The diversity in national monetary and credit policies in Western Europe under Bretton Woods.

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During[1] the three decades following WWII, under the Bretton Woods regime and during the infancy of the European union, monetary policies in Western European countries shown very important differences. While cooperation kept increasing – taking place notably within the European Payments Union and, then, in the Gold Pool[2] – the instruments, objectives and institutional framework of the main European central banks remained mostly determined by national characteristics and did not converge toward a common benchmark.

Such differences are striking for today's economists, not only because of the European monetary union but also because of the convergence in central bank practices since the 1980s[3]. On the other hand, the strengthening of national characteristics is not surprising in the context of the post-war institutional shake up and transformation of the nation states. The immediate post-war period is characterized by the accomplished evolution of nation states into welfare states and the Bretton Woods period stands as the heyday of "embedded liberalism" or "coordinated capitalism"

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[1] I would like to thank Matthias Morys, Olivier Feiertag and Michel Margairaz who invited me to present successive versions of this work, as well as Youssef Cassis for his comments. I remain solely responsible for the interpretations, errors and omissions.

[2] The importance of cooperation between European central banks is especially highlighted by Olivier Feiertag, "Les banques d'émission et la croissance économique en Europe (1945-1973)" in O. Feiertag et M. Margairaz ed., *Politiques et pratiques des banques d'émission en Europe (XVIIe-XXe siècle),* Paris, Albin Michel, 2003, p. 595-622 ; Gianni Toniolo, *Central Bank Cooperation at the Bank of International Settlements, 1930-1973*, New York, Cambridge University Press, 2005. On the Gold Pool, see notably Barry Eichengreen, *Global Imbalances and the Lessons of Bretton Woods*, Cambridge, MIT Press, 2006, p.35-71 and Eric Monnet, "Une coopération à la française. La France, le dollar et le système de Bretton Woods, 1960-1965", Histoire@Politique, forthcoming.

[3] *Cf.* Pierre Siklos, *The changing face of central banking,* Cambridge University *Press*, 2003, or Christopher Crowe and Ellen Meade, "Central bank independence and transparency: Evolution and effectiveness," *European Journal of Political Economy*, vol. 24, n°4, 2008, p. 763-777.

that exacerbated national diversity in economic policies[4]. A common view is that the contribution of central banking to this fundamental change was solely to finance public spending through money creation and to include employment into central banks' policy objectives. Hence it is often claimed that the main, if not the only, changes of central banks after WWII were the end of their independence and their commitment to maintain low level of unemployment at almost any cost[5]. The strengthening of the nation state in Europe would have emasculated central banking.

Following recent historical studies that have highlighted the role of central banks in credit policy and banking supervision in the 1950s and 1960s[6], this paper takes a critical look at the common view. The relationships between central banks and the nation state under Bretton Woods is only partly described as subservience to fiscal policy. Central banking took a very active role in shaping the national financial systems, influencing the allocation of capital, and isolating national economies from international shocks.

Once such an essential role of central banks is recognized, two important questions arise: which factors explain the national differences in the relationship between central banks and the financial systems ? Are these factors related to the differences in the construction of the welfare state across countries ?

This article is a first step to provide an overview of the differences in the design and role of central banks in Western European countries from the end of WWII to the end of the Bretton Woods system. It focuses on France, Italy, Germany, United Kingdom, Netherlands and Belgium, that is the four biggest democratic economies at that time and the first members of the European Community[7]. As part of an ongoing work, it only gives some first thoughts on the issue of national diversity in European central banking in the 1950s and 1960s. Much further work remains to be done, including a detailed comparison of the stance of monetary policy, a systematic account of

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[4] John Ruggie, "International regimes, transactions, and change : Embedded liberalism in the postwar economic order", *International Organization,* vol. 36, n° 2, 1982, p.379-415 ; Barry Eichengreen, *The European Economy Since 1945 : Coordinated Capitalism and Beyond*, Princeton, Princeton University Press, 2006. On the diversity of capitalism in the 1950s and 1960s, see Andrew Schonfeld*, Modern Capitalism: The Changing Balance* of Public and Private Power, New York, Oxford University Press, 1965.

[5] For example, Pierre Siklos expresses this common view in the following way: "In the immediate aftermath of the wave of nationalization or state domination of central banks that took place around the end of World War II, central banks were, for the most part, viewed simply as subservient to governments. […] In an era where there was considerably more emphasis placed on the role of fiscal policy, monetary policy was viewed as passively supplying the ingredients required to guarantee aggregate economic well-being.[...] Nevertheless, with fiscal activism came inflation. Moreover, the adoption of quasi-fixed exchange rates in the aftermath of the Bretton Woods Conference meant that domestic monetary policy was subordinated to the monetary policies of the United States and, to a lesser extent, of Germany, at least in the continental European context." in Siklos, *The changing face*... op.cit, p.12-13.

[6] Especially Feiertag, *Les banques d'émission* … op.cit.

[7] The Luxembourg did not have a central bank before 1998.

institutional differences, and the extension to Scandinavia and South European countries.

I observe the national differences through four aspects: legal and political responsibilities of central banks, banking supervision and the links between central banks and the banking system, credit policy and economic planning and, finally, monetary policy instruments.

A first conclusion is that the differences across central banks partly reflect usual categories of "varieties of capitalism". The common distinction between market capitalism (United Kingdom), managed capitalism (Germany) and state capitalism (France) is at work under Bretton Woods central banking[8]. But the differences cannot be represented by a linear scale where the Banque de France would be the most "interventionist" and the Bank of England the least. The Bundesbank had the widest responsibility in banking supervision, the Banque de France was the most interventionist in credit allocation and the Bank of England was the most involved in managing and financing of government debt.

Second, the United Kingdom and West Germany stand out as very peculiar cases in comparisons to their Western European neighbours, France, Belgium, Italy and the Netherlands. The Bundesbank was more independent than any other central bank, German banking supervision was the most centralized but selective credit policy and economic planning were less important and developed. The specificity of the Bank of England is due to its little role in banking supervision and credit policy – relative to other central banks – , the priority given to fiscal policy over monetary policy and the prominent role of the Bank as the banker of the government. Considering the Bank of England as an exception rather than the rule may reshape the discussions about central banking in Western Europe under Bretton Woods and avoid sole focus on central bank independence or the influence of Keynesian monetary theory[9].

I then discuss some hypotheses about the mains factors that might explain the observed differences. Among political and cultural factors, the role and organisation of the state (especially federalism vs. centralization of power) and beliefs about state intervention and monetary theory played important roles. The legacy of WWII (including the occupation of Germany) also stands as an obvious explanation of the different paths followed by central banks. Among economic factors,

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[8] About this distinction, see notably Schonfield, *Modern capitalism…*, op.cit, Peter Hall and David Soskice, *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford, Oxford University Press, 2001 and especially Vivien Schmidt, "French capitalism transformed, yet still a third variety of capitalism", *Economy and Society*, vol. 32, n°4, 2003, p. 526-554.

[9] Histories of the changing role of central banks over the XXth century usually focus on the Bank of England as the main example of post-war central banking in the « Keynesian era », 1945-1973. Cf. Charles A. E. Goodhart (2011). "The changing role of central banks", *Financial History Review*, vol. 18, p.135-154, and John Singleton, *Central Banking in the Twentieth Century*, Cambridge, Cambridge University Press, 2011, chp.8.

the structure of the financial system greatly influenced the relationship between the central bank, the nation state and the economy[10].

From Nation states to the "nationalization" of monetary policy

The post WWII years led to a reconfiguration of the nation-states that exacerbated disparities in economic policies[11]. Credit and monetary policy had no reason to be excluded from this process. Whereas the economic literature has mainly focused on central bank independence[12], historical and political-science studies have pointed out that the main post WWII changes lie in the new role of central banks in the financial systems, and not only in government financing[13]. In a recent history of central banking in the XXth century, John Singleton names the many changes that occurred in 1945 the "First revolution in central banking". Although he devotes more attention to the subservience of monetary policy to fiscal policy, he concludes that "as a by-product of the distinctive post-war approaches to monetary and banking policy, central banks and commercial banks were brought into closer touch than ever before. Relations with the commercial banks were multifaceted, encompassing elements of cooperation, collusion, and coercion.[14]"

Under the gold standard and the gold exchange standard, the instruments of monetary policy (such as "Gold devices", discount-rate actions and open-market operations) were mainly intended to manipulate capital flows and sterilise gold movement in order to achieve international adjustments. These instruments were market-based and, except in some circumstances, did not distort importantly the allocation of credit or financial flows. Though some changes occurred in the 1930s and especially during the war, the new approach to the use of policy instruments was

[10] Among other important factors that should be discussed: wages and income policy, military relationships with the United States and exchange rate policy are left to further research.

