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The Impact of Monetary Union and the Euro on European Capital Markets: What May Be Achieved in Capital Market Integration

Rosa Giovanna Barresi*

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Abstract

Up to now, the Euro has been successful in replacing the traditional European currencies and in altering the landscape of European Capital Markets. Domestic users of the Euro are almost the same in number as the population of the United States, although the Gross Domestic Products of the two economies are clearly not comparable. Still, if the Member States within the Euro-area truly want to be recognized as an integrated capital market, some work must be done. This Article will estimate, from current economic thought, what remains to be done and what can be achieved in the short term. Some historical analysis will help in identifying the players and the main trends at work. Moreover, some of the international issues that have been raised by the new role of the European Monetary Union ("EMU") will be presented.

THE IMPACT OF MONETARY UNION AND THE EURO ON EUROPEAN CAPITAL MARKETS: WHAT MAY BE ACHIEVED IN CAPITAL MARKET INTEGRATION

*Rosa Giovanna Barresi**

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* LL.M. in Corporate, Banking and Finance Law, Fordham University School of Law, New York; Certificate in U.S. Law and Methodologies, New York University, School of Continuing and Professional Studies, New York; Admitted to the Italian Bar (Rome, Italy) (1996); J.D., University of Rome's La Sapienza School of Law, Italy; former senior associate at Studio Internazionale Legale Tributario, Rome, Italy; former junior associate at Capua, Varrenti Rome, Italy. The author would like to thank Professor Roger J. Goebel for his inestimable guidance and criticism.

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INTRODUCTION

To achieve high productivity with available resources, any economy must develop an efficient way to allocate investment to high-productivity projects. An efficient capital market benefits the economy by lowering the cost of capital and ensuring its financial sector is not tying up unnecessary resources.

Up to now, the Euro has been successful in replacing the traditional European currencies and in altering the landscape of European Capital Markets. Domestic users of the Euro are almost the same in number as the population of the United States,¹ although the Gross Domestic Products² (“GDPs”) of the two economies are clearly not comparable. Still, if the Member States within the Euro-area truly want to be recognized as an integrated capital market, some work must be done.

This Article will estimate, from current economic thought, what remains to be done and what can be achieved in the short term. Some historical analysis will help in identifying the players and the main trends at work. Moreover, some of the international issues that have been raised by the new role of the European Monetary Union (“EMU”) will be presented.

I. PLAYERS AND TRENDS

A. EMU and Euro — Historical Overview

The introduction of a single European currency can be considered the final step in the largest monetary changeover to ever

1. See, e.g., J. Alfred Broaddus, Jr., *EMU and the Role of the National Central Banks in the Eurosystem*, 1 RICH. J. GLOBAL L. & BUS. 61, 62 (2000) (“The aggregate population of the 11 founding EMU nations (known collectively as the Euro area, the Euro zone or ‘Euroland’), at close to 300 million, exceeds the U.S. population by approximately ten percent”).

2. Economists define Gross Domestic Product (“GDP”) as the total value of all “goods and services produced” by labor and property within a territory, usually on yearly basis. GDP is the broadest measure of the wealth of a country. See A Case Study: Gross Domestic Product - May 27, 2004 available at <http://www.econedlink.org/lessons/index.cfm?lesson=EM225> (last visited June 15, 2005).

In the United States, GDP is calculated by the Bureau of Economic Analysis (“BEA”). See U.S. Department of Commerce, Bureau of Economic Analysis, News Release: Gross Domestic Product, Press Release, (Apr. 28, 2005), available at <http://www.bea.doc.gov/bea/newsrel/gdpnewsrelease.htm> (last visited June 15, 2005).

occur. The European Economic Community Treaty (“EEC Treaty”)³ set up the Common European Market as a way to foster a closer union among the people of Europe through commercial interchange. At that time, however, the idea of a monetary union had not yet even been conceived.⁴

During those early years, the Bretton Woods System,⁵ developed in 1947, guaranteed a global monetary stability based on fixed exchange rates, “whereby the United States fixed the price of the dollar in terms of gold and all the other countries then fixed the value of their currency in terms of the dollar.”⁶ In May 1964, the Committee of Governors of the Central Banks⁷ was created, whose function was to encourage cooperation among the National Central Banks (“NCBs”) of the Member States of the European Economic Community. The Bretton Woods System ruled the global economy until 1971: in that year, as a consequence of the growing imbalance between U.S. imports and exports, the dollar experienced heavy pressure from the foreign exchange markets. President Nixon had to acknowledge the end of the gold standard, leaving the U.S. dollar free to float

3. See generally Treaty Establishing the European Economic Community, Mar. 25, 1957, 298 U.N.T.S. 11 [hereinafter EEC Treaty], available at <http://Europa.eu.int/abc/obj/treaties/en/entoc05.htm>

4. See Roger J. Goebel, *Legal Framework: European Economic and Monetary Union: Will the EMU Ever Fly?*, 4 COLUM. J. EUR. L. 249, 256 (1998) [hereinafter Goebel, *Will the EMU Ever Fly?*].

5. See, e.g., Josh Futterman, *Evasion and Flowback in the Regulation S Era: Strengthening U.S. Investor Protection While Promoting U.S. Corporate Offshore Offerings*, 18 FORDHAM INT’L L.J. 806, 812 & n.39 (1995).

A floating exchange rate system is one in which currencies are not pegged to the price of gold or some other commodity, but rather float against one another based on the international currency market’s beliefs about the relative strengths of the economies of each participating nation The system that replaced the Bretton Woods regime is, in reality, a number of multi-lateral arrangements that allow countries to have either floating, fixed or managed exchange rates The increased control over monetary policy won by the governments of the industrialized world after the collapse of the Bretton Woods system came at the expense of certainty for business Once the industrialized countries switched to floating rates, however, the financial markets quickly developed a variety of new services to assist international market participants

Id. (internal citations omitted).

6. See Domenick Salvatore, *The International Monetary System: Past, Present, and Future*, 62 FORDHAM L. REV 1975, 1982 (1994).

7. See History of the Central Bank — A Chronology of Main Developments 1943-2003, available at http://www.centralbank.ie/data/site/abt_hist.pdf (last visited May 25, 2005).

(i.e., devalue) against other currencies.⁸

In 1971, while the Smithsonian Accord⁹ established a new system of floating exchange rates, the Werner Report,¹⁰ named after the Prime Minister and Finance Minister of Luxembourg, contemplated the introduction of a single European currency by 1980, as a way to improve the stability of the European economy. In view of the collapse of the Bretton Woods System, the Council approved the Werner Report and planned to develop some form of economic and monetary union.¹¹ Unfortunately, the mid-1970s heralded a global recession, spurred by events in the Middle-East (the Yom Kippur War¹² and the subsequent oil embargo), preventing the European Community from implementing the provisions of the Werner Report.

In 1979, the European Economic Community introduced the European Monetary System (“EMS”)¹³, providing for mutual support between NCBs in the event of a foreign exchange crisis, and granting European Community (“EC”) currencies a decade of relative stability. In 1989, Jacques Delors, then President of the EC Commission, published a Report¹⁴ outlining the proposals for monetary unification that were put forward by the Committee of Governors of the NCBs and several other experts. The proposals of the Delors Report developed into the portions of

8. See, e.g., Ronald A. Brand, *Restructuring the U.S. Approach to Judgments on Foreign Currency Liabilities: Building on the English Experience*, 11 *YALE J. INT'L L.* 139, 139 & n.1 (1985) (noting wide fluctuations in U.S. dollar value after President Nixon's decision to allow the U.S. dollar to float).

9. See Goebel, *Will the EMU Ever Fly?*, *supra* note 4, at 257.

10. See Report to the Council and the Commission on the Realization by Stages of the Economic and Monetary Union in the Community, 3 *E.C. BULL.* no.11 (1970) [hereinafter *Werner Report*].

11. See Goebel, *Will the EMU Ever Fly?*, *supra* note 4, at 256.

12. See, e.g., Jonathan D. Fishbane, *Troubled Evolution of the Energy Policy in the EEC: A Discordant Note in the Harmonization Process*, 27 *AKRON L. REV.* 301, 312-13 (1994) (describing negative effects on European economy in the 1970s due to the Yom Kippur War and energy crisis).

13. See 11 *E.C. BULL.* no. 6, at 17-18 (1978); see also *The Euro: Our Currency. Origins of the Euro and the creation of European Monetary System*, available at http://Europa.eu.int/comm/economy_finance/Euro/origins/origins_3_en.htm.

14. The Delors Report “has been prepared in response to the mandate of the European Council to study and propose concrete stages leading towards economic and monetary union.” Report on Economic and Monetary Union in the European Community, O.J. C 329/44 (1989), available at http://Europa.eu.int/comm/economy_finance/Euro/origins/delors_en.pdf. See *The Euro: Our Currency, Origins of the Euro: Delors Report - the Roadmap to Monetary Union*, available at http://Europa.eu.int/comm/economy_finance/Euro/origins/origins_4_en.htm.

the Treaty of Maastricht ("TEU")¹⁵ touching Economic and Monetary Union ("EMU").

On June 1, 1990, the first stage¹⁶ of the process of EMU was marked by the achievement of free movement of capital inside the European Union ("EU") and an increase in responsibilities given to the Committee of Governors of the Central Banks. The TEU¹⁷ amended the EEC Treaty, adding the goal of a Monetary Union, introducing requirements to be met by Member States and defining the three stages of the EMU-building process. Essentially, only Member States with low inflation and proper public finance policies could adopt the new currency, after delegating their monetary policy to the soon-to-be-formed European Central Bank ("ECB").¹⁸

The TEU required, as a political criterion,¹⁹ each Member

15. In December 1989, at the Strasbourg European Council, the Member States decided to convene an Intergovernmental Conference ("IGC") in order to modify the Treaty Establishing the European Economic Community or Treaty of Rome ("EEC Treaty"). The result was the new Treaty on European Union or Treaty of Maastricht ("TEU"), signed at Maastricht, the Netherlands, on February 7, 1992, and entering into force on November 1, 1993. See Treaty on European Union, Feb. 7, 1992, O.J. C 224/1 (1992), [1992] 1 C.M.L.R. 719 [hereinafter TEU] (amending Treaty establishing the European Economic Community, Mar. 25, 1957, 298 U.N.T.S. 11, as amended by Single European Act, O.J. L 169/1, [1987] 2 C.M.L.R. 741 [hereinafter SEA], which established European Monetary Union ("EMU") as a formal objective. The current version of the TEU is published in O.J. C 325/5 (2002). The TEU mandated the deletion of the word "Economic" from the original title of the Treaty Establishing the European Community ("EC Treaty"); see also Nonna K. Crane, *The Effect of the Introduction of the Euro on Continuity of Contracts: Is the United States Prepared?*, 12 FLA. J. INT'L L. 511, 511 (2000).

16. On December 15 - 16, 1995, the Madrid European Council adopted the Delors Report and launched the first stage of EMU on July 1, 1990. See Madrid European Council, Conclusions of the Presidency, O.J. C 32 (1996), at 82; see also Dieter Kugelmann, *The Maastricht Treaty and the Design of a European Federal State*, 8 TEMP. INT'L & COMP. L.J. 335, 340 (1994) (noting that during the first stage the European currencies were fixed in relation to one another); Juan Luis Millán Pereira, *Economic Restructuring and the European Monetary Union*, 9 U. MIAMI INT'L & COMP. L. REV. 45, 53-55 (2001) (describing the first stage of EMU).

17. See TEU, *supra* note 15, O.J. C 224/1 (1992), [1992] 1 C.M.L.R. 719; see also John Pipkorn, *Legal Arrangements in the Treaty of Maastricht for the Effectiveness of the Economic and Monetary Union*, 31 COMMON MKT. L. REV. 263 (1994).

18. See Jan Meyers & Damien Levie, *The Introduction of the Euro: Overview of the Legal Framework and Selected Legal Issues*, 4 COLUM. J. EUR. L. 321 (1998); see also RENE SMITS, THE EUROPEAN CENTRAL BANK - INSTITUTIONAL ASPECTS (1997) (providing a detailed analysis of EMU provisions in the EC Treaty).

19. Consolidated version of the Treaty establishing the European Community ("EC Treaty"), art. 109, O.J. C 325/33 (2002), 37 I.L.M. 79, incorporating changes made by the Treaty of Nice amending the Treaties establishing the European Commu-

State to guarantee the independence of its NCB from any political authority.²⁰ Moreover, the TEU stated the four monetary convergence criteria²¹ that had to be met to join the third stage, namely: (i.) price stability; (ii.) budgetary discipline; (iii.) currency stability; and (iv.) interest rate convergence. Further, the TEU²² provided that, at the start of the second stage on January 1, 1994, a European Monetary Institute (“EMI”)²³ would be created to do the following:

a.) To coordinate and supervise the Member States²⁴ in their transition to the single monetary system;

b.) To prepare draft legislation and other plans for the later ECB; and

c.) To commence the technical preparation for the Euro.

Member States that qualified to participate in the final stage of EMU began to be collectively known as the Euro-area.

In December 1995, the Madrid European Council²⁵ officially adopted the name “Euro” for the currency, but no symbol was adopted. In July 1997, the European Commission introduced the “€” symbol,²⁶ after its endorsement by the Dublin European Council on December 13-14, 1996.²⁷ The Commission stated that the € symbol was “inspired by the Greek letter epsi-

nities and certain related acts, March 10, 2001, O.J. C 80/1 (2001) (amending Treaty on European Union (“TEU” or the Treaty of Maastricht), Treaty establishing the European Community, Treaty establishing the European Coal Steel Community (“ECSC”), and Treaty establishing the European Atomic Energy Community (“Euratom Treaty”) and renumbering articles of TEU and EC Treaty) [hereinafter EC Treaty].

20. In accordance with the ESCB, ECB, and NCBs cannot “seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. See EC Treaty, *id.* note 19, art. 108, O.J. C 325/33 (2002).

21. See *id.* art. 121, O.J. C 325/33 (2002); see also Goebel, *Will the EMU Ever Fly?*, *supra* note 4, at 304.

22. See EC Treaty, *supra* note 19, art. 116, O.J. C 325/33 (2002).

23. See EC Treaty, *supra* note 19, art. 117(1), O.J. C 325/33 (2002); see also Protocol on the Statute of the European Monetary Institute, available at <http://Europa.eu.int/eur-lex/en/treaties/selected/livre334.html> (last visited June 17, 2005). The European Monetary Institute (“EMI”) replaced the Committee of Governors of NCBs and European Monetary Cooperation Fund (“EMCF”), which were dissolved at the beginning of the second stage of EMU.

24. See EC Treaty, *supra* note 19, art. 117(2), O.J. C 325/33 (2002).

25. Madrid European Council, Conclusions of the Presidency, O.J. C 32 (1996), at 82.

26. Commission Communication on the use of the Euro symbol, COM (97) 418 (1997), available at http://Europa.eu.int/Euro/dossiers/00278/html/pdf/EN_236_236.pdf.

27. Dublin European Council, O.J. C 33 (1997), at 63. For an overview on Euro

lon, in reference to the cradle of European civilization and to the first letter of the word 'Europe'. Then two parallel lines represent the stability of the Euro."²⁸

On June 1, 1998, the ECB²⁹ was finally established, with the primary objective of price stability, to be achieved through a two-pillar strategy consisting of a planned growth of the monetary base and of a broadly-based assessment of the risks to price stability³⁰ in the Euro-area.³¹ The ECB, based in Frankfurt am Main, operates in cooperation with the NCBs of the Euro-area Member States, within the European System of Central Banks³² ("ESCB"). The United Kingdom³³ and Denmark obtained Protocols to the Maastricht Treaty enabling them to opt out of the final stage of EMU, but reserving the right to participate later. Sweden³⁴ did not qualify to join the final stage because it failed to make its central bank independent from political power, as required by the Treaty of Maastricht.³⁵

As a result, eleven countries³⁶ (Austria, Belgium, Germany, Finland, France, Ireland, Italy, Luxembourg, Spain, Portugal

banknotes see *Euro banknotes and coins. From design to distribution*, available at <http://www.Euro.ecb.int/en/section/Euro/banknote.html>.

28. Commission Communication COM (97) 418 (July 23, 1997) (on the use of the Euro symbol).

29. See *The Euro: Our Currency; Origins of the Euro: Start of Second Stage of EMU*, available at http://europa.eu.int/comm/economy_finance/euro/origins/origins_5_en.htm.

30. On December 31, 1998, the Council fixed the conversion rates between the Euro and the participating national currencies, to be used for all conversions from national currencies to the Euro. See Council Regulation No. 2866/98 O.J. L 359 (1998), at 1-2 (on the conversion rates between the Euro and the currencies of the Member States adopting the Euro).

31. See ECB, Annual Report 1998 (1999), available at <http://www.ecb.int/pub/pdf/annrep/ar1998en.pdf> (last visited May 31, 2005).

32. See EC Treaty, *supra* note 19, art. 107, O.J. C 325/33 (2002); see also Protocol on the Statute of the European System of Central Banks and of the European Central Bank, available at <http://Europa.eu.int/eur-lex/en/treaties/selected/livre324.html>.

33. The result of the U.K. opt-out is that the United Kingdom maintains its powers in monetary policy and the provisions of the ESCB and the ECB do not directly apply. See Protocol on Certain provisions relating to the United Kingdom of Great Britain and Northern Ireland, O.J. C 191 (1992).

34. Sweden did not obtain an official "opt out." The Swedish referendum held in September 2003, on joining the third stage of EMU, was unsuccessful.

35. See EC Treaty, *supra* note 19, art. 109, O.J. C 325/33 (2002); see also BERMANN ET AL., CASES AND MATERIALS ON EUROPEAN UNION LAW 16 (2002).

36. On May 3, 1998, in accordance with Article 109j(4) of the Treaty, the Council stated the 11 Member States which fulfilled the convergence criteria. See Council Decision No. 98/317/EC, O.J. L 139 (1998), at 30-35.

and the Netherlands) joined in the third stage of EMU on January 1, 1999,³⁷ after meeting the five economic and political conditions set forth in the Treaty of Maastricht and its Protocol. Although Greece³⁸ initially failed to meet the convergence criteria stated by the Treaty, it reached compliance during the period 1999-2000 and joined the final stage on January 1, 2001.³⁹

During the transition period (January 1999-December 2001), the Euro could only be used as a virtual currency along with national currencies, but, in order to facilitate the transition, the European Commission recommended that every retail activity (shops, banks, post-offices, etc.) display amounts both in Euros and national currencies.⁴⁰ On January 1, 2002, the new Euro banknotes and coinage were put into circulation in the twelve Member States as the only legal currency.⁴¹ After February 28, 2002, national currencies ceased circulation in the Euro-area, but until June 30, 2002, banks still accepted them for the sole purpose of exchanging them for Euros.⁴²

B. *European and U.S. Capital Markets — General Facts*

In order to appraise the capital markets within the Euro-area, the most intuitive approach is to compare them with their natural U.S. counterparts.⁴³ Even after acknowledging that sta-

37. See EC Treaty, *supra* note 19, art. 121(4), O.J. C 325/33 (2002).

38. The Council decided that "Greece fulfil[led] the necessary conditions for the adoption of the single currency." Council Decision No. 2000/427/EC, O.J. L 167 (2000), at 19-21, art. 1 ("on 19 June 2000 the Council decided in accordance with Article 122(2) of the Treaty on the adoption by Greece of the single currency on 1 January 2001").

39. See The Euro: Our Currency; The Origins of the Final Stage of EMU and the Birth of the Euro, available at http://Europa.eu.int/comm/economy_finance/Euro/origins/origins_6_en.htm (last visited Apr. 15, 2005); see also Dominick Salvatore, *The Euro: Expectations and Performance*, 28 E. ECON. J. 121 (2002) [hereinafter Salvatore, *The Euro: Expectations and Performance*].

40. Commission Recommendation No. 98/287/EC, O.J. L130/2 (1998) (on 23 April 1998, concerning dual display of prices and other monetary amounts); Communication of 4 June 1994, O.J. C 153/3, (practical problems involved in introducing the ECU as the European Union's single currency).

41. See Council Regulation No. 974/98, O.J. L 139/1, art. 10 (regulation on May 3, 1998 concerning the introduction of the Euro).

