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Heinsohn, Gunnar; Steiger, Otto

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The Eurosystem and the art of central banking

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Working Paper

Gunnar Heinsohn and Otto Steiger

The Eurosystem and the Art of Central Banking

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THE EUROSYSTEM AND THE ART OF CENTRAL BANKING*

by Gunnar Heinsohn) and Otto Steiger**)*
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*) Universität Bremen
Raphael- Lemkin-Institut
Bibliotheksstr. 1
D-28359 Bremen, Germany
Tel.: +49(0)421/218-3154
Fax: +49(0)421/218-7069
E-mail: gheins@unibremen.de

**) Universität Bremen
Institut für Konjunktur- und Strukturforschung
Wilhelm-Herbst-Str. 5
D-28359 Bremen, Germany
Tel.: +49(0)421/218-3071
Fax: +49(0)421/218-4336
E-mail: osteiger@uni-bremen.de

Abstract

The Eurosystem and the Art of Central Banking

The Eurosystem is the fifth decentralized system in the history of central banks. It consists of the European Central Bank (ECB) and twelve National Central Banks (NCBs) forming the European Monetary Union (EMU). The stark decentrality of this System is so little known that ubiquitous statements by high level Euro experts on its supposed similarity with other decentralized systems, like the former Bundesbank System and the existing Federal Reserve System, are met with no protest. A closer look on European documents and the balance sheet of the ECB reveals, however, that the ECB – far from being the monopoly supplier of central bank money – cannot set the refinancing conditions to credit institutions in EMU. The latter are determined by the Council of Governors of the European Central Banks, while the main refinancing operations are executed by the NCBs leaving to the ECB the role of vicarious agent. The ECB can neither control all types of securities accepted for the NCBs' credit operations nor is it able to act as the lender of last resort. Yet, every possible manoeuvre to make the ECB look like a central bank of the NCBs is relentlessly employed, most obviously in the design of the Euro banknotes, which are issued by the NCBs but carry only the imprint of the ECB.

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1. The Principles of Central Banking

A two-tiered banking system consists of a central bank with the monopoly of issuing *banknotes* in credit contracts with commercial banks, which can only obtain these notes by pledging *good securities* and promising *interest*. Since it is *property* that is at the core of any good security such a banking system can only function in property based societies (Heinsohn and Steiger, 2000a).

The central bank must not accept as underlying assets in such a contract debt instruments issued or guaranteed by its counterparty commercial bank, or by any other entity with which the counterparty has close links. *Dresdner Bank*, *e.g.* will be accepted at the discount window with securities bought from its competitor *Deutsche Bank*, or another entity like the German Government, but not with its own paper, or that of its partner *Allianz Insurances*, even if these titles should prove to be highly marketable. Yet, it is with its own assets, its property, that the counterparty is held liable by the central bank for the debt instruments issued by other entities. Thus, genuine central bank money always has to be a *creditor's* and not a debtor's *money*.

In the classical texts on central banking these prerequisites of genuine money were not fully understood. However, the founding father of the theory of central banking, Walter Bagehot in his famous *Lombard Street*, always tied the creation of money to good securities, even in the case of a liquidity crisis. To merely focus on interest, as is common practice in modern literature, would never have entered his mind. His rationale for the central bank as the lender of last resort, "the last lending house" (Bagehot, 1873, 53), has nothing to do with merely providing liquidity by whatever means. He unwaveringly stated: "There are two rules. First. That these loans should only be made at a very high rate of interest. [...] Secondly. That at this rate these advances should be made at all *good* banking securities and as largely as the public ask for them" (Bagehot, 1873, 197; our emphasis).

Ralph Hawtrey, no less than Bagehot, in his classic *The Art of Central Banking* was well aware that the lender-of-last-resort responsibility must never be mistaken in a way that, because of the devastating consequences of a panic, commercial banks may, by way of exception, be allowed to obtain cash without pledging prime property titles: "The essential duty of the central bank as the lender of last resort [...] cannot mean that it should lend to *any* bank that needs cash, regardless of the borrowing bank's behaviour or circumstances. Neither a commercial concern nor a public institution could undertake to supply cash to insolvent borrowers" (Hawtrey, 1932, 126).

Both authors emphasized the necessity of good securities because they understood that the principles of banking apply to a central bank no less than to any bank of issue. They were beautifully lined out already in 1767 by James Steuart in what can be regarded as mercantilisim's most important treatise (Stadermann and Steiger, 2001, 21-86): "Many, who are unacquainted with the nature of banks, have a difficulty to comprehend how they should ever be at a *loss* for money, as they have a mint of their own, which requires nothing but paper and ink to create millions. But if they consider the principles of banking, they will find that every note issued for value consumed in place of value received and preserved, is neither more or less, than a partial spending either of their *capital*, or profits on the bank". Therefore, he emphasized "that banks give credit upon nothing but the *best* securities" (Steuart, 1767, II, 151 f. and 603, our emphases). Bagehot (1873, 198, our emphases), a century later, was no less clear: by accepting "*bad* bills or *bad* securities [...] the Bank [of issue] will ultimately *lose*"[1]. Hawtrey, too (1932, 126, our emphases), had no difficulty to recognize the central bank as a

[1] However, Bagehot, other than Steuart and Hawtrey, did not comprehend the full meaning of such a loss. While the latter two unequivocally saw the loss of the bank's equity, the former stressed the loss of the bank's reserve in the form of its own notes. The holding of such a reserve by the Bank of England was due to its particular division into an Issue and a Banking Department. Without this particularity, a central bank never holds its notes as a reserve because for it they are not an asset but a liability. Therefore, it deletes them from its books the very moment they flow back against the return of the debt instruments which were conditional for their creation. At the Bank of England this demonetization of the notes occurred at the Issue Department when it handed out gold against its notes. Therefore, the Banking Department, which could not create the notes, had to hold a reserve of banknotes equal to the amount deposited with it by the commercial banks which themselves did not hold such a reserve. Bagehot did not recognize that the reserve of banknotes could be expanded by taking in more good securities. On the contrary, he regarded the reserves as a fixed stock that had to be safeguarded. It is this perception which explains his demand for "a very high rate of interest" in case of a panic (Bagehot 1873, 197). For a

commercial enterprise: "A commercial concern in particular cannot afford to take *risks* out of proportion to its *own capital*".

