Preface

In January 1999, the efforts of the European Union (EU) to establish an Economic and Monetary Union (EMU) culminated in the introduction of the euro and the creation of a single currency area. Initially, the euro area comprised 11 countries — Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain — with an aggregate population exceeding that of the United States. Since the birth of the euro, the EU has had the second-largest GDP ever recorded for a single currency area after the United States. The European System of Central Banks (ESCB) began overseeing a unified monetary policy under the leadership of the European Central Bank (ECB). To enable this unification, every EMU member state had to relinquish the right to pursue its own monetary policy. The euro was introduced in 1999 with non-cash transactions and, in 2002, it replaced the currencies of the countries that had adopted it. The number of EMU member states increased to 16 with the addition of five more countries, namely, Greece in January 2001, Slovenia in January 2007, Cyprus and Malta in January 2008, and Slovakia in January 2009.

The following can be cited as the reasons for the adoption of the euro:

(1) Establishment of a single market in the EU: The EU's predecessor, the European Economic Community (EEC), was established in 1958 when the nations of Europe wished to create a common market in which people, goods, capital, and services could move as freely as possible. They believed that, by doing so, they could create an economic community that was large and dynamic enough to compete with the economies of the US and Japan. However, to realize such a market, they needed to stabilize the European currencies. The initial idea of currency integration was explicitly advanced in 1970 under the Werner Plan.

(2) Success of the European Monetary System (EMS): In the early 1970s, efforts were made to stabilize the exchange rates of the currencies of the EU member states as the first step toward creating a stable currency area. These efforts, which included the "snake in the tunnel" arrangements of 1972 and the inauguration of the EMS in 1979, reduced exchange rate fluctuations between 1979 and 1985 by 50 percent compared to what they had been between 1975 and 1979. Then, from 1986 to 1989, the exchange rates further reduced by 50 percent. In light of the success of the EMS, the Delors Report of 1989 proposed a clear schedule for the institution of a single currency.
(3) Achievement of sound fundamentals in EU economies: Moving toward the implementation of a single currency, the EU member states recognized the need for their monetary policies to be more closely coordinated and for their economic fundamentals (prices of goods, interest rates, exchange rates, fiscal deficits, and government debt balances) to be improved. By obliging the member states to take these steps as a condition for EMU participation, they hoped to achieve low inflation, sound government finances, and low interest rates in the participating countries. They also promoted reforms to the public pension and tax systems, as well as other structural reforms that individual governments had failed to implement successfully on their own.

At this point, it will be useful to review the characteristics of the ECB's monetary policy. The policy strategy is based on "two pillars" for maintaining price stability. In the May 2003 revision of this two-pillar strategy, the ECB redefined the first pillar as an inflation rate (the growth rate of the Harmonized Index of Consumer Prices [HICP]) that is below but close to two percent over the medium term. This effectively set a lower limit with regard to deflationary risk which was a problem that had been growing on a global scale at the time. Yet, the ECB still stated unequivocally that it was not employing inflation targeting, and that it would not implement a mechanical policy response to actual inflation rates. Indeed, throughout its history, the ECB has never announced specific deadlines for achieving price

stability. This is in marked contrast to the Bank of England, the central bank of the UK, which has adopted inflation targeting.

The second pillar of the ECB's monetary policy is the establishment and public announcement of a reference value for the growth rate of the M3 money supply. The ECB has announced this reference value every December since 1998, but the value has remained unchanged at 4.5 percent. This 4.5 percent value is calculated based on the following assumptions: (1) HICP growth of less than two percent in the euro area, (2) economic growth trending in the 2.0–2.5 percent range, and (3) a fall of medium-term M3 velocity to annual rates of 0.5–1.0 percent. However, it eventually became clear that the actual M3 growth rates had exceeded the reference rate (4.5 percent) ever since the ECB began pursuing its own monetary policy. Moreover, the M3 growth rates had been high from 2001 onwards, in light of the growth of the short-term convertible securities holdings of parties outside the euro area. In other words, money was shifting from long-term financial products to more liquid short-term ones amid a global economic slowdown. When the markets became aware that this was happening, their faith in the M3 statistic declined significantly and the ECB was rebuked for its use of the M3 growth rate as a policy target. Yet, remarkably, in spite of the harsh criticism against it, the ECB chose not to abandon the M3 growth rate as a policy target but rather to simply downgrade it from first-pillar status to second-pillar status. By maintaining price stability through the control of inflation and the management of monetary policy, the ECB believes that sustainable employment and income creation can be achieved over the long term. The ECB also avows the high significance of currency supply trends as leading indicators of inflation. While the ECB believes that inflation control is a key concern, it is also convinced that the close monitoring of the M3 money supply is crucial for the overall strategy of preventing factors such as excessive liquidity from creating asset bubbles. On this point, the ECB has diverged from the positions of the Japanese and US central banks, both of which have been deterred from ascribing too much importance to money supply in light of its extreme susceptibility to specific factors and the difficulty of accurately gauging its velocity.

