The euro area after the entry of Greece

In the first two years of its existence, the euro area comprised 11 countries. On 1 January 2001, Greece entered the euro area and thus became the 12th European Union Member State to adopt the single currency. The Greek fulfilment of the convergence criteria for entering the euro area is a significant achievement and the result of impressive developments in the Greek economy in recent years. This article briefly reviews the completion of the Greek convergence process in the second half of 2000 and then focuses on the key structural economic features of the euro area including Greece. Given its fairly small size relative to the euro area as a whole, the entry of Greece has not materially changed the features of the euro area. As in previous years, data on these key features have been updated to provide the public at large with frequently used reference material on the main properties of the euro area, now also including Greece.

1 Introduction and overview

Greece has been participating fully in European Economic and Monetary Union (EMU) since 1 January 2001, following the decision by the ECOFIN Council on 19 June 2000 confirming that Greece had fulfilled the necessary conditions to adopt the single currency. During the interim period, intense preparations for the technical and organisational inclusion of the Bank of Greece in the Eurosystem were successfully completed.

Against this background, this article first briefly describes the completion of the convergence process of Greece prior to its participation in EMU. This is followed by a presentation of the key structural macroeconomic features of the euro area including Greece, providing an update of the article in the January 2000 ECB Monthly Bulletin entitled "The euro area one year after the introduction of the euro: key characteristics and changes in the financial structure". Comparisons are made with the two other large economic entities, the United States and Japan, which are taken as a reference.

2 Completion of the convergence process of Greece in the second half of 2000

The convergence of Greek short-term interest rates towards comparable euro area levels started well before ECOFIN's decision that Greece fulfilled the necessary conditions to participate in the single currency (for an overview of developments up to March 2000, see the ECB's Convergence Report 2000). However, in June 2000, Greek short-term interest rates were still above comparable euro area levels and the Greek drachma was trading above its ERM II central parity against the euro. Thereafter, the second half of 2000 saw further progress with regard to interest rate convergence and an alignment of the drachma with its irrevocable conversion rate against the euro.

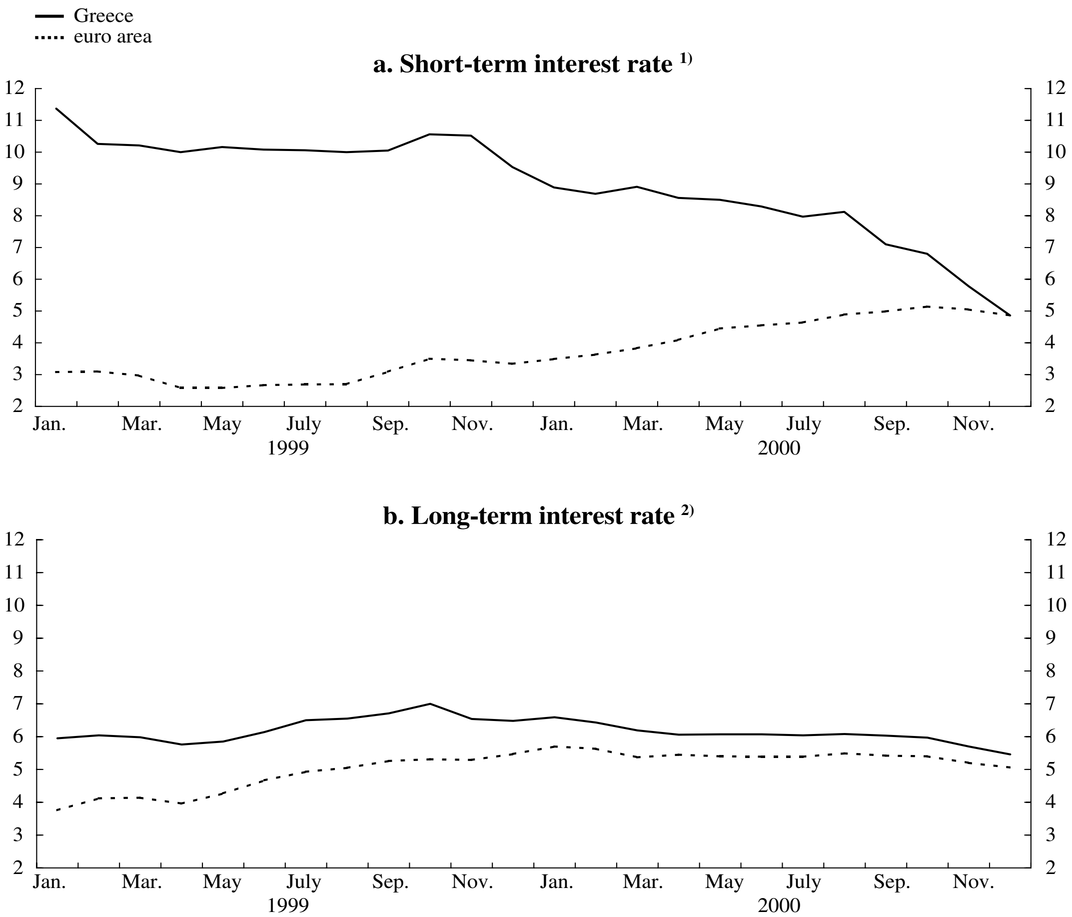
By the end of 2000, the short-term interest rate spread between Greece and the euro area had completely disappeared (see Chart 1). The Greek three-month interest rate (as measured by the Athens interbank offered rate ATHIBOR) was 390 basis points above the three-month euro interbank offered rate (EURIBOR) in June 2000 and subsequently declined by 354 basis points to 4.86% at the end of December 2000. During the same period, the EURIBOR increased by 36 basis points.