The balance sheet of a central bank, like that of any other entity in the monetary economy, has to consist not only of assets and liabilities but also of a surplus of the former over the latter. With this own capital or equity it safeguards itself against the threat of bankruptcy. Only because economists have forgotten this old wisdom, dubious recommendations, most prominently by Paul Krugman, were made in recent years to the Bank of Japan to salvage the deflation-ridden Japanese economy by engaging in large scale purchase of long-term government debt. The idea that such a policy will lift bond prices and lower short-term interest rates and, thereby, trigger an upswing, does not take into account that this could bankrupt the Bank. The more this policy succeeds in dispelling deflation and the more the economy prospers, the higher long-term interest rates will be. This increase in yield will decrease the value of the bonds held by the Bank of Japan: "If the Bank held only 10 percent of the long-term government bonds outstanding and interest rates rose by two percentage points, the resulting losses would wipe out the institution's entire capital and reserves" (Lerrick, 2001, 13).

It is true that in a liquidity crisis of a counterparty of the central bank the latter usually does not have the time to check whether the former is solvent or insolvent. Moreover, a commercial bank which is merely illiquid but not insolvent will usually be able to refinance on the money market without recourse to the central bank. Thus, anybody turning to the central bank is under highest suspicion of insolvency. Therefore, modern central banks are well advised to protect their equity by sharing the risk of bad loans with other commercial banks. When, in September 1998, Long Term Capital Management (LTCM) applied for funds from the Federal Reserve Bank of New York the latter, fearing a financial meltdown by contagion with this insolvent hedge fund, did not supply LTCM with fresh money. Instead it swiftly called fifteen domestic and foreign banks to put up 3.5 billion Dollar as credit to LTCM.

After the terror attacks of 11 September 2001 the Federal Reserve Bank of New York did not even have time to round up a defensive line of commercial banks. Instead it swung its discount window wide open because Wall Street was closed and the money markets barely functioned. The Bank had no chance whatsoever to scrutinize the eligible assets of applicants. In normal times its discount window is hardly used because banks showing up there fear a loss of reputation, *i.e.* are afraid of being suspected of having financial problems. The System does not see this differently. Therefore, "Federal Reserve Banks ensure that the value of collateral pledged to secure a discount window loan exceeds the amount of the loan. The extra cushion of collateral helps protect the Reserve Banks against loss in the event that a borrower defaults" (Federal Reserve System, 1994, 46).

In regular times the weekly total lent through the discount window is a mere $ 200 million. Yet, within a day of the New York Bank's announcement that the window is open to provide liquidity, it received demands for $ 46.25 billion in one-day funds. It effectively lent $ 38.25 billion (Ip *et al.* 2001, 6).

In this case, all the risk of loosing its equity was with the New York Bank. Yet, it was clear that in the worst case the Treasury would refund the Bank with tax-payers' money to keep it operating because a central bank cannot create money out of nothing, as many an economist believes, but risks its equity when it creates money. Thus, the Ministry of Finance forms the final defensive line for a central bank's function as lender of last resort (cf. Goodhart, 2000b, 11 f.; Schoenmaker, 2000, 220-222).

When analyzing the heavily decentralized Eurosystem three principles of the art of central banking have to be kept in mind: (i) a central bank has to safeguard its equity like any commercial entity and, therefore, like any other bank – even when it acts as lender of last resort; (ii) the lender-of-last-resort responsibility has to be assigned to the central monetary authority; (iii) a monetary union requires not only a central monetary but also a swift and big central fiscal authority to safeguard the lender-of-last-resort responsibility of the former under all circumstances.

consolidation of the balance sheets of both departments of the Bank of England into a unified balance sheet in which a reserve of banknotes no longer exists cf. Andréadès 1904, 296. See also Stadermann and Steiger, 2001, 85.

2. The Art of Central Banking in a System with a Multitude of Central Banks

The Eurosystem is the fifth decentralized system in the history of central banks[2]. It consists of the European Central Bank (ECB) and twelve National Central Banks (NCBs) of the member states of the European Union (EU) forming the European Monetary Union (EMU) which started on 1 January 1999. The stark decentrality of the Eurosystem is so little known that ubiquitous statements on its supposed similarity with other decentralized systems are met with no protest.

The mine-infested learning ground for properly running a decentralized central banking system was provided by the first such system, the Federal Reserve System from the Federal Reserve Act of 1913 to the Banking Act of 1935. It was a system without central monetary authority. The seven members of the Board of Governors in Washington were restricted to tasks of coordination of the System's twelve regional Reserve Banks with no influence whatsoever on monetary policy. In the early years discount lending was the primary tool of monetary policy, with individual Banks having considerable discretion to set discount rates. It was not until the early 1920s that the potential of open market operations was discovered. Therefore, in the spring of 1922 the Committee of Governors on Centralized Execution of Purchases and Sales by Federal Reserve Banks was established to coordinate – without interference by the Board – the actions of the System. This Committee was reconstituted as the Open Market Investment Committee (OMIC) in 1923. It consisted of representatives of the Boston, New York, Philadelphia, Cleveland and Chicago Reserve Banks, under the chairmanship of the New York Bank. The OMIC was dissolved in 1930 and reconstituted as the Open Market Policy Conference composed of the Presidents of only the twelve Reserve Banks. As a reaction to the severe banking crisis in the wake of the Great Depression, the Banking Act of 1933 established the Federal Open Market Committee (FOMC) consisting of representatives of the twelve Reserve Banks and the Board of Governors. Even then, however, the Governors did not get a vote in open market policy.

Only with the Banking Act of 1935, the lessons of all that went wrong with the first Federal Reserve System in the Great Contraction were finally drawn. The quagmire preceding this profound reform was admirably described by Milton Friedman and Anna Jacobson Schwartz in their famous study of 1963 (391): "There was nothing that could be called a System policy. The System was demoralized. Each Bank was operating on its own. All participated in the general atmosphere of panic that was spreading in the financial community and the community at large. The leadership which an independent central banking system was supposed to give the market and the ability to withstand the pressures of politics and of profit alike and act counter to the market as a whole, these – the justification for establishing a quasi-governmental institution with broad powers – were conspicuous by their absence".

The Banking Act of 1935 brought a powerful centralization characterizing the second Federal Reserve System: "Only after authority was definitely centralized in the hands of the Board of Governors and the Federal Open Market Committee did the new institution finally come to operate smoothly" (Eichengreen 1992, 14). The Act altered the FOMC's composition to give the Board not only a vote but also a permanent majority in open market policy. It reduced the representation of the Reserve Banks to five members, with the President of the New York Bank as the only permanent member. Furthermore, the Act assigned a very powerful position to the President of the New York Bank – with 40 percent of all assets the biggest Bank in the System. While the other eleven Banks were still allowed to issue Federal Reserve notes, New York alone was empowered to execute open market operations and to function as the System's lender of last resort.

