

# European Monetary Integration



**PAST, PRESENT  
AND FUTURE**

Edited by  
Eric J. Pentecost and  
André van Poeck

# European Monetary Integration

Past, Present and Future

---

*Edited by*

Eric J. Pentecost

*Reader in Economics, Loughborough University, UK*

*and*

André van Poeck

*Professor of Economics, University of Antwerp, Belgium*

**Edward Elgar**

Cheltenham, UK • Northampton, MA, USA

© EJ Pentecost and A van Poeck 2001

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical or photocopying, recording, or otherwise without the prior permission of the publisher.

Published by  
Edward Elgar Publishing Limited  
Glensanda House  
Montpellier Parade  
Cheltenham  
Glos GL50 1UA  
UK

Edward Elgar Publishing, Inc.  
136 West Street  
Suite 202  
Northampton  
Massachusetts 01060  
USA

A catalogue record for this book  
is available from the British Library

**Library of Congress Cataloguing in Publication Data**

European monetary integration : past, present, and future / edited by Eric J.  
Pentecost, André Van Poeck  
p. cm.

Includes bibliographical references and index.

1. Monetary unions—European Union countries. 2. European Monetary System (Organization) 3. Money—European Union countries. 4. European Union countries—Economic integration. I. Pentecost, Eric J. II. Poeck, André van

HG925.E962 2001  
332.4'566'094—dc21

2001033076

ISBN 1 84064 579 2

Typeset by Manton Typesetters, Louth, Lincolnshire, UK.  
Printed and bound in Great Britain by MPG Books Ltd, Bodmin, Cornwall.

# List of contributors

---

**Frank Barry** Assistant Professor, Department of Economics, University College Dublin, Dublin, Ireland.

**Alain Borghijs** Research Fellow, University of Antwerp, UFSIA, Antwerp, Belgium.

**Heather D. Gibson** Economist, Bank of Greece, Athens, Greece.

**Jens Hölscher** Senior Lecturer in Economics, University of Brighton, Brighton, Sussex, UK.

**Anke Jacobsen** Free University of Berlin, Berlin, Germany.

**Hubert Kempf** Professor of Economics, University of Paris 1, Paris, France.

**Eric J. Pentecost** Reader in Economics, Department of Economics, Loughborough University, Loughborough, Leicestershire, UK.

**Friedrich L. Sell** Professor of Economics, Munich University of the Armed Forces, Munich, Germany.

**Horst Tomann** Professor of Economics, Free University of Berlin, Berlin, Germany.

**Euclid Tsakalotos** Assistant Professor, Athens University of Business and Economics, Athens, Greece.

**André van Poeck** Professor of Economics, Department of Applied Economics, University of Antwerp, UFSIA, Antwerp, Belgium.

**Lúcio Vinhas de Souza** Tinbergen Institute, Rotterdam, The Netherlands.

## Preface

---

This text is based on an EU-funded Intensive Programme on European Monetary Union. The three-year programme which ran in Antwerp, Loughborough and Berlin in 1998, 1999 and 2000 respectively, was coordinated by the University of Antwerp (UFSIA) with participation from Loughborough University (England), the Free University of Berlin, the University of Paris 1 and Athens University of Economics and Business. The editors are grateful to all of the participating academics who made this programme such a successful venture, and without the enthusiasm and cooperation of whom this book would not have reached fruition. The editors owe a special debt to Euclid Tsakalotos who made perceptive and constructive comments on most of the chapters that appear in this volume.

In addition to the academic lectures that the students received, which are included in this volume, the programme also involved a number of field trips to various European Union and national institutions to listen to talks and analysis from practitioners whose work involves them with different aspects of European Monetary Union (EMU). The local organizers are extremely grateful for the time and invaluable advice given to the students who participated in the various field trips. In Antwerp in 1998 visits were made to the National Bank of Belgium and the European Central Bank (ECB). In 1999 the programme in Loughborough took students to the Association of British Insurers, Lloyds Insurance Market and the Bank of England; and in Berlin in 2000, visits were made to the Deutsche Bank, the ECB and the Bundesbank.

