.0	892.3	774.8	800.1	577.3	594.0	650.8	707.3
Construction	5 730.3	5 546.0	5 643.4	5 981.8	5 762.6	5 905.0	5 881.2	5 514.6	4 993.5	4 972.9	5 038.6	4 859.6
Other	596.6	592.7	628.2	628.7	665.8	661.9	690.2	674.6	692.0	670.3	684.5	664.1
Previous year prices (EUR millions)												
Gross fixed capital formation	9 175.9	9 054.4	9 134.1	9 466.5	9 458.0	9 382.0	9 204.3	8 889.1	8 455.5	8 454.8	8 630.2	8 080.9
Machinery and equipment	2 083.9	2 176.4	2 200.3	2 235.3	2 323.7	2 351.5	2 383.8	2 228.7	1 980.0	2 050.9	2 151.4	1 815.1
Transport material	827.3	899.1	902.1	922.2	927.6	914.5	792.6	815.9	589.8	608.0	672.2	725.8
Construction	5 687.3	5 392.8	5 431.8	5 694.0	5 562.6	5 459.9	5 365.7	5 182.6	5 209.3	5 124.8	5 141.0	4 877.9
Other	577.4	586.0	599.9	615.1	644.2	656.1	662.2	661.9	676.4	671.1	665.6	662.1
Chain-linked volume (reference year 2006)												
Gross fixed capital formation	9 175.9	9 054.4	9 134.1	9 466.5	9 257.4	9 183.0	9 009.0	8 700.5	8 012.0	8 011.3	8 177.5	7 657.0
Machinery and equipment	2 083.9	2 176.4	2 200.3	2 235.3	2 328.2	2 356.1	2 388.4	2 233.0	2 044.8	2 117.9	2 221.8	1 874.5
Transport material	827.3	899.1	902.1	922.2	914.3	901.4	781.2	804.2	592.8	611.1	675.6	729.4
Construction	5 687.3	5 392.8	5 431.8	5 694.0	5 393.6	5 294.0	5 202.7	5 025.1	4 724.1	4 647.5	4 662.3	4 423.6
Other	577.4	586.0	599.9	615.1	626.3	637.9	643.9	643.6	641.0	636.0	630.7	627.5
Deflator (2006=1)												
Gross fixed capital formation	1.0117	1.0146	1.0270	1.0330	1.0397	1.0639	1.0715	1.0463	1.0173	1.0195	1.0322	1.0344
Machinery and equipment	1.0176	0.9790	0.9972	0.9992	0.9790	0.9807	0.9658	0.9469	0.9231	0.9113	0.9305	0.9011
Transport material	1.0101	1.0203	1.0141	1.0134	1.0029	0.9898	0.9917	0.9949	0.9740	0.9721	0.9633	0.9696
Construction	1.0076	1.0284	1.0390	1.0506	1.0684	1.1154	1.1304	1.0974	1.0570	1.0700	1.0807	1.0986
Other	1.0332	1.0115	1.0471	1.0221	1.0631	1.0376	1.0719	1.0482	1.0796	1.0539	1.0853	1.0584

HOUSEHOLDS' DISPOSABLE INCOME

	1977				1978				1979			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	610.6	615.7	633.9	650.8	691.3	716.0	749.9	777.2	802.3	838.3	885.3	937.5
Domestic transfers	98.5	100.0	102.9	107.3	113.2	118.5	123.3	127.5	131.2	138.5	149.5	164.1
External transfers	51.7	56.8	55.7	54.8	64.0	84.4	92.8	116.1	135.2	142.5	163.6	157.6
Corporate and property income	143.6	150.9	167.7	194.9	205.8	232.0	255.5	275.6	290.0	309.9	331.4	353.6
Direct taxes	30.5	31.1	32.2	34.0	36.4	39.2	42.5	46.3	50.5	54.1	57.3	59.9
Social Security contributions	96.2	97.9	101.3	106.4	113.3	119.4	124.8	129.4	133.2	140.2	150.3	163.6
Disposable income	777.8	794.5	826.8	867.3	924.6	992.3	1 054.2	1 120.8	1 175.0	1 234.9	1 322.2	1 389.1

LABOUR MARKET

	1977				1978				1979			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 045.0	4 040.3	4 073.7	4 076.2	4 147.0	4 155.0	4 212.2	4 226.1	4 252.7	4 272.4	4 305.3	4 329.7
Employment	3 850.5	3 843.0	3 869.8	3 858.2	3 931.6	3 927.9	3 980.9	3 992.8	4 018.4	4 038.2	4 070.7	4 093.9
Unemployment	194.6	197.3	203.9	218.0	215.4	227.1	231.3	233.4	234.3	234.2	234.6	235.8
Full-time equivalent employment	3 770.4	3 762.0	3 788.2	3 774.5	3 846.9	3 844.6	3 892.3	3 913.3	3 929.0	3 954.8	3 988.0	4 003.0
Employees	3 205.2	3 201.2	3 234.8	3 230.4	3 311.3	3 314.3	3 360.4	3 375.5	3 382.0	3 402.0	3 434.3	3 454.0
Other forms of employment	565.2	560.8	553.4	544.1	535.5	530.3	531.9	537.8	547.0	552.8	553.7	549.0
EUR thousands												
Compensation per employee	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Per cent												
Unemployment rate	4.8	4.9	5.0	5.3	5.2	5.5	5.5	5.5	5.5	5.5	5.4	5.4