The new Federal Reserve System worked so well that it became a model for history's third decentralized central banking system, the Bank Deutscher Länder System (BdL) of West Germany which started with the introduction of the Deutschmark in 1948. In this system the BdL, located in Frankfurt am Main, was a daughter of the eleven West German states' central banks, the Landeszentralbanken (LZBs). The eleven LZB-Presidents together with the six Executive Directors of the BdL formed the Council of Governors, the Zentralbankrat. The presidency was shared by the

[2] The emphasis is on decentralised central banking, *i.e.* the existence of a monetary union with a single central banking system. Therefore, we do not compare the Eurosystem with decentralized monetary unions with different central banking systems, *e.g.* the Latin, Scandinavian and Austro-German monetary unions before World War I. They are discussed by Michael Bordo and Lars Jonung (2000) as well as Jonung (2001).

President of the BdL with the President of the LZBs chosen by the eleven LZB-Presidents. Yet, the BdL Directors clearly ruled the roost because they could make decisions without waiting for the Council's consent. More importantly, the BdL had the monopoly to issue banknotes. Therefore, it alone executed open market operations and relagated the LZBs to mere branch offices.

When, in 1958, the Bundesbank replaced the BdL this decentralized system with a powerful center did not have to change very much. No longer two Presidents were heading the System but only one, the President of the Bundesbank. Because the German central bankers had learned the American way so well, the Deutschmark became for Europe what the Dollar had achieved in the world.

However, it was in the field of lender-of-last-resort responsibility in which the Bundesbank had something to learn on its own. This resulted in an independent contribution to the art of central banking. In the wake of the 1974 bankruptcy of the Herstatt-Bank the Bundesbank created the Liquiditäts-Konsortialbank (Liquidity Consortium Bank [Likobank]) with a capital of DEM 2.7 billion of which the Bundesbank provided 30 percent, whereas its counterparties, 136 (today) commercial banks, had to contribute the remaining 70 percent. The Likobank is the institutionalized alternative to the *ad-hoc*-convocation of commercial banks by the Federal Reserve Bank of New York.

When European politicians began to form a monetary union they entrusted, at the European Council meeting at Hannover on 27 and 28 June 1988, a Committee chaired by Jacques Delors, then President of the European Commission, "the task of studying and proposing concrete stages leading towards economic and monetary union". The resulting report was distributed to experts who delivered their comments between September 1988 and April 1989 after which both report and experts' papers were collected in a publication known as the "Delors Report" (Delors Report, 1989). The proposal for an institutional framework managing the European Monetary Union (EMU) was christened in the report as *European System of Central Banks* (ESCB). The Maastricht Treaty of 7 February 1992 still used that name. At the start of EMU, on 1 January 1999, it was changed to *Eurosystem*. The System outlined was brief and vague: (i) "This new System […] could consist of a central institution (with its own balance sheet) and the national central banks [NCBs]" (§ 32 [25]). (ii) "The ESCB Council would determine the broad lines of monetary policy and the Board [of the central institution] would be responsible for its day-to-day execution" (§ 33 [27]).

The all decisive relation between the new central monetary institution and the NCBs was discussed by Niels Thygesen, a Danish economist, Jacques de Larosière, the later President of the International Monetary Fund (IMF), and Carlo A. Ciampi, President of the Banca d'Italia and now President of Italy. Thygesen, in his discussion of a "European Central Banking System" (1989), did not touch the problem of a powerful center at all. De Larosière (1989) approached the problem by ventilating the creation of a European Reserve Bank as well as of a European Reserve Fund. However, he omitted the role of the NCBs.

Only Ciampi (1989) discussed both elements of the Eurosystem. He proposed a scheme for monetary organization of the Union consisting of three levels: "the central monetary institution, national central banks and commercial banks". In this hierarchy, the central monetary institution would be placed at the top and "act as the central bank of the national central banks"[3] (§ 10 [227]),

[3] It was the Swedish economist Erik Lindahl (1930, 170-172), however, who already in 1930 had coined the term "central bank of central banks" which he named "main central bank". Unfortunately, the 1939 English translation of his book does not contain this section. Lindahl developed this idea in a theory of a monetary union of independent nations with a unified currency. Each nation would have its own central bank issuing banknotes for domestic use. In addition, the main central bank would issue "international" banknotes for payments between the nations: the national banks would be obliged to obtain at par the international notes from the main central bank in the same way as commercial banks obtain domestic notes from their national central banks: "In this manner, the central bank in each country would be dependent on the main central bank" in the same way as their counterparties on them. Lindahl was aware, however, that monetary stability could not be guaranteed by the monetary authority alone but in addition by the fiscal authority, especially through the balance of its budget. (Lindahl was the first economist who recognized that a public deficit adds to aggregate investment and a surplus to aggregate savings [Steiger, 1987, 196 a-b]). Therefore, he recognized that his comparison, of the relation between the main central bank and the national central banks on the one side with the relation between a national central bank and the domestic banks on the other, suffered from a decisive weakness: "A central bank for several nations is not supported by a central governmental power but has to base its action on agreements between the nations. Therefore, it is difficult to conceive of a cooperation between the governments of different nations and the main central bank as intimate as between central bank and government within a nation". Here, Lindahl already saw further than even Ciampi. Indeed, for the success of EMU it is not sufficient to have a powerful European Central Bank but also a strong and centralized European Treasury.

while the latter would maintain their present relationships with domestic commercial banks. Ciampi's proposal meant the first establishment of a two stage central banking system in history. It implied three fundamental components: (i) the central institution would have an autonomous balance sheet allowing it to take operational decisions; (ii) it would have the monopoly of issuing ECUs, today called Euros; (iii) it would control the NCBs' demand for ECUs in credit operations with the latter: "To bring the creation of ECUs […] under strict control, the central monetary institution should be given the power to grant member central banks discretional credit in ECUs, in the same way as a central bank refinances commercial banks through open market or rediscount operations" (§ 15 [228]). This meant that the NCBs could not create ECUs but would have been forced to obtain them by delivering good securities to the central institution and depositing there "*compulsory* and *free reserves*" (§ 16 [228]).

In Ciampi's ingenious plan the NCBs would indeed have suffered a severe "loss of monetary autonomy" (§ 30 [232]). The prospective European currency, however, would have thrived. Yet, nothing of this proposed structure of the Eurosystem made it into the Maastricht Treaty or the Statute of the European System of Central Banks and of the European Central Bank. These documents secured the NCBs domestic monopoly to issue notes alongside with the ECB. As will be shown below, this institution at Frankfurt am Main, however, has nothing whatsoever in common with a central monetary institution.

Yet, every possible manoeuvre to make the ECB look like a central bank of the NCBs is relentlessly employed: (i) the correct name "Governing Council of the European Central Banks" indicating the decentral focus of the System was exchanged for the misleading term "Governing Council of the ECB"; (ii) the Euro banknotes, which are issued by the NCBs between Helsinki and Lissabon, are designed as if they are issued by the ECB in Frankfurt giving no hint – against the clear indication on every Dollar note – of their source; (iii) the monetary policy of the Eurosystem is presented as *The Monetary Policy of the ECB* (ECB 2001b) though the rate of interest and the volume of liquidity allotted are determined by the Governing Council, the NCBs exclusively execute the main refinancing operations, and the ECB has no power whatsoever to function as lender of last resort.