The students who participated in these three intensive programmes and made such an invaluable contribution to their success are: Dimitris Apostolinas, Karl Bartels, Alex Becker, Karolin Borek, Peter Calon, Sven Craeynest, Steffen Daehne, Thomas Desmedt, Petra Gabriel, Michael Golde, Laura Goodall, Carla Gunnesch, Fotini Hamboulidou, Ludovic Hausman, Stefan Herzog, Paulina Karasiotou, Stilianos Katehis, Andreas Kogler, Nicolas Legrand, Sandy Linke, Alessandro Manfron, Tobias Marquart, Nancy Masschelein, Thomas Mayer, Chris McCullagh, Jorgen Monsieur, Matthias Paustian, Thomas Peccia-Galletto, Ramon Pernas Frias, Filip Perneel, Ellie Powell, Amelia Purdie, Nikolaus von Raggamby-Fluck, Fredrich Rheinheimer, Nicole Rosin, Tom Scheltjens, Michael Scholze, Christian Schwerdtner, Dirk Sebrecht, Ravinder Stephen Singh- Sud, Dimitra Sotiriou, Robert Spanheimer,

Maria Stiakaki, Nancy Thiry, Clare Tweed, Kirstan Van Bockstaele, Ivan Van De Cloot, Peter Vanlerberghe, Heike Volmer, Bent Voorhoof, Wolf Wagner, Gillian Weekes, Nina Wright and Alessandra Almedida de Deus Zwinscher.

The biggest debts of all are to the EU Commission, who funded the entire project and to Marie-Anne Fizez (University of Antwerp, UFSIA) who dealt with the budgeting and other financial matters.

# Contents

---

<i>List of figures</i>	vii
<i>List of tables</i>	ix
<i>List of boxes</i>	xi
<i>List of contributors</i>	xiii
<i>Preface</i>	xv
1 The historical background to European Monetary Union	1
<i>Eric J. Pentecost and André van Poeck</i>	
PART I EMU: THE PAST, 1979–99	
2 The political economy of transition to monetary union in Western Europe	15
<i>Eric J. Pentecost</i>	
3 German monetary unification and its implications for EMU	36
<i>Friedrich L. Sell</i>	
4 The theory of monetary union and EMU	67
<i>Anke Jacobsen and Horst Tomann</i>	
PART II PRESENT ISSUES FOR EMU	
5 Monetary policy in EMU	87
<i>Hubert Kempf</i>	
6 Fiscal policy in EMU	119
<i>Frank Barry</i>	
7 EMU and European unemployment	131
<i>André van Poeck and Alain Borghijs</i>	

## PART III THE FUTURE: BEYOND 2000

8	ERM-II: problems for the 'outs' and their relationship with the 'ins'	155
	<i>Heather D. Gibson and Euclid Tsakalotos</i>	
9	Exchange rate strategies of new EU entrants	185
	<i>Jens Hölscher and Lúcio Vinhas de Souza</i>	
	<i>References</i>	205
	<i>Index</i>	219



# Figures

---

2.1	Alternative routes to EMU	17
2.2	The impossibility triangle	26
3.1a	Cost-neutrality function	44
3.1b	Iso-voting curves	45
3.2	Equilibrium	46
3.3	East Germany's economy on the eve of monetary and economic union with West Germany	49
3.4	Impact of the low conversion rate between the D-mark and the Ostmark on East Germany's (non-)tradables sector	50
3.5	Shares of tradables and non-tradables in gross output of East Germany, 1990–1998	51
3.6	Unemployment in East Germany, January 1991 to September 1999	52
3.7	Gross income of employed persons per employee and month, III/1990–II/1998	53
3.8	Total wage bill in East Germany, 1991–1997	54
3.9	Migration in Germany, I/1989–I/1999	55
3.10	Nominal unit labour costs in West and East Germany, 1991–1997	56
3.11	Amount of net transfers from West to East Germany, 1991–1998	57
3.12	Public debt and budget balance in Germany, 1960–1998	58
4.1	Inflation and real wage growth, 1991 and 1995	80
5.1	ECB interest and money market rates	93
7.1	Equilibrium employment in a competing claims framework	135
7.2	A simple AD–AS framework	138
8.1	Budget surpluses/deficits in EU countries	158
8.2	Debt/GDP ratios in EU countries	159
8.3	Drachma/ECU depreciation and differential inflation between Greece and the EU	172
8.4	<i>Ex post</i> interest rate differential (Greece–Germany)	174
8.5	Net capital flows and change in foreign exchange reserves	174
8.6	Domestic and foreign components of the monetary base	176

## Tables

---

2.1	Budget deficits and GDP	30
2.2	Current performance of member states in relation to convergence	33
2.3	Euro conversion rates on 1 January 1999	34
2.4	Unemployment rates and output gaps in Western Europe	34
5.1	Main decisions on monetary policy by the Council of Governors, December 1998 to April 2000	104
7.1	Equilibrium unemployment in the OECD countries	132
7.2	Long-term unemployment	133
7.3	Fiscal consolidation, inflation reduction and unemployment costs, 1992–1997	141
8.1	The eurozone: ‘ins’, ‘outs’ and new members	158
8.2	Inflation and interest rate performance in EU countries	160
8.3	Exchange rate systems of prospective EU members	161
8.4	Capital controls of prospective EU members	163
8.5	Macroeconomic indicators of prospective EU members	164
8.6	Consumer price inflation in Greece (December to December)	173
9.1	EMU criteria for the candidate countries	188
9.2	Exchange rate linkages in the year 2000	196