HOUSEHOLDS' DISPOSABLE INCOME

	1980				1981				1982			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	1 006.3	1 066.9	1 131.1	1 196.6	1 250.1	1 320.0	1 386.0	1 459.9	1 547.4	1 634.4	1 719.9	1 817.5
Domestic transfers	182.3	200.0	217.1	233.7	249.8	266.2	283.0	300.1	317.5	337.2	358.9	382.8
External transfers	178.2	180.2	190.8	190.9	202.4	228.4	219.8	227.0	233.0	257.6	270.7	287.6
Corporate and property income	374.7	403.1	438.0	475.7	521.7	566.7	618.3	675.3	726.9	782.4	842.6	895.4
Direct taxes	62.0	65.7	71.1	78.0	86.6	94.9	102.8	110.4	117.6	125.5	133.9	142.9
Social Security contributions	180.1	194.9	208.0	219.4	229.2	242.5	259.2	279.5	303.2	327.1	351.2	375.4
Disposable income	1 499.5	1 589.6	1 698.1	1 799.4	1 908.2	2 044.0	2 144.9	2 272.4	2 404.0	2 558.9	2 707.0	2 864.9

LABOUR MARKET

	1980				1981				1982			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 352.5	4 357.5	4 367.7	4 387.4	4 369.4	4 386.0	4 377.7	4 369.7	4 405.8	4 409.8	4 383.8	4 386.8
Employment	4 121.3	4 135.5	4 142.6	4 163.4	4 133.8	4 145.6	4 137.9	4 127.7	4 171.7	4 169.7	4 157.2	4 154.7
Unemployment	231.2	222.0	225.1	224.0	235.6	240.4	239.9	242.1	234.1	240.0	226.6	232.1
Full-time equivalent employment	4 042.1	4 043.8	4 055.3	4 067.3	4 041.3	4 054.3	4 044.6	4 048.7	4 077.5	4 085.5	4 070.2	4 061.6
Employees	3 503.9	3 516.6	3 536.4	3 554.6	3 533.1	3 544.6	3 530.7	3 524.9	3 539.3	3 538.0	3 521.3	3 519.1
Other forms of employment	538.2	527.2	518.8	512.6	508.2	509.7	513.9	523.7	538.3	547.4	548.8	542.5
EUR thousands												
Compensation per employee	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Per cent												
Unemployment rate	5.3	5.1	5.2	5.1	5.4	5.5	5.5	5.5	5.3	5.4	5.2	5.3

HOUSEHOLDS' DISPOSABLE INCOME

	1983				1984				1985			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	1 894.4	1 977.1	2 035.9	2 080.3	2 124.6	2 181.2	2 262.1	2 372.0	2 488.8	2 624.8	2 748.8	2 886.2
Domestic transfers	408.8	432.4	453.5	472.3	488.8	512.5	543.7	582.3	628.3	665.2	693.0	711.6
External transfers	283.4	279.9	303.9	311.5	369.9	366.6	397.7	416.2	393.9	414.7	448.7	505.7
Corporate and property income	934.0	1 044.5	1 186.0	1 301.5	1 409.5	1 505.4	1 579.7	1 670.1	1 722.4	1 801.0	1 897.8	1 937.1
Direct taxes	152.5	162.5	172.7	183.3	194.2	208.3	225.8	246.5	270.6	284.7	288.9	283.3
Social Security contributions	399.8	421.7	441.1	458.0	472.4	490.3	511.9	537.1	565.8	595.9	627.4	660.2
Disposable income	2 968.3	3 149.7	3 365.5	3 524.4	3 726.2	3 867.2	4 045.5	4 257.0	4 397.0	4 625.1	4 872.0	5 097.1

LABOUR MARKET

	1983				1984				1985			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 329.3	4 341.1	4 345.9	4 356.0	4 408.7	4 422.3	4 448.4	4 463.5	4 455.1	4 456.2	4 440.2	4 441.2
Employment	4 079.9	4 077.9	4 067.4	4 064.9	4 117.0	4 125.3	4 142.9	4 150.7	4 137.4	4 139.2	4 121.5	4 116.3
Unemployment	249.4	263.2	278.5	291.1	291.7	296.9	305.5	312.8	317.7	317.0	318.7	324.9
Full-time equivalent employment	3 996.9	3 987.0	3 975.1	3 978.2	4 020.4	4 039.0	4 051.3	4 066.4	4 048.2	4 051.8	4 032.0	4 022.2
Employees	3 467.3	3 466.4	3 458.3	3 459.5	3 494.0	3 503.4	3 508.3	3 516.5	3 494.4	3 498.0	3 481.6	3 480.5
Other forms of employment	529.6	520.6	516.8	518.7	526.4	535.6	542.9	549.9	553.8	553.8	550.4	541.7
EUR thousands												
Compensation per employee	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8
Per cent												
Unemployment rate	5.8	6.1	6.4	6.7	6.6	6.7	6.9	7.0	7.1	7.1	7.2	7.3