The ECB sets the overnight market interest rate (Euro Overnight Index Average [EONIA]) as a directly controllable operating target. Specifically, the bank tries to steer the EONIA to a desirable level by adjusting three key interest rates. First, it sets two policy interest rates — the marginal lending facility rate and deposit facility rate — to form a ceiling and floor above and below the EONIA. Next, it sets a third key interest rate — the main refinancing operations rate — to steer the EONIA toward a desirable level.

Monetary policy and fiscal policy are the two principal tools for achieving macroeconomic stabilization in the euro area, just as they are in other economies. However, in contrast to the case of other economies, the monetary and fiscal policies of the euro area are managed by different forces. The former is centrally controlled by the ECB, while the latter is controlled individually by the governments of the countries that have adopted the euro. Consequently, the ECB faces serious hurdles in trying to maintain a stable monetary policy whenever the fiscal conditions of the euro area countries take a turn for the worse. To mitigate the difficulty, rules on fiscal discipline have been established for the euro area countries via the Stability and Growth Pact.

The launch of the euro as a single currency worked against the pre-eminence of the US dollar as the currency of record for the global economy. To date, the euro has been well received as a new international currency. Whether the euro can match the status of the US dollar as a global currency clearly depends on the success of the monetary policy of the ECB.

The euro area is a unique and exceptionally important currency area for two reasons. First, it is the largest single currency area ever to be created in an industrialized region. In this sense, the euro area is enormously important as a test case for those contemplating the establishment of new currency areas in East Asia, North America, or other industrialized regions. Second, the euro area was established by sovereign states who, in spite of various divisions and challenges, agreed as peers to peacefully and autonomously create a single currency area. Thus, from the outset, the euro area has differed considerably from the currency areas created by countries that are allied with one another through pre-existing colonial relationships. With respect to regions

emerging from developing status and forming currency areas, the euro area can serve as a model case.

Now that the ECB and euro have entered their 10th year, this book attempts to apply recently developed econometric methods to examine the monetary policy of the ECB — the guardian of the euro — from various perspectives. We hope that the analyses in this book will contribute substantively to the understanding of the significance of the euro area and the future of the euro currency.

The content of this book is presented in nine chapters.

The EMU is exceptional as an economic and monetary union that has been realized among major sovereign states that did not have an underlying political union at the time of the inception of the single currency area. In Chapter 1, we outline and discuss the developments that led to the realization of the EMU.

Chapter 2 analyzes the stability of the money demand function with both aggregate and panel data for 11 EU countries, namely, Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. First, we find that the money demand function is stable with respect to M3. This arguably supports the suitability of the focus of the ECB's monetary policy on M3 money supply. Second, we recognize the stability of the money demand function with respect to not only M3, but also M1 and M2. These results suggest that the ECB should consider adopting M1 or M2 growth as a reference value, depending on how conditions change over time.

Chapter 3 empirically analyzes the Taylor-type policy response function of the ECB with monthly data from January 1999 to December 2007. We find that the long-term interest rate plays an important role in the policy reaction function. As Kristen (2003) points out, this suggests that the long-term interest rate may serve as a proxy for the public perception of long-run inflation.

Chapter 4 empirically analyzes the term structure of interest rates with panel data from the euro area. Specifically, we focus on cross-section dependence. Our results show that the expectation hypothesis is compatible with the short-term and long-term interest rate fluctuations in the euro area if we appropriately consider cross-section dependence

in the model. The results may also provide evidence of the effective functioning of the fiscal rules in the euro area.

Chapter 5 empirically examines the issue of budget sustainability for the 11 euro area countries that are examined. Our analyses here call into question whether the fiscal performance of the euro area is sustainable over the period between 1991 and 2005. However, in the subsequent period from 1997 to 2005, we demonstrate that the fiscal performance is definitely sustainable. This supports the notion that the rules on fiscal discipline are serving their purpose and that the fiscal deficits of individual countries are steadily decreasing.

Chapter 6 empirically analyzes the relationship between the yield spread and the future output growth rate using both aggregate and panel data from the euro area. Our empirical results clearly show that the US yield spread plays an important role in explaining the future output growth in the 11 countries that are examined.

Chapter 7 analyzes the stability of the investment-saving rates using panel data from the euro area. We find that the relationship between saving and investment tends to be rejected for recent samples. This may indicate that the stable relationship between saving and investment rates tends to disappear as capital markets become more integrated in the euro area.

In Chapter 8, we use the long-run structural VAR (vector auto-regression) approach to analyze the sources of the real and nominal effective exchange rate fluctuations of the euro in comparison with the US dollar and Japanese yen. After identifying two types of macroeconomic shock (real and nominal), we uncover the sources driving the movements in real exchange rates. The evidence presented indicates that real shocks are the dominant explanatory factors behind the real and nominal effective exchange rate fluctuations of all three currencies. We also find that the influence of real shocks on the movements in real and nominal effective exchange rates is somewhat stronger in the euro area and Japan than in the United States.

Chapter 9 examines the background, current status, key issues, and future prospects for euro-area enlargement. Looking at both individual countries and country groups, we discuss the characteristics of each and the issues that they face. Four groups are examined: (1) the EU

member states that did not participate in the final stage of the EMU in 1999, when the euro was introduced; (2) new EU member states that became EMU participants; (3) new EU member states that have participated in ERM II to date; and (4) new EU member states that are not participants in ERM II.

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