42. See *id.* art. 15.

43. See MICHAEL A. KOUPARITSAS, IS THE UNITED STATES AN OPTIMUM CURRENCY AREA?: AN EMPIRICAL ANALYSIS OF REGIONAL BUSINESS CYCLES (Fed. Res. Bank of Chi., 2001 Working Papers No. 22, 2001) available at <http://www.chicagofed.org/publications/workingpapers/papers/Wp2001-22.pdf>.

tistical procedures and data-filtering techniques are different, and that exchange rates can only add to the difficulty in achieving comparability, the advantages of a direct comparison make it a valuable exercise.⁴⁴ On the other hand, available literature offers few reliable comparative studies: NCBs do not publish comparative analyses; financial services charge fees for them; and Economic Research Institutes publish reports only after considerable lapses of time.⁴⁵

TABLE 1

Year 2001	U.S.	Euro-area
Population in millions	285	305
GDP in trillions of U.S. dollars	10	6
GDP as share of world GDP	22%	16%
Exports as share of world exports	15%	19%
Stock market capitalization as share of national GDP	140%	75%
Bank loans as share of national GDP	12%	45%
Foreign exchange reserves as share of national GDP	0.29%	3.41%

Table 1 summarizes the few data⁴⁶ available, but enough to start a comparison between the capital markets of the two biggest economies in the world.⁴⁷ Economists acknowledge that, after 1995, a U.S.-EU productivity gap set in: according to current estimates, EU Gross Domestic Product *per capita* (the ratio between GDP and population) is between 65% and 70% of its U.S. equivalent.⁴⁸ Table 1 also documents the different ways in which

44. See Michael A. Kouparitsas, *Is the EMU a Viable Common Currency Area?: A VAR Analysis of Regional Business Cycles*, 23(4) FED. RES. BANK OF CHI., ECON. PERSP. (4th Q. 1999), available at http://www.chicagofed.org/publications/economicperspectives/1999/ep4Q99_1.pdf (last visited May 15, 2005).

45. See HM Treasury, *Euro 2003: The United States as a Monetary Union* (2003), available at http://www.hm-treasury.gov.uk/documents/the_Euro/assessment/studies/Euro_assess03_studsussex.cfm (last visited June 15, 2005).

46. See CARL GJERSEM, *FINANCIAL MARKET INTEGRATION IN THE EURO AREA 19* (Econ. Dept., Org. for Econ. Cooperation and Devt. ("OECD"), Working Paper No. 368, 2003).

47. See Rudi Dornbusch, *The Euro: Implications for Latin America*, Mar. 16, 1999, available at <http://www.mit.edu/people/rudi/media/PDFs/elatin.pdf>.

48. See MICHELE CINCERA & OLIVIA GALGAU, *IMPACT OF MARKET ENTRY AND EXIT ON EU PRODUCTIVITY AND GROWTH PERFORMANCE 3* (Eur. Commission, Directorate Gen. for Econ. & Fin. Aff. — Econ. Papers No. 222, 2005); see also GAËTAN NICODÈME & JACQUES-BERNARD SAUNER-LEROY, *PRODUCT MARKET REFORMS AND PRODUCTIVITY: A REVIEW OF*

corporations on either side of the Atlantic have access to operating capital. In Euro-area countries, internal finance is the major source of funding for the corporate sector, followed by bank loans and trade credit.

Leaving aside the episodes of privatization of companies in the Public Sector, in the Euro-area, bond issues come last in corporate financing, even during the stock market boom of the last decade. While some differences exist at the regional level, the central role of banking in Euro-area economies is confirmed by two additional facts: (i.) through consumer credits and mortgage financing, banks are net creditors of households; (ii.) financing (short-term loans against accounts receivables) covers at least half of bank loans to the corporate sector.⁴⁹

The reasons for the importance of banking in the Euro-area can be found in European History. At first, bankers were simple businessmen who attracted deposits by the sheer force of their wealth and attitudes,⁵⁰ using this money to finance their lines of business and to lend money to other businessmen. Later, political power forced bankers to discover the production of money without any collateral by arbitrary extensions of credits and the forced loans needed to support them.⁵¹ Following the Austrian economist Ludwig Von Mises, the part of money supply that is not backed by any collateral, but only by the good faith (Latin *fiducia*) of the depositories is called "Fiduciary Media".⁵²

During the Middle Ages, mints and banks were worked by private entrepreneurs, but by the end of the thirteenth century, mints were strictly supervised by Court Officials. The practice of National States of getting revenue by printing money is still called *seigniorage* as it derives from the notion that minting money was considered a direct right of the Kings.⁵³

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49. See FEDERICO GALIZIA, MEASURING THE "FINANCIAL GAP" OF EUROPEAN CORPORATIONS. AN UPDATE 10 (Eur. Investment Bank, Econ. & Fin. Report 2003/02, 2003).

50. See REINHOLD MUELLER, THE ROLE OF BANK MONEY IN VENICE 1300-1500 (1979).

51. See RICHARD C.B. JOHNSON, FIDUCIARY MEDIA AND BANKING IN MEDIEVAL VENICE REVISITED 7 (Inst. Change & The Devt. of Fin. Mkt., Working Paper, 2002).

52. See LUDWIG VON MISES, THE THEORY OF MONEY AND CREDIT ch. 16 (1953).

53. In ancient times, the *seigniorage* was the tax paid by minters to the king: "the changer also charged the bullion holder 6d per pound for the king's *seigniorage*, according to 'the right and accustomed farm.'" Only later, with the advent of the National Mints, did it acquire its current meaning of revenue from the overall money-issuance

While working full-time for political power, bankers were able to preserve their independence until the end of the seventeenth century. After the end of the Thirty Years' War,⁵⁴ some bankers put themselves at the exclusive service of their sovereigns and National Central Banks ("NCBs") were established in 1668, Risen Standers Bank in Sweden, later Sveriges Riksbank,⁵⁵ and in 1694, The Bank of England.⁵⁶

The dispute on what powers should be granted to NCBs continued for four centuries. After World War II, politicians assigned to NCBs the primary objective of reducing unemployment and granted them the power to develop tight controls over the economy, implementing exchange regulations, limiting credit offerings, and fixing exchange rates on international markets.⁵⁷ On the other hand, politicians felt free to criticize NCBs when their policy did not suit them: Helmut Schmidt, then Chancellor of the Federal Republic of Germany), devised the slogan: "Five percent inflation is better than five percent unemployment," in order to criticize the attitude of the German NCB.⁵⁸

With the development of the international markets, the statutory objective of NCBs, namely, to safeguard the value of their national currencies, caused them to fight against massive attacks

process. See CHICAGO FEDERAL RESERVE, NOTES ON THE ORGANIZATION OF MINTING IN MEDIEVAL ENGLAND TAKEN FROM CHALLIS: HISTORY OF THE ROYAL MINT 99-103 (1992).

54. The Thirty Years' War (1618-1648) began in the form of a religious conflict between Protestants and Catholics, but later evolved in a succession war for the preservation of the Habsburg dynasty.

55. It is remarkable that the establishment of the first National Bank in 1668 originated from the default of the Palmstruch Bank, which became the Sveriges Riksbank (National Bank of Sweden) under the authority of the Swedish Parliament. See Urban Bäckström, Aftermath in the US and lessons for Sweden, Speech at Conference on WorldCom and Enron, Stockholm, September 5, 2002), at 2, available at <http://www.bri.org/review/r020913a.pdf>

56. "The Bank of England was established by Parliament in 1694, as an explicit temporary institution." J. LAWRENCE BROZ & RICHARD S. GROSSMAN, PAYING FOR PRIVILEGE: THE POLITICAL ECONOMY OF BANK OF ENGLAND CHARTERS, 1694-1844 1 (Harv. Univ. Weatherhead Center for Int'l Aff. Working Paper Series, Working Paper No. 01-05, May 2001), available at http://dss.ucsd.edu/~jlbroz/EEHFinalText_LB3.pdf (last visited June 22, 2005).

57. See Robert L. Hetzel, *German Monetary History in the Second Half of the Twentieth Century: From the Deutsche Mark to the Euro*, 88 ECON. Q., Spring 2002, available at http://www.rich.frb.org/publications/economic_research/economic_quarterly/pdfs/spring2002/hetzel.pdf (last visited May 15, 2005).

58. See PETER A. JOHNSON, THE GOVERNMENT OF MONEY: MONETARISM IN GERMANY AND THE UNITED STATES 78 (1998).

from international speculators. International speculation, as opposed to NCB policy, was aimed at causing the devaluation of a currency by aggressive selling on Foreign Exchange Markets. Moreover, European NCBs had to fend off pressures from their own national governments, who wanted them to finance public sector deficits by excess borrowing on capital markets, and sometimes by printing money.⁵⁹

In 1973, the Bundesbank (the NCB for the Federal Republic of Germany) began to declare monetary stability as its primary objective. As Otmar Emminger said in his inaugural speech upon becoming Bundesbank president in 1977, "Monetary stability is linked up with general social stability — and with political stability."⁶⁰ After recurring episodes of crisis in the financial markets, observers began to recognize that the primary task of NCBs was preserving stability in the global economy.⁶¹

A good insight into the process of integration in European capital markets can be gained by comparing the evolution of the first two monetary aggregates, M1 and M2, for the Euro-area and U.S. economies.⁶² In capital markets, the definition of the supply-side is problematic, as it involves questions on the nature of money itself.⁶³ For example, from a consumer's standpoint, a banknote is as good as a credit card, but while the former is issued by an NCB, the ceiling of the latter is controlled by a pri-

59. Bankers are proverbially discrete and Central Bankers show considerable restraint, at least during their public life. Sometimes, though, their real opinions can be gleaned from their memoirs or from late interviews. See generally GUIDO CARLI, *INTERVISTA SUL CAPITALISMO ITALIANO* (1975).

60. See DAVID MARSH, *THE MOST POWERFUL BANK: INSIDE GERMANY'S BUNDESBANK* 37 (1992).

61. See Alexandre Lamfalussy, *Central Banks and Financial Stability*, 2d Werner Lecture (Oct. 26, 2004), available at http://www.bcl.lu/fr/bcl/pierre_werner/Discours_Lamfalussy.pdf.

62. According to economists, demand and supply can be defined for any commodity, including money, the principal vehicle for exchanging goods and services. The monetary aggregates measure the supply for money. One of the tasks assigned to a National Central Bank is to control the money supplied to the economy, i.e., the monetary aggregates. "By buying or selling bonds, bills, and other financial instruments in the open market, a Central Bank can expand or contract the amount of reserves in the banking system and can ultimately influence the country's money supply." STEPHEN H. AXILROD, *TRANSFORMATIONS TO OPEN MARKET OPERATIONS. DEVELOPING ECONOMIES AND EMERGING MARKETS* 5 (1996), available at <http://www.imf.org/external/pubs/ft/issues/5/issue5.pdf> (last visited June 10, 2005).

63. See NICHOLAS BOUZOU, *HOW SHOULD WE DEFINE THE MONEY SUPPLY? AUSTRIAN VERSUS MONETARIST APPROACH* (Ludwig Von Mises Inst., Working Paper, May 1, 2001), available at <http://www.mises.org/journals/scholar/Define.pdf>.

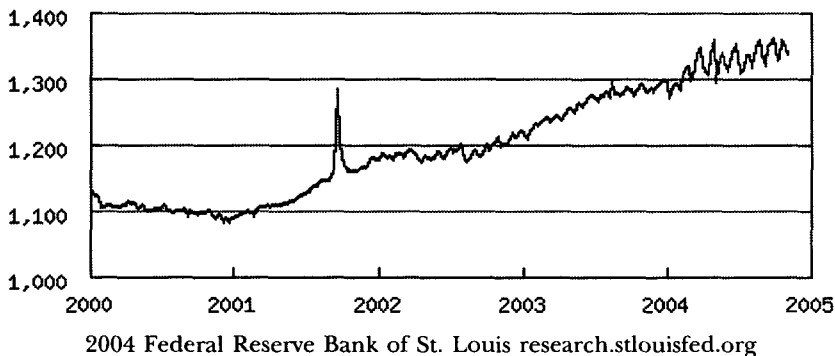
vate-sector credit institution. In order to clarify the matter, economists have classified at least three types (tiers) of money, according to who is controlling their issuing processes. M1 is the most basic form of money in an economy. M1 consists of currency bills and coins in circulation, held by the non-bank public, together with the amount of the short-term deposits held by banking institutions in their NCB.⁶⁴

Historical experience has proved that a scarce supply of M1 money leads to insufficient circulation and to recession.⁶⁵

TABLE 2: M1 MONETARY AGGREGATES FOR
UNITED STATES

M1 Money Stock
(Billions of Dollars)

Source: Board of Governors of the Federal Reserve System

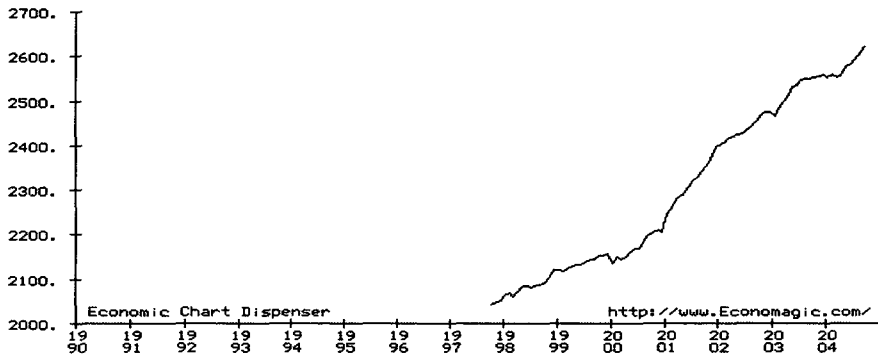


The above and following charts show M1-money end-of-period stocks for U.S. and Euro-area economies, in currency units of U.S. dollars and Euro billions, according to the data published by the Federal Reserve Bank ("FED") and the ECB. The charts confirm that the European economy still has an M1-tied

64. See MICHAEL EHLMANN & MARCEL FRATZSCHER, EQUAL SIZE, EQUAL ROLE? INTEREST RATE INTERDEPENDENCE BETWEEN THE EURO AREA AND THE UNITED STATES (Board of Governors of the Fed. Res. System, Int'l Fin. Discussion Papers, April 2004), available at <http://www.federalreserve.gov/pubs/ifdp/2004/800/ifdp800.pdf> (last visited June 21, 2005).

65. "Following Friedman and Schwartz (1965), most U.S. economists seem to agree that the severity of the Great Depression cannot be explained without reference to the unprecedented contraction of the U.S. money supply." Roland Vaubel, *International Debt, Bank Failures, and the Money Supply: The Thirties and the Eighties*, 4(1) CATO J. 249, 250 (1984), available at <http://www.catoinstitute.com/pubs/journal/cj4n1/cj4n1-11.pdf> (last visited June 10, 2005).

TABLE 3: M1 MONETARY AGGREGATES FOR EURO-AREA



structure, as M1 money stocks for the Euro-area are nearly double their U.S. counterparts. The dependence of Euro-area economy on M1-money is further shown by the fact that the creation-rate of M1 does not show any indication of slowing down.

The second-tier monetary aggregate, called M2, is composed of M1 money stocks plus other forms of mobile capital such as savings deposits, certificates of deposits, money market liquidities and short-term repurchase agreements.⁶⁶ The general concept is that M2 money can not circulate at the same speed as M1, but can still be turned into liquidity with some ease, since it is employed in short-term investments.⁶⁷

Charts Nos. 4 and 5 drawn following the same sources and with the same conventions of previous two, show that Euro-area M2 money stocks, although some way behind their U.S. counterparts, are indeed trying to catch up.⁶⁸

According to ECB President Jean-Claude Trichet, "The mar-

66. "[W]eak M2 growth may portend weakness in the economy . . . the current definition of M2 includes currency, demand deposits, other checkable deposits, savings deposits, small-denomination time deposits, retail money market mutual funds and overnight repurchase agreements and Eurodollar deposits." Y. P. Mehra, *A Review of the Recent Behavior of M2 Demand*, 27 FED. RES. BANK OF RICHMOND ECON. Q. 83.3 (1997), available at http://www.rich.frb.org/publications/economic_research/economic_quarterly/pdfs/summer1997/mehra.pdf (last visited June 8, 2005).

67. See EHRMANN & FRATZSCHER, *supra* note 64.

68. "[T]he process of financial innovation gained momentum throughout the following two decades, with substantial institutional changes taking place in the financial system of euro area countries. Thus, in several countries, problems of interpretation of monetary aggregates . . . arose." ALESSANDRO CALZA & JOÃO SOUZA, *WHY HAS BROAD MONEY DEMAND BEEN MORE STABLE IN THE EURO AREA THAN IN OTHER ECONOMIES? A LITERATURE REVIEW 12* (ECB Working Paper No. 261, 2003), available at <http://www.ecb.int/pub/pdf/scpwps/ecbwp261.pdf> (last visited June 10, 2005).

TABLE 4: M2 MONETARY AGGREGATES FOR UNITED STATES

M2 Money Stock
(Billions of Dollars)

Source: Board of Governors of the Federal Reserve System

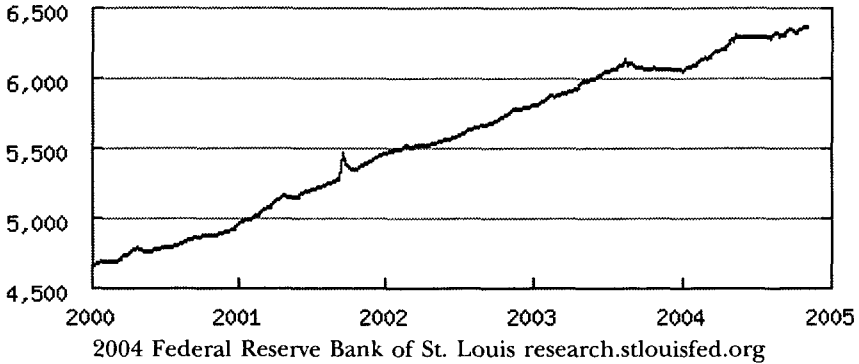
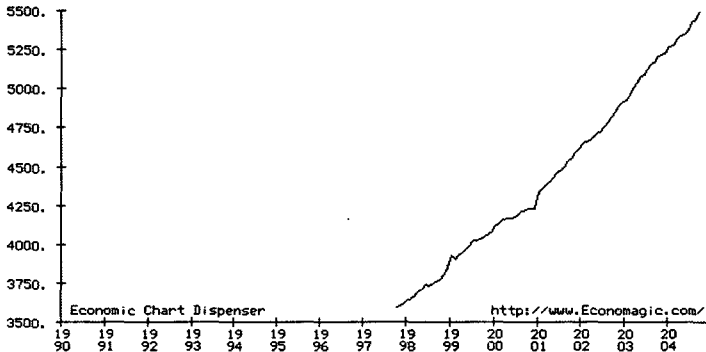


TABLE 5: M2 MONETARY AGGREGATES FOR EURO-AREA



ket's size for commercial paper in the EU represents about EUR 1000 billion, which is about two-thirds of the size the U.S. market for commercial paper."⁶⁹

C. Institutional and Operational Players

The European Parliament, the Council of Ministers and the European Commission, the three leading EU institutions, can be

69. See Jean-Claude Trichet, Europe's Single Capital Market: Time to Tackle the Toughest Challenges, Speech at Eurofi Conference Luxembourg (Mar. 10, 2005), available at <http://www.ecb.int/press/key/date/2005/html/sp050310.en.html>.

considered institutional players.⁷⁰ Member States are both institutional players, in their role of national legislators and regulators, and operational players, in their role of public debt issuers. The other players on European Capital Markets, as banks, financial intermediaries, building societies and insurance companies, are limited to an operational role.

In the development of the three stages of EMU, the European Parliament had only a consultative role, as stated by the EC Treaty.⁷¹ The Council of the European Union or Council of Ministers ("Council"),⁷² among its many roles, held (and holds) the legislative power in monetary matters. Moreover, meeting as Heads of State and Government, the Council has a primary role in deciding whether a State fulfils the criteria to join the final stage of EMU. The European Commission,⁷³ well described as a "guardian of coordination through Euro economic governance,"⁷⁴ is the executive and regulatory body, which exercises the powers delegated to it by the Council.⁷⁵

The primary objective of EMU monetary policy, which is to maintain price stability,⁷⁶ has been delegated to the ECB. The union of the ECB and the twelve NCBs of Euro-area Member States forms the ESCB.⁷⁷ The ECB, in its institutional role, adopts and enforces monetary regulations but also has an operational role on the capital markets.⁷⁸ With its "decision making

70. See EC Treaty, *supra* note 19, art.7, O.J. C 325/33 (2002). "[T]he Council, the Commission and the European Parliament share the political tasks of making and administering Community law at the European level." BERMANN ET AL., *supra* note 35, at 34.