HOUSEHOLDS' DISPOSABLE INCOME

	1986				1987				1988			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	3 007.2	3 149.0	3 290.1	3 432.8	3 573.3	3 718.8	3 861.1	3 993.5	4 136.6	4 285.1	4 483.0	4 690.2
Domestic transfers	721.2	743.2	777.8	824.9	884.5	934.0	973.2	1 002.3	1 021.3	1 050.1	1 088.8	1 137.4
External transfers	482.6	484.5	483.0	496.6	563.6	581.1	601.4	615.3	625.6	635.7	644.7	655.4
Corporate and property income	2 012.4	2 094.1	2 121.2	2 180.5	2 277.8	2 316.3	2 386.2	2 435.1	2 482.5	2 549.0	2 651.8	2 792.8
Direct taxes	267.8	254.8	244.4	236.5	231.2	236.6	252.7	279.4	316.9	359.7	407.6	460.9
Social Security contributions	694.4	731.9	772.9	817.3	865.0	906.9	943.1	973.4	997.8	1 031.4	1 074.2	1 126.1
Disposable income	5 261.3	5 484.1	5 654.8	5 881.0	6 203.0	6 406.6	6 626.2	6 793.4	6 951.3	7 128.8	7 386.6	7 688.9

LABOUR MARKET

	1986				1987				1988			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 406.7	4 416.2	4 429.5	4 438.6	4 468.4	4 493.5	4 515.6	4 525.5	4 536.7	4 546.4	4 572.6	4 591.4
Employment	4 075.0	4 081.7	4 101.2	4 121.2	4 161.5	4 194.5	4 225.4	4 246.9	4 266.4	4 281.2	4 314.5	4 341.0
Unemployment	331.7	334.5	328.3	317.4	306.9	299.0	290.1	278.6	270.3	265.1	258.1	250.4
Full-time equivalent employment	3 986.9	3 990.6	4 007.3	4 034.7	4 067.1	4 105.5	4 135.5	4 151.3	4 176.0	4 184.0	4 218.7	4 245.9
Employees	3 456.5	3 463.5	3 473.9	3 489.9	3 506.9	3 532.4	3 557.7	3 576.7	3 608.8	3 624.5	3 663.5	3 688.7
Other forms of employment	530.4	527.1	533.4	544.8	560.2	573.1	577.7	574.6	567.3	559.4	555.2	557.2
EUR thousands												
Compensation per employee	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.3
Per cent												
Unemployment rate	7.5	7.6	7.4	7.2	6.9	6.7	6.4	6.2	6.0	5.8	5.6	5.5

HOUSEHOLDS' DISPOSABLE INCOME

	1989				1990				1991			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	4 968.3	5 205.9	5 465.1	5 707.0	5 933.5	6 205.5	6 455.9	6 806.4	7 071.0	7 426.4	7 714.1	8 059.1
Domestic transfers	1 195.9	1 256.7	1 319.7	1 385.0	1 452.7	1 530.4	1 618.2	1 716.1	1 824.2	1 938.8	2 060.0	2 187.9
External transfers	723.7	718.9	729.1	721.1	718.8	796.7	824.5	800.6	762.4	898.8	798.0	818.7
Corporate and property income	2 974.0	3 151.8	3 326.7	3 513.8	3 695.1	3 878.2	4 061.6	4 277.7	4 472.1	4 665.7	4 823.2	4 970.6
Direct taxes	519.4	565.3	598.8	619.8	628.2	645.5	671.4	706.2	749.7	806.3	876.0	958.7
Social Security contributions	1 187.0	1 247.6	1 307.6	1 367.1	1 426.2	1 489.9	1 558.3	1 631.4	1 709.1	1 798.8	1 900.4	2 013.9
Disposable income	8 155.4	8 520.4	8 934.2	9 340.0	9 745.7	10 275.4	10 730.5	11 263.3	11 670.9	12 324.6	12 618.9	13 063.6

LABOUR MARKET

	1989				1990				1991			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 660.3	4 683.0	4 712.6	4 721.4	4 708.3	4 726.0	4 726.0	4 777.1	4 780.7	4 797.1	4 769.8	4 762.6
Employment	4 412.3	4 434.1	4 466.1	4 478.5	4 465.9	4 484.4	4 484.3	4 537.3	4 540.7	4 567.2	4 549.2	4 549.8
Unemployment	248.0	248.9	246.5	242.9	242.4	241.5	241.7	239.7	240.1	229.9	220.6	212.7
Full-time equivalent employment	4 313.6	4 337.8	4 369.5	4 377.9	4 369.2	4 384.8	4 381.9	4 438.8	4 433.5	4 468.1	4 449.3	4 452.0
Employees	3 751.4	3 772.5	3 803.3	3 814.7	3 810.2	3 825.3	3 814.5	3 855.8	3 832.4	3 855.2	3 832.2	3 834.4
Other forms of employment	562.2	565.3	566.1	563.2	559.0	559.5	567.4	583.0	601.1	613.0	617.1	617.6
EUR thousands												
Compensation per employee	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.1
Per cent												
Unemployment rate	5.3	5.3	5.2	5.1	5.1	5.1	5.1	5.0	5.0	4.8	4.6	4.5