[11] Gøsta Esping-Andersen, *The Three Worlds of Welfare Capitalism*, Princeton, Princeton University Press, 1990 ; Alan Milward , *The European Rescue of the nation state*, Cambridge, CUP, 2000.

[12] See, among others, Alex Cukierman, "Central bank independence and monetary policymaking institutions. Past, present and future", *European Journal of Political Economy*, vol. 24, n°4, 2008, p. 722-736. There are hundreds of papers written on this topic but still a lot of doubts on quantitative results and many confusions about the definitions of independence.

[13] Cf. Richard Kuisel, *Capitalism and the State in Modern France: Renovation and Economic Management in the 20th Century*. New York, Cambridge University Press, 1981 ; Michael Loriaux, *France after hegemony*, Ithaca, Cornell University Press, 1991 ; Olivier Feiertag, *Wilfrid Baumgartner (1902-1978), un grand commis à la croisée des pouvoirs*, Paris, CHEFF, 2006 ; Giuseppe Conti, Olivier Feiertag, Rosanna Scatamacchia, *Credito e Nazione in Francia e in Italia (XIX-XX Secolo)*,. Scatamacchia, Pisa, 2009 ; Eric Monnet, "Financing a planned economy. Credit, institutions and growth during France's Golden Age, 1954-1974.", mimeo, 2012.

[14] Singleton, *Central banking…,* op.cit, chp.7.

extended and firmly established after WWII. The new approach included direct quantitative controls on banking credit and liquidity that aimed to distort the allocation of capital. In most European countries, these instruments were designed to give domestic policy an important autonomy and were oriented to support industrial policy.

One of the reasons that motivated European countries to adapt their monetary policy to national political and economic characteristics was to partially isolate domestic policy from international constraints. Doing so, monetary policy was integrated (though at different degrees...) to industrial and credit policy and became an essential part of the "coordinated capitalism" era.
Charles Rist is famously supposed to have said that "democracy killed the gold standard"[15]. After WWII, European democracies not only turned to capital controls in order to avoid the constraint of the golden fetters, they also built new institutions in order to integrate more closely monetary policy to industrial policy, banking policy and fiscal policy. For central banks, the nationalization of monetary policy was not a passive process aiming to protect the economy from international shocks but a set of active policies in order to reconstruct the country and growth potential. A 1956 overview of European monetary policies thus concluded that the history of central banking had led to an apparent contradiction: the economic and political power of central banks had greatly increased in the same time that the *legal* power of government over central bank also kept increasing[16].

In several countries, most importantly Italy and France, the new role of central banks was integrated in a set of policies officially called the "nationalization of credit" (*nationalisation du crédit, nazionalizzazione del credito)*. This term was not synonymous with the legal nationalization of financial institutions but meant that many institutional complementarities were established in order to allocate credit alongside social and national priorities[17].

Strangely enough, few attention and few comparative studies have been devoted by historians to national differences in central banking across Europe and their economic and political consequences. Much more has been written on monetary cooperation and the construction of the European union in the 1950s and 1960s. Nor has the "varieties of capitalism" literature in political sciences devoted much attention to diversity in central banking under Bretton Woods. No complete comparative perspective on this topic has been written since the 1970s[18]. Though very useful, these

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[15] Quoted notably by Robert Mundell, "Currency Areas, Exchange Rate Systems and International Monetary Reform", *Journal of Applied Economics*, vol. 3, 2000, p. 217-256.

[16] Ministère de l'Économie et des Finances, "Le contrôle du crédit en France et à l'étranger", *Statistiques et Études Financières,* Supplément, n° 90, 1956, p.636.

[17] Kuisel, *Capitalism…,* op.cit, Monnet, *Financing…,* op.cit et Claire Andrieu, "A la recherche de la politique du crédit, 1946-1973", *Revue Historique*, vol. 271, n° 2, 1984, p. 377-417.

[18] Donald Hodgman, *National Monetary Policies and International Monetary Cooperation*, Boston, Little, Brown and

studies relied only on official sources issued publicly by central banks and did not attempt to provide explanations of the disparities. They usually devoted one chapter to each country rather than offering a global comparative perspective. They used mainly reports that had been published by international institutions[19]. Later work by American political scientists[20] focused on the mutations of the 1970s and 1980s but adopted a narrower perspective. Since then, the comparative perspective on central banking mostly became obsessed by central banks' degrees of independence and has often neglected the details of monetary policy operating procedures and credit policy.

Legal and political responsibilities

It is well known that the degree of independence of the central bank from the government was considerably reduced during and after WWII[21]. But differences in legal and political independence across countries were very important. There was a considerable gap between *de facto* and *de jure* control by the government[22]. Political practices and bargaining power between central banks and government varied not only between countries with similar legal frameworks but also within a country overtime. This caveat was already noted by contemporary observers[23].

West Germany is without a doubt the country in which legal independence became the most important. But during the first decade of the Bretton Woods system, German central banking remained very dependant on the Allies' policy, especially on the requirements and advocacies of United States[24]. As shown by Monica Dickhaus or Carl-Ludwig Holtfrerich, the independence of

Co., 1974 and Karel Holbik ed. *Monetary Policy in Twelve Industrial Countries*, Boston, Federal Reserve Bank of Boston, 1973.

[19] The main comparative studies published by international institutions were :
European Economic Community (EEC), *The instruments of Monetary policy in the countries of the European Economic Community*, Luxembourg, Office for Official Publications of the European Communities, 1962 ; Bank of international settlements (BIS), *Eight European central banks*, New York: Praeger, 1963 ; European Economic Community (EEC), *Monetary policy in the countries of the European Economic Community: institutions and instruments*, Luxembourg, Office for Official Publications of the European Communities, 1972 ; Organisation for Economic Co-operation and Development *(OECD), 1975, The Role of Monetary Policy in Demand Management: The Experience of Six Major Countries,* OECD Monetary Studies Series, Paris, 1975.

[20] John Zysman, *Governments, Markets and Growth: Finance and the Politics of Industrial Change*, Cornell University Press, 1983 ; John Goodman, *Monetary Sovereignty. The politics of central banking in western Europe*, Ithaca, Cornell University Press, 1992. The two books studied three countries only. Moreover Goodman focused more on central bank independence rather than on the financial system and Zysman was interested in the financial system rather than in central banking.

[21] Singleton, *Central banking…,* op.cit, chp.7 ; Siklos, *The Changing Face..,* op.cit, chp.1.

[22] Siklos, *The changing face…,* op.cit, chp. 2 ; John Fforde, *The Bank of England and Public Policy, 1941-1958*, Cambridge, Cambridge University Press, 1992; Feiertag, *Wilfrid Baumgartner …* op.cit; Forrest Capie, *The Bank of England: 1950s to 1979*, Cambridge, Cambridge University Press, 2010.

[23] Ministère de l'Économie et des Finances, "Le contrôle du crédit en France et à l'étranger", *Statistiques et Études Financières,* Supplément, n° 90, 1956, p.637.

[24] Carl-Ludwig. Holtfrerich and Toru Iwami, "Post-war Central Banking Reform: A German-Japanese Comparison", in C-L. Holtfrerich, J. Reis, ,G. Toniolo ed., *The Emergence of Modern Central Banking from 1918 to the Present,*

the central bank was the result of the fear of the Allies to give power to a centralized German government and a strategy to avoid a new hyperinflation[25]. The structure of the German system was created by the Allies in order to copy the US Federal Reserve System. Before the birth of the Bundesbank in 1957, it comprised the central banks of the Länder *(Landeszentral banken)* and the Bank deutscher Länder created by a decree on 1 March 1948. The central banks of the Länder acted as central banks within their areas of jurisdiction and they were legally independent even though their members were appointed by the parliaments of the Länder. The law of 10 August 1951 specified that the Bank deutscher Länder might not contradict the general policy of the government but that "it is not subject to instructions from any political body or public office'". Members of the Federal government had the right to attend the meetings of the Central Bank Council and could propose motions to it but they could not vote. The 1957 Act maintained this independence and only made the system more centralized: the *Landeszentral banken* were now branches of the Bundesbank. The capital was still owned by the German state.

Other European central banks enjoyed less independence, even though, in practice, none of them was completely subject to the instructions of the government. Institutions in each country gave bargaining power to both parties: government and central bank. The central banks of the United Kingdom, France and the Netherlands were completely nationalized[26] while the Banque nationale de Belgique was half-nationalized and the Bank of Italy kept its 1936 status (i.e. shareholders should be public institutions). In these countries, the members of the board were appointed by the government. Besides capital property and the appointment of the board, the stance of the government interventions was usually not clearly defined and it let a lot of room for various interpretations and practices. Only Belgium prohibited instructions from the government to the central bank, but the Finance minister exercised his control through a Government commissioner that had a veto in respect of any measure "contrary to the interests of the State". Only in the United Kingdom, the 1946 law stipulated that the government could give to the Bank of England all the instructions that "it thinks necessary in the public interest"[27].