71. See EC Treaty, *supra* note 19, arts.121 (2), 112 (2b) and 189-201, O.J. C 325/33 (2002), (related to the European Parliament); see also BERMANN ET AL., *supra* note 35, at 51.

72. See EC Treaty, *supra* note 19, arts. 202-10, O.J. C 325/33 (2002). The Council, or Council of Ministers, holds the legislative power, jointly with the European Parliament. The Council should not be confused with the European Council, which puts forward political guidelines. See BERMANN ET AL., *supra* note 35, at 34, 40.

73. See EC Treaty, *supra* note 19, arts. 211-19, O.J. C 325/33 (2002), (related to the Commission); BERMANN ET AL., *supra* note 35, at 43.

74. See Kenneth Dyson, *European States and the Euro* 360 (2002).

75. See EC Treaty, *supra* note 19, art. 211, O.J. C 325/33 (2002).

76. The Governing Council defined price stability as "a year-on-year increase in the Harmonised Index of Consumer Prices of below 2%." Otmar Issing, *The ECB's Monetary Policy: Experience After the First Year*, 22 J. POLICY MODELING 325, 328 (2000).

77. See EC Treaty, *supra* note 19, art. 107, O.J. C 325/33 (2002).

78. See EC Treaty, *supra* note 19, art. 105, O.J. C 325/33 (2002); see also PETER BOFINGER, *THE MONETARY POLICY FRAMEWORK OF THE ECB* 7 (European Inst. of Public Admin. ("EIPA"): EMU Halfway Through the Transition Period, Conference Paper,

bodies," the Executive Board and the Governing Council, ECB sets the monetary policy for the Euro-area.⁷⁹ Moreover, given that international organizations, such as the World Bank ("WB"), the International Monetary Fund ("IMF"), the Organization for Economic Co-operation and Development ("OCDE"), and the Bank for International Settlements ("BIS"), as institutional players, allow the ECB to participate, as an observer, in their meetings, the ECB represents the Member States of the Euro-area.⁸⁰

National governments have both an institutional role, as market supervisors, and an operational one as issuers of public debt. The banking community and the investment community are operational players. Banks, by far the biggest operational players, offer services to their customers, according to banking laws and regulations.⁸¹ Any non-banking company operating in capital markets, e.g., a fund management company, a building society, an insurance company, is part of the investment community and constitutes an operational player.

In accord with contemporary government technique, the process of decision-making in the EU is split at several levels. In order to reach all the decision-makers, many pressure groups find it convenient to produce position documents and to publish their view under their own name.⁸² As an alternative, some other players prefer to support independent think-tanks.⁸³

Sept. 18-19, 2000), available at http://www.eipa.nl/Publications/Summaries/1997_2000/Phedon_papers/5-BofingerMain%20The%20monetary%20policy%20framework%20of%20the%20ECB.pdf.

79. See EC Treaty, *supra* note 19, art. 107, O.J. C 325/33 (2002).

80. See Dominick Salvatore, *The Euro, the European Central Bank, and the International Monetary System*, 579 ANNALS 153-67 (2002).

81. The European Banking Federation represents all European Banks. According to their charter, European Savings Banks are further represented by European Savings Banks Group, while Cooperative Banks are represented by the European Association of Co-operative Banks. These three associations established the European Committee for Banking Standards. See, e.g., European Committee for Banking Standards, at <http://www.ecbs.org> (last visited June 15, 2005).

82. See *id.*

83. The Halle Institute for Economic Research and the Kiel Institute of World Economics, regularly publish papers on European Capital Markets. See Halle Inst. for Econ. Research, at <http://www.iwh.uni-halle.de> (last visited June 15, 2005); see also Kiel Inst. of World Econ., at <http://www.uni-kiel.de/ifw> (last visited June 15, 2005). Both are listed on the "NIRA's World Directory of Think Tanks 2005," published by the National Institute for Research Advancement ("NIRA," a Japanese Government Authority). See NAT'L INST. FOR RESEARCH ADVANCEMENT, NIRA'S WORLD DIRECTORY OF THINK

D. *Economic Theories*

In the 1920's, John Maynard Keynes brought the role of public expenditure to the attention of the economists.⁸⁴ According to Keynes, an incremental increase in government purchases will force the GDP to change by more than that amount. The rationale is that since consumer spending depends upon income, any sum spent by somebody gives someone else an additional income, which will lead to additional spending.⁸⁵

The Keynesian approach accompanied world economic theory long after the Depression and well into the Cold War.⁸⁶ In the 1970's, the necessity for a new approach became evident: economic theories had to account for monetary circulation and international trade.⁸⁷ The so-called Monetarist⁸⁸ approach suggested monetary policy, to be an effective instrument for controlling an economy.⁸⁹

TANKS 2002 (2002), available at <http://www.nira.go.jp/ice/nwdtt/index.html> (last visited June 15, 2005).

84. See JOHN M. KEYNES, *THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY* (1936).

85. "Keynes offered a theory of depression economics that asserted, famously, that the market mechanism could not be relied upon to spontaneously rebound from a slump, and that advocated public spending, preferably involving a deficit in the government budget, to stimulate demand." M. WOODFORD, *REVOLUTION AND EVOLUTION IN TWENTIETH-CENTURY MACROECONOMICS 5* (Frontiers of the Mind in the Twenty-First Century, Conference Paper, June 14-18, 1999), available at <http://www.princeton.edu/%7Ewoodford/macro20C.pdf>.

86. An example of how politicians misappropriated Keynes' theories is set by Richard Nixon. In his 1971 State of the Union Address, Nixon declared that "by spending as if we were at full employment, we will help to bring about full employment". HERBERT STEIN, *PRESIDENTIAL ECONOMICS 172-73* (1985).

87. "The 1970s saw inflation and unemployment simultaneously at relatively elevated levels for some time. The notion that this could occur was nowhere to be found in the conventional wisdom of the . . . Keynesian revolution of the 1930s and its subsequent empirical applications. Moreover, these models embodied the view that aggregate demand expansion, from almost any level, would permanently create new jobs." Alan Greenspan, *The Challenge of Central Banking in a Democratic Society, Remarks at the Annual Dinner and Francis Boyer Lecture of The American Enterprise Institute for Public Policy Research* (Dec. 5, 1996), available at <http://www.federalreserve.gov/boarddocs/speeches/1996/19961205.htm>

88. "Monetarism, and new insights into the effects of anticipatory expectations on economic activity and price setting, competed strongly against the traditional Keynesianism." *Id.*

89. "In their Monetary History, Friedman and Schwartz reviewed nearly a century of American monetary experience in painstaking detail, providing an historical analysis that demonstrated the importance of monetary forces in the economy far more convincingly than any purely theoretical or even econometric analysis could ever do." Ben S. Bernanke, *Remarks by Governor at the Federal Reserve Bank of Dallas Conference*

According to this approach, the way to control an economy is through the setting of the short-term interest rate and of the monetary aggregate. Using a mathematical formula, it is even possible to estimate at what value they should be set in order to maintain desired rates for inflation and growth.⁹⁰ Generally speaking, current economic thought recognizes monetary stability as the primary objective of an economy.⁹¹

To this end, economists try to identify and neutralize the channels that can transmit economic shocks across the system. According to the analysis of Angeloni and Ehrmann,⁹² four mechanisms can transmit monetary policy shocks in Europe: (i.) Corporate loan interest rates, by influencing long-term investment decisions (the *bank-lending channel*); (ii.) Personal loan interest rates, by altering the perception of risk of the consumers (the *consumer interest-rate channel*); (iii.) Stock market indices, by influencing the opinion of the consumer's own wealth (the *asset-market channel*); (iv.) Foreign exchange rates, by influencing the price of imported goods (the *exchange-rate channel*).

A more detailed study⁹³ from the ECB, based on linking in-

on the Legacy of Milton and Rose Friedman's Free to Choose (Oct. 24, 2003), available at <http://www.federalreserve.gov/boarddocs/speeches/2003/20031024/>. For an analysis of monetary factors in the U.S. economy, see generally MILTON FRIEDMAN & ANNA JACOBSON SCHWARTZ, *MONETARY HISTORY OF THE UNITED STATES, 1867-1960* (1963).

90. "The Taylor rule seems to track, very successfully, broad policy moves since 1987. This success seems remarkable because Taylor's rule is so simple: It is set according to only four components. The first factor is the Fed's long-term inflation target. . . . The second factor is the "natural" real, or inflation-adjusted, federal funds interest rate. . . . The two remaining factors address the way policy should respond in the short run to changing circumstances, namely, to changes in output and inflation. These third and fourth components of the Taylor rule are the current rates of inflation and output." See Charles T. Caltrstrom & Timothy S. Fuerst, *The Taylor Rule: A Guidepost for Monetary Policy*, FED. RESERVE BANK OF CLEV. ECON. COMMENT., July 2003, at 1, available at <http://www.clevelandfed.org/Research/Com2003/0703.pdf> (last visited June 15, 2005).

91. "Gradually the power of state intervention to achieve particular economic outcomes came to be seen as much more limited. A consensus gradually emerged in the late 1970s that inflation destroyed jobs, or at least could not create them. . . . That inflation could reduce employment was a highly controversial subject in the mid-1970s when introduced into communiqué language drafts. . . . Today in similar communiqués such language is accepted boiler plate and rarely the focus of discussion." Greenspan, *supra* note 87.

92. See Ignazio Angeloni & Michael Ehrmann, *Monetary Transmission in the Euro Area: Early Evidence*, in *EMU: ASSESSING THE IMPACT OF THE EURO 179* (Richard E. Baldwin et al., eds., 2003).

93. See ROBERT-PAUL BERBEN ET AL., *CROSS-COUNTRY DIFFERENCES IN MONETARY*

dividual models of National Economies in a harmonized overall simulation, leads to similar results, recognizing five channels:

(i.) “The *cost-of-capital channel*”:⁹⁴ the interest rate, as perceived by the corporate segment of the economy, represents the cost of operating capital, as invested in inventories and durable goods. The shock transmission capacity of this channel depends on the financial structure of the corporate-lending market.”⁹⁵;

(ii.) “The *substitution-effect-in-consumption channel*”:⁹⁶ the interest rate experienced by the consumers represents the substitution effect between present consumption and future risk. Sensing that interest rates are on the upswing, consumers can opt to delay consumption and increase saving, with the result of propagating a negative shock to the entire economy. This effect can be reinforced by the structure of the labor market: self-employed consumers, who expect less job security, may feel a higher need for precautionary savings;

(iii.) “The *income and cash-flow channel*”: a rise in financial yields increases the disposable income of net lenders and worsens the cash flows of net borrowers”,⁹⁷ altering consumption capability. For example, in Italy⁹⁸ households are net creditors, so an increase in bond interest rates can raise consumption levels.⁹⁹ In more mature economies, as in Finland and the Netherlands, households are net debtors and a rise in interest rates can depress consumption;¹⁰⁰

(iv.) “The *Exchange-rate channel*”:¹⁰¹ as almost all raw materials (e.g., oil) and most imported products are still priced in dollars, the Euro-dollar exchange rate is a powerful mechanism for the transmission of economic shocks across the world econ-

POLICY TRANSMISSION 21 (ECB Working Paper No. 400, 2004), available at <http://www.ecb.int/pub/pdf/scpwps/ecbwp400.pdf> (last visited June 13, 2005).

94. See *id.* at 21.

95. “For instance, effects may be larger in countries where firms are more indebted or where they borrow on short-term interest rates.” *Id.* at 21.

96. See *id.*

97. See *id.*

98. “In Italy, the positive contribution of the income channel reflects the fact that households are net creditors, and raise consumption in response to the increase in interest payments received on holdings of government debt.” *Id.* at 25.

99. See Claudio Radaelli, *The Italian State and the Euro: Institutions, Discourse, and Policy Regimes*, in *EUROPEAN STATES AND THE EURO 212* (Kenneth Dyson ed., 2002).

100. See BERBEN ET AL., *supra* note 93, at 25.

101. See *id.* at 26.

omy.¹⁰² When the Euro devaluates in respect to the dollar, the immediate effect is that European products become more competitive in the global market, as their price in dollars is lowered. Sooner or later, European manufacturers are going to pay more for the dollars they use to pay their raw materials, and they will be forced to raise the prices of their products.¹⁰³ In the reverse, a devaluation of the dollar has the immediate effect of raising the prices of European products, rapidly driving European offerings out of the market, and effectively stopping industrial production.¹⁰⁴ (v.) The *Monetary-circulation channel*: although central banks know that excess monetary supply can lead to inflation; they are sometimes forced to finance public sector expenditure at the expense of monetary circulation (e.g., by issuances in National Currency or in Government Bonds).¹⁰⁵

102. "For instance it might be expected that changes in the price of raw materials and fuels, which are determined on international markets, would be passed through into domestic prices. If this was the case, then a high share of such items in total imports may be reflected in a larger change in domestic prices, following the change in the exchange rate." *Id.* at 27. The first findings established for the exchange-rate the role of a shock absorber, but with the notable exceptions of Denmark and Sweden economies. MICHAEL J. ARTIS & MICHAEL EHRMANN, *THE EXCHANGE RATE. A SHOCK ABSORBER OR SOURCE OF SHOCKS? A STUDY OF FOUR OPEN ECONOMIES* 16 (Robert Shumann Center for Advanced Studies, EUI Working Paper No. 38, 2000), available at http://www.iue.it/RSCAS/WP-Texts/00_38.pdf (last visited June 15, 2005). With a more detailed analysis, new findings are consistently reversing this position. In the theoretical case of a long-run analysis of a two-country model "[w]e find an important role for the exchange rate as a shock absorber. Specifically, most of the variation in real exchange rates can be explained by relative aggregate demand shocks"; on the other hand, in the short-term, analysts of practical cases note that "[e]ven if we extend the model, and make a distinction between monetary policy shocks and pure exchange rate shocks, we still find an important role for the latter. Hence, the exchange rate is still an important source of shocks." KATIE FARRANT & GERT PEERSMAN, *IS THE EXCHANGE RATE A SHOCK ABSORBER OR A SOURCE OF SHOCKS? NEW EMPIRICAL EVIDENCE* 15 (Ghent Univ. Faculty of Econ. and Bus. Admin., Working Paper No. 285, 2005), available at http://www.feb.ugent.be/fac/research/WP/Papers/wp_05_285.pdf (last visited June 15, 2005).

103. "The Euro has hit eight-month lows after Dutch voters gave a resounding 'No' to the European Union constitution. . . . The euro is still well above its launch value against the US dollar, and its recent decline is expected to boost exporters in the eurozone." *Euro Sinks After Dutch 'No' Vote*, BBC NEWS WORLD EDITION, June 2, 2005, available at <http://news.bbc.co.uk/1/hi/business/4602229.stm>.

104. "The relentless rise of the euro has hit sales among Europe's biggest companies. In a swathe of corporate results this week, export-oriented firms have admitted that the weak dollar is making covering euro costs more difficult." *Dollar drags down Europe's firms*, BBC NEWS WORLD EDITION, Jan. 22, 2004, available at <http://news.bbc.co.uk/2/hi/business/3419225.stm>.

105. See BERBEN ET AL., *supra* note 93, at 34.

II. BACKGROUND ON EMU INSTITUTIONAL INITIATIVES

A. *Financial Services Action Plan — The Lamfalussy Framework*

In June 1999, the Cologne European Council adopted the Financial Services Action Plan (“FSAP”),¹⁰⁶ seeking to create a single market for wholesale and retail financial services and enforce the adoption of state-of-the-art prudential rules and supervision.¹⁰⁷ In March 2000, at the Council summit in Lisbon, the Economic and Financial Affairs Council (“ECOFIN”)¹⁰⁸ reaffirmed the FSAP and set a deadline for its achievement in 2005.¹⁰⁹ At the same time, recognizing a need for extraordinary measures, the Council established a Committee of Wise Men on the Regulation of European Securities Markets, under the chairmanship of Baron Alexandre Lamfalussy (“Lamfalussy Committee”).¹¹⁰

The Lamfalussy Committee published its final report in February 2001 (“Lamfalussy Report”), recommending changes to the legislative process for approving legislation on securities market regulation.¹¹¹ In its opening comments, the Lamfalussy Report, referring to an integrated financial market, stated that “the basic legislation is not in place.”¹¹² The mosaic of European regulatory structures is well documented; there are over forty of them, with different “powers and competencies.”¹¹³ The

106. See Bank of England, *The EU Financial Services Action Plan: A Guide*, Q. BULL., Autumn 2003, available at <http://www.bankofengland.co.uk/qb/qb030309.pdf> (last visited June 15, 2005).

107. See Trichet, *supra* note 69.

108. The Finance Ministers of the Member States of the European Union form the Economic and Financial Affairs Council, that is also known as the Council of Economic and Finance Ministers or Ecofin Council (“ECOFIN”). See Ecofin Council, available at <http://ue.eu.int/showPage.asp?lang=EN&id=250&mode=g&name> (last visited June 10, 2005).

109. See European Parliament & Council Regulation, No. 1606, O.J. L 243/1 (2002), Recital 1 (concerning the application of international accounting standards).

110. See Commission Decision 01/528/EC, O.J. L 191/145 (2001) (on the European Securities Committee); see also Pieter Bouwen, *New Modes of Governance in Europe — The Impact of the “Lamfalussy Committee” on European Governance*, Max Planck Inst. for Research on Collective Goods, available at <http://www.mpp-rdg.mpg.de/bouwen2.html> (last visited June 10, 2005).

111. See Committee of Wise Men, *Final Report of the Committee of Wise Men on the Regulation of European Securities Markets*, 96 (Feb. 15, 2001), [hereinafter *Lamfalussy Report*], available at http://Europa.eu.int/comm/internal_market/securities/docs/lamfalussy/wisemen/final-report-wise-men_en.pdf

112. See *id.* at 18

113. See *id.* at 102.

current regulatory system is simply “too slow, too rigid”¹¹⁴ and ill adapted to the needs of modern financial markets. After recognizing these problems, the Lamfalussy Committee proposed a way of resolving them.

The so-called “Lamfalussy framework” consists of four levels:¹¹⁵

- *Level 1*: framework principles that the Commission proposes to the Council of Ministers and to the European Parliament for co-decision.

- *Level 2*: the European Securities Committee and the Committee for European Securities Regulators will assist the European Commission in the definition of details.

- *Level 3*: cooperation and networking among EU securities regulators to ensure common standards for implementing the legislation developed at Levels 1 and 2.

- *Level 4*: cooperation between the Member States, their regulators; and the private sector in order to ensure issuance of national legislation and regulations.

The Lamfalussy¹¹⁶ proposals were endorsed at the Stockholm Council in March 2001, but Parliament delayed the adoption until February 2002, and the final structure was put in operation by the end of the same year. On this occasion, the ECOFIN¹¹⁷ endorsed a Report from the Economic and Financial Committee (“EFC”)¹¹⁸ on financial regulation, supervision and stability extending the principles from the Lamfalussy framework to other financial sectors (banking, insurance, and pensions).¹¹⁹

114. *See id.* at 14.

115. *See id.* at 19.

116. *See* RICHARD PORTES, THE EURO AND THE INTERNATIONAL FINANCIAL SYSTEM 19 (London Bus. School & Centre for Econ. Pol’y Research (“CEPR”) Discussion Paper No. 2955, 2001), available at [http://faculty.london.edu/rportes/research/EuroIFS\(DP2955\).pdf](http://faculty.london.edu/rportes/research/EuroIFS(DP2955).pdf) (last visited June 15, 2005).

117. *See* Council (ECOFIN) Report to European Council, Wise Men Report on the Regulation of European Securities Markets No. 7005/01 (2001), at 1, available at http://www.eu2001.se/finance/eng/pdf/07005_en.pdf (last visited June 20, 2005).