HOUSEHOLDS' DISPOSABLE INCOME

	1992				1993				1994			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	8 466.8	8 761.0	9 029.2	9 222.2	9 299.8	9 411.4	9 402.9	9 494.8	9 458.5	9 593.5	9 763.0	9 969.5
Domestic transfers	2 322.3	2 434.5	2 524.5	2 592.3	2 637.9	2 684.8	2 733.0	2 782.4	2 833.1	2 895.3	2 968.8	3 053.8
External transfers	817.9	781.1	785.9	771.6	841.4	689.9	735.6	759.5	734.5	721.1	629.4	741.4
Corporate and property income	5 092.1	5 220.3	5 316.3	5 373.5	5 452.7	5 542.1	5 543.2	5 480.4	5 460.2	5 500.3	5 599.3	5 728.6
Direct taxes	1 054.4	1 121.3	1 159.2	1 168.2	1 148.3	1 138.2	1 138.0	1 147.6	1 167.1	1 185.0	1 201.4	1 216.2
Social Security contributions	2 139.3	2 250.4	2 347.1	2 429.5	2 497.5	2 540.4	2 558.3	2 551.1	2 518.9	2 535.5	2 600.9	2 715.1
Disposable income	13 505.4	13 825.2	14 149.6	14 361.9	14 586.1	14 649.6	14 718.4	14 818.4	14 800.4	14 989.7	15 158.3	15 562.0

LABOUR MARKET

	1992				1993				1994			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 768.3	4 754.2	4 771.4	4 756.7	4 749.4	4 748.6	4 729.6	4 747.8	4 756.9	4 781.4	4 817.0	4 818.1
Employment	4 582.6	4 570.5	4 587.5	4 568.8	4 542.1	4 520.2	4 487.5	4 489.0	4 484.9	4 497.8	4 526.8	4 520.5
Unemployment	185.6	183.8	183.9	187.9	207.3	228.4	242.1	258.8	272.0	283.6	290.2	297.6
Full-time equivalent employment	4 482.4	4 472.2	4 478.6	4 469.6	4 430.1	4 425.0	4 380.7	4 401.4	4 379.2	4 406.7	4 422.2	4 422.0
Employees	3 862.0	3 853.6	3 854.2	3 840.4	3 794.7	3 777.7	3 720.1	3 718.7	3 673.2	3 678.4	3 675.2	3 665.2
Other forms of employment	620.5	618.6	624.4	629.2	635.4	647.3	660.6	682.7	706.1	728.3	747.0	756.8
EUR thousands												
Compensation per employee	2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.6	2.6	2.7	2.7
Per cent												
Unemployment rate	3.9	3.9	3.9	3.9	4.4	4.8	5.1	5.5	5.7	5.9	6.0	6.2

HOUSEHOLDS' DISPOSABLE INCOME

	1995				1996				1997			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	10 246.8	10 474.1	10 684.2	10 893.3	11 094.2	11 207.6	11 443.4	11 623.3	11 903.8	12 181.5	12 481.6	12 723.5
Domestic transfers	3 150.3	3 233.5	3 303.7	3 360.6	3 404.4	3 452.2	3 504.0	3 559.8	3 619.6	3 694.6	3 784.9	3 890.3
External transfers	590.9	613.2	631.5	673.4	677.0	659.6	661.5	653.9	707.8	735.8	739.3	728.7
Corporate and property income	5 854.9	5 977.4	6 059.2	6 111.6	6 142.1	6 064.0	6 070.7	6 093.0	6 129.6	6 125.3	6 125.9	6 147.7
Direct taxes	1 229.5	1 250.8	1 280.1	1 317.3	1 362.6	1 395.7	1 416.7	1 425.7	1 422.5	1 425.0	1 433.0	1 446.8
Social Security contributions	2 878.2	3 002.4	3 087.7	3 134.1	3 141.6	3 171.6	3 224.2	3 299.3	3 396.9	3 494.7	3 592.8	3 691.1
Disposable income	15 735.2	16 045.0	16 310.8	16 587.4	16 813.6	16 816.0	17 038.7	17 205.0	17 541.3	17 817.6	18 105.9	18 352.4

LABOUR MARKET

	1995				1996				1997			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	4 823.9	4 820.2	4 826.2	4 861.9	4 911.2	4 896.8	4 935.3	4 934.1	4 976.3	5 002.7	5 047.1	5 057.7
Employment	4 522.8	4 519.6	4 529.5	4 552.1	4 599.1	4 579.6	4 624.1	4 624.8	4 670.8	4 712.6	4 752.7	4 774.3
Unemployment	301.1	300.6	296.7	309.8	312.1	317.2	311.2	309.3	305.4	290.1	294.4	283.4
Full-time equivalent employment	4 422.2	4 421.5	4 427.2	4 454.1	4 491.5	4 482.1	4 517.6	4 521.8	4 559.3	4 599.1	4 644.1	4 669.8
Employees	3 662.8	3 656.2	3 658.0	3 673.6	3 699.9	3 689.2	3 719.0	3 723.9	3 760.0	3 793.9	3 834.2	3 853.6
Other forms of employment	759.4	765.3	769.2	780.5	791.6	793.0	798.6	797.9	799.4	805.2	809.9	816.2
EUR thousands												
Compensation per employee	2.8	2.9	2.9	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.3	3.3
Per cent												
Unemployment rate	6.2	6.2	6.1	6.4	6.4	6.5	6.3	6.3	6.1	5.8	5.8	5.6