In other countries, the nature of the relationships between the government and the central bank was not stipulated in the law. Belgium, Italy and France changed the capital structure of their central bank but founded their new monetary policy on laws (banking laws and central banks'

Aldershot, Ashgate, 1999, p. 69-110.

[25] Monika Dickhaus, "Fostering 'the bank that rules Europe': the Bank of England, the Allied Banking Commission, and the Bank deutscher Länder, 1948–51", *Contemporary European History*, vol. 7, 1998, p. 161-179. Carl-Ludwig Holtfrerich, "Monetary policy in Germany since 1948: national tradition, international best practice or ideology?", in Jean-Philippe Touffut, *Central Banks as Economic Institutions*, Cheltenham, Edward Elgar, 2008, p. 22-51.

[26] The Nederlandsche bank is still a society with limited liability but the law sets that the state is the only shareholder.

[27] Bank of England Act 1946, art.4

status) passed in the 1930s. The Netherlands, which had not passed any banking law in the 1930s, constructed a new financial architecture between 1948 and 1952 where the central bank became the centre of the puzzle. In the 1952 act, the *Nederlandsche Bank* was officially given the task to supervise the credit system[28].

The main post-war institutional innovations in continental Europe lie in the creation of committees in charge of credit policy. They were related to the central banks in a variety of ways. But, again, it seems that the practice were more important than the law. In France, the National Credit Council (*Conseil National du Crédit*), created in December 1945, belonged to the Banque de France but the vice-president was the Minister of Finance. Nevertheless, he attended the meetings only two times over twenty years[29]. In Italy, credit policy was exercised by the Interministerial Committee for Credit and Savings (*Comitato Interministeriale per il Credito e il Risparmio*) created by law in 1947. The governor of the Banca d'Italia participated to the meetings and the Banca had the operational authority and inspired most of the measures[30]. A 1972 report thus concludes that "the government's powers to lay down general guidelines for monetary policy do not prevent the Bank of Italy from filling a role of great importance. Wide discretionary powers have been conferred on it for the application to the banking system of ministerial directives and it enjoys almost complete autonomy as regards the way in which it controls the banks"[31].

The centralization of several committees (discount committee, commission of banking supervision, foreign exchange operations etc.) within the central bank was important in Germany, UK and France. In Italy and in Belgium, the most important committees were not part of the central bank. Belgium is the most striking case because the banking commission (*Commission bancaire*), the open market commission (*Fonds des rentes*) and the rediscount committee (*Institut de réescompte et de garantie*) did not belong to the central bank. But the Banque Nationale de Belgique was represented in all these institutions[32].

Next sections will investigate whether these legal and organizational frameworks were related to important differences in the conduct of monetary policy.

Banking supervision and relationships with the banking system

[28] Joke Mooij, Henriette Prast, "A Brief History of the Institutional Design of Banking Supervision in the Netherlands", WO Research Memoranda, n°703, Netherlands Central Bank, Research Department, 2002.

[29] Andrieu, *Á la recherche…,* op.cit.

[30] Cf. Ministère de l'Économie et des Finances, "Le contrôle du crédit en France et à l'étranger", *Statistiques et Études Financières,* Supplément, n° 90, 1956, p.638.

[31] EEC, *Monetary policy…,* op.cit, p.17.

[32] Isabelle Cassiers, Philippe Ledent, *Politique monétaire et croissance économique en Belgique à l'ère de Bretton Woods (1944-1971),* Banque Nationale de Belgique, Bruxelles, 2005, p.64-68.

All along the Bretton Woods period, central banks were widely involved in banking and financial regulation. Among their functions, they set legal interest rates ceilings and liquidity ratios such that banking regulation could not be separated from monetary policy. This is in striking contrast with the XIXth century as well as with the current period. Today, banking regulation is mostly exercised by independent administrative authorities, even though the current financial crisis is changing the deal. Before WWII, there was a substitutability between banking regulation and monetary policy: countries that concentrated their note issues in central banks earlier were less in need of a banking code[33].

The most important consequences of the post-war reforms were first the integration of monetary policy and banking regulation (which was not necessarily done in the 1930s banking acts) and, second, the development of public credit institutions as substitutes to banks. As we will see in the next section, central banks' responsibility in regulation and banking supervision is not mechanically related to the extent of their intervention in credit allocation (and then industrial planning). The strongest supervisors were not necessarily the central banks that were more involved in planning.

In France, there was a separation between commercial banks (nationalized and private) which were regulated by the *Commission de controle des banques* (which belonged to the Banque de France) and the semi-public credit institutions which were regulated by the Treasury. In Italy, the Committee for credit and savings was responsible for the supervision of commercial banks and public credit institutions.

In Germany, a specific debate on banking regulation took place because of the Federal system[34]. Initially, pursuing the role of the 1939 banking act, there was a proposal in 1948 to coordinate the banking supervisory authority of the Landër with the directives issues by the Bank eutscher Landër. Finally, after long negotiations, the Banking Act of 1961 assigned responsibility for supervising credit institutions and the subsequent new category of financial services institutions to the Federal Banking Supervisory Office (*Bundesaufsichtsamt für das Kreditwesen* or BAKred), which was set up as an independent superior Federal authority reporting to the Federal Minister of Economics. The Bundesbank then became responsible for implementing supervision in practice. This movement toward a more effective and centralized banking regulation was described by Charles Kindleberger in these terms:

[33] Richard Grossman, "The Emergence of Central Banks and Banking Regulation in Comparative Perspective," in S. Battilossi and J. Reis ed., *State and Financial Systems in Europe and the USA: Historical Perspectives on Regulation and Supervision in the Nineteenth and Twentieth Centuries*, Aldershot, Ashgate, 2010, p. 123-138.

[34] Günter Franke, "The Bundesbank and Financial Markets", in Deutsche Bundesbank ed., *Fifty Years of the Deutsche Mark*, Oxford, Oxford University Press, 1999, p.219-66.

> "The centripetal character of banking is illustrated in this gradual organization of German banking into an hierarchical structure despite the efforts of occupation authorities, largely at American instigation, to decentralize the system and to root it widely in the states.[35]"

The result was a very powerful banking supervision in the hand of the Bundesbank that covered a very high number of institutions. In many ways, this is the broader regulatory coverage at that time in Europe for a central bank since, in the other countries, (public) credit institutions were supervised by governments. As observed by Stephen Cohen:

> "The first thing to note about the Bundesbank's power is the number of institutions covered by its regulatory powers. Any institution that performs banking functions in Germany is considered to be a bank. This covers more ground than might be suspected at first since the definition of banking functions is broader in Germany than in the USA. Under the Federal Republic's rules, any credit institution that deals with deposits, loans, security transactions or the safe keeping of securities for others is a bank for regulatory purposes."[36]

The main reason for such a broad coverage was the tradition of universal banking that prevailed in Germany, while in Italy, France, Belgium and in the Netherlands, there was a somewhat clear distinction between "monetary institutions" that create money from deposits and "financial or credit institutions" that rely on other sources of refinancing (state ownership, bonds issue).

In Belgium, the independent *Commission bancaire* was in charge of banking supervision but kept constant relationships with the Banque Nationale[37]. In the Netherlands, the powers of banking controls were exercised by the central bank itself. The thrift and semi-public credit institutions were supervised by the government.

The Bank of England is again the exception since it was the only central bank not officially in charge of banking supervision before 1979. Negotiations took place between the Bank and the main banks in order to set a common liquidity ratio (30% of the total deposits) in order to ensure financial stability but such a ratio could not be used as an instrument of monetary policy.[38] The ability to control the banks (including a broad statistical coverage of banking credit and assets) was not as complete as on the continent and this issue was little discussed within the Bank of England

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[35] Charles Kindleberger*, A Financial History of Western Europe* , Oxford, Oxford University Press, 1984, p.420.

[36] Stephen Cohen et alii. *Monetary Policy, Selective Credit Policy and Industrial Policy in France, Britain, West Germany and Sweden*, A Study Prepared for the Use of the Joint Economic Committee, Congress of the United States, June 26, 1981, U.S. GPO, Washington, p.102.

[37] Cassiers et Ledent, *Politique monétaire...,* op.cit, p.67.

[38] Banque des règlements internationaux*, Huit banques centrales européennes*, Paris, PUF, 1963, p.116.

before the 1970s[39].