118. The Member States, the European Commission and the ECB form the EFC. NCBs join the Committee when the issues require the NCBs’ expertise. *See* EC Treaty, *supra* note 19, art. 114(2) & (4), O.J. C 325/33 (2002) (listing the tasks of the EFC); *see also* Council Decision No. 03/476/EEC, O.J. L 158/58 (2003) (on a revision of the Statutes of the Economic and Financial Committee).

119. *See* Bouwen, *supra* note 110; *see also* European Parliament, Committee on Economic and Monetary Affairs, Activity Report, 5th Parliamentary Term 1999-2004, at 41

The Committee, reiterating the June 1985 White Paper,¹²⁰ established two basic guidelines for financial market integration:

(i.) the *mutual recognition principle*,¹²¹ requiring only essential standards to be harmonized, allowing for the coexistence of national variants and implementations; and

(ii.) the *home-country principle*, stating that in cross-border operation of branches or provision of services, the regulations, laws and practices of the country of incorporation must be accepted by any country.¹²²

In order to appraise the time and the effort it takes to pass legislation in EU institutions, a few episodes may be of interest. The Directive¹²³ on *Securities Trading and Prospectuses* aimed at simplifying regulatory compliance by standardizing a *prospectus*, the proposal used in public offerings of securities, and a *passport*, the documentation to supplement the request to trade a security in a regulated market.¹²⁴ While a first draft of the Prospectus Directive was presented in May 2001, the final adoption did not take place until July 2003 and came into force, with its publication, in December of the same year.¹²⁵

The Regulation¹²⁶ implementing the Prospectus Directive comes into force in July 2005. The Commission¹²⁷ gave mandate

(May 10, 2004), available at <http://www.europarl.eu.int/comparl/econ/press/534949pa.pdf>.

120. See Commission of the European Communities, Completing the Internal Market: White Paper from the Commission to the European Council, COM (85) 310 Final (June 1985) [hereinafter White Paper]; see also BERMANN ET AL., *supra* note 35, at 540.

121. See LAMFALUSSY REPORT, *supra* note 111, at 104.

122. See *id.* at 13.

123. See European Parliament and Council Directive No. 2003/71/EC, O.J. L 345/64 (2003) (concerning the prospectus to be published when securities are offered to the public or admitted to trading and amending Directive 2001/34/EC) [hereinafter Prospectus Directive].

124. See *id.*

125. See, e.g., Press Release, European Commission, Financial Services: Commission Welcomes Council's Adoption of Prospectuses Directive (July 15, 2003), available at <http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/1018&format=HTML&aged=1&language=EN&guiLanguage=EN>.

126. See Commission Regulation No. 809/04, O.J. L 149/1 (2004) (implementing Directive 2003/71/EC of the European Parliament and of the Council as regards information contained in prospectus as well as the format, incorporation by reference and publication of such prospectuses and dissemination of advertisements). The Regulation was adopted on April 29, 2004 and comes into force in July 2005. See *id.*

127. See European Commission, Formal Mandate to CESR for Technical Advice on a Possible Amendment to the Requirements in Commission Regulation (EC) 809/2004 Regarding the Historical Financial Information Which Must Be Included in a Prospectus

to the Committee of European Securities Regulation (“CESR”) to provide technical advice, to amend the Regulation by October 31, 2005. The amendment is related to “the historical financial information which must be included in a prospectus”¹²⁸ in order to let the investor obtain an informed evaluation of the issuer.

Attempts to create a common framework for pension funds in the European Union go back to the early 1990’s. In October 2000, the Commission proposed a Pension Fund Directive stating detailed rules of operation for banking institutions to run a pension scheme on behalf of a company located in another Member State.¹²⁹ In application of the *subsidiarity principle*,¹³⁰ the organization of pension schemes is a matter essentially subject to Member States’ sovereign competence. The Pension Fund Directive,¹³¹ which left a number of issues open to national legislation, was finally adopted in May 2003. The deadline for implementing the Pension Fund Directive is September 23, 2005, even though “Member States may postpone” the implementation until September 23, 2010.¹³²

tus (2005), available at http://europa.eu.int/comm/internal_market/securities/docs/prospectus/fin-hist_cesr-mandate_en.pdf.

128. See *id.* at 1. On June 3, 2005, CERS published a Call for Evidence on the mentioned Mandate. See The Committee of European Securities Regulators, Formal Mandate to CESR for Technical Advice on a Possible Amendment to the Requirements in Commission Regulation (EC) 809/2004 Regarding the Historical Financial Information Which Must Be Included in a Prospectus: Call for Evidence (June 3, 2005), available at <http://www.cesr-eu.org/>

129. As a result, the draft Directive would encourage development of cross-border pension funds investment. See Asset Management Expert Group, Financial Services Action Plan: Progress and Prospects 3 (May 2004), available at <http://www.epolitix.com/NR/rdonlyres/AAB17FFA-EA69-4FA5-BE44-2F0A3ADF50CD/0/AMWGFINALREPORT.pdf> (last visited June 17, 2005); see also Press Release, European Commission, Institutions for Occupational Retirement Provision: Commission Proposes Directive (Oct. 11, 2000), available at <http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/00/1141&format=HTML&aged=1&language=EN&guiLanguage=EN>.

130. See LAMFALUSSY REPORT, *supra* note 111, at 14.

131. See European Parliament and of the Council Directive 2003/41/EC, O.J. L 235/10 (2003) (on the activities and supervision of Institutions for Occupational Retirement Provision (“IORPs”)) [hereinafter Pension Funds Directive]; see also SIMON ARNOT, DIRECTIVE 2003/41/EC ON THE ACTIVITIES AND SUPERVISION OF INSTITUTIONS FOR OCCUPATIONAL RETIREMENT PROVISION. A LEGAL COMMENTARY (2004).

132. See Pension Funds Directive, *supra* note 131, art. 22 (3), O.J. L 235/10 (2003). During this grace period, IORPs may not operate pension schemes on a cross border basis if they do not comply with the Directive. See ARNOT, *supra* note 131, at 61; see also DEPARTMENT FOR WORK AND PENSION, IMPLEMENTING THE EUROPEAN DIRECTIVE ON THE ACTIVITIES AND SUPERVISION OF INSTITUTIONS FOR OCCUPATIONAL RETIREMENT PROVISION:

B. EMU Gross Clearing and Settlement Arrangements

Trans-European Automated Real-time Gross-settlement Express Transfer (“TARGET”) is used for the settlement of central bank operations, and large-value Euro inter-bank transfers. In 2004, it processed a daily average of more than 267,000 transactions, with an average daily value of more than EUR 1,700 billion.¹³³ TARGET operates on the principle that payments become irrevocable once the originating account has been debited: this feature, called “immediate finality”¹³⁴ of payments in central bank money, eliminates any settlement risk.

This means that all participants can deliver a payment to the customer at the same moment they are credited with the right amount of money. The implementation of TARGET was part of the technical infrastructure required by the third stage of EMU.¹³⁵ EMI¹³⁶ started drafting its structure in November 1994 and it started operation in January 1999, interconnecting national Real Time Gross Settlement (“RTGS”)¹³⁷ systems of fifteen European countries and the ECB. Among non Euro-area countries, TARGET is linked with CHAPS (the RTGS system of the Bank of England), RIX (the RTGS system of the Bank of Sweden), DEBES and DNF (the Bank of Denmark operates two RTGS systems, the former for the Danish krone and the latter for the Euro).

In March 2004, TARGET was linked also to the Polish Euro RTGS system, called SORBNET-EURO and managed by the Polish NCB Narodowy Bank Polski.¹³⁸ Building on this experience, in October 2002, the Eurosystem, the management structure of TARGET, composed of ECB and the twelve NCBs of the Euro-area, started designing a second-generation system (“TAR-

GOVERNMENT RESPONSE TO CONSULTATION 12 (2004), available at http://www.dwp.gov.uk/publications/dwp/2004/orp/govt_response.pdf (last visited June 17, 2005).

133. See ECB, TARGET ANNUAL REPORT 2004, 5 (2005) [hereinafter ECB, REPORT], available at <http://www.ecb.int/pub/pdf/other/targetar2004en.pdf> (last visited June 14, 2005).

134. See ECB, INFORMATION GUIDE FOR CREDIT INSTITUTIONS USING TARGET 8 (July 2003) [hereinafter ECB, GUIDE], available at http://www.ecb.int/pub/pdf/other/targetguide_en.pdf (last visited June 10, 2005).

135. See ECB, REPORT at 43.

136. See EC Treaty, *supra* note 19, art. 117(1), O.J. C 325/33 (2002); see also Protocol on the Statute of the European Monetary Institute, *supra* note 23.

137. See ECB, REPORT *supra* note 133, at 46.

138. See *id.* at 25, 41.

GET2"),¹³⁹ now scheduled to start operation in 2007. The declared improvements of TARGET2, are to be found in service levels, increased cost efficiency, and improved flexibility to future developments, such as the projected enlargements of the European Union.

The most interesting feature of TARGET2 will be its market-oriented cost structure, based on the co-existence of a Single Shared Platform¹⁴⁰ ("SSP") and other national components. In July 2003, the German, French and Italian NCBs, which account for more than 50% of TARGET payments, have offered to operate the SSP, providing basic services at a single Eurosystem-wide tariff structure. In December 2004, the ECB granted the three partners NCBs the right to build and operate the new platform.¹⁴¹ NCBs of accession countries will have the option of connecting to TARGET2 from the day they join the EU, and also of using TARGET2 as their own RTGS system.¹⁴²

C. EMU Securities Clearing and Settlement Arrangements

In 1996, the Italian banker Alberto Giovannini¹⁴³ was invited by the European Commission to form a group of financial market experts, known as the Giovannini Group, to offer advice on how to prepare the capital markets for EMU. Up to now, the Giovannini Group has produced five reports. The first report, dealing with the impact of the introduction of the Euro on capital markets, was published in July 1997.¹⁴⁴ The Giovannini Introduction report became a major source for the process of re-denomination of public debt into the Euro and in establishing common bond-market conventions for the Euro-area.

Since then, the Giovannini Group has published reports on

139. See ECB, FUTURE DEVELOPMENTS IN THE TARGET SYSTEM 62 (Apr. 2004), available at <http://www.ecb.int/paym/pdf/target/future/mb-target2-future.pdf> (last visited June 10, 2005) [hereinafter ECB, FUTURE DEVELOPMENTS].

140. See *id.* at 63.

141. See ECB, REPORT, *supra* note 133, at 26.

142. See *id.*

143. Alberto Giovannini, then with Banca di Roma, now with Unifortune Asset Management SGR.

144. See THE GIOVANNINI GROUP, THE IMPACT OF THE INTRODUCTION OF THE EURO ON CAPITAL MARKETS (July 1997), available at http://europa.eu.int/comm/economy_finance/publications/euro_papers/2001/eup03en.pdf (last visited June 14, 2005) [hereinafter GIOVANNINI, INTRODUCTION]. http://europa.eu.int/comm/economy_finance/publications/euro_papers/2001/eup03en.pdf

the EU repo market (1999)¹⁴⁵, on co-ordinated public debt issuance in the Euro-area (2000)¹⁴⁶, and two reports on EU cross-border clearing and settlement arrangements, 2001 and 2003.¹⁴⁷ The Giovannini First Cross-Border report affirms: “It is perhaps no exaggeration to conclude, from the analysis in this report, that inefficiencies in clearing and settlement represent the most primitive and thus most important barrier to integrated financial markets in Europe.”¹⁴⁸ The basic objective of the clearing and settlement process is to provide a safe and confidential transfer of securities from a seller to a buyer, in exchange for a payment.

The European Central Securities Depositories Association (“ECSDA”)¹⁴⁹ standard on cross-border settlement, which was established as a result of the activities of the Giovannini Group, recognizes four main steps in a securities transactions:

(i.) confirmation of the terms, as subordinate to the actual execution of the trade;

(ii.) clearance of the trade, with actual exchange of obligations between counterparts;

(iii.) delivery of the securities from the seller to the buyer, i.e. recording the change of property in a central registry;

(iv.) actual payment, through debiting and crediting of funds.

When both delivery and payment are finalized, the transac-

145. See THE GIOVANNINI GROUP, *THE EU REPO MARKETS: OPPORTUNITIES FOR CHANGE*, (Oct. 1999), available at http://europa.eu.int/comm/economy_finance/publications/euro_papers/2001/eup35en.pdf (last visited June 14, 2005) [hereinafter GIOVANNINI, REPO].

146. See THE GIOVANNINI GROUP, *REPORT ON CO-ORDINATED ISSUANCE OF PUBLIC DEBT IN THE EURO AREA* (Nov. 2000), available at http://europa.eu.int/comm/economy_finance/publications/giovannini/giovannini081100en.pdf (last visited June 14, 2005) [hereinafter GIOVANNINI, PUBLIC DEBT].

147. See THE GIOVANNINI GROUP, *REPORT ON EU CROSS-BORDER CLEARING AND SETTLEMENT ARRANGEMENTS* (Nov. 2001), available at http://europa.eu.int/comm/economy_finance/publications/giovannini/clearing1101_en.pdf (last visited June 14, 2005) [hereinafter GIOVANNINI, FIRST CROSS-BORDER]; see also THE GIOVANNINI GROUP, *SECOND REPORT ON CROSS-BORDER CLEARING AND SETTLEMENT ARRANGEMENTS IN THE EUROPEAN UNION* (Apr. 2003), available at http://www.europa.eu.int/comm/economy_finance/publications/giovannini/clearing_settlement_arrangements140403.pdf (last visited June 14, 2005) [hereinafter GIOVANNINI, SECOND CROSS-BORDER].

148. See GIOVANNINI, *FIRST CROSS-BORDER*, *supra* note 147, foreword.

149. EUROPEAN CENTRAL SECURITIES DEPOSITORIES ASSOCIATION, (“ECSDA”), *ECSDA CROSS-BORDER SETTLEMENT*, (Working Group on Cross-Border Settlement (“WG3”), Feb. 2002), available at http://www.ecsda.com/attachments/settlement_links/dvpreport.pdf (last visited June 10, 2005).

tion is declared settled, and its results, size and price, can be published for market-making purposes. Moreover, as everybody agrees in having some obligation to preserve the confidentiality of the trade, it is usual for the clearing and settlement process to involve intermediaries in addition to the buyer and the seller.¹⁵⁰

A Central Counter-Party (“CCP”) is an entity that interposes itself legally by a process of *novation*: buyer and seller undertake to consider the trade as cleared when the CCP has received notice by both parties involved. In this way, buyers and sellers can remain unknown to each other, since they interact only with the CCP.¹⁵¹ Another entity is required to record the change of ownership: Central Securities Depositories (“CSDs”)¹⁵² hold securities in paper form and record property-changes by some form of book-keeping.

The result is that, for a successful transaction to be carried out, at least four entities must be connected with the same information processing platform: buyer, seller, CCP and CSD. In an international environment, the two national CCPs, which represent buyer and seller, may resort to an international CCP for actual novation on the trade. In the same way, when the transaction crosses national borders, it is usual for the two CSDs to communicate through an International Central Securities Depository (“ICSD”).¹⁵³

Another aspect of securities trading¹⁵⁴ is that, as every position must be financed, traders have to pay for the liquidity involved, and are interested in using it in an efficient manner. Consequently, CCPs usually offer netting services. In netting, at a certain time of each day, the CCP offsets all the amounts owed by and to participants in order to reduce all outstanding residuals to a single debit/credit between itself and each member.¹⁵⁵

The process of netting brings obvious savings in liquidity, at the price of incrementing the risk factor: a default of a partner could easily spread to all the others. In order to reduce the probability of this event, netting procedures require a partner to deposit some form of guarantee. Partners undertake to stop

150. *See id.* at 65 (concerning confidentiality and protection of beneficiary data).

151. *See* GIOVANNINI, FIRST CROSS-BORDER, *supra* note 147, at 12.

152. *See id.* at 5.

153. *See id.*

154. *See id.*

155. *See id.*

trading when their amounts due or their securities deficits reach some threshold value.¹⁵⁶

Netting procedures can be convenient only when few intermediaries are involved. In the event of a cross-border transaction, the amount of the guarantees involved and the uncertainty about the costs and the risks can easily prevent the transaction from being carried out. Building on this view of the problem, the Giovannini Group identified "15 barriers" obstructing the efficient provisioning of clearing and settlement services in the EU.¹⁵⁷

In its Second Cross-Border Report on clearing and settlement,¹⁵⁸ the Giovannini Group analyzed what actions could be performed to lower the above barriers. Interventions suggested ranged from the technical-logistic levels (definition of new protocols for information interchange, harmonization of operating schedules, etc.) down to specific incentives for achieving international consolidation between CPPs and CSDs.¹⁵⁹ At that time EU legislation was already in place, as in 2002 a Directive¹⁶⁰ was approved, specifically covering netting arrangements and the broader use of securities as collateral.

Applying two base-principles of European Legislation, the mutual recognition and the home-country principles, the Collateral Directive affirmed that, whenever securities are held as collateral by an intermediary, the legal system of reference is that of the intermediary.¹⁶¹ In the special case of clearing and settlement arrangements, universal opinion was this ruling to be the most sensible, as it brought certainty and transparency to the process of trading securities. The extension of this regulatory approach to the general case did not appeal to international jurists.

Almost as soon as the Collateral Directive was adopted, the Hague Conference, in its Hague Securities Convention, developed a ruling on the law applicable to any case of securities held

156. See ESCDA, *supra* note 149, at 12.

157. See GIOVANNINI, FIRST CROSS-BORDER, *supra* note 147, at 44.

158. See GIOVANNINI, SECOND CROSS-BORDER, *supra* note 147, at 4.

159. See *id.*

160. See European Parliament and Council Directive No. 2002/47/EC, O.J. L 168/43 (2002) (concerning financial collateral arrangements) [hereinafter Collateral Directive].

161. See *id.* art. 2(g).

with an intermediary.¹⁶² According to this wider ruling, clearly not limited to the use of securities as collateral, securities held by an intermediary are subject to a legal system of election (i.e., that must have been explicitly “chosen by agreement between the account holder and the intermediary”).¹⁶³ In order to thwart the institutional conflict that might have developed, the European Commission acted swiftly.

In its Proposal for a Council Decision, issued in Brussels on December 15, 2003,¹⁶⁴ it recommended that the immediate *signature* of the Hague Securities Convention, followed by a second step of *ratification*. This second step will be based on a Council Decision requiring the approval of the European Parliament. In the meantime, the Commission will amend the unfortunate Collateral Directive.¹⁶⁵ The proposal pledges that, in a favorable scenario, the ratification of the Hague Securities Convention may take place by 2005.¹⁶⁶

D. *Single Euro Payments Area and European Payment Council*

According to the provisions of the EC Treaty, NCBs of EC member countries had the task to “promote the smooth operation of payment systems”.¹⁶⁷ In 1999, this task was delegated to the specially-formed ESCB, comprised of the European Central Banks and the twelve NBCs of Euro-area member countries.¹⁶⁸ Initially, Directive 97/5/EC¹⁶⁹ tried to improve efficiency in cross-border credit transfers by suggesting a number of “fair dealing” principles: (i.) publicity and transparency in both the charges and the cost structure; (ii.) compensation based on the reference rate of interest applied to the period beyond the agreed time limit for the transfer; (iii.) all charges to be borne by the sender of the transfer, usually abbreviated with the “NOS-

162. See GIOVANNINI, SECOND CROSS-BORDER, *supra* note 147, at 16.

163. See *id.* at 13.

164. See European Commission, Proposal for a Council Decision, Concerning the Signing of the Hague Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary, COM (2003) 783 Final (Dec. 2003) [hereinafter Commission, Signing of the Hague Convention].

165. See Collateral Directive, *supra* note 160, O.J. L. 168/43 (2002).

166. See Commission, Signing of the Hague Convention, *supra* note 164, at 4.

167. See EC Treaty, *supra* note 19, art. 105(2), O.J. C 325/33 (2002).

168. See EC Treaty, *supra* note 19, art.107, O.J. C 325/33 (2002).

169. See European Parliament and Council Directive No. 97/5/EC, O.J. L 043 (1997) (concerning Cross-Border Credit Transfers).