The success of concealing the true character of the ECB was so overwhelming that, in *Germany*, hardly anybody knows how the Eurosystem is constructed. The top brass of politics, commercial banking, central banking and economic sciences go out of their way to praise the power of the ECB as the central monetary authority of the Eurosystem. They can be grouped with respect to truly functioning decentralized monetary systems to which they liken the ECB. Their statements run more or less as follows, with exemplary proponents listed below (for the precise wording cf. Heinsohn/Steiger, 2000b, pp. 84 f.; for the most insightful exception in Germany cf. Seidel, 2001).

(i) The Eurosystem resembles the Bundesbank System.

Former Chancellor Helmut Schmidt also known as "world economist".
Former President of the Bundesbank, Karl-Otto Pöhl.
Chief Economist of the Deutsche Bank, Norbert Walter.
Prominent monetary economist, Hans-Joachim Jarchow.

(ii) The Eurosystem resembles the Bank Deutscher Länder System.

Former President of the Bundesbank, Hans Tietmeyer.
Vice-President of the Bundesbank, Jürgen Stark.
Prominent monetary economist, Peter Bofinger ("the ECB is the strongest central bank in the world").

(iii) The Eurosystem resembles the Federal Reserve System.

President of the Bundesbank, Ernst Welteke.

(iv) The Eurosystem resembles a two stage central banking system with the ECB as the central bank of the NCBs (Ciampi's proposal)[4].

[4] Most recently, in an analysis of the struggle for allocation of the seignorage of the Eurosystem, the prestigious *Frankfurter Allgemeine Zeitung* (bf, 2001) has maintained that the Bundesbank will receive a share of "the seignorage which the ECB yields by issuing Euro banknotes". The ECB, however, does not yield any seignorage by monetary operations. It merely redistributes the seignorage earned by the NCBs in such operations, according to the share of the NCBs in the capital of the ECB. The share of the Bundesbank in the latter is 30.24 percent while its share in circulating banknotes is 36.06 percent (as at 31 December, 1999). Therefore, the Bundesbank loses 16.14 percent of its seignorage to the other NCBs.

President of the IFO research institute, Hans-Werner Sinn.

President of the Institut für Weltwirtschaft, Horst Siebert.

The *Anglo-Saxon* views of the Eurosystem are divided between the typical (i) German line of reasoning and a more sound (ii) recognition of its decentralized structure:

(i) Michael Bordo and Lars Jonung (2000, 35) see the EMU "under the leadership of a common monetary authority". Samuel Brittan (2000, 42) believes "that there is a single central bank – the ECB – which runs the currency". David Currie (2000, 48) states: "The ECB has very clear and undivided authority over monetary policy". Anna Jacobson Schwartz (1997, 90) was convinced early on that the NCBs would "be superseded by a single European central bank. […] Existing national moneys would disappear, replaced by a new currency that the single European central bank would issue". Mark A. Wynne (1999, 4 f.) realizes that the six directors of the ECB's Executive Board are in minority in the 17 – with Greece now 18 – member Governing Council of the European Central Banks and controlled by the latter. Yet, he still perceives an overriding resemblance between the Eurosystem and the Federal Reserve System.

(ii) As early as 1998 (3), *Financial Times* author Wolfgang Münchau adopted our analysis of a weak ECB *vis-à-vis* the NCBs (Heinsohn and Steiger, 1997b). In 2000, he emphasized his view: "The strong presence of national central banks has prevented the ECB from establishing its own identity. […] The ESCB is one of the most extreme forms of a decentralized central banking network ever invented. […] The perceived weakness of the ECB is beginning to effect the credibility of the system – and perhaps even the value of the Euro" (Münchau, 2000, 19). Only Arthur B. Laffer (2000, 11) had a real grasp of some of the gruesome details of decentralization in the Eurosystem: "Unlike the U.S. Federal Reserve, which tightly controls the operations of its local branches, the ECB serves as a kind of overlapping institution placed on top of the existing central banks. They do have authority. They do continue to write and enforce regulations. […] This means that national central banks continue to exert effects on overall liquidity […] over which Mr. Duisenberg has little control".

In the *rest of Europe* the division between the two camps repeats itself.

(i) Giancarlo Corsetti (2001, 20), a prominent monetary economist from the University of Rome III and editor of the Euro Homepage, is stunned by the failure of the ECB to accommodate the fall of the Euro's exchange rate "with standard open-market operations". This renowned Euro expert is not aware that the ECB does not have such authority.

(ii) Daniel Gros (1999), chairman of the Macroeconomic Policy Group of the Brussels based Centre for European Policy Studies, emphasizes that the Eurosystem cannot be compared with the Bundesbank System or the Federal Reserve System. He recognizes that the NCBs are not subordinate to the ECB and is worried about the "too many risks […] of decentralized lending of last resort" (17).

3. The European Central Bank is only the Torso of a Central Bank

> "What Is a Central Bank? […] A central bank is, first of all, a 'bank of issue' – that is, it stands responsible for the currency" (Mayer, 2001, 55 f.).

It is the first Federal Reserve System which was demolished in 1935 with which the Eurosystem has the strongest resemblance. However, there is one difference between the old Fed and the Eurosystem that has helped to confuse the experts. The Washington based institution consists – before and after 1935 – only of the Board of Governors while the Executive Board at the Frankfurt entity also entails a small bank with an independent balance sheet – the European Central Bank.

A first glance at its balance sheet (ECB 2001a, see below, tab. 1) immediately reveals, however, that this bank is in no way whatsoever a "bank of issue". What is the decisive difference between a mere commercial bank and a bank of issue? A commercial bank cannot issue banknotes but has to refinance at the bank of issue. Therefore, the latter's asset side is dominated by a position called "lending to financial sector", and its liability side by the positions "banknotes in circulation" and "liabilities to financial sector", the latter two forming what is called central bank money[5]. The ECB balance sheet as at 31 December 2000 does neither have lending to financial sector nor central bank money. Thus, the ECB is clearly *not* a bank of issue, *i.e.* it is excluded form the main refinancing operations of the Eurosystem. To have an independent balance sheet, which the ECB indeed has, is not sufficient to meet the requirements of a bank of issue. Notwithstanding these unambigious facts the ECB, in its official document *The Monetary Policy of the ECB*, maintains: "The ECB is the monopoly supplier of central bank money and, by virtue of this monopoly, the ECB can set the refinancing conditions to credit institutions in the euro area" (2001b, 26).