Interventionist credit policy and economic planning

Comparing the extent of state intervention in "credit policy" is not an easy task since the definition of such a policy differed across countries. I define an interventionist credit policy as any means employed by the government or the central bank to influence the allocation of credit (both through its price or through its quantity). It is usually a part of a more general economic planning. An "interventionist credit policy" is synonymous to "selective credit controls" as long as the term "controls" includes both qualitative and quantitative controls. It is different from fiscal policy and direct subsidies from the government to some industries. It also must be conceptually distinguished from monetary policy even though these two policies were often combined by European central banks and instruments of monetary controls such as discount ceilings were also instruments of credit selectivity. Whereas monetary policy deals with the management of the price level through the control of the volume of money and credit, credit policy is concerned with the allocative process of credit – including channelling funds to government rather than to the private sector. Finally, an interventionist credit policy is not synonymous to banking supervision although the two are regularly intertwined. Banking supervision may claim to be neutral on competition and to focus on stability while credit controls aim to distort competition in order to give an competitive advantage to some sectors of firms. This is why only the latter is usually associated with "financial repression".

Hodgman provides a nice summary of the motivations behind the choice of selective credit controls[40]:

> "in European experience credit controls have been motivated by a variety of purposes. These have been (1) to finance government debt at lower interest rates than market preferences would permit; (2) to check the flow of credit to the private sector without raising domestic interest rates and thus attracting foreign funds through the balance of payments; (3) to influence the allocation of real resources to priority uses; (4) to block channels of financial intermediation and thus to assist a restrictive general monetary policy by impeding a rise in velocity; and (5) to strengthen popular acceptance of price-wage controls by holding down interest income to credit granting institutions

[39] Capie, *The Bank of England…,* op.cit, chp.12.

[40] Donald Hodgman, "Credit controls in Western Europe: an evaluative review", in *Credit Allocation Techniques and Monetary Policy*, The Federal Reserve Bank of Boston, conference series n°11, 1973, p. 137-8. These mechanisms are explained further in Eric Monnet, "Monetary policy without interest rates. An evaluation of quantitative controls during France's Golden Age, 1948-1973", mimeo, 2012.

and private investors”

A highlighted by Hodgman, West Germany was the country where credit controls were less used and the Federal government and the central banks were more reluctant to intervene in credit allocation. The United Kindgom and the Netherlands occupied an intermediate position, although Hodgman considers the UK planning experience (1948-1951) to be part of the third (more interventionists) groups of countries. In the Netherlands, all the set of credit controls were used but there were attempts to avoid too much distributive effects. The coordination with industrial policy was not so stringent and qualitative guidelines were not systematic. This was in part due to the lower importance of (semi) public credit institutions. In Belgium, Italy and France, credit policy became a prominent feature of the financial system and state intervention had an influence in almost every sector. In the words of Hodgman, “the principle of controlling credit flows and interest rates to serve national economic interests is fully accepted and has been extensively applied in practice” in these three countries”[41]. Credit policy notably relied on the new ability of the central banks to refinance banks or public credit institutions at a long maturity (usually up to 5 years)[42].

It is noteworthy that these differences in the extent of credit policy do not strictly reflect the differences in the status of the central banks and the organization of banking supervision highlighted in the previous section. West Germany had the more independent central bank, universal banking and thus centralized banking supervision, and was the less interventionist in credit policy. Nevertheless, before the creation of the Bundesbank, the Bank of deutscher Lander was involved in the financing of the reconstruction through an active credit policy. The policy was mainly based on the *Kreditanstalt für Wiederaufbau* (Credit institution for reconstruction), created in 1948 and charged with facilitating credit for postwar reconstruction. Even though it was originally forbidden, the central bank soon started to grant long term loans to the Kreditanstalt and thus supported the reconstruction of the priority sectors and export oriented industries[43]. In Germany, as well as in France or Italy, policy-makers understood that long term borrowing from the central bank was inflationary. The trade-off between low inflation (stable currency) and the necessity to finance the reconstruction process was thus at the core of most European central banks' policies in the 1950s.

But whereas the Bundesbank thought that the role of the central bank in credit policy was only limited to the reconstruction, the Banque de France still considered it as an essential function

[41] Hodgman, *National monetary policies…,* op.cit, p.138.
[42] Cf. Feiertag, *Les banques d'émission …,* op.cit. ; Monnet, *Financing…,* op.cit.

[43] Armin Grünbacher, *Reconstruction and Cold War in Germany: The Kreditanstalt für. Wiederaufbau (1948–1961),* Burlington, Ashgate, 2004. See notably pages 84 to 87.

throughout the period[44].

In England, economic planning, supported by Keynesian thoughts and policies, was an important part of British economic policy and state intervention over this period[45]. The involvement of the British state in industrial policy and wages determination was strong even though not as important as in France. But contrary to France or Italy, the role of the central bank in credit allocation and economic planning was rather small. The Bank of England financed the government which then invested in some priority sectors. Contrary to other central banks, the Bank of England did not refinance long term bills and only accepted the usual 3 months bills of exchange. The network of public credit institutions and the role of the central bank in credit selectivity (notably through the discount window) that existed in the Belgium, Italy or France was not a part of British economic planning. The government issued investment guidelines and controlled banking credit in some industrial sectors but it was not the Bank of England 's attribution and it was almost disconnected from monetary policy instruments[46]. The primary role of the Bank of England was to be the banker of the government. We will see below how such a peculiarity was clearly reflected in the balance sheet of the Bank.

Monetary policy instruments

The previous discussion on interventionist credit policy highlights that selective credit controls were both interventionist measures in the allocative process and tools to control the money supply and inflation. The dual role of credit controls is fundamental to understand central banks practices in post-war Europe. Different instruments can reflect both different beliefs on state interventionism and different monetary objectives.

This interaction between monetary policy instruments and interventionist credit policy is reflected in two elements:

1) the composition of the balance sheet of the central bank
2) the choice between controlling prices (interest rates) or quantities

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[44] Monnet, *Financing…*, op.cit.

[45] Jim Tomlinson, *Democratic Socialism and Economic Policy: The Attlee Years, 1945-1951*, Cambridge University Press, 1996. Glen O'Hara, *From Dreams to Disillusionment: Economic and Social Planning in 1960s Britain*, Basingstoke, Palgrave, 2007.

[46] Duncan Ross, "Domestic monetary policy and the banking system in Britain 1945-1971", In: R. Michie, and P. Williamson ed.,*The British government and the City of London in the twentieth century*. Cambridge University Press, Cambridge, 2004, p.298-321.

Balance sheets

Because of the different nature of the relationships between central banks and governments on one hand and the central bank and the banking system on the other hand, the operating procedures and the assets positions of European central banks are likely to show important disparities.

The following graphs (2 to 7) show the composition of the assets of the central banks in the six European countries. For comparisons, I also reproduce the balance sheet of the Federal reserve (graph 1). Table 1 compares the volumes of the balance sheets with economic activity (GNP) in these countries. Since not all central banks published balance sheet data over this period, I use statistics from various internal reports produced by the BIS[47]. The categories of assets are chosen in order to favour comparisons. As such, I identify four main categories: gold, foreign exchange reserves, credit to the government and credit to the economy. Although this data base is preliminary and not homogenized (in terms of sample), this first overview is nonetheless very instructive. Rather than the total amount of the balance sheet over GNP, the main differences lie in the composition of the assets. Central banks that were more involved in credit policy, France and Italy, devoted a larger share of their assets to credit to the economy. In Europe, open market operations were only used in the UK and, to a lesser extent in West Germany. The amount of central bank' assets as a proportion of GDP in these countries is thus lower than in the other countries. Although there has been a form of interventionist credit policy in the UK, the Bank of England was not involved in it and it was left to the government. Purchases and sales of treasury bills on the money market and issuance of gilt edged securities was the main activity of the Bank. With no surprise, the Bundesbank, as a very independent central bank, was little involved in government financing. Finally, the high number of central bank's credit to the economy in France should be put into perspective. Until 1973, around half of direct financing to the government was actually considered as "credit to the economy" in the balance sheet of the Banque de France, through a complex and disguised mechanism[48].