TRO” or “OUR” keywords, except where explicitly agreed otherwise.¹⁷⁰

As the market for cross-border retail transactions was expanding, a number of surveys for cross-border credit transfers confirmed that banks were not complying with the principles stated in the Directive. In fact, normal bank practice was to charge both sender and receiver without even asking the customer. In addition, the surveys¹⁷¹ brought to light the wide disparity in the amounts charged, which varied depending on the countries of origin and destination and a number of other factors. For example, in 2001, the average charge for a cross-border credit transfer of EUR 100 was estimated at EUR 22.70, but the effective price paid by the customer could range anywhere between EUR 3 and EUR 60.¹⁷²

The Regulation implementing the Directive¹⁷³ covered both electronic payment transactions and credit transfers, affirming the principle of uniform charges: for cross-border retail transactions, banks were to charge the same tariff they charged for domestic ones. While the principle of uniform charges should be applied to all form of payments, the Regulation states¹⁷⁴ that it will be enforced only for the electronic form of money, since older means of payment (cross-border cheques, regulated in the Geneva Convention of March 19, 1931)¹⁷⁵ were likely to incur higher costs of processing. Starting in July 2002, cross-border electronic payments under €12,500 were to be effected under

170. BANK FOR INT’L SETTLEMENTS, PAYMENT SYSTEMS IN THE EURO AREA 94 (2003), available at, <http://www.bis.org/publ/cpss53p04eu.pdf> (last visited June 14, 2005).

171. See European Commission, Study on the Verification of a Common and Coherent Application of Directive 97/5/EC on Cross-Border Credit Transfers in the 15 Member States — Transfer Exercise (2001), available at http://europa.eu.int/comm/internal_market/payments/crossborder/archive_en.htm#pricestudy2001 (last visited June 14, 2005). The study collected data of the following indicators: Total time-per transfer; Total cost-per transfer; Sender cost-per transfer; Foreign exchange loss per transfer; and Receiver deductions-per transfer. See *id.*

172. See Press Release, European Commission, Bank Charges: Key Findings of New Commission Study (Sept. 20, 2001), available at <http://Europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/01/294&format=HTML&aged=1&language=EN&guiLanguage=EN>.

173. See European Parliament and Council Regulation No.2560/2001, O.J. L 344/13 (2001) (concerning cross-border payments in Euro).

174. See *id.* Recital (8).

175. See Council, Common Position (EC) No. 41/2001, O.J. C 363/01, (2001), art. 2(a) (iii).

the same charges levied for national payments.¹⁷⁶

The same rules were to be applied to cross border electronic credit transfers under €12,500, but only starting in July 2003¹⁷⁷. On the correspondence with their customers, banks were asked to indicate the International Bank Account Number ("IBAN") and Member States were to remove any national reporting obligations (auditing procedures for balance-of-payment statistics, or anti money-laundering activity) which could prevent effective automation of retail transactions.¹⁷⁸ With effect from January 1, 2006, the threshold of €12,500 will be raised to €50,000.¹⁷⁹

After the United States, the Euro-area is the world's second largest retail payment market, but its members still have widely divergent payment preferences. According to a study of the European Saving Banks Group ("ESBG"),¹⁸⁰ 30.4% of Germans pay by credit card, 47.2% of the French pay by check, while 60.2% of Italians still prefer to pay in cash.

Even after the adoption of international standards such as the International Bank Account Number ("IBAN") and the Bank Identifier Code ("BIC"),¹⁸¹ European Straight-through Processing ("STP") rates are still 33% for cross-border payments compared to 99% for domestic transfers,¹⁸² while the time to complete a domestic transaction is about one-third of that needed by a cross-border one.

176. See European Commission, Note on Practical Implementation of article 3 of the Regulation No.2560/2001 on cross-border payments in Euro, No.MARKT/2902/2002, (Directorate General for the Internal Market, Financial Institutions - Retail issues and payment systems), available at http://Europa.eu.int/comm/internal_market/payments/docs/reg-2001-2560/reg-2001-2560-article3_en.pdf; see also Regulation No. 2560/2001, *supra* note 173, O.J. L 344/13 (2001).

177. See Regulation No. 2560/2001, *supra* note 173, O.J. L 344/13 (2001).

178. See *id.*

179. See *id.*, art. 3, O.J. L 344/13 (2001). The Regulation establishes that banks cannot charge for cross-border electronic payments, and credit transfers up to €12,500, more than for corresponding national payments. The amount of €12,500 will be revised to €50,000 as from January 1, 2006. See *id.*

180. See EUROPEAN SAVINGS BANKS GROUP, ESBG RESPONSE TO EUROPEAN FINANCIAL INTEGRATION REPORTS OF THE FOUR INDEPENDENT GROUPS OF EXPERTS 4 (Position Paper, Bruxelles, Sept. 10, 2004).

181. See Regulation No. 2560/2001, *supra* note 173, art. 5, O.J. L 344/13 (2001).

182. See Carol Clark et al., *Global Electronic Payments*, FED. RES. BANK OF CHI., EMERGING PAYMENTS & POL'Y, Mar. 2004, at 14, available at http://www.chicagofed.org/emerging_payments_and_policy/files/global_electronic_payments_5_28.pdf (last visited June 14, 2005).

A *de facto* obstacle to market integration is that most European countries have already developed a national Automated Clearing-House (“ACH”)¹⁸³ system, usually based on national standards and procedures. Recently, £75 millions were invested in the refurbishing of BACS, the United Kingdom’s ACH.¹⁸⁴ A study by McKinsey & Co¹⁸⁵ estimates that the cost of the consolidation of National ACHs is in the region between €1 billion and €2 billion, with banks bearing the majority of the effort.

Not surprisingly, many bankers lament that regulatory mandate (as opposed to customer demand) is the main force driving towards a single European payment infrastructure. On the other hand, many observers, though conceding that the issue is politically relevant, argue it could well be the only way to preserve the decentralized structure of European capital markets, including the banks themselves. In the end, European banks resorted to a self-governance effort, undertaking to achieve a Single Euro Payments Area (“SEPA”) by 2010,¹⁸⁶ under the guidance of the European Payments Council (“EPC”),¹⁸⁷ the decision-making body of the European banking industry in payment processing.

The EPC fostered the development of a Pan-European Au-

183. *See id.* at 5.

184. “Clearing house BACS has started work ahead of schedule on the second phase of a £75m project to re-engineer its IT infrastructure Anticipated growth in the volumes of transactions handled by BACS was the driver for NewBACS. The clearing house, which is owned by the major banks, currently handles over 3.5 billion financial transactions a year, such as direct debits and standing orders, and this is expected to rise to 5 billion by 2005.” Andy McCue, *BACS Ahead of Schedule with £75m IT Overhaul*, Aug. 8, 2002, available at <http://www.financialdirector.co.uk/news/1130259>.

185. *See* McKinsey & Co. Brussels, *Creating a Single Payments Area for the Eurozone*, Payment Systems Worldwide (Winter 2002).

186. *See* Jean-Claude Trichet, Testimony before the Committee on Economic and Monetary Affairs of the European Parliament, Introductory Statement, ECB (Mar. 14, 2005) available at <http://www.ecb.int/press/key/date/2005/hdm/sp050314.en.html>. On March 14, 2005, Mr. Jean-Claude Trichet, President of the European Central Bank, in his Testimony said that “the Eurosystem has requested that a Single Euro Payments Area (“SEPA”) be created for the Euro area from 1 January 2008,” meaning that citizens and enterprises could make payments throughout the Euro area from a single bank account, using a single set of payment instruments, as easily and safely as in the national context today. *Id.* In addition, “national infrastructures should migrate to a pan-European payments infrastructure by the end of 2010.” *Id.*

187. *See* ECB, *Towards a Single Euro Payments Area — Third Progress Report* (Dec. 2004), available at <http://www.ecb.int/pub/pdf/other/singleeuropaymentsarea200412en.pdf> (last visited June 14, 2005) [hereinafter ECB, Third Report]; *see also* Press Release, ECB, *Towards a single Euro Payments Area – Third Progress Report* (Dec. 2, 2004), available at http://www.ecb.int/press/pr/date/2004/html/pr041202_1.en.html.

tomated Clearing House (“PE-ACH”)¹⁸⁸ and on April 28, 2003, the STEP2 consortium became the first service provider for PE-ACH and started processing cross-border credit transfers.¹⁸⁹ The ECB estimates that to break even economically in its operation, PE-ACH should process about 50% of current cross-border credit transfers.¹⁹⁰ In the current phase of the economy, this critical mass could be reached only by routing through PE-ACH all transactions that were previously processed by correspondent accounts, or by attracting payments from all EU members that are not yet in the Euro-area. As target dates becomes nearer, the future of PE-ACH and of TARGET2 is becoming more and more intertwined with political issues, as the development of a European payment system is increasingly perceived as another milestone toward European Integration.

III. THE IMPACT OF EURO AND EMU ON EUROPEAN CAPITAL MARKETS

A. Money Market

The adoption of the single currency has effectively eliminated foreign exchange risk from Euro-area cross border transactions, and European Banks that are market-makers, (“Euro-prime Banks”), can manage liquidity in a virtual single pool, that is, can easily lend and borrow liquidity between themselves.¹⁹¹ Real Time Gross Settlement (“RTGS”) systems, fully-automated message systems used to transfer liquidity in the Gross Capital Market, are contributing to the integration of Euro trading and the settlement process.¹⁹² Short-term interest rates have con-

188. See ECB, Towards a Single Euro Payments Area – Progress Report (June 2003), available at <http://www.ecb.int/pub/pdf/other/singleEuropaymentsarea200306en.pdf> (last visited June 20, 2005) [hereinafter ECB, First Report].

189. “On Monday, 28 April 2003, EBA STEP2 went live . . . for the exchange of bulk payment files in the euro payments area.” Press Release, SWIFT, EBA STEP2 Launched on SWIFTNet FileAct (May 13, 2003), available at http://www.swift.com/index.cfm?item_id=4290.

190. “[I]n order to ensure the economic viability of a PE-ACH, a first critical mass of roughly 50% of the current cross-border credit transfer volume needs to be processed via the pan-European infrastructure.” ECB, First Report, *supra* note 188.

191. See ECB, Developments in Banks’ Liquidity Profile and Management (May 2002), available at <http://www.ecb.int/pub/pdf/other/banksliquidityprofile02en.pdf> (last visited June 10, 2005).

192. See Intraday Liquidity Management Task Force, Intraday Liquidity Management in the Evolving Payment System: A Study of the Impact of the Euro, CLS Bank,

verged, as evidence of the complete integration of the short-term money market.¹⁹³

Through a mechanism of weekly auctions, the ECB leverages on *reserves regulations* for setting the interest rate in the money market. In the Euro-area, every bank is required to hold an account with its National Central Bank, and (on a monthly average) the balance of this *reserve account* must be greater than 2% of the amount of deposits and short-term customer loans.¹⁹⁴

After deciding in advance the liquidity it wants to supply to the banking system and the minimum interest rate it is going to ask, the ECB collects bids on Tuesday morning, and executes the auction. On Wednesday, every bank receives its money allocation on its National Central Bank reserve account - via the TARGET Real Time Gross Settlement System.¹⁹⁵ Between the auctions, a bank, which wants to better its monthly deposit average, has to borrow liquidity from its NCB or from another bank: the interest rates in this "over-night market" reflect both the offerings of the ECB and the overall status of the economy.¹⁹⁶

The Euro Over-Night Index Average ("EONIA") is the reference rate at which liquidity is offered between Euro-prime banks for very short periods, typically, the periods involved in the processing of settlements, which spans between two successive openings of the TARGET system. The Euro Inter-bank Offered Rate ("EURIBOR")¹⁹⁷ is the benchmark rate at which Euro-prime banks offer short-term deposits to each other. These two reference rates are calculated from the data provided by a select

and CHIPS Finality 10 (2000), available at <http://www.ny.frb.org/prc/ILM.pdf> (last visited June 20, 2005).

193. See MASSIMO CIAMPOLINI & BERND ROHDE, MONEY MARKET INTEGRATION: A MARKET PERSPECTIVE 6 & n.8 (ECB Conference, Frankfurt am Main, May 5-6, 2000), available at <http://www.ecb.int/events/pdf/conferences/5b.pdf>.

194. See OVIDIU PRECUP ET AL., THE MICROSTRUCTURE OF THE ITALIAN OVERNIGHT MONEY MARKET 2 (Fin. Mgmt. Ass'n ("FMA"), Eur. Conf., Siena, Jan, 20, 2005), available at <http://www.fma.org/Siena/Papers/550999.pdf>; see also ECB, The Implementation of the Monetary Policy in the Euro Area 17 (2005), available at www.ecb.int/pub/pdf/other/gendoc2005en.pdf (last visited June 10, 2005) [hereinafter ECB, Implementation of Monetary Policy].

195. See ECB, Implementation of Monetary Policy, *supra* note 194, at 29.

196. See PRECUP ET AL., *supra* note 194.

197. See EURIBOR and EONIA, The Money Market Reference Rates for the Euro para. 4, available at <http://www.euribor.org> (last visited June 20, 2005); <http://www.euribor.org/>; see also Alex Skorecki, EURIBOR Challenges Dominance of CME's Eurodollar DERIVATIVES, FIN. TIMES (London), Nov. 21, 2003, at 47.

panel of European banks, and are used in the formulation of interest-rate spreads as in, for example, “twenty basis points above EURIBOR.”

In order to protect the confidentiality of the data, the management of the panel is delegated to EURIBOR FBE, a Belgian “international non-profit association”¹⁹⁸ funded by the European Banking Federation (“FBE”) and by the Financial Markets Association (“ACI”). As the calculation of EONIA is central to the operation of the settlement process, its calculation is affected by the ECB.¹⁹⁹

For longer periods, from a few days, up to one year, repurchase transactions, usually called “repos,” are carried out.²⁰⁰ A “repo” consists of the exchange of a security and money with an agreement to reverse the transaction at a later date and at a given price. These secured transactions are used by the ECB for implementing its monetary policy: every week, the ECB tenders funds for the period of two weeks, at a selected interest rate.

With these open market operations, the ECB earns money, exerting control over both the monetary aggregate M2 and the primary interest rate of the market.²⁰¹ Securities that are eligible as collateral for the ECB have also become widely accepted as collateral in the market for private repos: its reference rate is called EUREPO,²⁰² and is managed by EURIBOR FBE in the same manner as the previous benchmarks. The EUREPO market is used by private sector banking institutions to manage their liquidity requirements.

Despite the efforts of the ECB, however, the adoption of as-

198. “Euribor FBE and Euribor ACI are Belgian ‘international non-profit associations[.]’ established pursuant to the Act of October 25, 1919[.] concerning the Granting of Legal Personality to International Associations with a Scientific Purpose (as amended).” EURIBOR. The Benchmark Rate of the Euro Money Market, *available at* <http://www.euribor.org/html/content/faq.html> (last visited June 20, 2005).

199. See ECB, GUIDE, *supra* note 134.

200. See GIOVANNINI, REPO, *supra* note 145.

201. The general perception is that up to the present time, ECB interventions are mainly targeted to limit the consequences of the occasional liquidity shocks. See STEEN EJERSKOV ET AL., HOW DOES THE ECB ALLOT LIQUIDITY IN ITS WEEKLY MAIN REFINANCING OPERATIONS: A LOOK AT THE EMPIRICAL EVIDENCE, (ECB Working Paper No. 244, 2003) *available at* <http://www.ecb.int/pub/pdf/scpwps/ecbwp244.pdf> (last visited June 20, 2005).

202. The EUREPO is “the benchmark for secured money market transactions in the Euro zone.” EUREPO, A Single Reference Rate for a Unified Euro G.C. Repo Market, *at* <http://www.eurepo.org> (last visited June 20, 2005).

set-backed securities in the Euro-area is not yet as substantial as in the United States, and the national markets were somewhat successful in resisting integration.²⁰³ According to the Giovannini Group,²⁰⁴ the securitization of the short-term capital market failed for both logistical and legislative reasons. The cross-border transactions that could lead to a real market integration are still impractical to handle with the current trading and settlement infrastructures.

Moreover, legislation is not helpful in stating the risk profile of multi-stage transactions, the process of offering to a third party the securities received in a previous “repo” operation.²⁰⁵ In the event of insolvency of somebody along the chain, the last taker of the collateral needs assurance that it has a perfect interest in it, that is, free from the grasp of other creditors.²⁰⁶ The Settlement Finality Directive²⁰⁷ and the more recent Directive on Financial Collateral Arrangements²⁰⁸ will improve the legal certainty of the private “repo” market.

The structural changes in the Euro gross money markets have brought forward interesting changes at the retail level.²⁰⁹ The Euro-area is developing a distinctive two-tier structure: informal banking networks span Member States, with large banks dominating the international scene, while smaller banks operate at a local level.²¹⁰ The apparent reason for this is that usually a small bank can be more selective in approving a loan, taking ad-

203. See NUNO ALVES, FINANCIAL MARKET FRICTIONS AND THE MONETARY TRANSMISSION MECHANISM IN THE EURO AREA 5 (Aus. Nat'l Bank Econ., 32d Econ. Conf., May 27-28, 2004) available at http://www.oenb.at/de/img/paper_alves_tcm14-10456.pdf.

204. See GIOVANNI, REPO, *supra* note 145.

205. See *id.* at 7.

206. See *id.* at 17.

207. European Parliament & Council Directive No.98/26/EC, O.J. L 166/45 (1998) (concerning the settlement finality in payment and securities settlement systems).

208. European Parliament & Council Directive No. 2002/47/EC, O.J. L 168/43 (2002) (concerning the financial collateral arrangements).

209. See FRIEDRICH HEINEMANN & MATHIAS JOPP, THE BENEFITS OF A WORKING EUROPEAN RETAIL MARKET FOR FINANCIAL SERVICES (Report to Eur. Fin. Services Round Table, 2004), available at <http://www.efr.be/members/upload/publications/63324working%20retail%20market.pdf> (last visited June 20, 2005).

210. See Valeriya Dinger & Jurgen von Hagen, *Bank Market Liberalization, Market Structure and Profitability: The case of Vertically Non-integrated Banking Industries*, HALLE INST. FOR ECON. RESEARCH, Dec. 2004, available at http://www.iwh.uni-halle.de/d/start/News/workshop_31032005/program/Dinger.pdf.

vantage of the segmentation of the market, while only a large bank can access the cross-border capital market.

While big cross-border transactions are efficiently managed on RTGS (Real-Time Gross Settlement) systems, smaller banks are still relying for their operation on “NOSTRO” deposit accounts opened at their “umbrella” bank, sometimes tying up liquidity and obstructing the tracing of money-laundering activities.²¹¹

B. Government Bond Market

In the Government-bond market, a common platform, named Euro-MTS,²¹² has been created for trading the bonds of the twelve Euro-area member countries, with the exception of Luxembourg.²¹³ Since the integration reached by the G-bond market is second only to that of the European money market, economists have been puzzled by the persistence of long-term spreads between the National Debt issuances of Euro-area member countries.²¹⁴ Before the advent of the Single Currency, foreign exchange risk had been widely regarded as the main factor in European interest-rates spreads: as short-term differences dwindled to virtually nil, alternative explanations were proposed

211. See KLAUS ADAM ET AL., ANALYSE, COMPARE, AND APPLY ALTERNATIVE INDICATORS AND MONITORING METHODOLOGIES TO MEASURE THE EVOLUTION OF CAPITAL MARKET INTEGRATION IN THE EUROPEAN UNION (Report to Centre for Studies in Econ. & Fin., Dept. of Econ. and Statistics, University of Salerno, Jan. 28, 2002), available at http://Europa.eu.int/comm/internal_market/en/update/economicreform/020128_cap_mark_int_en.pdf.

212. The juridical status of Euro-MTS (“MTS”) is that of an Italian Private Venture (Società per Azioni). Recently, Euronext, the Paris-based European Exchange, announced it had teamed up with Borsa Italiana, the Milan stock exchange, to make an offer in the auction for MTS. See Martin Arnold, *Euronext Makes Joint MTS Offer*, FIN. TIMES (London), Mar. 16, 2005, at 31.

213. The Banque Centrale de Luxembourg does not issue National Debt Certificates. In 1935, a monetary agreement linked Belgium and Luxembourg: accordingly, the Banque Centrale du Luxembourg was not established until June 1, 1998 (the same day as the European Central Bank), as it was a prerequisite for participation of the Grand-Duchy of Luxembourg in EMU. For a short monetary history of Luxembourg, see Banque Centrale du Luxembourg, Monetary History, at <http://www.bcl.lu/en/bcl/history/index.html> (last visited June 20, 2005).