Is the ECB, then, "a central bank of the national central banks" as proposed by Ciampi and believed by Sinn and Siebert? To qualify as a "main central bank" (Lindahl) it has to have on the asset side a position called "lending to national central banks" and on the liability side a position called "liablities to national central banks". Again, both these position are missing on the ECB's balance sheet. The ECB as a bank, therefore, far from creating central bank money of the Eurosystem has no means to control the lending of

Tab. 1 – European Central Bank. Balance Sheet as at 31 December 2000 (€ mill.)

Assets		*1999*	*Liabilities*		*1999*
Gold and gold receivables	7,041	*6,957*	Liabilities in euro	4,789	*1,382*
Foreign currency	41,300	*44,518*	Liabilities in foreign currency	4,803	*4,709*
Other claims	4,654	*6,540*	Intra-Eurosystem liabilities	39,468	*41,190*
Intra-Eurosystem claims	13,080	*0*	Other liabilities	1,680	*1,540*
Other assets	1,264	*1,468*	Provisions	2,637	*22*
Loss for the year	0	*247*	Revaluation Accounts	7,973	*6,860*
			Capital and Reserves	3,999	*4,027*
			Profit for the year	1,990	*0*
Total assets	67,339	*59,730*	Total liabilities	67,339	*59,730*

Source: ECB, *Annual Report 2000*, Frankfurt am Main: European Central Bank, 2001, pp. 172-173.

[5] In the Eurosystem the uniformity of central bank money that neither notes of nor deposits at the central bank ("liabilities to financial sector") carry interest is destroyed. Other than in the Federel Reserve System and the former Bundesbank System but in accordance with the practice of several European central banks before EMU, *e.g.* that of the Banca d'Italia, minimum and free reserves at the NCBs carry interest.

this money created by the NCBs. With respect to the main refinancing operations providing the bulk of refinancing to the financial sector by repurchase agreements, which are executed regularly each week and which have a maturity of two weeks, the ECB states in no uncertain terms in its official document *The Single Monetary Policy in Stage Three* (2000, 15, our emphases): "*They are executed* in a decentralized manner *by the national central banks*". Also longer-term refinance operations are exclusively left to the NCBs. These operations, aimed at providing additional refinancing to the financial sector, are executed regularly each month and have a maturity of three months.

What banking operations, then, can the ECB perform after it is excluded from main and longer term operations? It may be called into action in five operations necessary to deal with unexpected changes in the level of liquidity in the markets: (i) *fine-tuning reverse operations* to smooth the effects on interest rates caused by sudden liquidity fluctuations; (ii) *structural reverse operations* aimed at adjusting the structural position of the Eurosystem *vis-à-vis* the financial sector; (iii) *outright transactions* for structural and fine-tuning purposes; (iv) *foreign exchange swaps* consisting of simultaneous spot and forward transactions of the Euro against foreign currency and used for fine-tuning purposes; (v) *collection of fixed term deposits* in order to absorb liquidity. Even these five operations shall normally be executed by the NCBs. However, "the Governing Council of the ECB will decide whether, *under exceptional circumstances*", these operations "*may* be executed by the ECB" (2000, 15-20, our emphases). Though these cases handled by the ECB are only exceptional ones, the Board still cannot take action on its own but has to wait for the Council's decision making. Until now, the ECB has not been involved in these five operations. Otherwise it would have shown respective positions in its balance sheet. Therefore, no Euro notes have been created by the ECB.

There is, however, one case in which it may appear as if the Board can act independently: the *issuance of ECB debt certificates* to absorb liquidity from the market. Even these certificates, however, "are tendered and settled in a decentralized manner by the national central banks" (2000, 18). As its balance sheet reveals, such issuance by the ECB has so far not taken place.

A case of genuine ECB independence is related to the handling of standing facilities in the Eurosystem, the *marginal lending facility* (to obtain overnight liquidity) and the *deposit facility* (to make overnight deposits). Although these facilities are executed by the national central banks too, the ECB may set the interest rate for them or even suspend them at any time (2000, 23 f.). Marginal lending, in any case, plays a very limited role. It seldom exceeds a level of € 400 million, which represents about two per thousand of the Eurosystem's total refinancing.

Another exceptional operation in which the ECB may create Euro notes is not discussed in the ECB's document on *The Single Monetary Policy in Stage Three* (2000). The ECB could create Euro notes in the case of intervening in the foreign currency market by buying and, thereby, increasing its main asset "foreign currency" (€ 41.3 billion). Yet, this position is not owned by the ECB. It is administered by the NCBs which allow the ECB – however, only after a decision by the Council – to operate with a modest fraction of all their foreign currency (€ 269 billion). Therefore, the ECB's main position on the liability side are "intra-Eurosystem liabilities" (€ 39.5 billion). Until now, again the ECB has not created Euro notes. It did not buy foreign currency but was forced to sell it in several interventions in the autumn of 2000 to slow the bewildering fall of the Euro. Consequently, the ECB's holdings of foreign currency shrunk by nearly 10 percent. The decrease in this position would even have been bigger if the value of the remaining stock, mainly consisting of dollars, would not have been increased by the rise of the dollar. A look at the Consolidated Balance Sheet of the Eurosystem as at 31 December 2000 (see below, tab. 2), which aggregates that of the ECB and those of the NCBs, reveals no less immediately that the Euro notes are created by the NCBs alone, the discussed exception apart.

Tab. 2 – Consolidated Balance Sheet of the Eurosystem as at 31 December 2000 (€ mill.)

Assets		*1999*	*Liabilities*		*1999*
Gold and gold receivables	117,073	*116,610*	Banknotes in circulation	371,370	*374,964*
Claims in foreign currency	274,611	*269,267*	Liabilities to financial sector	124,947	*117,584*
Lending to financial sector	269,226	*250,657*	Debt certificates	3,784	*7,876*
Other claims	29,821	*29,571*	Liabilities to public sector	57,047	*1,762*
			Liabilities to non-euro residents	10,824	*9,048*
Government debt	57,671	*59,180*	Liabilities in foreign currency	13,220	*12,831*
Other assets	87,559	*81,567*	Counterpart of special drawing rights allocated by the IMF	6,702	*6,534*
			Other liabilities	72,215	*54,222*
			Revaluation accounts	117,986	*106,782*
			Capital and reserves	57,866	*55,249*
Total assets	835,961	*806,853*	Total liabilities	835,961	*806,853*

Source: ECB, *Annual Report 2000*, Frankfurt am Main: European Central Bank, 2001, pp. 188-189. (Due to rounding, totals may not add up).