Table 1: Central banks's balance sheets and economic activity

Country	Central bank's balance sheet in percentage of	Credit to the economy by the central bank. %	Credit to the government by the

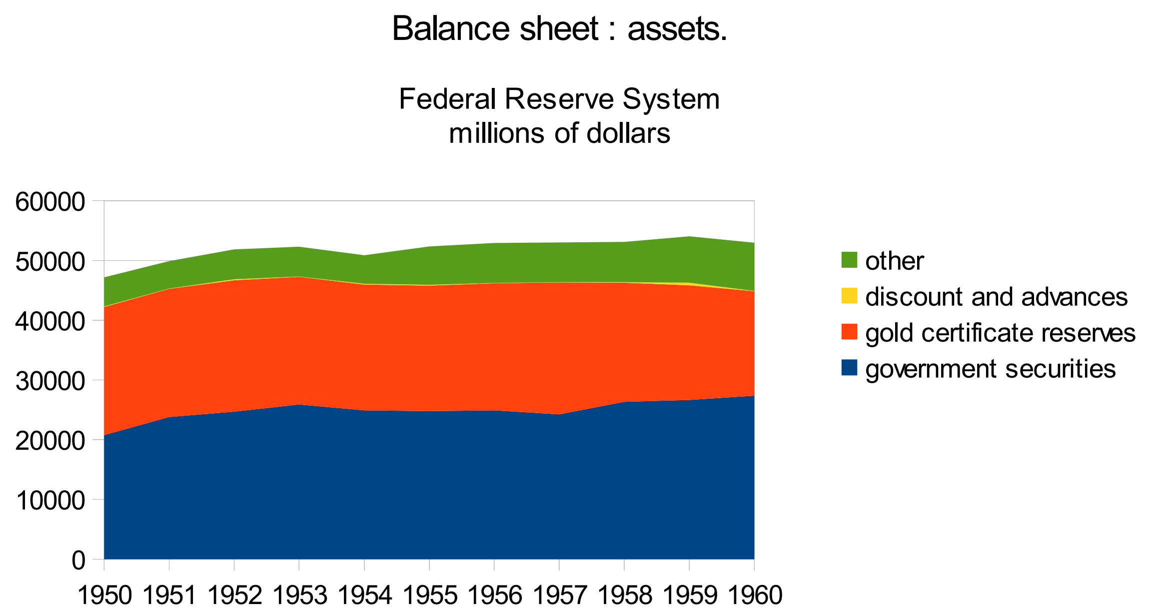
[47] I use the files "Monetary and economic situation" for each country. Bank of international settlements archives, BISA, CB 301 &302.

[48] . Eric Monnet, *Politique monétaire et politique du crédit en France, 1945-1973*, thèse de doctorat, EHESS, 2012, chp. 2, appendix 2.

	GNP in 1958	of GDP, 1958	central bank. % of GDP, 1958
USA	14,4 %	0,01 %	7, 2 %
Belgium	25,6 %	0,5 %	8,3%
France	17.00%	10,2 %	4,6 %
Germany	15,4 %	0,3 %	2,4 %
Italy	19,5 %	2,5 %	6,2 %
Netherlands	18,7 %	0, 02 %	1,0 %
United Kingdom	10,8 %	0,2 %	10,6 %

Sources: BISA; "Monetary and economic situation" by country.

Figure 1: United States



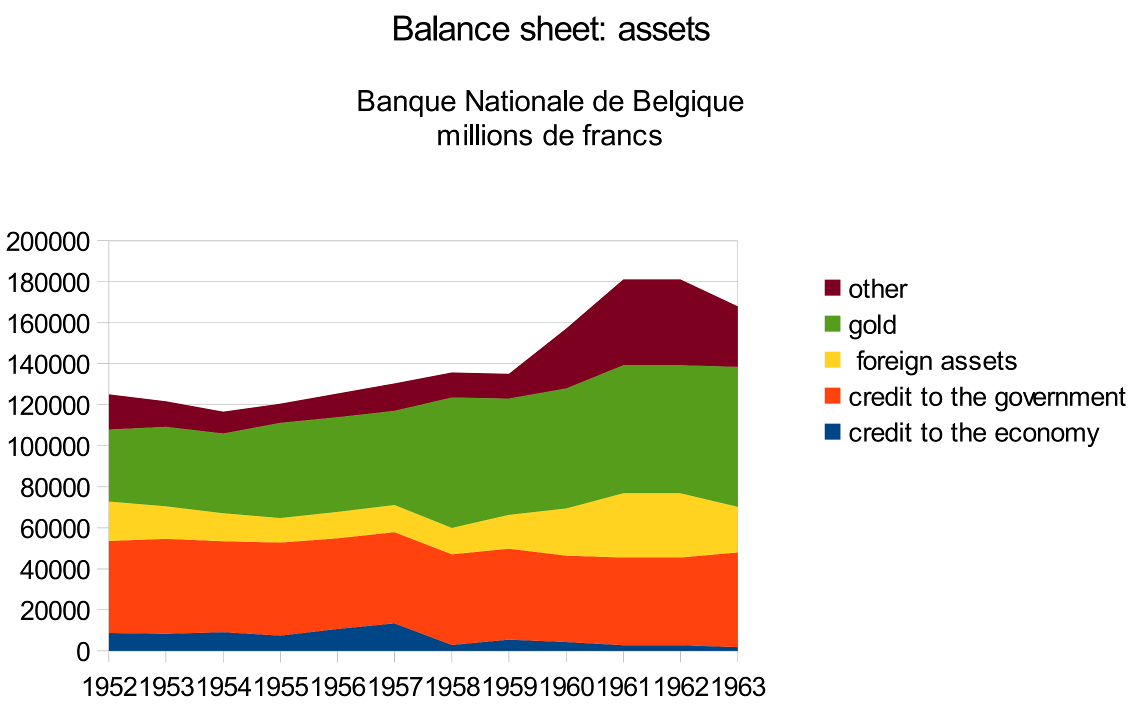
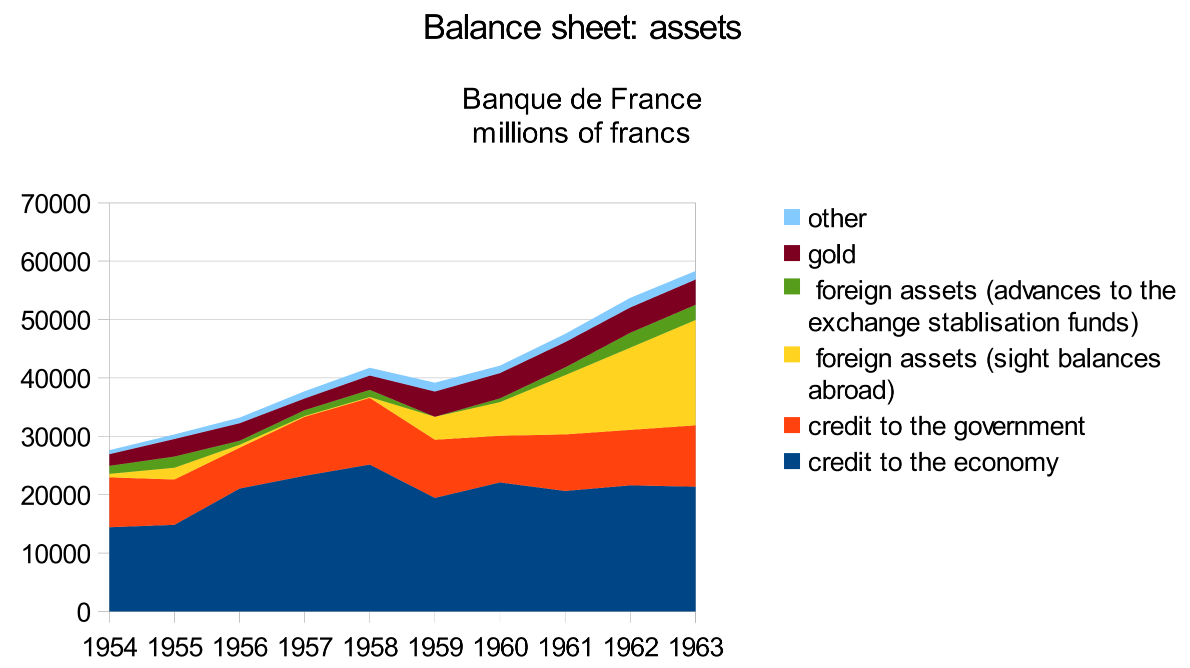