HOUSEHOLDS' DISPOSABLE INCOME

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	13 074.0	13 368.3	13 560.8	13 829.6	14 024.8	14 270.6	14 563.2	14 846.3	15 247.8	15 524.4	15 817.4	16 075.5
Domestic transfers	4 011.0	4 115.7	4 204.6	4 277.6	4 334.8	4 411.9	4 508.9	4 625.8	4 762.7	4 895.3	5 023.8	5 148.1
External transfers	758.4	756.8	762.9	737.0	766.3	763.3	837.4	767.8	812.5	885.2	821.0	957.8
Corporate and property income	6 111.2	6 130.4	6 257.4	6 420.8	6 664.7	6 801.1	6 932.2	7 049.1	7 122.3	7 170.1	7 231.1	7 258.2
Direct taxes	1 466.1	1 486.2	1 507.1	1 528.7	1 551.0	1 582.2	1 622.2	1 671.0	1 728.7	1 778.2	1 819.7	1 853.1
Social Security contributions	3 789.5	3 863.2	3 912.0	3 936.0	3 935.2	3 971.7	4 045.4	4 156.5	4 304.7	4 427.4	4 524.3	4 595.7
Disposable income	18 699.0	19 021.9	19 366.7	19 800.4	20 304.4	20 692.9	21 174.0	21 461.5	21 911.9	22 269.5	22 549.2	22 990.8

LABOUR MARKET

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	5 108.5	5 110.6	5 100.9	5 133.4	5 136.3	5 151.9	5 157.6	5 169.4	5 207.7	5 210.0	5 255.9	5 268.7
Employment	4 823.6	4 868.5	4 858.7	4 890.2	4 900.8	4 915.2	4 937.4	4 954.7	4 991.1	5 007.3	5 047.9	5 074.0
Unemployment	284.9	242.1	242.2	243.2	235.4	236.8	220.2	214.7	216.5	202.7	207.9	194.8
Full-time equivalent employment	4 735.1	4 780.6	4 778.8	4 808.4	4 809.3	4 822.7	4 847.8	4 865.9	4 919.1	4 939.2	4 975.5	5 006.6
Employees	3 908.6	3 945.4	3 949.6	3 980.1	3 988.5	4 006.7	4 032.7	4 048.7	4 094.1	4 107.8	4 133.1	4 154.6
Other forms of employment	826.4	835.2	829.2	828.3	820.8	816.1	815.2	817.1	825.0	831.4	842.4	852.0
EUR thousands												
Compensation per employee	3.3	3.4	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.9
Per cent												
Unemployment rate	5.6	4.7	4.7	4.7	4.6	4.6	4.3	4.2	4.2	3.9	4.0	3.7

HOUSEHOLDS' DISPOSABLE INCOME

	2001				2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)	16 214.2	16 399.6	16 610.1	16 852.8	17 134.3	17 315.9	17 445.7	17 418.9	17 697.3	17 752.9	17 834.3	17 919.8
Compensation of employees	5 268.1	5 393.5	5 524.3	5 660.4	5 801.8	5 920.1	6 015.2	6 087.2	6 136.0	6 198.4	6 274.4	6 363.9
Domestic transfers	901.3	941.8	884.2	895.5	765.6	670.7	684.5	640.6	668.5	566.1	580.4	593.1
External transfers	7 299.0	7 327.5	7 341.8	7 371.9	7 360.9	7 424.4	7 565.6	7 593.5	7 775.0	7 835.9	7 932.3	8 086.3
Corporate and property income	1 878.4	1 899.9	1 917.5	1 931.2	1 941.1	1 945.8	1 945.2	1 939.3	1 928.2	1 923.5	1 925.4	1 933.8
Direct taxes	4 641.3	4 692.0	4 747.9	4 808.8	4 874.8	4 945.1	5 019.8	5 098.8	5 182.1	5 238.6	5 268.2	5 270.9
Social Security contributions	23 162.9	23 470.6	23 695.0	24 040.5	24 246.8	24 440.2	24 746.0	24 702.1	25 166.5	25 191.2	25 427.7	25 758.5
Disposable income												

LABOUR MARKET

	2001				2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	5 311.5	5 317.2	5 339.0	5 371.5	5 388.0	5 422.2	5 441.5	5 438.1	5 460.6	5 461.9	5 456.9	5 469.4
Employment	5 101.9	5 106.2	5 125.6	5 152.0	5 156.5	5 167.6	5 165.0	5 116.2	5 124.9	5 119.6	5 119.8	5 118.9
Unemployment	209.6	211.1	213.4	219.5	231.5	254.7	276.5	321.9	335.6	342.3	337.1	350.5
Full-time equivalent employment	5 007.7	5 015.8	5 027.8	5 046.7	5 068.0	5 068.4	5 059.2	5 005.2	5 022.8	5 007.0	4 999.3	4 989.5
Employees	4 148.1	4 156.2	4 172.3	4 198.2	4 234.2	4 243.5	4 239.0	4 192.5	4 201.5	4 184.3	4 178.2	4 176.9
Other forms of employment	859.7	859.6	855.6	848.5	833.8	824.9	820.2	812.7	821.3	822.7	821.1	812.7
EUR thousands												
Compensation per employee	3.9	3.9	4.0	4.0	4.0	4.1	4.1	4.2	4.2	4.2	4.3	4.3
Per cent												
Unemployment rate	3.9	4.0	4.0	4.1	4.3	4.7	5.1	5.9	6.1	6.3	6.2	6.4

