# Introduction

### 0.1 An ambitious endeavour

The introduction of the euro in 1999 vies with the founding of the US Federal Reserve System in 1914 as the most ambitious monetary endeavour in modern times. While the first decade of the Federal Reserve system was eventful throughout, not least due to the financial stress caused by the First World War, the first years of the euro can definitely be split in two periods. The first period, between January 1999 and July 2007, was smooth, even smoother than the most optimistic observers expected during preparations in the 1990s. The second period, after August 2007, was, in Europe as well as globally, marked by the stresses of a financial crisis that forced central banks to move well beyond the borders of conventional monetary policy, to explore regions never trodden before. In both periods the monetary policy set-up of the euro area functioned satisfactority. The ultimate proof of this is that the primary objective of price stability was fulfilled.

The institutional framework established by the Maastricht Treaty, with its two components of a clear objective of price stability and of independence for the central bank, goes a long way towards explaining this positive outcome. No comprehensive assessment of the euro experience can be made, however, without also considering the monetary policy strategy, which guided the European Central Bank and the entire Eurosystem<sup>1</sup> in taking monetary policy decisions, and the actual implementation of monetary policy, which translated those decisions into concrete market conditions.

<sup>&</sup>lt;sup>1</sup> For the purpose of this book, the term European Central Bank is, in most cases, equivalent to the one of Eurosystem, which unites the European Central Bank and the national central banks of the countries which have adopted the euro, therefore the two terms will be used interchangeably. In some specific cases where a differentiation is necessary, this will be specifically indicated.

#### 0.2 Words and facts

Many publications are devoted to the euro and, among other topics, the monetary policy strategy of the European Central Bank has been subject to numerous analyses and critiques. However, the actual implementation of monetary policy was, at least until the beginning of the crisis that started in 2007, much less studied, being more the preserve of a restricted group of experts than an issue of wide interest. Then, as the crisis came and proved to be the most serious in decades, suddenly the actual implementation of monetary policy became a subject of keen interest, both in Europe as well as globally. Still, there has been no systematic treatment of the implementation of monetary policy during the crisis.

A misunderstanding may have contributed to the lack of attention to the implementation of monetary policy before the crisis: contrary to the dictum, words may have appeared to count more than facts. Prior to the crisis, the casual observer may have been led to believe that, monetary policy announcements by major central banks seemed to matter more than actual policy actions. This impression is, quite simply, false. The evident effect of monetary policy announcements depends crucially on the market expertation that facts will indeed follow words. In yet another example of the effect preceding the cause, as it is often the case in social sciences, the words which announce a future monetary policy change produce immediate effects because market participants anticipate the announced policy change in today anarket conditions. Any doubt whatsoever about the effective translation of words into facts would impart a fatal blow to this chain of events and thus to the effective conduct of monetary policy. This was vividly demonstrated by the crisis, when not words but facts, and heavy facts for that matter, had to appear before the desired effects were achieved.

Two critical problems potentially stand in the way of a smooth sequence between the announcement and the actual carrying out of monetary policy moves: either an inconsistency or an inability on the side of the central bank to make facts follow words. The inconsistency aspect has to do with the credibility of the central bank and is akin to a 'character' trait of the institution. The inability aspect has to do with a technical trait: does the central bank have the appropriate monetary technology to implement precisely what it announced?

# 0.3 An appropriate monetary technology?

This book deals prominently with the 'ability' question: do the European Central Bank and the entire Eurosystem have the appropriate monetary technology for ensuring that, under normal conditions, the words of its President announcing a policy change are, without fail and with precision, followed by

concrete changes in market conditions? Is the monetary policy technology robust enough to adapt to drastic changes in the environment, such as those brought about by the crisis that started in 2007? The title of this book, with its reference to the concrete euro, exactly aims at addressing the issue of how a given monetary policy stance is translated into concrete market conditions, in normal as well as in crisis times. The allusion to something as solid as concrete is, however, also intentional.