Figure 2: Belgium

Figure 3: France



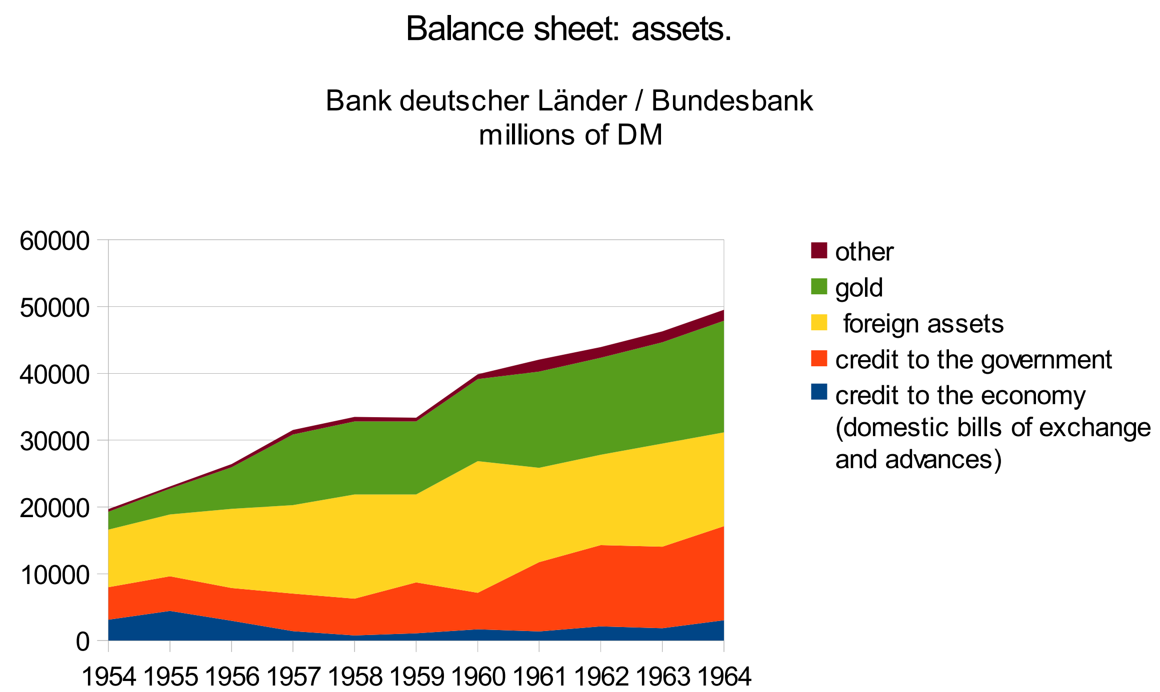


Figure 4: West Germany

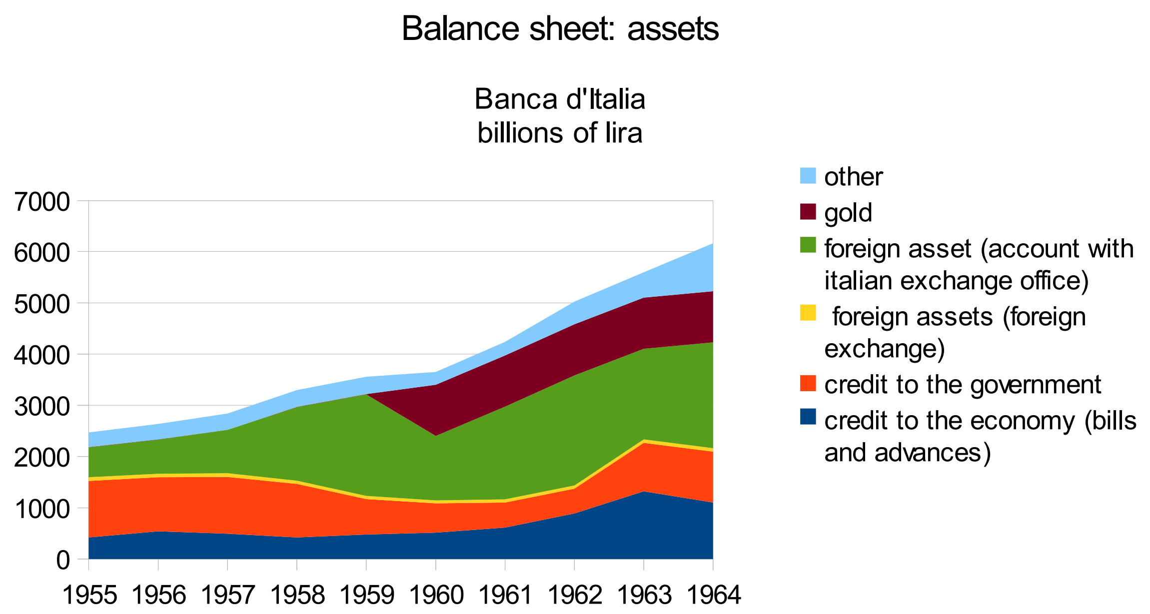


Figure 5: Italy

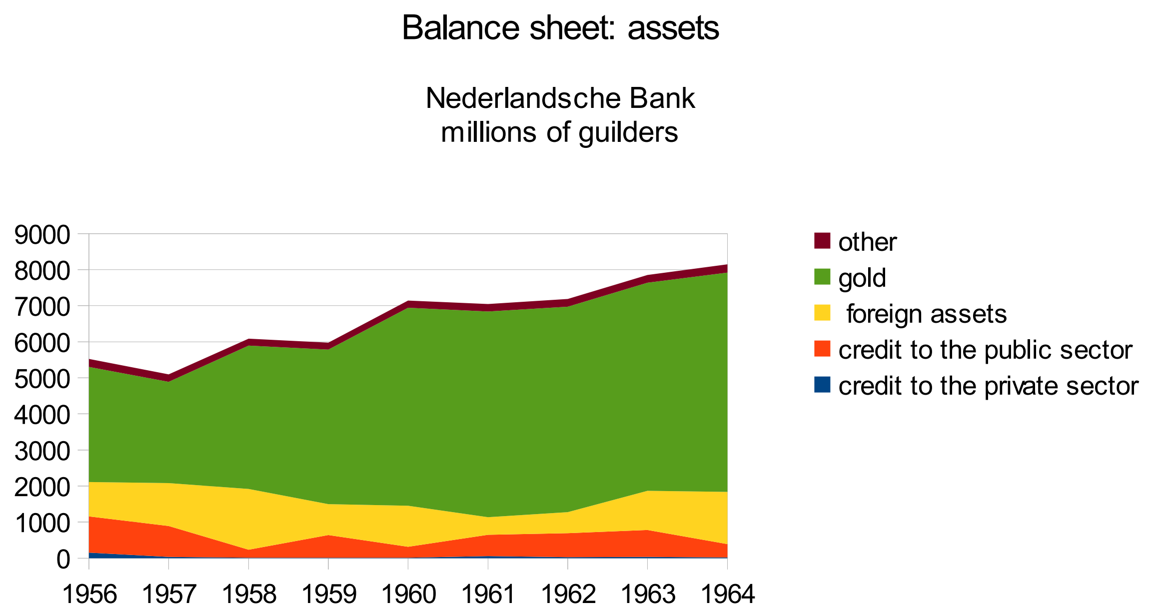


Figure 6: Netherlands

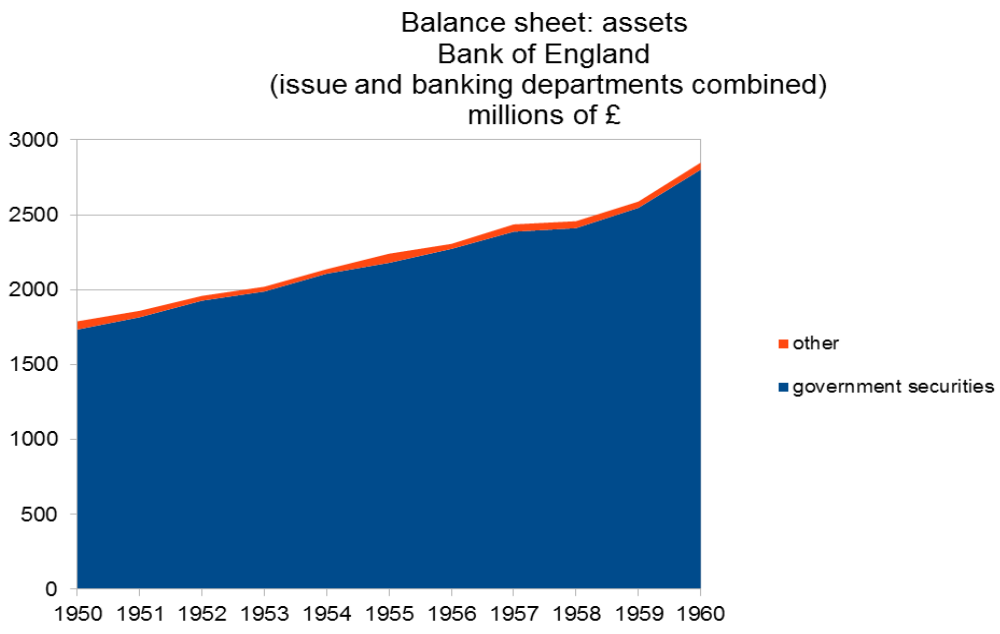


Figure 7: United Kingdom

Interest rates, quantitative controls and the international constraint

Short term stabilization of the price level and balance of payments deficits were achieved through different means across Europe. Four main types of instruments were used:

- discount rate
- open market operations
- liquidity or reserves ratios
- credit controls (discount ceilings or direct limits on credit expansion)

Most of the countries used all of them but the weight given to each of them was very different. The Bank of England gave priority to the discount rate and open market operations even though it used controls on bank lending starting 1961. The Bundesbank to the discount rate and to reserves requirements. France, Italy, Belgium and the Netherlands (as well as Scandinavian countries) used all of them with a special emphasis on the 3rd and 4th types[49]. A common view at that time – at least

[49] EEC, *Monetary policy…*, op.cit. ;OECD, *The role of monetary policy…*, op.cit.

in France – was to name the discount rate and open market operations "qualitative instruments" of "credit policy". Other instruments were referred to as "quantitative" and were thought as[50] necessary to pursue an interventionist credit policy. French economists concluded that only England was relying only on "quantitative" instruments.