## Boxes

---

4.1	Asymmetric shocks and the monetary regime	72
9.1	Lithuania's 'exit strategy'	194
9.2	The ERM-II mechanism	200

# 1. The historical background to European Monetary Union

**Eric J. Pentecost and André van Poeck**

---

## 1 EUROPEAN MONEY: A HISTORICAL PERSPECTIVE TO EMU

The introduction on 1 January 1999 of the euro for intra-banking sector transactions and the establishment of the European Central Bank (ECB), marked the beginning of a new era in European monetary arrangements. With a common currency for use as a medium of exchange to follow the introduction of the new unit of account in 2002, Western Europe will have a unified coinage system for the first time since Charlemagne in AD 800. This latest currency reform represents the end of a process that began in the late 1970s with the European Monetary System (EMS), which fixed the exchange rates of a number of the European Union (EU) member countries' currencies, and is the last of a long line of currency reforms in continental Europe. To place these recent monetary developments into their historical context, this chapter examines European monetary cooperation and development since the mid-nineteenth century when many of the modern European nation states first came into existence, up until the establishment of the EMS in 1979. Developments since 1979 are considered in the rest of book, as this date marks the modern beginnings of European Monetary Union (EMU).

### **Nineteenth-century Monetary Unions in Europe**

At the end of the Napoleonic wars in 1815, Europe was a fragmented continent. Belgium, Italy and Germany were not single nations and Switzerland, although a federation of states, did not have a common national currency. Only Britain, which returned to the Gold Standard in 1821 following the 'suspension of payments' from 1797, and France were nations with a uniform means of payment and exchange. During the course of the nineteenth century as principalities became nation states, several monetary unions emerged in an attempt to provide a more consistent means of payment. Bordo and Jonung

(2000) have classified these monetary unions according to their scope as either national or multinational unions. The national monetary unions formed in Italy in 1862 and Germany in 1876, were essentially the result of the establishment of new nation states, whereas the formation of the Latin Monetary Union in 1865 and the Scandinavian Currency Union in 1873 were multinational arrangements and hence more like twenty-first-century EMU.

### **European national monetary unions**

The establishment of Italy as a nation state in 1861 led swiftly to monetary unification one year later. In 1859 there were up to 90 different metallic currencies serving as legal tender, in addition to locally-issued bank notes. These arrangements were considered as a barrier to trade and by 1862 a new unified currency system was introduced based on the lira of Sardinia. All pre-unification coins and notes were abolished and exchanged for coins denominated in the new lira, which was equal in value to the French franc. A bimetallic currency standard was chosen to accommodate the prevalence of silver coins in southern Italy and to conform to the system used by Italy's trading partners, especially France, where the silver-to-gold ratio was set at 15.5:1.

There was no attempt to establish a central bank to run the Italian monetary union. The Banca Nazionale del Regno d'Italia (BNR) held a leading position among the banks, partly because it was the largest and partly because it was the bank of the state that had led the political unification process. This led at various times to competition between the note-issuing banks, especially in response to the fiscal deficits of the early 1860s, until the reform of the system in 1893. This reform led to the formation of the Banca d'Italia, by the merging of the BNR and the two remaining note-issuing Tuscan banks and the establishment of a rule that the banks agreed to limit the note issue to three times the volume of specie. This proved to be successful, because the Banca d'Italia was responsible for 75 per cent of the note issue and from 1893 there was a period of fiscal discipline.

The nineteenth century German Monetary Union, like the Italian monetary union, also proceeded in stages taking over three decades to establish. By the time of the Vienna Congress of 1815 the 39 principalities and free cities on German territory had full sovereignty to regulate and issue their own coinage and monetary system. As a result there were large numbers of different coins with different metal content, making exchange difficult and expensive. After the establishment of the *Zollverein* – customs union – in 1834 and the Dresden coinage convention in 1838, the principalities agreed to choose one of two currencies – the thaler or the gulden – as the basic monetary unit. The thaler and the gulden were fixed to a specific quantity of silver, such that one thaler was equal to 1.75 gulden. Under the 1857 Vienna Coinage Treaty,

Austria linked its coinage system to that of the *Zollverein*, but the basic weight in which the relationship of silver metal to number of coins was expressed was 500 grams. The new relationship was 500 grams of silver to 30 thaler, 52.5 gulden or 45 Austrian gulden. The Vienna Treaty included two other major steps towards monetary union. First, exchange of gold coins into silver coins was forbidden and no gold coins were minted except for the special *Vereinshandelsgoldmünzen* designed for foreign trade. Second, the treaty prohibited the granting of legal tender status to inconvertible paper money.