On 19 June 2000 when the ECOFIN Council agreed that Greece had qualified to participate in the single currency, the Council also decided that, with effect from 1 January 2001, the irrevocable conversion rate between the drachma and the euro should be equal to its central rate against the euro in the exchange rate mechanism ERM II.

Chart 1

Short and long-term interest rates in Greece and the euro area

(end-of-period observations in percentages)



Source: ECB.

1) Three-month interest rates.

2) Ten-year government bond yields.

On the day of this decision, the drachma was trading at GRD 336.6 to the euro, whereas on 29 December 2000 it was irrevocably fixed at GRD 340.750 to the euro.

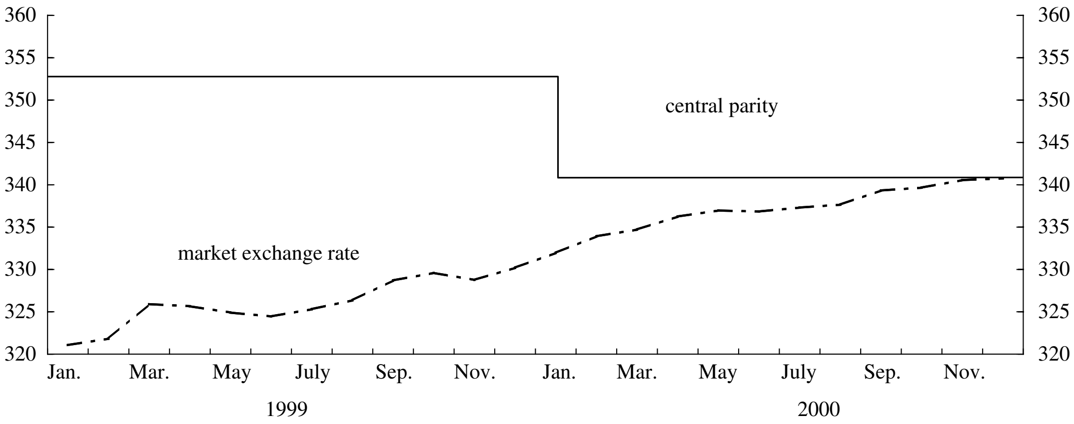
The convergence of the drachma towards its ERM II central rate had already started in the second half of 1999 (see Chart 2). Moreover, the convergence process was facilitated by a revaluation of the drachma's ERM II central rate on 17 January 2000.

Turning to consumer prices and fiscal variables, the average rate of HICP (Harmonised Index of Consumer Prices) inflation in Greece during the 12-month period to November 2000 was 2.8%, 0.5 percentage point above the HICP inflation rate for the euro area. In line with the methodology used in the ECB's Convergence Reports, these inflation rates are calculated using the increase in the latest available 12-month average of the HICP over the previous 12-month average. In 1999 as a whole, Greece's average annual inflation rate stood at 2.1%, one percentage point above the comparable euro area rate. According to the European Commission's Autumn 2000 Forecasts, the general government deficit ratio is expected to be 0.8% of GDP and the corresponding debt ratio 103.9% of GDP in 2000. Compared with 1998, this would imply

Chart 2

Exchange rate of the Greek drachma against the euro

(end-of-period observations, GRD/EUR)



Source: ECB.

falls in the Greek deficit and debt ratios of 2.3 and 1.6 percentage points of GDP, respectively.