214. See ROBERTO BLANCO, EURO AREA GOVERNMENT SECURITIES MARKETS: RECENT DEVELOPMENTS AND IMPLICATIONS FOR MARKET FUNCTIONING (Bank for Int'l Settlements Papers No. 12.2, 2002), available at <http://www.bis.org/publ/bppdf/bispap12d.pdf> (last visited June 20, 2005).

for the residual differences in long-term interest rates.²¹⁵

If the differences were to be ascribed to liquidity factors, they could be considered a sign of market inefficiency, and acted upon by adjustments in debt management policies by NCBs and Market Regulators.²¹⁶ The twelve Euro-area member countries plan their issuance calendar on a yearly basis, but they still regard the issuance of National Debt as a sovereign competence, and adopt different issuing techniques. Current standards call for a two-stage procedure: after a first-round competitive auction, aimed at setting the interest rate of the issue, there is a second phase during which non-competitive bidding takes place.²¹⁷

In 2000, the Giovannini Group,²¹⁸ recognizing wide differences in relative shares and durations, focused on the coordination of debt issuance, but in the end the Giovannini Group was unable to publish a recommendation, as a result of disparity between national views. On the other hand, if the long-term interest spreads could be explained by different credit risks, they should be evaluated as the indication of an efficient G-Bond market, which allocates capital to each National Economy according to its expected results. Perhaps the main obstacle to resolving the puzzle lies in the evaluation of anecdotal evidence and quantitative data, and it will be difficult to reach a definitive explanation.

For instance, although pension system deficits are not published among the fundamentals of a National Economy, the universal opinion is they have some impact on National Debt risk factors.²¹⁹ On the other hand, quantitative analysis has shown that, contrary to common prejudice, the liquidity of the futures'

215. See Lorenzo Codogno et al., *Yield Spreads on EMU Government Bonds*, in EMU: ASSESSING THE IMPACT OF THE EURO 503–32 (Baldwin et al., eds., 2003).

216. See GJERSEM, *supra* note 46; see also KERSTIN BERNOTH ET AL., SOVEREIGN RISK PREMIA IN THE EUROPEAN GOVERNMENT BOND MARKET (ECB Working Paper No. 369, 2004), available at <http://www.ecb.int/pub/pdf/scpwps/ecbwp369.pdf> (last visited June 20, 2005).

217. See EU ECON. AND FIN. COMMITTEE, PROGRESS REPORT ON NATIONAL ISSUING CALENDARS AND PROCEDURES FOR EU NATIONAL GOVERNMENT BILLS AND BONDS (Oct. 2000), available at http://europa.eu.int/comm/economy_finance/publications/efc/report2.pdf.

218. See GIOVANNINI, PUBLIC DEBT, *supra* note 146.

219. "Given the public knowledge of the pension system dynamics, participants in financial markets would anticipate the unsustainability of delaying pension system reform and require higher risk premia on new debt." Willem F. Duisenberg, Speech at

market for German G-Bonds has no influence on long-term interest spreads.²²⁰ The evaluation of the interest rate spread²²¹ is of great relevance for countries like Italy and Belgium, which feature high values for *gearing* (this *ratio* of National Debt vs. Gross Domestic Product should not exceed 60%, according to the Maastricht criterion of budgetary discipline). In the Italian economy, surges in short-term interest rates can soak up available resources, effectively blocking public expenditure and consumer consumption.²²²

C. Corporate Bond Markets

In the fixed income securities market, the history of the adoption of Euro in bond denominations can be represented as a success without any doubt. The surge in issuance in 1999 was the attempt to recover from the bad year of 1998 (Russian Debt default, Long-Term Capital Management crisis).²²³ In 2000 and 2001, the sector continued to grow, but some of the new issuances were simply replacement for previous issues.²²⁴ In 2002,

the Second Swedish Nat'l Pension Fund, Developments in the International Financial Market 1, (Sept. 26, 2001), available at <http://www.bis.org/review/r010928a.pdf>.

220. See Astrid Van Landschoot, Sovereign Credit Spreads and the Composition of the Government Budget 15 (2001), available at <http://www.eco.fundp.ac.be/affi2001/I22.pdf> (last visited June 20, 2005).

221. See Codogno et al., *supra* note 215, at 214; see also Marco Pagano & Ernst-Ludwig von Thadden, *European Bond Market Under EMU*, 20.4 OXFORD REV. ECON. POL'Y 531 (2004).

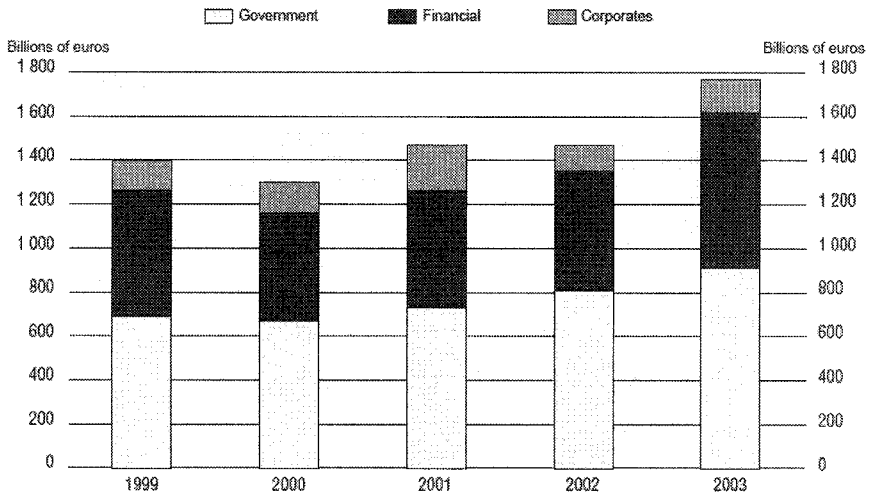
222. See E. GENNARI ET AL., DEALING WITH UNEXPECTED SHOCKS TO THE BUDGET, (Banca d'Italia, Temi di Discussione del Servizio Studi No. 478, June 2003), available at http://www.bancaditalia.it/ricerca/consultazioni/temidi/td03/td478/en_tema_478_03.pdf (last visited June 20, 2005).

223. See BIS Quarterly Review: International Banking and Financial Market Developments (Nov. 1999), available at http://www.bis.org/publ/r_qt9911old.htm (last visited June 20, 2005).

224. The issuance of corporate Bonds in Euro-denominations is followed by many regular publications. The ECB publishes a *Monthly Bulletin* wherein relevant data can be found under the heading of "Security Issuance." See ECB, *Monthly Bulletin*, available at <http://www.ecb.int/pub/mb/html/index.en.html> (last visited June 20, 2005). The Directorate-General of Economic and Financial Affairs of the European Commission publishes a *Monthly & Quarterly Note on the Euro-Denominated Bond Markets*. See ECOFIN, *Monthly & Quarterly Notes on the Euro-Denominated Bond Markets*, available at http://europa.eu.int/comm/economy_finance/publications/bondmarkets_en.htm (last visited June 20, 2005). The Bank for International Settlements ("BIS") registers and analyzes Euro-bond issuances data in the *BIS Quarterly Review: International Banking and Financial Market Developments* and in the *BIS Annual Report*. See BIS, *What's New*, available at <http://www.bis.org> (last visited June 20, 2005). The OECD analyzes Euro-bond issuance in the "Euro-area summary" of its annual *Economic Outlook* and in several occa-

the corporate bond market fell, due to the deteriorating global economic environment, but in 2003, the entire bond market bounced back.²²⁵

TABLE 6:
EURO-DENOMINATED BOND MARKETS:
VOLUMES ISSUED BY TYPE OF ISSUER
In billions of euros

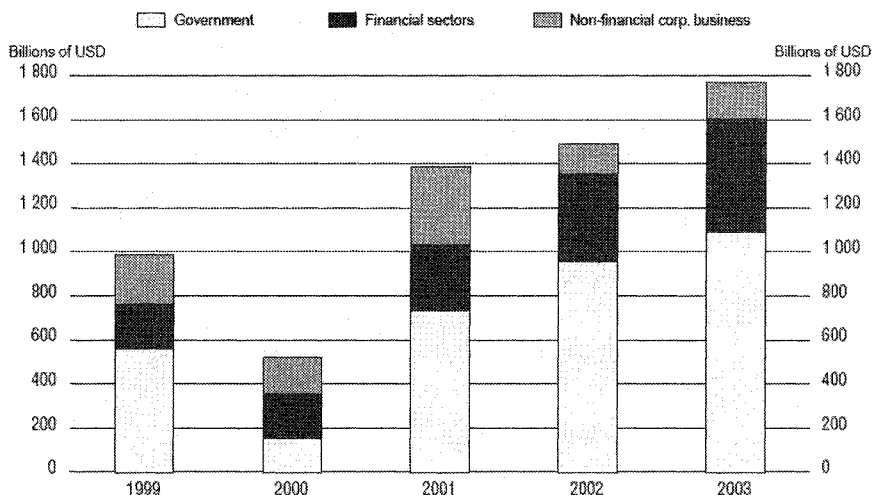


Source: European Directorate General for Economic and Financial Affairs
Elaboration: OECD 2004

sional papers. See OECD, Publications, available at http://www.oecd.org/publications/0,2743,en_2649_201185_1_1_1_1,1,00.html (last visited June 20, 2005).

225. "According to the international statistics of the BIS, the Euro overtook the U.S. dollar in 1999 as the most heavily used currency for international debt issues." Pagano & von Thadden, *supra* note 221, at 534. However, Pagano & von Thadden remark that BIS criteria for classifying international issuing cover both financing and investment components, an argument proposed by Carsten Detken & Philipp Hartmann, who stated that "This targeting . . . is a qualitative judgement [sic] made on the basis of a number of criteria . . . Because of this last component, measures based on that definition would to some extents combine financing and investment currency use." CARSTEN DETKEN & PHILIPP HARTMANN, *THE EURO AND INTERNATIONAL CAPITAL MARKETS 7* (Center for Fin. Studies, Working Paper No. 2000/9, 2000), available at http://www.ifk-cfs.de/papers/00_09.pdf.

TABLE 7:
NET ISSUANCE OF US BONDS
Billions of US dollars



Source: U.S. Federal Reserve Board, Flow of Funds Accounts of the United States
Elaboration: OECD 2004²²⁶

One of the simplest indicators of the role of a market in a national economy is its capitalization or its current-price assets value, expressed as a share of GDP. When computing the index for the financial and the corporate sector together, the 2001 values were 73% for the Euro-area and 80% for the U.S. area, as an illustration that the economic structures were remarkably similar on either side of the Atlantic, at least at this aggregate level.²²⁷

If the same calculation is performed for the corporate sector alone, the Euro-area share drops to 11%, which should be compared with the U.S. result of 27%. This disparity illustrates that financial intermediaries still retain much influence over Euro-area capital markets, while in the U.S., the corporate sector has more confidence in the bond market as a direct supply of capital. According to expert opinion, “[c]losing the gap with the United States in bond market financing of businesses will be

226. The previous charts have been published by OECD. See OECD, *Highlights of Recent Trends in Financial Markets*, FIN. MKT. TRENDS, No. 86, Mar. 2004, at 17-18, available at <http://www.oecd.org/dataoecd/36/32/31098172.pdf> (last visited June 20, 2005).

227. See GERHARD FINK ET AL., BOND MARKETS AND ECONOMIC GROWTH, (Vienna University of Economics, Inst. for Eur. Aff., Working Paper No. 49, 2003), available at <http://fgr.wu-wien.ac.at/institut/ef/wp/WP49.pdf> (last visited June 20, 2005).

a very slow process. Over the last three years, the Euro-area has started to catch up, but the speed is not increasing.”²²⁸ The controversial Private Finance Initiative (“PFI”) is one of the innovative ways devised by the services banking industry to alter the landscape of European capital markets.²²⁹ The PFI originated as British Labour’s favored method of funding new public sector projects: instead of relying on the traditional financing of building property, British Government sub-contracts the complete infrastructure (designing, building, management and staffing throughout its operational life) to a purpose-built consortium.²³⁰ The consortium leases the project, typically for 30 years, to a public authority, such as a council or health trust, and gets paid a fixed rate, as in a fixed-coupon bond. While PFI is widely recognized as an important channel for technology transfer,²³¹ others have been quick to perceive its disruptive potential of a consolidated market structure.

The most important piece of legislation promoting the Bond Market in the EU is the afore-mentioned Prospectus Directive²³² that defined a European standard for the two documents needed to qualify any issuance of securities. Investments Bankers can now focus on the *prospectus* (mandatory proposal to be used in public offerings) and on the *passport* (documentation used for requesting admission to regulated markets), instead of trying to follow the technicalities of National Regulations.²³³ A Parliamentary amendment granted exemption to companies with assets lower than €350 million, encouraging small businesses to resort to this form of financing.

Parliament has finally approved the so-called Transparency

228. See GJERSE, *supra* note 46, at 19.

229. See HM Treasury, PFI: Meeting the Investment Challenge, July 2003, at 106, available at http://www.hm-treasury.gov.uk/media/648B2/PFI_604.pdf (last visited June 20, 2005).

230. See HM Treasury, Standardization of PFI Contracts Version 3, April 2004, at 187, available at http://www.hm-treasury.gov.uk/media/B42/D9/pfi_sopc_ver3_complete_apr04.pdf (last visited June 20, 2005).

231. See MANSOOR DAILAMI & ROBERT HAUSWALD, *The Emerging Project Bond Market: Covenant Provisions and Credit Spreads*, (World Bank Pol’y Research Working Paper No. 3095, July 2003), available at http://wdsbeta.worldbank.org/external/default/WDSContentServer/IW3P/IB/2003/08/23/000094946_03080904015685/Rendered/PDF/multi0page.pdf (last visited June 20, 2005).

232. See Prospectus Directive No. 03/71/EC (2003), O.J. L 345/64 (2003).

233. See *id.*, O.J. L 345/64 (2003).

Directive.²³⁴ It is especially related to the introduction of regulatory practices for investment and pension funds, and particularly of the so-called International Financial Reporting Standards (“IFRS”).²³⁵ As an integral part of the IFRS, IAS39²³⁶ has developed a new accounting standard for derivatives, which was first issued in March 1999 by the International Accounting Standards Committee.

After 1998, the European Commission recognized the role of IAS39, making it the central point of the Transparency Directive.²³⁷ While the FAS 133 standard, developed by the U.S. Financial Accounting Standards Board preferred to focus on a particular use of derivatives, the *hedge*, behind IAS39 there is a genuine effort to bring transparency and uniformity to the whole field of financial instruments.²³⁸

D. Equity Market and Fund Industry

From a theoretical point of view, the best way of appraising integration on financial markets is to look for *single-price* evidence. According to classical theory, in a perfect, non-segmented, market, “assets generating identical cash flows” should command the same price, regardless of the location of issuer and holder.²³⁹ On the other hand, current theories admit that different financial instruments can well have different pricings, according to differences in their risk profile.²⁴⁰

234. European Parliament and Council Directive No. 2004/109/EC, O.J. L 390/38 (2004) (concerning the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market, amending Directive No. 2001/34/EC).

235. “The Board of the International Accounting Standards Committee (‘IASC’) between 1973 and 2001” developed the International Accounting Standards (“IAS”). In April 2001, the International Accounting Standards Board (“IASB”) “announced that it would adopt all the International Accounting Standard issued by the IASC” and “that its accounting standards would be designated ‘International Financial Reporting Standards.’” International Accounting Standard Board, Overview of International Financial Reporting Standards, at <http://www.iasb.org/standards/index.asp> (last visited June 21, 2005).

236. See ALESSANDRO ROSSI ET AL., HEDGE ACCOUNTING WITHIN IAS39 3 (Eur. Investment Bank, Econ. & Fin. Report No. 2002/2, 2002), available at <http://www.eib.org/efs/reports/efr02n02.pdf> (last visited June 20, 2005).

237. See Directive No. 2004/109/EC, *supra* note 234, O.J. L 390/38 (2004).

238. See ROSSI ET AL., *supra* note 236.

239. See ADAM ET AL., *supra* note 211, at 4.

240. See William Sharpe, *Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk*, 19 J. OF FIN. 425 (1964); see also ENRICO C. PEROTTI & ERNST-LUDWIG

In the bond market, the interest rate can be an adequate measure of the risk profile of the investment, and the spread in interest rates is an indicator of financial integration.²⁴¹ On the other hand, for equities it is not easy to define a simple indicator linking the volume of asset capitalization, returns, and investment risk. Indeed, the EU's "Regional Innovation Strategies" ("RIS") approach aims to lower equity price-correlation across member countries, by actively supporting geographical and historical specialization.²⁴²

Equities funds are natural market-makers: it is only natural to look at them for assistance in equity matters. Economists look at investment portfolios of equity funds in order to appraise equity market integration. In a similar way, the European Commission recognized the role of the fund industry in financial markets when it asked the Giovannini Group to start its fact-finding mission.

Relevant information for investment funds is collected by the Fédération Européenne des Fonds et Sociétés d'Investissement ("FEFSI").²⁴³ Funds are classified according to their international investment strategy and their preferred in-

VON THADDEN, *THE POLITICAL ECONOMY OF BANK AND EQUITY DOMINANCE*, (CEPR, Discussion Paper No. 3914, 2003), available at <http://www.cepr.org/pubs/new-dps/dplist.asp?dpno=3914> (last visited June 20, 2005).

241. See CLAUDIA M. BUCH, *FINANCIAL MARKET INTEGRATION IN A MONETARY UNION*, (Kiel Inst. of World Econ., Working Paper No. 1062, 2001), available at <http://www.uni-kiel.de/ifw/pub/kap/2001/kap1062.pdf> (last visited June 20, 2005); see also JEAN DERMINE, *EUROPEAN CAPITAL MARKETS WITH A SINGLE CURRENCY: WHAT DO WE LEARN?* 77 (HM Treasury, Submissions on EMU from Leading Academics, 2002), available at http://www.hm-treasury.gov.uk/media/AEE/C3/adkent03_678910_418.pdf (last visited June 20, 2005).

242. "[T]he key sources of regional wealth creation are directly related to the regional capacity to translate information and knowledge, in the form of intellectual capital, into economic opportunity." EUROPEAN COMMISSION DG REGIONAL POLICY, *REGIONAL INNOVATION STRATEGIES UNDER THE EUROPEAN REGIONAL DEVELOPMENT FUND, INNOVATIVE ACTIONS 2000-2002* 7 (2002), available at http://europa.eu.int/comm/regional_policy/innovation/pdf/guide_ris_final.pdf (last visited June 20, 2005); see also RAJ AGGARWAL ET AL., *DYNAMICS OF EQUITY MARKET INTEGRATION IN EUROPE: EVIDENCE OF CHANGES OVER TIME AND WITH EVENTS* 3 (Inst. for Int'l Integration Studies ("IIIS") Discussion Paper No. 19, 2004), available at <http://www.tcd.ie/iiis/Discussion%20Paper%20pdfs/iiisdp19.pdf> (last visited June 20, 2005).

243. Fédération Européenne des Fonds et Sociétés d'Investissement ("FEFSI"), represents the interests of the European investment fund industry. See FEFSI, *RECOMMENDATIONS FROM THE FORUM GROUP ON "FINANCIAL ANALYSTS: BEST PRACTICES IN AN INTEGRATED EUROPEAN FINANCIAL MARKET"* (Position Paper, 2003), available at http://europa.eu.int/comm/internal_market/securities/docs/analysts/contributions/fefsi_en.pdf (last visited June 21, 2005).

struments, as declared to their investors. The statistical analysis reveals that, after the advent of the single currency, international investment funds increased their quota of Euro-denominated equities.