This system prevailed until the political unification of Germany in 1871. The Reichsbank was established in 1876 from the Prussian central bank and introduced a single coinage system, based on the mark (one-third of a thaler). With victory over the French in the Franco-Prussian war of 1870–71, Germany received 5 billion francs as an indemnity which was used to augment the gold reserves enabling Germany to join the Gold Standard. Very much like the monetary reunification of Germany in the 1990s political unification came first followed by monetary union.

### **Multinational monetary unions**

The Latin Monetary Union (LMU) was formed in 1865, between France, Italy, Belgium, Sweden and Greece (who joined in 1868). It was designed to harmonize the gold and silver content of primary gold and silver coins of each country and to prevent arbitrageurs from taking the coins across national boundaries to be melted down into coins of a higher value. These common coins were made legal tender and circulated throughout the union, though token coins were legal tender in their home countries. The initial success of the LMU prompted the French to call another conference in 1867 to discuss plans to integrate the coinage systems of the US, Germany and the UK, so forming a global monetary union.

The German sovereign was worth just over 25 francs, so by devaluing the pound by 0.83 per cent one pound would exactly equal one sovereign. The French and their LMU partners would replace or augment their 20-franc gold coins with a 25-franc gold coin, but making no other change to their monetary arrangements. In the US the Americans were in the process of reintroducing gold coinage following the civil war. A half eagle (5 dollars) was equal to 25.85 francs, so with a small adjustment of some 3.5 per cent, it could have been brought into line with either the sovereign or a 25-franc coin. The French, however, vetoed the plan because they feared that a 25-franc coin would compete with their 20-franc gold coin and moreover that they would have to bear the cost of reminting, while being unable to impose the French standard on the rest of the world. Thus the global monetary union never materialized but the LMU continued.

After 1870, however, the LMU suffered two serious shocks, which meant that from 1878 until it finally collapsed in 1926 it was really a 'limping standard', which allowed the free coinage of gold, but provisionally suspended coinage of the silver five-franc piece. The first shock was the Franco-Prussian War, which saw France move to an inconvertible paper standard. The second shock was that Italy, who joined the LMU with one lira equal to one French franc, was forced to revert to an inconvertible paper standard due to the debts inherited from the former principalities (worth some 40 per cent of gross domestic product).

The Scandinavian Currency Union (SCU) was set up in 1873 between Denmark and Sweden (Norway joined later in 1875) and became part of the Gold Standard system, until the SCU was dissolved by Sweden in 1921. Initially the Scandinavian countries were considering joining the LMU, but with Germany victory in the Franco-Prussian War, they decided to form their own currency union. The SCU was based on gold and adopted as a common unit the krona, which was equal to the Swedish riksdaler. Unlike the LMU, from the beginning there were no gold coins, but notes were universally accepted at par. In 1885 the three central banks all allowed drafts to be drawn on each other at par, which effectively eliminated the gold points between the countries. The agreement was dissolved after the First World War, largely as a result of the effects of war on the respective economies.

There are two important lessons for EMU from this brief review of the nineteenth-century monetary unions. First, monetary union within a country is much more likely to be successful than is a monetary union between nation states. This is a result of two structural features: the existence of national central banks to support the currency, which did not exist in the multinational currency unions, and the national political will to enforce the union. Second, fiscal deficits in any single country can undermine the monetary union, as Italy's deficits damaged the LMU. Thus some form of fiscal constraint is likely to be needed if any multinational monetary union is to be successful.

### **European Money in the Twentieth Century up to 1979**

The First World War brought the Gold Standard to an end and the suspension and eventually the end of both the LMU and the SCU. With the conclusion of hostilities, only the dollar was left pegged to gold and exchange rates were allowed to float freely. The wartime divergences in national price levels had greatly exceeded the divergences in exchange rates and therefore the restoration of some kind of international equilibrium required a further fall in the depreciated European currencies against the US dollar.