This book addresses this issue by enriching, and where needed developing, the available theory with the practical experience of the European Central Bank compared to that of the American, Japanese, and British central banks.

### 0.4 The plan of the book

To allow for a theoretical assessment of the European Central bank's technology and to compare the challenges it faced with those faced by other central banks in the late 1990s and early years of the twenty-first century, the first chapter of the book starts with a thorough review and where necessary, with the original development of the theory of monetary policy implementation. While the twentieth-century history of the subject is reviewed briefly, special emphasis is on the analytical topics debated after the return of the short-term interest rate as the operational target of monetary policy in the 1990s. The first chapter of the book also analyses the continuous challenges of an apparently simple task: namely, how to control short-term interest rates, given that these rates constitute the price of a good—i.e. narrow money—whose supply is fully under the control of the central bank. In this regard, special treatment is devoted to the implementation of monetary policy in stressed conditions, developing a number of insights, which are then pursued in the third chapter.

Chapter 2 describes how the Eurosystem's monetary policy implementation technology was developed by the European Monetary Institute, the forerunner of the European Central Bank, between 1994 and 1998 and then afterwards by the European Central Bank itself. It gives insights into the conceptual debates and the practical challenges involved in agreeing a joint framework on the basis of the very different traditions and specific interests of the participating national central banks. Differences in views and positions are presented in some detail. The chapter gives a view into the complex elaboration of proposals and the decision-making process in the European Monetary Institute and the European Central Bank. It emphasizes that, in the case of the euro, the ability to draw inspiration for more advanced solutions from the diversity of national experiences, which has been the motor of successful European integration initatives, prevailed over confused compromises, which have been the trap into which failing initiatives have fallen. The chapter shows that substantial efforts were

required to achieve the objective and that it remains a challenge to find an equilibrium between the decentralized implementation of monetary policy and its unitary character. Moreover, the chapter gives a comprehensive overview of the design of the original Eurosystem operational framework at the time of the launch of the euro in 1999 as well as a brief comparison with the then prevailing operational frameworks of the Federal Reserve System and the Bank of Japan.

In more detail, this chapter answers questions such as: What was the genealogy of the Eurosystem monetary technology, i.e. from which predecessors did it derive? How was an agreement achieved?

The third chapter examines, with an emphasis on empirical aspects, the practice of monetary policy implementation in the euro area, starting with the transition to the euro in January 1999 and concluding with the phasing out from the unprecedented 'non-standard' measures to which central banks had recourse during the crisis. The questions addressed in this chapter are: in what respects did the framework meet expectations and in what respects did it disappoint them, i.e. what was and what was not well anticipated? What have been the main challenges since 1999 in the practical implementation of monetary policy in the euro area? How did the technical challenges that emerged in practice and the solutions chosen by the European Central Bank compare with those that confronted other major central banks? Which modifications had to be made to the Eurosystem technology during the crisis? How did this technology interact with the financial markets which are closest to it, in particular the money market? How can one measure its success in delivering the desired monetary policy conditions? What were the interactions with financial stability issues?

The fourth and last chapter tries to identify the challenges for the implementation of monetary policy in the next decade and is therefore succinct by nature. The focus is on the Eurosystem, even if some of the diversified and numerous themes analysed here also apply to other central banks. Where is the frontier of monetary technology today? What is the optimal scope of central bank action after the crisis has shown that central banks can go much further than imagined in extending their responsibilities? Which paradigm should be used to control interest rates? Whatever paradigm is chosen, what are the optimal parameters of monetary policy implementation, for example for the size and maturities of refinancing operations, for required reserves, for the assets eligible as collateral for central bank operations, for the counterparties? The fourth chapter also examines some challenges coming from within the Eurosystem: is the unprecedented predisposition of the euro to be adopted by an increasing number of countries going, over time, to cause problems for the implementation of monetary policy? How can the Eurosystem optimally pursue effectiveness and efficiency, which implies assuring a precise implementation of monetary policy, while minimizing its cost to society?