HOUSEHOLDS' DISPOSABLE INCOME

	2004				2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	18 099.2	18 233.6	18 451.8	18 745.5	19 010.1	19 255.4	19 415.6	19 517.3	19 701.0	19 806.9	19 957.2	20 031.2
Domestic transfers	6 467.1	6 556.5	6 632.1	6 694.0	6 742.1	6 825.8	6 945.0	7 099.9	7 290.3	7 458.8	7 605.5	7 730.3
External transfers	586.7	625.7	617.6	602.0	552.8	595.5	492.4	507.3	648.0	615.9	586.0	662.3
Corporate and property income	8 028.0	8 167.5	8 227.8	8 296.2	8 495.8	8 506.7	8 560.8	8 553.2	8 464.7	8 488.9	8 474.8	8 627.1
Direct taxes	1 948.7	1 966.5	1 987.1	2 010.7	2 037.2	2 063.9	2 090.8	2 117.9	2 145.2	2 185.7	2 239.3	2 306.2
Social Security contributions	5 246.7	5 268.1	5 335.1	5 447.5	5 605.5	5 743.2	5 860.6	5 957.6	6 034.3	6 101.4	6 158.9	6 206.8
Disposable income	25 985.7	26 348.7	26 607.2	26 879.4	27 158.1	27 376.2	27 462.5	27 602.3	27 924.5	28 083.3	28 225.2	28 537.9

LABOUR MARKET

	2004				2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	5 463.3	5 474.5	5 481.1	5 506.2	5 499.2	5 514.6	5 520.8	5 543.5	5 536.6	5 555.0	5 556.3	5 554.9
Employment	5 120.8	5 115.9	5 106.2	5 124.2	5 094.1	5 104.0	5 093.9	5 108.1	5 115.9	5 138.4	5 140.0	5 110.0
Unemployment	342.4	358.6	374.9	382.0	405.1	410.5	426.9	435.4	420.7	416.6	416.3	444.9
Full-time equivalent employment	5 003.4	4 992.6	4 993.3	5 006.3	4 986.9	4 990.1	4 983.9	4 980.8	4 996.7	4 999.8	5 000.1	4 965.1
Employees	4 202.1	4 203.7	4 214.0	4 230.4	4 219.3	4 226.9	4 230.1	4 235.4	4 261.9	4 270.8	4 276.5	4 249.8
Other forms of employment	801.3	788.9	779.3	776.0	767.7	763.2	753.8	745.3	734.8	729.0	723.6	715.3
EUR thousands												
Compensation per employee	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.6	4.6	4.6	4.7	4.7
Per cent												
Unemployment rate	6.3	6.6	6.8	6.9	7.4	7.4	7.7	7.9	7.6	7.5	7.5	8.0

HOUSEHOLDS' DISPOSABLE INCOME

	2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Current prices (EUR millions)												
Compensation of employees	20 412.4	20 573.9	20 886.7	20 998.0	21 304.7	21 440.7	21 540.8	21 638.8	21 795.9	21 792.9	21 732.0	21 819.9
Domestic transfers	7 833.2	7 928.2	8 015.1	8 094.0	8 164.8	8 271.9	8 415.0	8 594.3	8 809.8	8 956.5	9 034.6	9 044.0
External transfers	712.7	752.3	676.2	677.2	686.3	613.1	750.5	827.9	571.1	566.6	579.9	567.4
Corporate and property income	8 671.4	8 858.2	9 035.0	9 191.0	9 477.9	9 483.3	9 456.6	9 347.7	9 061.0	8 762.6	8 622.9	8 420.9
Direct taxes	2 386.2	2 436.1	2 455.7	2 445.0	2 404.2	2 375.0	2 357.4	2 351.5	2 357.2	2 368.0	2 384.1	2 405.5
Social Security contributions	6 245.1	6 281.7	6 316.5	6 349.5	6 380.7	6 408.2	6 432.1	6 452.2	6 468.6	6 483.1	6 495.7	6 506.4
Disposable income	28 998.4	29 394.8	29 840.9	30 165.6	30 848.8	31 025.8	31 373.5	31 605.1	31 412.0	31 227.5	31 089.6	30 940.3

LABOUR MARKET

	2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Thousands of heads												
Labour force	5 572.0	5 554.4	5 583.4	5 567.6	5 572.5	5 580.8	5 565.3	5 551.1	5 559.3	5 544.0	5 522.8	5 536.4
Employment	5 112.3	5 103.8	5 142.0	5 137.0	5 154.5	5 162.3	5 137.5	5 122.8	5 069.3	5 026.9	4 981.5	4 985.1
Unemployment	459.6	450.6	441.4	430.6	418.0	418.5	427.7	428.3	490.1	517.2	541.3	551.3
Full-time equivalent employment	4 980.6	4 967.5	5 004.9	4 993.0	5 024.0	5 021.6	5 001.5	4 978.7	4 942.4	4 896.4	4 845.0	4 841.3
Employees	4 263.9	4 253.3	4 285.7	4 279.1	4 313.1	4 316.7	4 308.8	4 297.3	4 278.6	4 247.4	4 208.9	4 208.0
Other forms of employment	716.6	714.2	719.3	713.8	710.9	704.9	692.7	681.4	663.8	649.1	636.0	633.4
EUR thousands												
Compensation per employee	4.8	4.8	4.9	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.2	5.2
Per cent												
Unemployment rate	8.2	8.1	7.9	7.7	7.5	7.5	7.7	7.7	8.8	9.3	9.8	10.0