I do not have sufficient space here to provide a complete picture of the use of these instruments. Instead, I focus on the following question: why did these central banks not use interest rates as their primary instruments and why did they keep a low interest rates while imposing important variations in quantities of money or credit ?

As discussed earlier, one obvious reason to use quantitative controls rather than interest rates is credit selectivity. But rationing credit rather than relying on an interest rate mechanism has another important feature besides the distortionary effect on the banking system. Using credit controls can disconnect domestic monetary policy from the foreign exchange policy. It is well known – from the Mundell trilemma - that in a fixed exchange rate regime, there must be no autonomy of monetary policy if the capital account is liberalized. If a country is in balance of payments surplus but wishes to pursue a restrictive monetary policy, it is not able to do so because an increase in interest rates would increase capital inflows and, then, its surplus. Credit controls as well as capital controls thus aimed to give more autonomy to monetary policy. Both strategies reinforced each other.

In his scrupulous study of post-war West German monetary policy, Carl Ludwig Holtfrerich has characterized the Bundesbank policy as "monetary mercantilism" that aimed "to promote exports and block competition from imports"[51]. According to the author, monetary policy was constrained by fixed exchange rates and had a margin of freedom thanks to fiscal policy and collective pay bargaining[52]. The discount rate was both a valid signal on international market and for domestic monetary policy.

While other European countries used mainly credit policy to disconnect international and domestic monetary policy, West Germany attempted to make the two coincide. When they could not coincide, fiscal or wage policy were used. This can be explained either as a result of the non-willingness to use credit control both because of the reasons mentioned above (federalism, ordoliberalism, universal banking) and because of the active "mercantilist" monetary policy that emphasized the role of foreign exchange policy.

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[50] Cf notably : Ministère de l'Économie et des Finances, " Le contrôle du crédit en France et à l'étranger ", *Statistiques et Études Financières,* Supplément, n° 90, 1956, p.630-719 ; Pierre Lequéret, " Les expériences étrangères de contrôle du crédit, depuis la seconde guerre mondiale ", *Revue économique*, , vol.2, n°5, 1951, p. 543-559.

[51] Carl-Ludwig Holtfrerich, "Monetary Policy under Fixed Exchange Rates (1948-1970)", in *Fifty Years of the Deutsche Mark. Central Bank and the Currency in Germany since 1948*, Oxford, OUP,1999, p.342.

[52] Holtfrerich, *Monetary policy under fixed exchange rates…*, op.cit, p.396.

Was the interest rate a good signal of domestic monetary policy stance only in West Germany ?

To assess this hypothesis, I run simple econometric regressions of monetary policy reaction functions for European countries under Bretton Woods, once convertibility was restored, that is starting 1958. I run several regressions with standard specifications and kept the more robust form. All these specifications include a variable of output, a variable of inflation and the discount rate of the Federal Reserve. It turns out that the results are much more robust with quarterly data, even when monthly data are de-seasonalized. For output, I use the deviation of the industrial production index from its trend in order to have a measure of the output gap. For inflation, I use the deviation of the price level form its trend[53]. The result are more robust than when using the inflation rate and it requires less assumption than assuming a constant inflation target over the period. The dependent variable is the central bank leading interest rate and the explanatory variables are the lag valued (previous quarter) of the output gap, the inflation gap, and the current value of the Fed discount rate. I include a constant but no past values of the interest rate. The results are reported in Table 2.

Except for Banca d'Italia, that maintained a very stable discount rate over the period[54], the coefficient of the Fed rate is always significant and pretty high (from 0.5 to 0.8) though never equal to 1. Interestingly, the more significant are the coefficients on output and inflation, the lower is the value of the coefficient on the Fed rate (except for Italy). France and Germany are the extreme points and Netherlands and the UK constitute intermediate cases. It can be interpreted as follows: the countries that did not use the interest rate as the main instrument of domestic policy could follow very closely the US rate whereas the countries that used the interest rate as a crucial variable for domestic and foreign policy faced a permanent trade-off. Capital controls then played their role to diminish the constraint.

According to these econometric results, only the German bank rate was significantly affected by changes in production and prices. Using a different specification, Helge Berger also found that the Bundesbank policy responded to output and inflation over this period. I have shown here that this result is specific to Germany[55]. Only in Germany, domestic and foreign exchange policies coincided.

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[53] Both trends are calculated using a Hodrick – Prescott filter.

[54] From April 1950 to June 1958, it was set to 4%. It then remained equal to 3,5% until July 1969.

[55] Helge Berger, "La Bank deutscher Länder et le 'miracle économique' allemand, la politique monétaire de l'Allemagne dans les années1950", in O.Feiertag and M.Margairaz, *Politiques et pratiques des banques d'émission en Europe (XVIIième-XXième siècle),* Paris, Albin Michel, 2003, p. 623-655.

Table 2. Monetary policy reaction functions: determinants of interest rates. 1957-1971 (quarterly data).

	France	Germany	Italy	Netherlands	United Kingdom	Belgium
Output gap (-1)	-0.77 (0.58)	0.41*** (0.09)	-0.00 (0.04)	0.21 (0.13)	0.13 (0.087)	0.05 (0.06)
Inflation gap (-1)	-0.04 (0.07)	3.33*** (1.96)	2.77 (3.51)	1.09 (0.70)	2.26 (2.07)	1.20 (0.70)
Fed rate	0.87*** (0.14)	0.51*** (0.09)	-0.01 (0.03)	0.54*** (0.06)	0.69*** (0.10)	0.70*** (0.10)
R^2	0.56	0.58	0.01	0.66	0.55	0.6

Standard errors are in parenthesis. *** indicates a significance level of 1%.

These results can be interpreted in two ways, depending on our knowledge of the other instruments used by the central bank and their view about monetary policy. In the English case, the non-significance of these coefficients rightly reflects the claims of the Radcliffe report that monetary policy was not effective. The Bank did not attempt to use other kind of tools and believed in fiscal policy to stabilize inflation. In the other countries, these econometric results may reflect the fact that alternative instruments were used and that, indeed, signals on foreign markets through interest rates were disconnected from the management of credit expansion[56].

Explaining the differences

As working hypotheses, I argue that these differences in credit policy can be explained by three main factors: organization of the state (degree of federalism), the structure of the financial system, and the political views on state interventionism and monetary theory. These factors of course influenced each other.

[56] I have provided further evidence on this issue for French monetary policy in Monnet, *Monetary policy…*, op.cit.

1) The political views explanation relies on the many studies that had highlighted the strength of national economic cultures, mainly ordoliberalism and *Soziale Marktwirtschaft* in Germany, Keynesianism in England and *dirigisme* in France. Differences in credit and monetary policies thus reflect more general differences on the role of the state in the economy[57]. But the role of the state and the market process is not the only dividing issue on which central banks had different views. The role of money in the economy and the power of monetary policy were also highly debated topics that were obviously very influential for the conduct of policy and were shaped by national intellectual debates. This is most strikingly illustrated by the Radcliffe report in England [58]. This report both reflected the conventional view of the Bank of England in the 1950s and introduced some changes that were influential on the conduct of monetary policy in the 1960s. It is considered as a manifesto of the Keynesian doctrine on monetary policy. The report claimed that the only possibility for the Bank of England to influence economic activity was through changes in the Bank rate supported by open market operations. Then it concluded that monetary policy could never be very effective because the Bank had no sufficient instruments to influence directly the money supply and that open market operations had a limited effect. It thus concluded that fiscal policy was much more suited for fighting inflation.