To secure at least a rudimentary central banking activity for the ECB one could have thought of giving it the power to determine the single monetary policy in the Eurosystem. After all, the individual NCBs have lost their autonomy in setting the rate of interest for refinancing. Who does set the rate of interest in the Eurosystem and who determines the amount of liquidity to be allotted in the tenders to be executed by the NCBs? It is the Council of Governors of the European Central Banks which is not the "Council of the *ECB*" as its official name suggests. The Executive Board of the ECB does not form a council of its own but is a minority group in the Council. As Board it functions only as an intermediary, a vicarious agent, between the 18 member Council, in which the six directors sit together with the twelve NCB Presidents, and the NCBs which implement the Council's policy. Other than the Board of the Federal Reserve System or the Directorate of the former Bundesbank the ECB's Executive Board cannot take any independent decision. In every respect it is controlled by the Council which until now has only assigned the ECB 1,000 employees out of over 60,000 in the Eurosystem.

In its official documents on the monetary policy of the Eurosystem (ECB, 2000 and 2001b) the ECB is ambigious on who exactly determines what. In both documents (2000, 26 – 36; 2001b, 65 – 69) it gives the conflicting impression that it is the ECB as well as the Council of Governors who specify in advance the interest rate and the amount of liquidity to be alloted in the tenders to be executed by the NCBs. A closer look on the Eurosystem's tender procedures reveals, however, that it is the Council who rules the roost leaving to the ECB the role of vicarious agent. "The interest rate is specified in advance by the Governing Council" which also "indicates in advance the volume to be allotted in forthcoming tenders" (ECB, 2001b, 65 and 67). As the Council only meets once a month for monetary policy decisions while the tenders are executed each week, the ECB has of course a margin in deciding the amount of liquidity to be provided. Notwithstanding this margin, it means in no way an independent "ECB's decision" (2001b, 66). The ECB can only decide on what the Council determines in advance.

The NCBs do not only have the majority in the Council but also in the committees which prepare its decisions. These experts are indispensable because they collect the necessary information from the national markets which the Council and the ECB's directors have to rely on. Yet, this highly decentralized nature of the decision making process and its results in the monetary aggregates of the member countries cannot be seen by the public. Most importantly, both the ECB and the NCBs are explicitly forbidden to publish up to date statements of the balance sheets of the individual central banks. All they are permitted to let the public see is the weekly statement of the consolidated balance sheet of the Eurosystem. Only in their annual reports the ECB and the NCBs are allowed to publish their own balance sheets as at December 31.

The lack of centrality in the Eurosystem is mirrored by the absence of a European supervision and regulation authority for the banking sector. The responsibilities are left completely to the national authorities which do not even act under a common set of rules[6]. Even the exclusive right to authorize the issue of banknotes within the Eurosystem does not lie with the ECB but with the Governing Council (Article 16 of the Statute of the ESCB and the ECB)[7].

There is some reflection of the alarming lack of power of the ECB which the Maastricht Treaty reveals in its Article 73f – unchanged as Article 59 in the Amsterdam Treaty. This Article states that in the case of a currency crisis the Council of the European Community (ECOFIN, *i.e.* the ministers of finance of the twelve member states) can suspend capital flight from the Euro, a decision over which the ECB is only consulted. Therefore, Wilhelm Hankel (2001), quoting the Article, has characterized the Euro as a "mousetrap currency":

> Where, in exceptional circumstances, capital movements to or from third countries cause, or threaten to cause, serious difficulties for the operation of economic and monetary union, the Council, acting by a qualified majority on a proposal from the Commission and after consulting the ECB, may take safeguard measures with regard to third countries for a period not exceeding six months if such measures are strictly necessary.

[6] Jan Kregel (2001) has shown, that this leaves capital markets nationally segmented in the Euro area. Therefore, these markets are not as deep as their counterparts in the US – a decisive cause for the weakness of the Euro *vis-à-vis* the Dollar.

[7] It has to be mentioned, however, that the Maastricht Treaty in its Article 105a states that "the ECB shall have the exclusive right to authorize the issue of banknotes" – unchanged as Article 106 of the Amsterdam Treaty of 17 June 1997.

After all these caveats, there remains, however, one field in which the ECB has a monopoly which always secures the public's attention. Its President alone has the privilege to make the Council's decisions known to the public in press conferences immediately after its meetings. Only the real ECB *connaisseur* will be able to point to one additional feature where the ECB is truly in charge: the "real time" in which cross-border transfers throughout the Euro area are settled is called *ECB time*, which is nothing more but Central European Time.

Notwithstanding all the missing qualities that turns the ECB into a deplorable torso of a central bank, the Frankfurt entity never fails to make a powerful impression with the design of the Euro *notes*. All the notes appear as if they were issued by the ECB. They only carry its initials in all the different languages of the EU and the signature of the ECB President. Only the Euro *coins* are marked with national symbols indicating that they are issued by the national governments. Any hint to the NCBs which issue the Euro notes is omitted. This blunt decision to conceal the ECB's impotency regarding issue was taken by the Governing Council on 11 September 1998. The desperate attempts of the Bundesbank to make the Eurosystem follow the Federal Reserve System in which every Dollar note can be traced back to its bank of issue were deliberately stalled by the Council. The Bundesbank had made the proposal to name the bank of issue above the serial numbers in the upper half of the twelve star circle of the EU printed on the reverse of the notes: "With one exception the banknotes are […] identical: each note has a section indicating the bank of issue" (Deutsche Bank, 1998, 10; Deutsche Bundesbank, 1997, 21). Both sources expose the exclusion of the public from the discussion whether there should be national logos on the Euro notes.

What possible reason did the Council have to violate the fundamental rule for every debt title – of which the banknote is one variety – to clearly indicate its issuer? The Italian economic historian Luca Einaudi (1999, 15) has tried to reconstruct the decision behind closed doors. The national layouts of the Euro coins were seen "fully adequate to satisfy reasonable requests of national identity within a common framework". An analogous extension of national symbols on Euro notes, however, "would create the risk of a re-nationalization of the currency". Because the Council perfectly knew that the Euro was issued by the NCBs, it very well understood that any imbalance in one nation would lead to a problem well known from the period of private banks issuing notes of the same denomination. Their notes were not always exchanged at par but, due to the reputation of the bank, with a discount or an agio: "If a member country of EMU were faced with a political or economic crisis a form of discrimination against the Euro banknotes of that country could appear, reintroducing a sort of discount and therefore an exchange rate fluctuation, which would cancel the benefits of the single currency". The mere symbols of nationality were feared as unnecessary concession to national sovereignty only aimed to support "those wishing to prevent any real union from being formed", thereby weakening the chances of success of EMU.

All these hideous efforts to make the ECB look like the powerful center of the Eurosystem are, however, doomed to fail. Since every expert will be able to identify the source of issue by the serial numbers printed on the notes, the public at large will feel cheated and lose exactly the confidence the wise Council tried to embellish.