CHRONOLOGY OF MAJOR FINANCIAL MEASURES

January to June 2010

2010

January

• 4 January (Circular-Letter No 1/2010/DET, Banco de Portugal, Issue and Treasury Department)	Informs that, within the scope of application of Decree-Law No 195/2007 of 15 May, regarding contracts on the euro banknote recycling activity, the cash-in-transit companies ESEGUR, S.A., PROSEGUR, Lda., LOOMIS, S.A. and GRUPO 8, Lda., shall maintain in 2010 the conditions under which they are authorised to carry on such activity. In 2009, they concluded with success the process of full adjustment to the above legal system.
• 5 January (Decree-Law No 2/2010, Official Gazette No 2, Series I Ministry of Finance and Public Administration)	Approves the reprivatisation process of the whole capital stock of BPN (Banco Português de Negócios), SA.
• 5 January (Decree-Law No 3/2010, Official Gazette No 2, Series I, Ministry of Finance and Public Administration)	Establishes that the collection of any charges for payment services and cash operations in ATMs shall be prohibited.
• 7 January (Instruction No 1/2010, Official Gazette No 16, Series II, Part C, Ministry of Public Administration, Portuguese Treasury and Government Debt Agency)	Approves the conditions of issue of Treasury bills and the market operator status.
• 14 January (Instruction of Banco de Portugal No 01/2010 BNBP 2/2010)	Establishes the procedures to be followed when retaining counterfeit/suspect banknotes and coins. Revokes Instruction No 9/2009, published in the Official Bulletin No 8/2009 of 17 August 2009.
• 15 January (Instruction of Banco de Portugal No 27/2009 BNBP 1/2010)	Determines, without prejudice to other regulations, which Instructions shall be applicable to payment institutions.
• 15 January (Instruction of Banco de Portugal No 28/2009 BNBP 1/2010)	Amends a number of Instructions, so that they may apply to payment institutions, i.e. the new type of payment service providers.
• 15 January (Instruction of Banco de Portugal No 29/2009 BNBP 1/2010)	Determines which accounting data shall be reported to Banco de Portugal by payment institutions which carry out any business other than the provision of payment services.
• 26 January (Notice of Banco de Portugal No 1/2010, Official Gazette No 27, Series II, Part E)	Lays down the information to be released in the statement on the remuneration policy of management and auditing board members of institutions subject to the supervision of Banco de Portugal. This Notice shall enter into force on the day following its publication and shall apply to financial years started on 1 January 2010 or thereafter.

February

- 1 February (Circular Letter No 2/10/DSBDR, Banco de Portugal, Banking Supervision Department)

  Lays down the recommendations applicable to the remuneration policy of management and auditing board members of institutions subject to the supervision of Banco de Portugal as well as of the respective staff earning variable remuneration and carrying on their activities at auditing level or any other level that may have a material impact on the institution's risk profile. This is aimed at bringing compensation mechanisms closer into line with prudent and appropriate risk control and management.

- 4 February (Decision No 5166/2010, Ministry of Finance and Public Administration. Minister's Office, Official Gazette No 57; Series II, Part C)

  Approves the new Chart of Accounts of Banco de Portugal, pursuant to Article 63(1) of the Organic Law of Banco de Portugal (Law No 5/98 of 31 January).

- 22 February (Instruction of Banco de Portugal No 4/2010, BNBP 3/2010)

  Amends Instruction No 10/2007, published in the Official Bulletin No 5/2007 of 15 May 2007, relating to external rating agencies.

March

- 4 March (Instruction of Banco de Portugal No 7/2010, BNBP 3/2010)

  Publishes the maximum rates in credit agreements for consumers within the scope of Decree-Law No 133/2009 of 2 June, applicable in the second quarter of 2010.

- 10 March (Instruction of Banco de Portugal No 8/2010, BNBP 4/2010)

  Determines that credit institutions shall send to Banco de Portugal information on deposit and credit agreements, in line with the attached Table, for the analysis and evaluation of the number of customers' complaints.

- 15 March (Instruction of Banco de Portugal No 5/2010, BNBP 3/2010)

  Amends Instruction No 33/2007, published in the Official Bulletin No 1 of 15 January 2008, which regulates the operation of the TARGET2 national system.

- 15 March (Instruction of Banco de Portugal No 6/2010, BNBP 3/2010)

  Amends Instruction No 24/2009, published in the Official Bulletin No 11 of 16 November 2009, which regulates the granting of intraday credit and the contingency liquidity facility.

- 30 March (Notice of Banco de Portugal No 2/2010, Official Gazette No 74, Series II, Part E)

  Establishes the minimum reporting requirements to be met by credit institutions having their head office or a branch in the national territory, when negotiating or signing housing loans or linked credit agreements or during the life of the agreement. The present Notice enters into force on 1 November 2010, and shall apply to loans to be agreed after that date.