Indeed the old monetary units of Austria, Hungary, Poland, Germany and Russia were practically wiped out. By the end of their respective inflations,

pre-war price levels had been multiplied by 14,000 in Austria, by 23,000 in Hungary, 2.5 million in Poland and 4 billion in Russia. The situation was even worse in Germany. In 1923 a new mark was created with a conversion value of one new mark equal to 1,000,000,000,000 old marks. These facts notwithstanding policy makers seemed determined to return to the pre-war set of exchange rate parities so encouraging speculators, expecting a return to the gold standard, to buy the European currencies and so bid up their prices. The transition to fixed exchange rates took place in the mid-1920s – Sweden in 1924, Britain in 1925, France in 1926 and Italy in 1927. The gold standard was therefore effectively restored by 1927, but before the end of the decade doubts had already emerged as to its sustainability.

By 1931 both Germany and Austria had suspended gold convertibility and imposed exchange controls. The Bank of England devalued the pound in September 1931 which sparked off a further 12 devaluations and a gradual return to floating exchange rates. The US floated the dollar in 1933, soon followed by Belgium, France, the Netherlands and Switzerland in 1936. The important feature of the 1930s period of exchange rate flexibility is that there was heavy intervention in the foreign exchange markets by the authorities, who essentially followed beggar-thy-neighbour-type policies, leading to intensified economic nationalism. This in turn led to a plethora of quotas, increased tariffs and exchange controls. This period of non-cooperation and indeed outright economic warfare eventually gave way to hostilities of a more lethal kind.

After the Second World War economic circumstances dictated that the Western European nations entered into a period of monetary cooperation with one another and with the US. Industrial production in France, Germany and the Netherlands had fallen by 75 per cent on its pre-war level and trade was in an equally dismal state, with bilateral trading arrangements predominant. The solutions to these problems did not immediately come from the US, since convertibility of the European currencies was not an option. Thus they embarked on a programme to establish their own multilateral payments system, albeit with US backing. The Organization for European Economic Cooperation (OEEC) set up in 1948 allowed US aid to be more effectively linked to European trade and payments, which then led to the formation of the European Payments Union (EPU) in 1950. The EPU was a stop-gap measure to foster multilateral trade between the Western European economies until their economies were sufficiently strong to be fully convertible into the US dollar, under the Bretton Woods arrangements (see Coffey and Presley 1971). Full convertibility finally occurred in 1958, from which date the EPU was wound up. From the viewpoint of monetary integration, the undisputed success of the EPU was the impetus that it gave to further monetary cooperation.



Between 1958 and 1970 the Western European economies were part of a pseudo monetary union with the US, through the Bretton Woods fixed exchange rate system. Under this system the US dollar was pegged to gold and all other member countries pegged their currencies to the dollar, with small fluctuation margins of 1.25 per cent either side of the par value. Over this 12-year period, despite the removal of tariff barriers between members of the European Economic Community (EEC), as the EU was then called, the adoption of a common external tariff and the establishment of the Common Agricultural Policy (CAP), the EEC had few achievements in the monetary field. In particular, despite increasing economic integration there were no moves towards a common European monetary policy.

The catalyst for change was the monetary turbulence in the late 1960s. In particular, the devaluation of the pound by 14 per cent in 1967 and the subsequent devaluation of the French franc in 1968 led to much speculation regarding a revaluation of the German mark. Early in 1969 discussions were under way within the EU as how to handle the crisis. The outcome of these meetings was the Barre Plan (1969) and then the Werner Report (CEC 1970). The Barre Plan was simply an attempt to foster greater cooperation between the EU member states with regards to their monetary policies. At a summit in The Hague at the end of 1969, it was decided to embark on the creation of an economic and monetary union, the details of which were to be worked out during the following year by a committee chaired by Pierre Werner. The Werner Report famously set the objective of reaching economic and monetary union within ten years – that is by 1980. Like the Delors Report (Committee on the Study of Economic and Monetary Union 1989) some 20 years later, the Werner Report suggested a stage-by-stage process with national currency adjustments not ruled out until the final stage.

The Werner Plan for gradual transition to economic and monetary union did not however, come to fruition, due to developments elsewhere in the international monetary system. In particular, the plan to narrow the fluctuation bands between the EU currencies was jeopardized in May 1971 when capital inflows into (West) Germany put strong upward pressure on the Deutschmark-dollar peg, which resulted in a floating of the Deutschmark. Just three months later US President Richard Nixon announced the closing of the gold window and with it the convertibility of the US dollar into gold. Despite efforts to patch up the system in December 1971, the pound sterling was floated in June 1972, followed by generalized floating of all the main industrial countries' currencies by March 1973. With the subsequent turmoil caused by the OPEC (Organization of Petroleum-exporting Countries) oil embargo in 1973–74, any moves towards economic and monetary union were dead in the water.

The early floating rate period was characterized by great exchange rate volatility, which even by the late 1970s had shown little sign of abating. This