At the end of December 2000, the spread between Greek long-term interest rates (as measured by the ten-year government bond yield) and comparable euro area rates amounted to 40 basis points, i.e. 34 basis points less than in June 2000 when Greek long-term interest rates stood at 6.1%. Compared with the annual averages for 1998 and 1999, Greek long-term bond yields had declined by 298 and 80 basis points respectively by the end of December 2000. The resulting small spread relative to euro area bond yields demonstrates the success of the stability-oriented policies pursued in Greece in the past decade. In line with the experience of other euro area Member States, it can be expected that some spread between Greek and average euro area long-term rates is likely to persist after the entry of Greece. In December 2000, long-term government bond yields in the euro area Member States ranged from 4.90% to 5.31%. These differences reflect, inter alia, differences in risk premia and the size and depth of the national government bond markets.

3 Key macroeconomic features of the euro area including Greece

This section updates the information provided in the article in the January 2000 issue of the ECB Monthly Bulletin entitled "The euro area one year after the introduction of the euro: key characteristics and changes in the financial structure". The 1999 euro area data referred to in this section include Greece unless otherwise stated.[1] The macroeconomic features of the euro area as a whole reflect the aggregate structures of the individual euro area countries. In general, these structures are a weighted average of the individual country data. While adding a comparatively small country to the euro area leads to a noticeable change in a few features of the area as a whole, the impact for most variables is naturally very limited. Extending the euro area to include an additional country has a number of implications for euro area statistics, which are elaborated upon further in the box overleaf.

1 *At the time of writing, the latest available calendar year data on financial market and key macroeconomic characteristics of the euro area referred to 1999. These data have been compiled for analytical purposes, while official data for the euro area including Greece will cover the period from 1 January 2001 onwards, as stated in the box.*

Box

Statistical implications of the entry of Greece into the euro area

The enlargement of the euro area to include Greece as from 1 January 2001 has two main statistical implications. First, residents of Greece have become residents of the euro area. Second, the Greek drachma is a national denomination of the euro. Consequently, from a statistical perspective, the composition of the "rest of the world" and of "foreign currencies" have changed. This in turn affects all monetary, financial and other economic statistics for the euro area as a whole.

To ensure smooth and timely availability of the new euro area statistics including Greece, statistical preparations have been stepped up since the ECOFIN Council decided on 19 June 2000 that Greece fulfilled the criteria for participating in the single currency from 1 January 2001. The preparations required changes to Greek statistics as well as changes to statistical reporting in other euro area Member States to enable euro area aggregates to be calculated correctly following the entry of Greece. The preparation of statistics for the enlarged euro area has been co-ordinated, where necessary, with the European Commission to ensure consistency in all statistical domains.

Regarding the presentation of euro area statistics in the statistical section of the ECB Monthly Bulletin, reference statistical series relating to the euro area will continue to cover the Member States making up the euro area at the time in question. This implies that stock data, such as employment and Monetary Financial Institution (MFI) balance sheet data, and flow data, such as balance of payments statistics, referring to periods up to and including December 2000 cover the euro area of 11 participating countries, while data referring to periods or dates from January 2001 onwards cover the extended euro area of 12 participating countries (i.e. including Greece). To the extent possible, absolute and percentage changes for 2001, which are calculated from a base in 2000, make allowance for the change in composition of the euro area.

All changes will be implemented in the statistical section of the ECB Monthly Bulletin, as data for the year 2001 become available. Monetary policy statistics (the first block in the "Euro area statistics" section) and data on monetary developments, financial markets, interest rates and consumer prices for the extended euro area will be available first. Balance of payments data as well as real economy statistics for the extended euro area are expected to become available later, reflecting the normal timetable for release.

For analytical purposes, historical data for the 11 euro area countries plus Greece for a number of key series such as those described in this article are presented in a supplementary table in the "Euro area statistics" section of the ECB Monthly Bulletin and on the ECB's website.

Population and economic activity

Measured in terms of population, the euro area is one of the largest economic entities in the world, with a total population of 302 million people including the Greek population of 10 million. By way of comparison, the populations of the United States and Japan are 272 million and 127 million, respectively.