The desired confidence will suffer even further because of different printing techniques in the member nations. Simply touching two different materials used in two notes of the same face value will horrify the common citizen. In addition, it is only in 2006 that every Euro note will be well protected against counterfeiting (Bender, 2000 and 2001).

4. High Risk Securities in the Creation of Euro notes

Worries about a re-nationalization of the Euro that led to the omission of the sources of issue on the Euro notes are not only justified for political reasons but even more so for violations of the art of central banking in the collateral demands for the issue of Euro notes. Despite the ECB's declaration in its report on *The Single Monetary Policy in Stage Three* (2000, 38) that the Eurosystem's credit operations should be "based on adequate collateral", the details clearly reveal that the ECB's standards fall alarmingly below the demands of the former Bundesbank. The report does not define only one type of assets against which Euro notes can be issued. Instead, it divides them in two groups, "tier one" assets and "tier two" assets (see overview below).

Eligible assets for Eurosystem monetary policy operations

Criteria	*Tier one*	*Tier two*
Type of asset	• ECB debt certificates • Other marketable debt instruments	• Marketable debt instruments • Non marketable debt instruments • Equities traded on a regulated market
Settlement procedures	• Instruments must be centrally deposited in book-entry form with national central banks or a SSS fulfilling the ECB's minimum standards	• Assets must be easily accessible to the national central bank which has included them in its tier two list
Type of issuer	• Eurosystem • Public sector • Private sector • International and supra-national institutions	• Public sector • Private sector
Credit standard	• The issuer (guarantor) must be deemed financially sound by the ECB	• The issuer/debtor (guarantor) must be deemed financially sound by the national central bank which has included the asset in its tier two list.
Place of establishment of the issuer (or guarantor)	• European economic area (EEA)	• Euro area
Location of asset	• Euro area	• Euro area
Currency	• Euro	• Euro
Cross-border use	• Yes	• Yes

Source: ECB, *The Single Monetary Policy in Stage Three*, Frankfurt am Main: European Central Bank, November 2000, p. 41.

Already, the first "tier" gives ground for concern. Although marketable assets are put in this category along with ECB debt certificates, these assets are by no means as low risk as those securities which the Bundesbank accepted to issue Deutschmark. Like the Bundesbank, the NCBs in the Eurosystem carry out transactions with repurchase agreements where the risk of devaluation of the securities lies with their counterparties commercial banks. But unlike the Bundesbank's custom to avoid outright transactions the NCBs may do exactly that without limitation, thereby pulling the risk into the Eurosystem.

As stated in section 1 above, a central bank shall not accept as underlying assets debt instruments issued by its counterparties, or by any other entity with which the counterparties have close links. Formally, the ECB seems in accordance with that basic rule. However, hidden in a footnote to this rule, it states (2000, 39/fn 45, our emphases): "This provision does *not* apply to […] close links between the counterparty and the *public* authorities of EEA [European Economic Area, *i.e.* EU members plus Norway, Iceland and Liechtenstein] countries". This means a privilege for state owned banks which are closely connected with public authorities and, therefore, a circumvention of the Maastricht Treaty's sound prohibition to favor such entities by allowing them credit facilities with the ECB or the NCBs.

Most disturbing is, however, what comes next. There are in the "tier two" list assets which a genuine central bank should never accept. The ECB justifies them by declaring that, in the Euro area, "due attention has to be paid to existing differences in financial structure across Member States" (2000, 38). The ECB extols the admission of soft "tier two" assets by giving the impression that it is a particular strength of the Eurosystem to be able to use a wide range of collateral. But when speaking of such a range, one generally implies a solid foundation.

Most of the "tier two" assets, as we showed already half a decade ago (Heinsohn and Steiger, 1997a), are high risk paper. Its issuers are not, other than those of "tier one" assets, evaluated by the ECB but "are deemed financially sound" by the NCBs. As can be seen from the overview they, besides marketable debt instruments and equities traded on a regulated market, consist also of *non marketable* debt instruments. They may be issued not only by the private but also by the *public* sector. Thus, besides highly volatile and, therefore, risky equities, non marketable debt titles of the public authorities pose the greatest threat to the stability of the Euro. As the Consolidated Balance Sheet of the Eurosystem reveals, these debt instruments with restricted liquidity comprise the amount of € 57.7

billion. Thus, the Euro can be permanently undermined by loans of public banks to local authorities which can be used on a cross-border basis to obtain fresh money at any NCB[8]. The Bundesbank is fully aware of this disastrous scenario. Therefore, it has not only excluded equities as eligible "tier two" assets but also non marketable debt instruments not only of the domestic but of any public authority in EMU. Furthermore, the Bundesbank has applied considerable valuation haircuts – 10 to 20 percent – to non marketable debt titles issued by the private sector.

While the European Monetary Institute (EMI), the forerunner of the ECB, in the first report on *The Single Monetary Policy in Stage Three* (1997, 23) still insisted on a complete disclosure of high risk collateral of public institutions, today's ECB – again hidden in a footnote (2000, 40/fn 48, our emphasis) – has left it to the NCBs whether to inform the public: "For non marketable tier two assets and debt instruments with restricted liquidity and special features, national central banks, may decide *not to disclose information* on individual issues, issuers/debtors or guarantors in the publication of their national tier two lists."

We are no longer surprised that with respect to "tier two" assets, in nearly the same wording as with respect to "tier one" assets, public banks are privileged: "This provision does *not* apply to […] close links between the counterparty and the *public* authorities of EEA countries" (2000, 41/fn 52, our emphases).

The ECB is not in the dark about the risks of non marketable "tier two" assets, and of the significant losses they could imply for the Eurosystem. But it hopes that the risks can be controlled by "initial margins, which correspond to a certain percentage of the amount of liquidity provided which is to be added to the requirement for the value of the underlying assets" (2000, 43). Considered are measures like limits in relation to issuers, valuation margins and haircuts, additional guarantees as well as exclusion. Yet, these risk control measures are at the disposal of the Eurosystem which, however, is no legal personality. They are not at the disposal of the ECB which, because of its tiny personnel, in any case could not perform such a vital function. Thus, in the end it is each NCB which controls itself.

5. The Missing Lender of Last Resort in the Eurosystem

The most bizarre violation of the art of central banking in the design of the Eurosystem is the simple omission of the very rationale of a central bank, its responsibility as lender of last resort. Both in the treaties of Maastricht and Amsterdam, the Statute of the Eurosystem and the European Central Bank it is not even mentioned. In the different documents of EMI and ECB on the single monetary policy in the Eurosystem it is not discussed either. The first institution which noticed this lack was the International Monetary Fund: "The lender-of-last-resort responsibility has not been assigned to any institution in EMU; consequently, there is no central provider or coordinator of emergency liquidity in the event of a crisis" (Adams *et al.*, 1998, 106).