Moreover, “the average increase for the Euro-area countries is stronger than for the remaining European Union countries.”²⁴⁴ On the other hand, the evidence gleaned from the behavior of pension funds and insurance companies is not definitive, but it should be noted that, in this case, data is provided only by financial research firms and that any problem in collecting data should be considered an intrinsic indication of an imperfect market.²⁴⁵

In 2002, according to Eurostat estimates, the total number of memberships in autonomous pension funds in the EU stood at around 21 million.²⁴⁶ Observers feel that in the pension funds and insurance industry, the trend towards concentration is somewhat feebler than in the banking industry: nonetheless, recently a rash of mergers & acquisitions occurred between insurers and banks throughout Euro-area countries, known as “bancassurance.”²⁴⁷

E. Covered Bond (Mortgage Bond) Market

In a mature economy, households tend to assume a net debt position, and usually offer their dwellings as collateral for their loans. Standard traditional practice rules that in these mortgage operations the loan should not exceed 50% of the value of the collateral, in other words, the Loan To Value (“LTV”) ratio should not exceed 50. Mortgages ceased to be a simple fact of

244. See ADAM ET AL., *supra* note 211, at 3.

245. See Werner Van Lembergen & Margaret G. Wachenfeld, *Economic and Monetary Union in Europe: Legal Implications of the Arrival of the Single Currency*, 22 FORDHAM INT’L L.J. 1 (1998).

246. See PHILIPPE BAUTIER & LOUISE CORSELLI-NORDBLAND, INSURANCE AND PENSION FUNDS IN EUROPE: A GROWING AND STILL RESTRUCTURING INSURANCE MARKET: DEVELOPMENT OF SUPPLEMENTARY PENSION FUNDS, (Eurostat No. 11, 2002), available at http://epp.eurostat.cec.eu.int/portal/page?_pageid=1073,1135281,1073_1135295&_dad=PORTal&_schema=PORTAL&p_product_code=4-24012002-AP (last visited June 21, 2005).

247. A study on a sample of bancassurance M&As shows evidence of capitalization gains of 1% for the bidder and 5% for the target. See L. PAIGE FIELDS ET AL., WHAT’S DIFFERENT ABOUT BANCASSURANCE? EVIDENCE OF WEALTH GAINS TO BANKS AND INSURANCE COMPANIES 2 (FMA Eur. Conf., 2005), available at <http://www.fma.org/Siena/Papers/510050.pdf> (last visited June 21, 2005).

life when, in June 2003, the U.K. Treasury argued that structural differences in housing and credit markets between the United Kingdom and the continent were a significant impediment to the United Kingdom's adoption of the Euro as the national currency.²⁴⁸

When the market liberalized, UK mortgage firms actively offered variable-rate mortgages, accepting for the first time very high levels of LTV ratio, thereby mirroring the activity of U.S. firms,²⁴⁹ which were then offering 125-LTV loans (that is, disposed to lend up to 125% of the value of the collateral). National planning process and housing regulations, effectively clamping down on the supply of housing, contributed to stepping up the tension in the UK mortgage market. Waving aside political implications, the whole episode could be seen as evidence of a real necessity to back retail mortgage markets with some second-tier structure.

An over-gearred, non securitized mortgage market can be a real instability factor for the whole economy, as shocks in the short-term interest rates can soak available resources in the form of mortgage payments, affecting consumer spending.

The European Mortgage Federation ("EMF")²⁵⁰ defines mortgage bonds (covered bonds) as "debt securities issued by mortgage credit institutions and covered by certain types of assets, usually mortgage loans, which remain on the balance sheet of the issuer." Article 22(4) of the UCITS Directive,²⁵¹ which most EU Member States have transposed into national legislation, establishes minimum standard criteria that mortgage bonds have to meet.

248. See John Muellbauer, *Property & Land, Taxation and the Economy After the Barker Review 1* (July 13, 2004), available at <http://hicks.nuff.ox.ac.uk/users/cameron/outlook/papers/ejuly13full.pdf>.

249. See RON ROARK & ANTHONY B. SANDERS, *THE IMPACT OF EMU ON COMMERCIAL PROPERTY AND MORTGAGE-BACKED SECURITIES MARKETS 7* (Comm. Mortgage Securities Ass. ("CMBS") World, Vol. 2, 1999), available at <http://www.cob.ohio-state.edu/~sanders/Euro4.pdf> (last visited June 21, 2005).

250. See ANNIE LAMBERT, *FUNDING MEASURES 17* (European Mortgage Federation ("EMF"), Third Workshop on Housing Finance in Transition Economies, Warsaw, Dec. 5-6, 2002), available at <http://www.oecd.org/dataoecd/33/38/1845071.pdf>.

251. European Parliament and Council Directive No. 2001/108/EC, O.J. L 41/35 (2002) (amending Council Directive 85/611/EEC on the coordination of laws, regulations and administrative provisions relating to Undertakings for Collective Investment in Transferable Securities ("UCITS"), with regard to investments of UCITS).

(i.) The institution issuing the bonds has to have its registered office in an EU Member State.

(ii.) The bond-issuer must comply with its National Supervisor regulations.

(iii.) There must be adequate coverage for depreciation and liabilities for the entire duration of the investment.

(iv.) In the event of the bankruptcy of the issuer, bond-holders can recover their capital and interest before any other creditor.²⁵²

The classic instrument on the European Mortgage market is the Pfandbrief²⁵³ (“covered bond”), traditionally issued by German mortgage banks for funding their operations. The risk profile of the instrument is regulated by the German Mortgage Bank Act: mortgage loans remain on the balance-sheet of the issuer, although in legally separated asset pools, and must guarantee a mean loan-to-value ratio of 50% and 55%.²⁵⁴ In order to reach this ratio, any surplus must be funded through other debt instruments (usually, medium-term promissory notes).

“The Jumbo-Pfandbrief, the market segment for big-volume issues”²⁵⁵ is very liquid, with at least three market-makers and electronic trading. From July 2002, in an implicit recognition of the maturity of the market, the Mortgage Bank Act permitted issuers to engage in lending activities outside Europe.²⁵⁶

In order to lower the risk profiles of deals with a loan-to-value ratio above 60%, the European mortgage industry leveraged on available financial instruments, developing the practice of securitization.²⁵⁷ If the mortgage loans are effectively “removed from the originator’s balance sheet”,²⁵⁸ the transaction is

252. See TIM LASSEN, DEVELOPMENT OF MORTGAGE BONDS, (Association of German Mortgage Banks, Third Workshop on Housing Finance in Transition Economies, Warsaw, Dec. 5-6, 2002), available at <http://www.oecd.org/dataoecd/33/10/1844485.pdf>.

253. For the key issues discussed at *The Pfandbrief 2005 Conference*, see *The Pfandbrief 2005 Conference*, London, United Kingdom, Apr. 21, 2005, available at <http://www.euro.moneyconferences.com/events/event.asp?EventID=30>.

254. Association of German Mortgage Banks, Mortgage Bank Act (Apr. 2004), available at http://www.pfandbrief.org/attachments/hbg_textf_broschuere_engl.pdf (last visited June 21, 2005).

255. See ASSOCIATION OF GERMAN MORTGAGE BANKS, THE PFANDBRIEF. EUROPE’S BIGGEST BOND MARKET I (2002), available at http://www.pfandbrief.org/attachments/verband_publ_fb_2002e.pdf (last visited June 21, 2005).

256. See *id.* at 1.

257. See LASSEN, *supra* note 252, at 24.

258. See SHENGZHE WANG, TRUE SALE SECURITIZATION IN GERMANY AND CHINA, 9 (Inst.

called a true-sale securitization. True-sale structures account for more than 90% of the market share in Europe. In a true-sale, the bank establishes a separate legal entity, called a Special Purpose Vehicle ("SPV") and sells mortgage loans to it.²⁵⁹ In this way, the assets of the SPV are legally separated from those of the originator and the vehicle can issue securities that are sold to investors. Current rating procedures for a true-sale have set standards for risk-covering provisions: a fully funded cash reserve of about 3% of the transaction size and an additional 10% stand-by liquidity line for the first five years of operation. In contrast, if the mortgage assets remain on the balance sheet at the originating bank, and only the credit default risk is transferred to the investor, the transaction is called synthetic securitization: its end product bears all the features of a credit default swap, with the premium information that it originated from the mortgage market.²⁶⁰ Synthetic securitizations, the dominant practice in the German market, came about as a result of the complexity of mortgage assets transfer procedures (it effectively circumvents existing obligations in borrower notification and agreement) and by the absence of national regulation in SPV fiscal treatment.²⁶¹

The EMF, the central organization of mortgage lenders in Europe, launched the European Covered Bond Council ("ECBC")²⁶² during the EMF Conference on November 24 and 25, 2004.²⁶³ The aim of the ECBC is to promote dialogue be-

for L. & Fin., LL.M Thesis, Goethe Univ., Frankfurt am Main, Dec. 15, 2004), available at <http://www.vinodkothari.com/germany.htm>; see also ANTHONY B. SANDERS, *SECURIZATION FUNDAMENTALS* 22 (2005).

259. A Special Purpose Vehicle ("SPV") is a controlled entity enjoying a legal status completely separate from the mother company, and is usually established for financing purposes. See WILLIAM M. BURKE ET AL., *HANDBOOK ON CROSS-BORDER SECURIZATION* 9, available at <http://www.shearman.com/documents/CrossBorderSecu.pdf> (last visited June 20, 2005).

260. See Sabine Henke et al., *Credit Securitization and Credit Derivatives: Financial Instruments and the Credit Risk Management of Middle Market Commercial Loan Portfolios* 9 (CFS Working Paper No.7, 1998), available at http://www.ifk-cfs.de/papers/98_07.pdf

261. See WANG, *supra* note 258, at 9.

262. See Gertrude Tumpel-Gugerell, *Capital Markets and Financial Integration in Europe*, Speech at the Eur. Mortgage Fed. Annual Conf. (Nov. 23, 2004), available at <http://www.ecb.int/press/key/date/2004/html/sp041123.en.html>.

263. A panel consisting of Mr. Louis Hagen (the ECBC Chairman), Mr. Thierry Dufour, Mr. Torben Gjede, Mr. David Balai, Mr. Antonio Torio and Mrs. Judith Hardt officially launched the European Covered Bond Council. See Eur. Mortgage Fed., EMF

tween market participants and, at the same time, to sharpen the profile of covered bonds in the public eye. A further purpose will be to represent the joint positions of the covered bond industry by raising issues with the Commission and the Parliament of the EU.

Moreover, the participation in the European Covered Bond Council will not be reserved solely for members of the EMF. According to the EMF, covered bonds are the single largest component of privately issued instruments “with the volume outstanding at the end of 2003 amounting to over EUR 1.5 trillion,”²⁶⁴ a 3% increase with respect to 2002. Today there are active covered bond markets in almost twenty different European jurisdictions and there is a strong expectation that the covered bond market will continue to grow.²⁶⁵ For 2004, an overall growth of up to 25% is expected.²⁶⁶

IV. OPEN ISSUES

A. European Capital Market — Geographical Structure

The European capital market is heavily localized, probably as a consequence of frictional factors: the development of skills in the financial services industry is a multi-generational process and human resources cannot be easily resettled in another country. In the same way as in other sectors of economic activity, the European capital market has become concentrated in a number of local areas where strong competition is established around specialized products. The reasons that led to the development of these Regional Innovation Strategies²⁶⁷ range from historical

Annual Conference 2004: A Resounding Success, at <http://www.emfconference.org> (last visited June 20, 2005).

264. See Eur. Mortgage Fed., European Covered Bond Council, A New Body to Represent the Covered Bond Industry: Why?, at <http://www.hypo.org/Content/Default.asp?PageID=123>.

265. “The Italian Ministry of Treasury and Finance . . . think that . . . the first issue coming to market sometime in the first half of 2006.” NORA COLOMER, COVERED BONDS: HERE, THERE AND VERY SOON EVERYWHERE IN EUROPE (Asset Securitization Report, SourceMedia, May 30, 2005), available at <http://www.securitization.net/article.asp?id=1&aid=4561>.

266. See ASS'N OF GERMAN MORTGAGE BANKS, 2004 ANNUAL REPORT available at http://www.pfandbrief.org/attachments/verband_publication_2004e.pdf (last visited June 21, 2005).

267. See EUROPEAN COMMISSION DG REGIONAL POLICY, *supra* note 242, at 8.

tradition, sociological and linguistic affinity to the availability of a favorable institutional environment.

Spatial dispersion factors are not a relevant issue: Europe is contained in only three time-zones and state-of-the-art Information Technology ("IT")²⁶⁸ infrastructures such as trading platforms and real-time fund transfer systems, RTGS,²⁶⁹ and ACHs,²⁷⁰ can help in keeping down the costs of localization.²⁷¹ According to Economic Growth theorists,²⁷² technological specialization in a regional district can evolve in two different ways.²⁷³ Smithian²⁷⁴ technological specialization, approximately "learning by doing,"²⁷⁵ describes the marketplace as the force leading to the optimal sizing of production processes.

On the other hand, Ricardian²⁷⁶ technological specialization, "push pull,"²⁷⁷ regards technology transfer, creativity and

268. See Commission Communication COM(2005) 229 Final (to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions "i2010 – A European Information Society for Growth and Employment"), June 1, (2005), {SEC(2005) 717}, available at http://europa.eu.int/information_society/eeurope/i2010/docs/com_229_i2010_310505_fv_en.pdf; see also Press Release, European Commission, i2010 – A European Information Society for Growth and Employment (June 1, 2005), available at <http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/05/184&format=HTML&aged=0&language=EN&guiLanguage=EN>; ROBERT G. FICHMAN, INFORMATION TECHNOLOGY DIFFUSION: A REVIEW OF EMPIRICAL RESEARCH (MIT Sloan School of Mgmt., Cambridge, MA, June 1992), available at http://www2.bc.edu/~fichman/Fichman_1992_ICIS_IT_Diff_Review.pdf (last visited June 21, 2005).

269. See *supra* note 137 and accompanying text.

270. See *supra* note 183 and accompanying text.

271. See HM Treasury, The Location of Financial Activity and the Euro, EMU Study, at 2 (2003), available at http://www.hm-treasury.gov.uk/media/E3D/21/adnorfolk03_1234567_345.pdf (last visited June 21, 2005).

272. See B. Dalum et al., *Does Specialization Matter for Growth*, 8 *INDUS & CORP. CHANGE*, 267, 288 (1999).

273. See ANDRE JUNGMITTAG, INNOVATIONS, TECHNOLOGICAL SPECIALIZATION AND ECONOMIC GROWTH IN THE EU 3 (Eur. Commission, D.G. for Eco. and Fin. Aff., Econ. Papers No. 199, 2004), available at http://www.eu.int/comm/economy_finance/publications/economic_papers/2004/ecp199en.pdf (last visited June 21, 2005).

274. See ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS (Edwin Cann ed., Random House 1994) (1776). Smith's treatise, composed over more than twenty-seven years, established Economic Science as a branch of Social Theory and Philosophy.

275. See JUNGMITTAG, *supra* note 273, at 3.

276. See *id.*; see also DAVID B. RICARDO, *On the Principles of Political Economy and Taxation*, in 1 *THE WORKS AND CORRESPONDENCE OF DAVID RICARDO* (Piero Sraffa ed., Cambridge Univ. Press 1952) (1817).

277. See R. W. Zmud, *An Examination of "Push-Pull" Theory Applied to Process Innovation in Knowledge Work*, 30 *MGMT. SCI.* 727, 727-738 (1984); see also Brian E. Mennecke,

cross-breeding as the main drivers to achieve structural changes to production processes. The European capital market appears to have four distinct districts:

(i.) London²⁷⁸ has successfully kept its role as the main entrance for foreign capital²⁷⁹ into the EMU. This is confirmed by the steady growth of its market share relative to the issuance of Euro-denominated bonds. The history of innovation and creativity in the design of financial instruments in the City of London is probably the best example of Ricardian specialization applied to Capital Markets;

(ii.) Frankfurt am Main, as the main gateway from EMU to Switzerland, is affirming itself as the leader in Over-The-Counter (“OTC”)²⁸⁰ derivatives and in cross-border payment systems;

(iii.) Dublin has established its financial district as the main location for European fund management;

(iv.) the Grand Duchy of Luxembourg offers very convenient legislation for the establishment of SPV.²⁸¹

An independent confirmation of the geographical structure of the European Economy is the evidence of a disappointing rate for the process of consolidation between banking institutions. Regulators and analysts hoped the single currency would launch a new wave of Mergers and Acquisitions (“M&A”), but, after four years, Angeloni and Ehrman²⁸² evaluated the situation. They pointed out that: (i.) cross-border lending and deposit taking²⁸³ has shown a tendency to increase, but no dramatic changes have taken place; (ii.) inter-bank activity has been rising sharply,²⁸⁴ as further testimony of the integration of the inter-bank capital market; (iii.) cross-border branch-establishing activities remains negligible; and (iv.) M&A activities are indeed

Understanding the Role of Geographic Information Technologies in Business: Applications and Research Directions, 1(1) J. OF GEOGRAPHIC INFO. & DECISION ANALYSIS 44, 44-68 (1997).

278. See Leila Talani, *Who Wins and Who Loses in the City of London*, in *AFTER THE EURO: SHAPING INSTITUTIONS FOR GOVERNANCE IN THE WAKE OF EUROPEAN MONETARY UNION* 109 (Colin Crouch ed., 2000).

279. See RADLEY & ASSOCIATES, *THE OUTLOOK FOR BANKS OPERATING IN THE CITY OF LONDON* (2004).

280. See BIS, *Central Bank Survey of Foreign Exchange and Derivatives Market Activity in 2001* (2002), available at <http://www.bis.org/press/p020318.htm> (last visited June 21, 2005).

281. See *supra* note 259 and accompanying text.

282. See Angeloni & Ehrmann, *supra* note 92, at 183.

283. See *id.*

284. See *id.*

taking place, but at a level less than desired by regulators and forecast by analysts.

In the literature,²⁸⁵ many explanations have been given for this phenomenon: (i.) the overall fragmentation of the lending market²⁸⁶, due to the considerable proportion of small firms, both on the lending and on the borrowing side; (ii.) the European tradition of relationship banking, entailing close ties between corporations and banks; (iii.) the hypothesis that banks have *de facto* agreed not to compete in the retail market, at least for the time being; and (iv.) the evidence of national obstacles in M&A. As an example, the Italian NCB (Banca d'Italia), in its role of national regulator for banking activity, has significantly opposed most M&A activities directed towards Italian Banks. While protectionism is still at work in Europe, it is significant that the intervention of the Italian Regulator has been censored by EU authorities, the media and most political parties.²⁸⁷

Still, the alternative exists as to whether the geographical dispersion of capital markets in European economy is a distinctive feature that should be preserved, or a problem that should be addressed. Market forces and EU interventions are slowly changing the landscape of the banking profession in the Euro-area. From this standpoint, it appears that some distinctive regional traditions are going to be abandoned, as a consequence of: (i.) the mandatory adoption of International Standards both at operational level (Basel II)²⁸⁸ and at accounting level

285. *See id.* at 179.

286. *See id.* at 189.

287. "Italy is an attractive market for banks because of the country's high savings rate. Italian households in 2003 saved 10.5% of their earnings, compared with 5.5% in the U.K., according to the Paris-based Organization for Economic Cooperation and Development." Gregory Viscusi, *Bank of Italy's Fazio Resists Pressure for Cross-Border Deals*, BLOOMBERG NEWS, Mar. 31, 2005, available at <http://quote.bloomberg.com/apps/news?pid=10000080&sid=ABCvP92cCSul>. "Spanish banking giant BBVA has bid 6.4bn Euros to take over Italy's Banca Nazionale del Lavoro, in which it holds a 15% stake The government and the Bank of Italy are keen to keep Italy's banks in domestic hands, despite pressure from the European Commission." *Spanish Bank Plans Italian Deal*, BBC NEWS, Mar. 29, 2005, available at <http://news.bbc.co.uk/1/hi/business/4390431.stm>. "Dutch bank ABN Amro is to launch a 6.3bn Euro bid for Italian counterpart Banca Antonveneta The bid will put pressure on Bank of Italy Governor Antonio Fazio." *ABN Amro Unveils Italian Bank Bid*, BBC NEWS, Mar. 30, 2005, available at <http://news.bbc.co.uk/1/hi/business/4392801.stm>.