Euro area economic activity, as measured by GDP, was just below €6,250 billion in 1999, of which Greece contributed around €120 billion (see the table opposite). While the share of the United States in world GDP still remains higher than that of the euro area, the entry of Greece has led to a rise in the euro area's share of world GDP from 15.8% to 16.2%. Since the Greek contribution to the euro area is composed of a somewhat large population relative to the level of economic activity, the entry of Greece implies a slight decline in the average level of euro area GDP per capita. However, excluding the Greek data, GDP per capita in the euro area is lower than in the United States and Japan.

Table

Key characteristics of the euro area including and excluding Greece

	Reporting period	Unit	Euro area incl. Greece	Euro area excl. Greece	United States	Japan
Population [1]	2000	m	302	292	272	127
GDP (share of world GDP) [2]	1999	%	16.2	15.8	21.9	7.6
GDP	1999	€ bn	6,245	6,127	8,666	4,081
GDP per capita	1999	€	20,667	21,013	31,916	32,205
Sectors of production [3]						
Agriculture, fishing, forestry	1999	% of GDP	2.8	2.6	1.6	1.8
Industry (including construction)	1999	% of GDP	28.5	28.6	27.3	36.4
Services	1999	% of GDP	68.7	68.7	71.1	61.9
Unemployment rate (share of labour force)	1999	%	10.0	9.9	4.2	4.7
Labour force participation rate [4]	1999	%	67.3	67.4	77.2	72.4
Employment rate [4), 5]	1999	%	60.5	60.6	73.9	68.9
Exports of goods [6]	1999	% of GDP	12.9	13.3	7.4	9.3
Exports of goods and services [6]	1999	% of GDP	16.9	17.2	10.3	10.7
Imports of goods [6]	1999	% of GDP	11.8	11.9	11.1	6.4
Imports of goods and services [6]	1999	% of GDP	15.9	16.1	13.2	9.1
Exports (share of world exports) [7]	1999	%	18.9	19.0	15.2	9.1
Current account balance [6]	1999	% of GDP	-0.2	-0.1	-3.6	2.5
General government						
Surplus (+) or deficit (-)	1999	% of GDP	-1.3	-1.3	1.0	-8.9
Gross debt	1999	% of GDP	72.7	72.2	63.2	125.6
Revenue	1999	% of GDP	47.7	47.8	32.9	31.0
Expenditure	1999	% of GDP	49.0	49.1	31.9	39.9
Bank deposits [8]	1999	% of GDP	79.4	80.0	41.0	134.5
Stock of loans to the private sector [9]	1999	% of GDP	90.1	91.1	76.1	136.3
Outstanding domestic debt securities [10]	1999	% of GDP	89.8	90.1	178.0	157.9
Stock market capitalisation	1999	% of GDP	66.1	64.7	128.7	73.9

Sources: Eurostat, IMF, European Commission, OECD, Reuters, ECB and ECB calculations.
1) *As of 1 January 2000.*
2) *GDP shares are based on a purchasing power parity (PPP) valuation of country GDPs.*
3) *Based on real value added. Data for the United States and Japan refer to 1997.*
4) *Data for Greece refer to 1998.*
5) *As a ratio of the number of persons in employment to the working age population (those aged between 15 and 64).*
6) *Balance of payments data, only extra-euro area trade flows for the euro area. For euro area imports and exports including Greece: ECB estimate based on Eurostat and ECB balance of payments data.*
7) *External trade statistics, world exports exclude intra-euro area trade flows.*
8) *Euro area: total deposits with MFIs; United States: demand, time and savings deposits with banking institutions; Japan: demand and time deposits with deposit money banks.*
9) *Euro area: MFI loans to other euro area residents; United States and Japan: domestic credit.*
10) *Data for domestic debt securities refer to December 1999.*

It must be noted that these international comparisons can be heavily influenced by the developments in exchange rates in a given year.

The structure of production in the euro area is broadly similar to that of the United States and Japan. In particular, the services sector accounts for the largest share of production in all three economic entities. While the entry of Greece led to a 0.2 percentage point rise in the share of agriculture, fishing and forestry in the euro area, it remained low at 2.8%. Nevertheless, this share is clearly higher in the euro area than it is in the United States and Japan.