In the Eurosystem, there does neither exist an equivalent to the German Likobank nor to the Federal Reserve Bank of New York. The ECB's means to procure a solution to a banking crisis at the EMU level are negligible in comparison with those of the Bundesbank or the New York Bank. On the other side, the decentralized organization of the Eurosystem leaves neither NCBs nor national governments clearly responsible for supervision of pan-European banks or for ensuring EMU-wide financial market stability[9]: "As European banking groups emerge, the question of whether national central banks could adequately assess the risk of contagion and whether the home country central bank of each bank could be easily identified will become increasingly relevant. In addition, decentralized lender-of-last-resort policies may create an uneven playing field and introduce different levels of moral hazard across EMU" (Adams *et al.*, 1998, 110).

The missing lender of last resort responsibility has been most extensively discussed by several authors in Charles Goodhart's (2000a) famous collection of essays *Which Lender of Last Resort for Europe?* Tommaso Padoa-Schioppa, Italy's executive member of the Board of the ECB, expresses

[8] Klaus Reeh (2001) has shown how the simultaneous use of high and low risk collateral for the issue of the same Euro banknotes can lead to involuntary "monetary transfers" between NCBs.

[9] Charles Goodhart (2001) has discussed the kind of supervision policy needed in the integrated European financial market.

confidence that the existing institutional framework of the Eurosystem is effective enough to manage financial crises. Most of the contributors, however – Michel Aglietta, Alessandro Prati and Garry J. Schinasi, Franco Bruni and Christian de Boissieu, Rosa Maria Lastra as well as Lorenzo Bini Smaghi –, regard the national (NCB) level for lender-of-last-resort responsibility as a sub-optimal solution. They strongly demand a more centralized arrangement in which a single institution – either a European one or the ECB itself – takes on a leading and coordinating role in the management of crises. On the other side, Dirk Schoenmaker (2000) and Goodhart (2000b) have no trust in centralization as such because – as discussed in section 1 above – there exists no central fiscal authority in EMU which in any severe case has to form the final line of defense in an overall lender-of-last-resort function. Therefore, it would be best to leave the responsibility at the national level.

Most interestingly, the Bundesbank has recognized the missing lender of last resort in the Eurosystem. It has proposed to transform the Likobank to an EMU-wide institution by increasing its own share in the capital of this bank from DEM 810 million to € 5 billion with the 136 German member banks of the Likobank increasing their share from DEM 1.89 billion to € 10 billion. This would have meant a centralization of the Eurosystem in analogy with the transformation of the Federal Reserve System by the Banking Act of 1935, bringing the Bundesbank a big step closer to the role of the New York Bank within the Federal Reserve System. This was a sound plan indeed. Yet, it did not materialize, because German commercial banks were not ready to increase the volume of their capital which they would have to risk to bail out foreign European competitors (Heinsohn and Steiger, 2000b).

Maybe, a wiser proposal taking into account national sensitivities, especially in France, would be to dissolve the Frankfurt based ECB and move its Executive Board as a new "Board of Governors of the Eurosystem" to the French European capital Strasbourg (Heinsohn and Steiger, 2000 b). In this scenario the Bundesbank, with 30.24 percent of the Eurosystem's assets its strongest central bank, would execute open market operations decided in France. This proposal would, of course, transform the Eurosystem into a European Federal Reserve System indistinguishable from its US counterpart.

Barry Eichengreen's more radical proposal "of reducing existing European central banks to mere branch offices of the ECB or of eliminating them entirely" (1992, 14), making the ECB the sole central bank in the Eurosystem, definitely stood for sound art of central banking. However, it was not a politically wise proposal as it simply modeled the ECB after the Bundesbank System. This institution, as everybody knows, was opposed by many European nations. Especially France suffered from the loss of monetary authority to a single bank in Europe, the Bundesbank. Therefore, France spearheaded the design of the decentralized Eurosystem as we know it.

Both the Bundesbank and the Eichengreen proposals – as well as that of the authors – do not take into account that, as Lindahl first pointed out, a central monetary authority in the Eurosystem could only function with a no less central European fiscal authority. It goes without saying that the intimacy between the Bundesbank in Frankfurt and the German Minister of Finance in Berlin as well as that between the Federal Reserve Bank of New York and the Secretary of the Treasury in Washington cannot be matched in Euroland.

Postscript: After All, the ECB Becomes a Bank of Issue, however, a quite Mysterious One

After this paper was written, the Governing Council of the European Central Banks on 6 December 2001 made a decision which went unnoticed by the press: as from 1 January 2002, not only the 12 NCBs but also the ECB shall issue banknotes.

What does this decision mean for our characterization of the ECB as "only the torso of a central bank"? Our assessment has to be changed in degree but not in kind. On the one side the Governing Council states that the ECB will be allocated a share of 8 percent of the total value of Euro banknotes in circulation from the start of 2002, while 92 percent of the notes will be issued by the NCBs. On the other side the Council confirms that – as practiced until 31 December 2001 – the 12 NCBs exclusively will put into and withdraw from circulation all Euro banknotes, *i.e.* as from 1 January 2002 *"including those issued by the ECB"* (ECB, 2001c, our emphasis).

Therefore, notwithstanding the Council's decision, the ECB from the start of 2002 will not become

a bank of issue on its own right. The Euro banknotes of the ECB are still not issued by this authority but by the NCBs. They are only booked in the balance sheets of the ECB and the NCBs as ECB notes after having been issued by the latter. Therefore, the ECB, at the best, becomes a highly artificial bank of issue.

How did the Council arrive at the share of 8 percent of the total value of the Euro banknotes? According to Jürgen Stark, Vice President of the Bundesbank, it was determined by a simple rule of thumb, not as could be assumed according to the ECB's share of the total assets of the Eurosystem – € 67 billion out of € 835 billion or 8.02 percent. It was decided that the ECB shall issue the average of the notes' total value per central bank. As the Eurosystem consists of 13 central banks with the right to issue banknotes, this means that the entity Eurosystem divided by 13 equals 7.69 percent or – rounded-up – 8 percent (Heusinger, 2001).

The decision of the Council also gives a hint to the question of how the amount of liquidity in the Eurosystem to be allotted in tenders will be allocated to the NCBs. The latter's share of the total issue of banknotes in the Eurosystem will be determined by their "paid-up share in the ECB's capital" (ECB, 2001c).

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Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn

Walter-Flex-Strasse 3
D-53113 Bonn
Germany

Tel.: +49-228-73-1732
Fax: +49-228-73-1809
www.zei.de