April

- 5 April (Instruction of Banco de Portugal No 9/2010, BNBP 4/2010)

  Introduces changes in Instruction No 1/99 of 15 January 1999, which laid down the general rules governing the Intervention Operations Market. Revokes Circular Letter No 6/2009/DMR of 26 February 2009.

• 6 April (Notice of Banco de Portugal No 3/2010, Official Gazette No 74, Series II, Part E)	Defines the new contribution system for the Mutual Agricultural Credit Guarantee Fund by the Central Agricultural Credit Bank and Mutual Agricultural Credit Banks belonging to the Integrated System of Mutual Agricultural Credit (Portuguese acronym: SICAM), bringing it closer to the system applicable to the institutions participating in the Deposit Guarantee Fund. It sets at 0.10% the base contributory rate in 2010.
• 16 April (Instruction of Banco de Portugal No 10/2010, BNBP 5/2010)	Establishes the reporting requirements to be met by credit institutions *vis-à-vis* their customers when negotiating or signing housing loans or linked credit agreements or during the life of the agreement.
• 22 April (Instruction No 5/2010, Official Gazette No 86 – Series II, Part C, Ministry of Finance and Public Administration. Portuguese Treasury and Government Debt Management Agency)	Approves the conditions for the issue of Treasury Bills (TB) and the market operators' statutes. The present Instruction enters into force on 1 May 2010.
• 22 April (Resolution No 17/2010 of the Presidency of the Council of Ministers, Official Gazette No 111, Series II, Presidency of the Council of Ministers. Council of Ministers)	Appoints, pursuant to Article 27 of the Organic Law of Banco de Portugal, approved by Law No 5/98 of 31 January, Mr. Carlos da Silva Costa as Governor of Banco de Portugal, with effect from 7 June 2010.
• 23 April (Decree No 7/2010, Official Gazette No 79 – Series I, Ministry of Foreign Affairs)	Approves the Economic Cooperation Agreement between the Portuguese Republic and the Democratic Republic of São Tomé and Príncipe with a view to strengthening the macroeconomic and financial stability of São Tomé and Príncipe, signed in São Tomé on 28 July 2009. For that purpose, it creates the Economic Cooperation Agreement Commission (Portuguese acronym: COMACE), within which a Macroeconomic Monitoring Unit is forecast to be created.

May

• 10 May (Executive Order No 260/2010, Official Gazette No 90 – Series I, Ministry of Finance and Public Administration)	Approves, under Article 5(1) of the Regime Excepcional de Regularização Tributária de Elementos Patrimoniais (Extraordinary scheme for the tax adjustment of financial assets), approved by Article 131 of Law No 3-B/2010 of 28 April, the respective model of declaration and filling-in instructions. Banco de Portugal shall be responsible for retaining such documents in the archives for a period of 10 years.
• 17 May (Instruction of Banco de Portugal No 11/2010, BNBP 5/2010)	Revokes Instruction No 49/96, published in the BNBP 1/96 of 17 June, which enabled Mutual Agricultural Credit Banks to open housing savings accounts under certain conditions.
• 17 May (Instruction of Banco de Portugal No 12/2010, BNBP No 5/2010)	Regulates statistical data reporting to Banco de Portugal. Revokes Instruction No 19/2002, published in the Official Bulletin No 8 of 16 August 2002.

• 18 May (Law No 8-A/2010, Official Gazette No 96, Series I, Assembly of the Republic)	Approves a system enabling the Government to lend funds and carry out other lending operations to euro area Member States and to grant personal State guarantees to operations intended to finance these States, within the scope of an initiative to strengthen financial stability.
• 20 May (Resolution No 40/2010 of the Council of Ministers, Official Gazette No 112, Series I, Presidency of the Council of Ministers)	Creates a new public debt instrument denominated Treasury Certificate. Its aim is to promote long-term savings by citizens and to boost the government debt market. This Resolution enters into force on 1 July 2010.
• 26 May (Decree-Law No 52/2010, Official Gazette No 102, Series I, Ministry of Finance and Public Administration)	Approves procedural rules and evaluation criteria for the prudential assessment of acquisitions and increase of holdings in the financial sector, transposing into national legislation Directive No 2007/44/EC of the European Parliament and of the Council of 5 September. The present Decree-Law enters into force on the day following its publication.
• 28 May (Information No 7, OJ C 138, Luxembourg)	Extract from the decision on the opening of winding-up proceedings concerning the Banco Privado Português, S.A. under Article 9 of Directive 2001/24/EC of the European Parliament and of the Council on the reorganisation and winding up of credit institutions. Publication provided for in Article 13 of that Directive and in Article 21 of Decree-Law No 199/2006 of 25 October. Withdrawal of authorisation of Banco Privado Português, S.A., is effective as of 12 p.m. on 16 April 2010.

June

• 09 June (Instruction of Banco de Portugal No 14/2010, BNBP 7/2010)	Amends Clause 3 (3) of the Standard Contract regarding participation in the BPnet system, annexed to Instruction No 30/2002, published in the Official Bulletin No 10 of 15 October 2002.
• 15 June (Instruction of Banco de Portugal No 13/2010, BNBP 6/2010)	Amends Annex V (Pricing and penalties) of Instruction No 3/2009, published in the Official Bulletin No 2/2009 of 16 February 2009, which regulates the Interbank Clearing System (Portuguese acronym: SICOI).