Labour market

Although structural labour market reforms have been implemented in some euro area countries and the euro area unemployment rate has fallen in recent years, it remains significantly higher than in the world's other large economies. Euro area unemployment stood at 9.9% in 1999, compared with 4.2% in the United States and 4.7% in Japan. It is noteworthy that, besides the higher unemployment rate, the labour force participation rate, which stands at 67.3%, is considerably lower in the euro area than in the United States (77.2%) and Japan (72.4%). The significant gap between the labour force participation rates in the euro area and the United States is much wider for women (around 14 percentage points) than it is for men (about 7 percentage points). Owing partly to a lower than average labour force participation rate among Greek women compared with that in the other euro area countries, the entry of Greece has led to a 0.1 percentage point decline in the labour force participation rate in the euro area as a whole.

The combination of the lower participation rate and the higher unemployment rate in the euro area is also reflected in the employment rate of just above 60% (measured as the number of persons in employment as a percentage of the population aged between 15 and 64). This is much lower than in the United States and Japan where the employment rate was close to or above 70%.

External trade

As noted above, the features of the euro area are generally a weighted average of those of the individual Member States. One notable exception to this is the fact that trade between the individual euro area Member States is now considered to be trade within the euro area and is thus not recorded as international trade for the area as a whole. This implies that, while the individual euro area countries prior to the establishment of Monetary Union could be considered small open economies, the euro area as a whole forms a large, much more closed economy. It also implies that the trade between the 11 founding euro area Member States and Greece since 1 January 2001 is no longer recorded as euro area exports and imports.

The degree of openness of the euro area has been further reduced by the entry of Greece. Nevertheless, it is still greater than that of the world's other two major economies. Accordingly, the exports of the euro area account for a larger share of total world exports (18.9%) than those of the United States (15.2%) and Japan (9.1%). One reason for this is the high level of trade between the euro area and the remaining European Union countries.

Euro area exports of goods and services represented almost 17% of euro area GDP, significantly higher than the corresponding figures for the United States and Japan at 10-11%. Measured in terms of imports, the difference between the euro area and the United States is less marked. Imports of goods and services accounted for 15.9% of GDP in the euro area, while the corresponding share in the United States was 13.2%. In Japan, imports represented 9.1%, considerably lower than in the other two large economies. Trade in goods accounted for the largest share (of around 75%) of both euro area imports and exports.

The euro area recorded a slight current account deficit of 0.2% of GDP in 1999, while the deficit excluding Greece amounted to 0.1% of GDP. This close-to-balance situation was in marked contrast to the deficit in the United States and the surplus in Japan.

Fiscal position and size of the government sector

Moving on to the fiscal position and the size of the government sector, general government gross debt for the euro area as a whole stood at 72.7% of GDP in 1999, thus remaining clearly above the 60% reference value set for individual countries in the Treaty establishing the European Community. The debt ratio of Greece is higher than the average of the 11 countries that participated in the euro in 1999 and 2000. In fact, the debt ratio excluding Greece was 0.5 percentage point lower.

At the same time, the general government deficit in the euro area came to 1.3% of GDP in 1999. This reflects a share of government expenditure of 49.0% of GDP, compared with a ratio of general government revenue to GDP of 47.7%. In the euro area, the general government sector makes up a larger share of the economy than in the United States and Japan. In the United States, the general government sector accounted for just below 33% of GDP in terms of revenue and slightly less than 32% of GDP in terms of expenditure. In Japan, the large government deficit in 1999 is reflected in a government expenditure-to-GDP ratio of almost 40% and a government revenue-to-GDP ratio of 31%. The general government sector accounts for a smaller share of the Greek economy than the euro area aggregate for the 11 initial countries. As a result, the entry of Greece led to a decrease of 0.1 percentage point in the ratios of both general government revenue and expenditure to GDP in the euro area.

Financial structure

The entry of Greece into the euro area does not imply significant changes to the average financial structure of the euro area. As can be seen from the table, indicators such as the ratio of loans to the private sector to GDP, or that of stock market capitalisation to GDP, are little affected by the inclusion of Greece in the euro area.

4 Concluding remarks

The Greek fulfilment of the convergence criteria for entering the euro area reflects impressive developments in the Greek economy in recent years. Given its fairly small size relative to the euro area as a whole, the entry of Greece has not materially changed the key features of the euro area. The most notable changes are the 3.4% rise in the euro area population and the 1.9% increase in the level of euro area GDP.

The entry of Greece into the euro area represents the first occasion on which statistical series for the euro area have needed to include an additional Member State. A range of statistical issues thus needs to be addressed, concerning both data availability for the additional country and the procedures for calculating the area-wide aggregates.