288. On June 24, 2004, the new capital adequacy framework, commonly known as "Basel II," was published and submitted for review by NCBs and Banking Supervision authorities. "The Basel II Framework sets out the details for adopting more risk-sensi-

(IAS39)²⁸⁹; and (ii.) the emergence of the Single Euro Payments Area.²⁹⁰

B. EMU and EU - Mutual Roles and Objectives

Joining the European Union is both an economic and political act,²⁹¹ but adopting the Euro requires a much greater effort. The ten accessing states²⁹² (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovenia and Slovak Republic), which became members of the European Union on May 1, 2004, appear eager to reach the required criteria and adopt the Euro. Bulgaria and Romania are scheduled to join the European Union in 2007.²⁹³

From a purely economic standpoint, the adoption of the Euro is very convenient, as it brings to the new Member States some saving from the pooling of National Reserves, minus the reduced revenues from *seigniorage* activity.²⁹⁴ The costs to be paid are all at political level. The Maastricht Treaty's four eco-

utive minimum capital requirements for banking organizations It also seeks to strengthen market discipline by enhancing transparency in banks' financial reporting." Press Release, BIS, G10 Central Bank Governors and Heads of Supervision Endorse the Publication of the Revised Capital Framework (June 26, 2004), *available at*: <http://www.bis.org/press/p040626.htm>. See BASEL COMMITTEE ON BANKING SUPERVISION, INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS: A REVISED FRAMEWORK (June 2004), *available at* <http://www.bis.org/publ/bcbs107.htm> (last visited June 21, 2005); see also International Swaps and Derivatives Association ("ISDA"), Institute of International Finance ("IIF"), London Investment Banking Association ("LIBA"), Bond Market Association ("TBMA"), International Banking Federation ("IBF"), The Application of Basel II to Trading Activities and the Treatment of Double Default Effects: A Response to the Basel/IOSCO Consultation (May 27, 2005), *available at* http://www.iif.com/data/public/TBR_CP_2005_Final_Response_052705.pdf

289. See Rossi et al., *supra* note 236.

290. See *supra* pt. II(D).

291. See Thomas J. Werlen, *Legal Implication for Derivative Transactions and US Approach*, 27(1), INT'L BUS. LAW. 28, (1999).

292. See Roger J. Goebel, *The European Union in Transition: the Treaty of Nice in Effect; Enlargement in Sight; A Constitution in Doubt*, 27 FORDHAM INT'L L.J. 455 (2004) [hereinafter Goebel, *EU in Transition*].

293. See European Commission, *Enlargement*, *available at* <http://www.europa.eu.int/comm/enlargement/enlargement.htm> (last visited June 21, 2005).

294. The meaning of the term *seigniorage* has shifted from its older significance. See *supra* note 53 and accompanying text. Now, the term covers any profit made by an NCB in its money-printing activity. See JORGEN DRUD HANSEN & VITA KING, HOW TO CUT THE SEIGNIORAGE CAKE IN AN ENLARGED EMU 8 (Int'l Workshop, Lith. — Nordic Research Networking in Social Sci. 2003-2004 Working Paper, 2004), *available at* http://www.Eurofakultetas.vu.lt/Nordic/JDHansen_VKing_Seigniorage.pdf (last visited June 21, 2005).

conomic convergence criteria²⁹⁵ are: (i.) price stability (an average inflation rate not in excess by more than 1.5% that of the three best-performing Member States); (ii.) budgetary discipline (a public budget deficit of less than 3% of GDP and a public debt ratio not exceeding 60% of GDP); (iii.) currency stability (a minimum of two-years' permanence in the exchange rate mechanism, ERM-II (2.25%), of the European Monetary System); and (iv.) interest rate convergence (an average long-term interest rate not exceeding by more than 2% that of the three best-performing Member States).²⁹⁶ A fifth criterion requires the independence of the NCBs from political authorities.²⁹⁷ Conformity to the Maastricht criteria is assessed by the ECOFIN,²⁹⁸ on the basis of reports by the European Commission and the ECB. Recently,²⁹⁹ the EMU Member States and all the EU Member States succeeded in improving the budgetary discipline criterion, supporting a slight temporary overspend against the reference value of the 3% of the deficit. "Rather than referring to a theoretical list of relevant factors, the agreement sets out chapter headings, that is general and basic principles enabling Member States and institutions of the European Union to reach a better understanding of the treatment of the relevant factors."³⁰⁰

From a commercial standpoint, as the area of influence of the Single Currency has already expanded beyond the original EMU Member States without any political intervention, in due course, attention of the observers has focused on the role Euro can achieve on the international markets.

C. *Euro as International Currency*

Euro-area Member States have delegated to the ECB their rights to lay out a monetary policy. As a result, the Euro is the only currency not directly connected to political power.³⁰¹ The

295. See EC Treaty, *supra* note 19, art. 121, O.J. C 325/33 (2002).

296. See Goebel, *Will the EMU Ever Fly?*, *supra* note 4, at 304.

297. See EC Treaty *supra* note 19, art. 116(5), O.J. C 325/33 (2002).

298. See *supra* note 108.

299. See Council(ECOFIN) Report to the European Council Improving the implementation of the Stability and Growth Pact, No. 7423/05, March 21, 2005, also available at http://www.eu2005.lu/en/actualites/documents_travail/2005/03/21stab/stab.pdf

300. See Press Release, Luxembourg Presidency of the Council of the European Union, Agreement on the Reform of the Stability and Growth Pact (Mar. 21, 2005), available at <http://www.eu2005.lu/en/actualites/communiqués/2005/03/21stab/>.

301. See CHRISTA RANDZIO-PLATH & TOMMASO PADOA-SCHIOPPA, *THE EUROPEAN*

success of the Euro in capital markets could well reflect the growing trend towards less political control over the economy.³⁰²

Before the introduction of the Euro, the management of Interest Rates and of National Reserves were the two main activities of a NCB.³⁰³ In the handling of National Reserves two primary objectives can be recognized: (i.) in order to protect their National Economies from foreign-exchange shocks, NCBs influence the quotations of their National Currencies, by selling or buying on the Foreign Exchange markets, (Intervention role of National Reserves); (ii.) when not involved in intervention, National Reserves, as any other form of capital, should bring an adequate revenue to their owners (Investment role of National Reserves).³⁰⁴ In order to realize these objectives, NCBs usually resort to some form of "currency anchoring."³⁰⁵

Acting against current market trends (i.e., buying when the majority offers to sell and selling when others are trying to buy) the intervention of NCBs is usually carried out in order to maintain a predefined parity level between its National Currency and some other reference currencies.³⁰⁶ Backed as they are by National Reserves, even the mere intentions of a National Central Bank can alter the trend of the market: accordingly, NCBs do not routinely publish their guidelines for intervention, but rely on episodic announcements. After an analysis of all the arrangements that developed over the years in different countries, four main alternatives of currency anchoring can be detected.³⁰⁷

CENTRAL BANK: INDEPENDENCE AND ACCOUNTABILITY I (Center for Eur. Integration Studies ("ZEI"), Policy Paper No. 16, 2000), available at www.zei.de/download/zei_wp/B01-02.pdf (last visited June 21, 2005).

302. See *id.*; see also Joaquín Almunia, The Success Story of Creating the Euro and Future Challenges, Speech at Euro Conference, Amsterdam, (Oct. 11, 2004), available at <http://Europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/04/447&format=HTML&aged=0&language=EN&guiLanguage=EN>.

303. See Charles Enochand & Marc Quintyn, *European Monetary Union: Operating Monetary Policy*, FIN. & DEVT., Sept. 1996, at 31, available at <http://www.imf.org/external/pubs/ft/fandd/1996/09/pdf/enoch.pdf> (last visited June 21, 2005).

304. See AXILROD, *supra* note 62, at 1.

305. See ECB, Review of the International Role of the Euro (2003), at 43, available at <http://www.ecb.int/pub/pdf/other/Eurointernationalrole2003en.pdf>

306. See GUNNAR HEINSOHN & OTTO STEIGER, THE EUROSISTEM AND THE ART OF CENTRAL BANKING 9 (Center for Eur. Integration Studies ("ZEI"), Paper No. B11, 2002), available at www.zei.de/download/zei_wp/B02-11.pdf (last visited June 21, 2005).

307. See ECB, Review of the International Role of the Euro, *supra* note 305, at 43; see also Giorgio Belletini, The International Role of the Euro (2004), at 3, available at [:/www.dse.unibo.it/belletti/lectures.doc](http://www.dse.unibo.it/belletti/lectures.doc)

At first level, an NCB can announce the presence of the Euro on its currency board, *tableau de bord*. By doing so, the NCB admits that it is monitoring the exchange rate between its National Currency and the Euro, and that rate plays a role in its policy of intervention. This approach is followed, among others, by Bosnia-Herzegovina, Bulgaria and Estonia.³⁰⁸

As international trade develops and the National Economy becomes increasingly dependent on monetary stability, an NCB cannot rely on the simple *tableau de bord* to supervise its currency. Economists name a currency basket the mathematical process of averaging the rates of a set of currencies, usually weighted by their relevance in international trade.³⁰⁹ The NCBs of Hungary, Iceland, Poland, Commonwealth of Independent States ("CSI"), and Ukraine have announced that Euro features in each of their currency baskets (used for setting a reference for each of their National Currencies).

At a more binding level, an NCB can announce that the Euro has become its *anchor currency*: the Single Currency is the only reference in setting its monetary policy. Thus its National Currency will follow the trend set by the Euro, although with some slack and delay. This shadowing practice is favored by Czech Republic, Slovak Republic and Slovenia.³¹⁰

Finally, an NCB can set for its National Currency a fixed exchange rate against the Euro. This approach, known as *pegging*, has been adopted by Denmark, Cyprus and Macedonia.³¹¹ The area of influence for the Euro is not limited to Europe: as a consequence of their colonial history, a number of African States have kept their National Currencies pegged to the French Franc.

With the advent of the Euro, they simply chose to move their peg to the new currency: as a result, both the eight west-African countries of the "Communauté Financière de l'Afrique" and the six central-African countries of the "Coopération Financière Africaine"³¹², have a national currency (the CFA

308. See ECB, Review of the International Role of the Euro, *supra* note 305, at 44.

309. See SRICHANDER RAMASWAMY, RESERVE CURRENCY ALLOCATION: AN ALTERNATIVE METHODOLOGY 5 (BIS Working Paper No. 72, 1999).

310. See ECB, Review of the International Role of the Euro, *supra* note 305, at 49.

311. See *id.* at 43.

312. Cameroon, Central Africa Republic, Chad, the Republic of Congo, Equatorial Guinea and Gabon, constitute the Coopération Financière Africaine. See Bellettini, *supra* note 307, at 11.

Euro) pegged to the Euro.³¹³ The success of the Euro appears as confirmation of a world trend toward limiting the money-creating autonomy of NCBs, and therefore the number of independent global currencies.

Independent NCBs are beginning to recognize that they cannot offer for their National Debt issues at an interest rate below that set by ECB or by the Federal Reserve. Moreover, they are also recognized that they do not possess the liquidity to operate against the Dollar or the Euro capital markets.³¹⁴ A country with strong links to the Euro-area has three basic alternatives:

(i.) a complete membership, which means its National Central Bank has to delegate its monetary policy to the ECB;

(ii.) a committed policy of pegging or shadowing the Euro, *de facto* limiting the power of its NCB;

(iii.) a traditional approach, trusting its National Central Bank with the relative power of the currency board or of the currency basket.

Even these more autonomous NCBs, however, have started to feel the effects of the appearance of the Euro on capital markets on their National Reserves.

D. Euro as Reserve Currency

From a purely financial point of view, in order to manage its National Reserves, a Central Bank has to bear a transaction cost (which depends on its interventions on the market) and the equivalent costs of three (global-economy dependent) risk factors: interest risk, foreign exchange risk and credit risk.³¹⁵ The transaction costs are estimated by the average difference between sell and buy prices, and are usually assumed to be in inverse relationship with the liquidity of the market. When there is a relative abundance of buyers and sellers, there is little space for negotiation: if a deal is refused, it is easier to forward it to somebody else.

313. See Siim Kallas, The Euro's Contribution to the Financial System and Global Stability, Speech at Euro Conference, Amsterdam, at 4 (Oct. 12, 2004), available at <http://Europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/04/450&format=HTML&aged=0&language=EN&guiLanguage=EN>.

314. See Rudi Dornbusch, The Euro: Implications for Latin America, Mass. Inst. of Tech., Mar. 16, 1999, available at <http://www.mit.edu/~rudi/media/PDFs/elatin.pdf>.

315. IMF, Guidelines for Foreign Exchange Reserve Management, (Aug. 2004), available at <http://www.imf.org/external/pubs/ft/ferm/guidelines/2004/081604.pdf>

When operators become scarcer, the difference between sell and buy prices increases, reflecting the need for a tougher negotiation. Until the advent of the Euro, only the U.S. capital market featured low transaction costs and, therefore, the dollar was almost the only currency featured in National Reserves.³¹⁶ Now, the Euro can be thought of as a second-best reserve currency, as its gross capital market features sufficient liquidity and its transaction costs are comparable to those experienced on the dollar-based capital markets.

Interest risk and foreign exchange risk factors can be evaluated only in the short term, for a number of reasons: (i.) the interventions of the National Central Bank itself modify foreign exchange rates; (ii.) in the management of National Reserves, the decisions of anchoring, intervention and investment are interrelated; (iii.) the increased presence of managers from the fund industry is evidence of a trend towards a more active management of National Reserves.³¹⁷ Past and present episodes warn that, sometimes, the costs of keeping a peg to the U.S. dollar can be just too expensive: in the last decade, Argentina³¹⁸ fell victim of this strategy of dollarization³¹⁹ which caused a severe recession. In January 2002, finally, Eduardo Duhalde, Argentina's fifth leader in two weeks, declared officially the default on the nation's foreign debt, estimated at U.S.\$141 billion; it was the biggest default in history.³²⁰

In November 1997, after the onset of an East Asian crisis, the Russian Rouble came under speculative attack.³²¹ In this epi-

316. See Salvatore, *The Euro: Expectations and Performance*, *supra* note 39, at 121.

317. See BARRY EICHENGREEN & DONALD J. MATHIESON, *THE CURRENCY COMPOSITION OF FOREIGN EXCHANGE RESERVES: RETROSPECT AND PROSPECT* (IMF Working Paper No. 131, 2000), available at <http://www.imf.org/external/pubs/ft/wp/2000/wp00131.pdf> (last visited June 15, 2005).

318. See Christian Noyer, *The International Impact of the Euro*, ECB, Speech (Jan. 2000), available at <http://www.ecb.int/press/key/date/2000/html/sp000113.en.html> (last visited June 15, 2005).

319. Dollarization is a strong pegging of a national currency to the dollar. See Dominick Salvatore, *Euroization, Dollarization, and the International Monetary System*, in *MONETARY UNIONS AND HARD PEGS* 27-40 (Alexander et al., eds., 2004).

320. See *Argentina Officially Defaults*, BBC NEWS, Jan. 3, 2002, available at <http://news.bbc.co.uk/1/hi/business/1740896.stm>.

321. See JOHN J. MERRICK JR., *CRISIS DYNAMICS OF IMPLIED DEFAULT RECOVERY RATIOS: EVIDENCE FROM RUSSIA AND ARGENTINA*, (Stern Sch. of Bus., NYU, Working Paper, November 1999), available at <http://www.stern.nyu.edu/fin/workpapers/papers99/wpa99052.pdf> (last visited June 15, 2005).

sode, the Central Bank of Russia (“CBR”) aggressively defended the parity of its National Currency, losing nearly U.S.\$6 billion in foreign-exchange reserves³²², but in the end it was unable to prevent the default of its National Public Debt. The widespread instability that followed involved even some of the speculators which originated the attack.

During the last year, some NCBs invested hugely in U.S. Federal Reserve Bonds, in an attempt to maintain favorable conditions for their exports, nominally, a high USD foreign exchange rate and a low U.S. domestic interest rate.³²³ The results of this policy are shown in the following diagram, based on data from the Federal Reserve’s Treasury International Capital System.³²⁴

Japan’s position is so strong that it has to be recorded on the right-hand scale, while the assets of the next four greatest buyers of Treasury Bonds (People’s Republic of China, United Kingdom, Republic of Korea, and the aggregate of Caribbean countries) can be described by the vertical scale on the left.

All these Central Banks are now victims of the “Prisoner’s Dilemma:”³²⁵ acting in their intervention role, they invested most of their National Reserves in dollar-based assets. As the market is slowly turning against the dollar, they are realizing that there is no formal agreement forbidding one of them to cut its own losses, by dumping its dollar assets on the market. The first

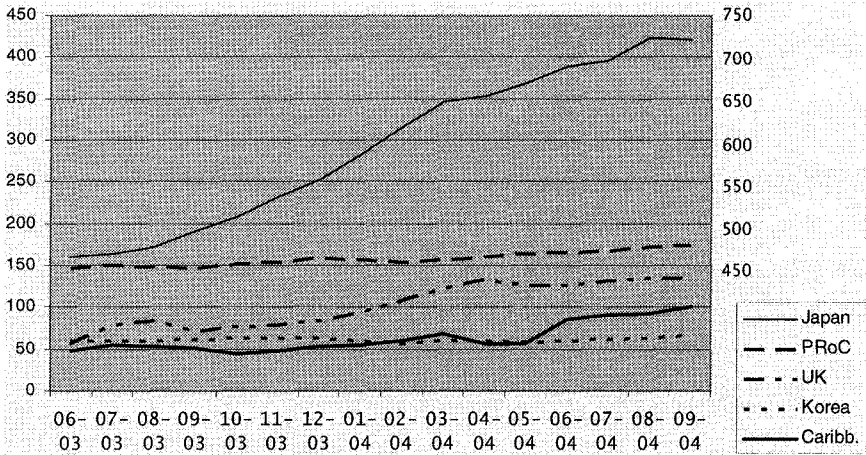
322. See Abigail J. Chiodo & Michael T. Owyang, *A Case Study of a Currency Crisis: The Russian Default of 1998*, FED. RESERV. BANK OF ST. LOUIS REV., Sept./Nov. 2002, at 7, available at <http://research.stlouisfed.org/publications/review/02/11/ChiodoOwyang.pdf> (last visited June 21, 2005).

323. See Matthew Higgins & Thomas Klitgaard, *Reserve Accumulation: Implications for Global Capital Flows and Financial Markets*, 10(10) N.Y. FED. RESERV. BANK, CURRENT ISSUES IN ECON. AND FIN., Sept./Oct. 2004, at 1, available at http://www.ny.frb.org/research/current_issues/ci10-10.pdf (last visited June 21, 2005).

324. See U.S. Department of the Treasury, *Treasury International Capital System, Major Foreign Holders of Treasury Securities*, available at <http://www.ustreas.gov/tic/mfhhis01.txt> (last visited June 21, 2005) (for the data up to May 2004); see also *id.*, available at <http://www.ustreas.gov/tic/mfh.txt> (last visited July 4, 2005) (for the subsequent data).

325. See JOHN NASH, *Two-Person Cooperative Games*, in *THE ESSENTIAL JOHN NASH* 99 (Harold W. Kuhn & Sylvia Nasar eds., 2002). The Prisoner’s Dilemma is one of the first examples considered in Mathematical Game Theory. It derives its name from the traditional policy of giving a remission to the first suspect to confess, in exchange for collaboration against the others. Its name has extended to cover all the situations in which the first player to do something wins, at the prejudice to everybody else (a particular case of non-zero sum games).

*TABLE 8:
THE FIVE MAJOR INVESTORS IN U.S. PUBLIC DEBT*



one to back off from its investment could experience much less damage than the others.

On the other hand, its action could send shockwaves throughout its National Economy, and, in a longer term, this could lead to instability in the whole Asian economy.

As time is slowly finding a way out of this impasse, the episode will probably be remembered as the confirmation of the importance of the investment role of National Reserves. The availability of a second currency for allocating National Reserves should be considered a welcome novelty, as it offers Reserve Managers the opportunity of improving both stability and profits.

CONCLUSION

Economic and Monetary Union Member States have tried to establish a sound macroeconomic framework characterized by price stability, sound public finances and low interest rates. The Euro-area as a whole is far better equipped to withstand economic shocks than the previous national economies: moreover, corporations can benefit from lower costs of doing business in Europe. Backed by a liquid and integrated money market, the Euro is poised to become the major currency in all transactions

where the dollar is not feasible for political or economical reasons.

Some work has still to be done, however, to attain the level of integration at which U.S. bond and equity markets have been operating in the recent years.³²⁶

326. See Trichet, *supra* note 69 (“Wholesale money and bond markets tend to be relatively well integrated, but only the unsecured Euro money market has reached a fully satisfactory challenges, level of integration.”).