The conclusions of the Radcliffe report are in sharp contrast with the way monetary policy was considered in other European central banks where quantitative controls were more important instruments than open market operations and where policy makers considered the power of the central bank on money and the economy as much more important. In Germany, even though monetary targeting was not adopted in 1957, money growth remained one of the objectives and implicit target of the Bundesbank and reserves requirements were deemed an effective way to regulate money supply and economic activity[59]. French, Italian and Belgian views on money and policy tools strongly differed from Keynesian, anglo-saxon views and techniques of open market[60].

[57]On the role of Keynesianism in England, see a recent survey: Allan Booth, "New revisionists and the Keynesian era in British economic policy," *Economic History Review*, vol. 54, n°2, 2001, p. 346-366. On ordoliberalism, see Christopher Allen, "Ordo-Liberalism Trumps Keynesianism in the Federal Republic of Germany", in Bernard Moss ed., *Monetary Union in Crisis: The European Union as a Neo-Liberal Construction*, London, Palgrave, 2005, p. 199-221.

[58] Capie, *The Bank…*, op.cit, chp.3.

[59] Suzanne Lohmann, "Designing a Central Bank in a Federal System: The Deutsche Bundesbank, 1957-1992", in P.L. Siklos, éd, *Varieties of Monetary reforms: Lessons and experiences on the Road to Monetary Union*, Boston, Kluwer Academic Press, 1994, p. 247-78.

[60] I have explained the difference between France and England more deeply in my dissertation, cf. Monnet, *Politique monétaire et politique du crédit* …, op.cit, chp.1 & 2.
Cassiers and Ledent , *Politique monétaire*..., op.cit, p.68, reached similar conclusions about Belgium. De Cecco made a

These different views on state intervention and monetary policy were developed and strengthened as a corporate culture of the institutions. These cultural and sociological factors may explain a large part of the differences across central banks practices at that time. No international common framework emerged because of these differences and because intellectual exchanges between central banks remained seldom despite cooperation on payments. This changed tremendously and rapidly in the 1970s, both because of the economic crisis and because the weight of research and statistics departments within central bank as well the links between academia and central banks increased[61].

2) The organization of the state (degree of federalism).

- A simple look at credit policy in Western Europe would support the idea that federalism works "as a commitment to preserving market incentives" [62] since Germany was without a doubt the country that used less credit selectivity and economic planning. However it should not be forgotten that the structure of the banking system at the Lander level was oligopolistic and ensured close relationships between industries and banks. The German system thus could be viewed as a delegation of "credit planning" from central to regional level rather than a pure market-economy[63]. The importance of federalism remains nevertheless important to understand this "delegation".

3) the structure of the financial system

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similar argument about Italian policy making, and especially explained why the ideas of Luca Einaudi - which were very influential on italian monetary policy – were « the exact opposite » of Keynes. Cf. Marcello de Cecco, « Keynes and Italian Economics », in P.Hall ed., , *The Political Power of Economic Ideas: Keynesianism across Nations*, Princeton, Princeton University Press, 1989, chp.8. The fact that Keynesianism theory spread very unevenly across countries may prevent us from naming the three decades after WWII the « Keynesian era », as highlighted by the contributions in Peter Hall, ed, *The Political Power of Economic Ideas: Keynesianism Across Nations,* Princeton, Princeton University Press, 1989.

[61] Olivier Feiertag, "Greffe économétrique et genèse de l'école de la Banque de France (1969-1985)", *in* O. Feiertag ed, *Mesurer la monnaie, Banques centrales et construction de l'autorité monétaire (XIX^{e}-XXe siècle)*, Paris, Albin Michel, 2006, p. 213- 245 ; Capie, *The Bank of England…*, op.cit, chp.13.

[62] Yingi Qian, and Barry R. Weingast. 1997, "*Federalism* as a Commitment to Preserving Market Incentives." *Journal of Economic Perspectives, vol.* 11, n° 4, 1997, p.83-92.

[63] It is the argument formulated in Geoffrey Denton, Forsyth Murray, and Malcolm Maclennan, *Economic Planning and policies in Britain*, *France and Germany*, London, Allen & Unwin, 1968, p.72 : "A major difference between the French planners and the German bankers, however, about which there is no ambiguity, is in their relationship with the Governments. In France, the planners, though they have to struggle to maintain their influence, can rely on some degree of support from the Government. In Germany, since central coordination of the economy is contrary to the principles of the social market economy, the policy of the State is directed against the hold of the banks over German industry. If government policy were reversed, then the structure of the banks is well adapted to provide the "teeth" of a planning system. But in the face of official hostility to central coordination by plans, the German economy remains financially oligopolistic rather than collectively directed.".

It might be the more natural and common explanation to explain differences in central banking since central banks necessarily have to adapt to the financial system they belong to. Central banks instruments and financial system characteristics are clearly endogenous. For example, risk taking and assets compositions are influenced by monetary policy. But the structure and legal framework of the financial system (such as separation between banking activities, segmentation between sectors, importance of non-bank credit institution and financial markets) is less likely to be impacted by monetary policy operating procedures even though it can be jointly determined with central banks main characteristics.

The awareness of alterity: a Bundesbank point of view on the Banque de France

A very interesting note, written in August 1964 by an economist of the Bundesbank, M.Thomas Buch, after a visit at the Banque de France, is very telling on the difference between France and Germany[64]. It confirms the importance of the three factors previously highlighted.

M.Buch first wrote that the instruments of French monetary policy distorted competition heavily. He expressed a great concern about the non-respect of the neutrality of competition (*Wettbewerbsneutralität*) and the fact that credit controls created rents for the incumbents. When he asked the officials at the Banque de France about this problem, he had been told that credit controls were actually a means to prevent the exclusion of the weaker banks from the market. There was a deep divergence between the political conceptions in the two countries.

Then Buch raised the question whether Germany should adopt French monetary and credit instruments.[65] He answered negatively and first mentioned a "cultural" argument: French households, firms and banks were more used to a *dirigiste* government. Second he pointed out that the French banking system was more homogeneous. The Banque de France could discuss with only one professional association of bankers, while in Germany there were many divergent interests between the banks. He also mentioned the common argument that French banks were more indebted toward the central bank. Most importantly he highlighted the difference between

[64] Banque de France archives, 1330201101/1. N.B: the note was written in German for the Bundesbank and then sent to the Banque de France as a courtesy. The answers by German and French officials written to a BIS questionnaire (found in the BIS archives: BISA, H.S 363), dated from 1962, reached similar conclusions.

[65] In 1964, French monetary policy had experienced great successes since the 1958 stabilization. The 1963 disinflationary plan, using direct credit controls, had been very effective (and still ongoing in 1964). Netherlands, Uk and Italy were using similar instruments. It was thus a legitimate question for the Bundesbank to know whether the Banque of France instruments should be copied.

institutions which financed short and long-term credit. In France, banks financed short-term credit and a part (about a half in the mid-1960s) of medium-term credit, but long-term credit was only financed by semi-public credit institutions (Crédit National, Caisse des dépôts etc.). Hence, the central bank could impose credit controls on banks only in order to fight inflation without damaging too much investment. In Germany, because of universal banking, it was impossible to discriminate the maturity of credit using credit controls.

It is noteworthy that the characteristics of the financial system (universal banking vs. segmented banking system) may explain both the legal framework of banking supervision (concentration in the central bank's hands or separation between the Ministry and the central bank) and the extent to which credit selectivity is used in connection with monetary and credit controls.

Conclusion

This article offers a brief and preliminary overview of the main differences in central banks instruments and practices in Europe after WWII. The first contribution is to highlight that there were considerable differences. They should be taken into account and scrutinized closely by historians because they were likely to influence international negotiations (both for the construction of the European community and for the international monetary system) and they have shaped persistent disparities in financial systems and monetary policy objectives.

Monetary and credit policies were part of the "coordinated capitalism" that was a feature of European economies under Bretton Woods. As such, these policies had strong institutional complementarities with other national policies and institutions that enhanced growth and welfare provision. Central banking was much more than government financing. The strong national embeddedness of central banking during this period also explains why no European central bank stood out as a benchmark or as an example for the others. Among the six central banks studied here, the Bank of England – which is still often considered as representing the spirit of the times – was more an exception than the rule. In a recent paper, Charles Goodhart concludes that central banks over this period had three roles: providing advice on policy to the government, the administration of the government's panoply of controls, and the management of markets (debt management, liquidity management and foreign exchange operations)[66]. Indeed, the six central banks studied in this paper performed such roles, except that in Belgium and Italy foreign exchange operations were realized by the Ministry of Finance and that only the Bank of England entirely performed debt management.

[66] Goodhart, *The changing role…,* op.cit, p.140.

But only the Bank of England actions were limited to these three functions. The other central banks were also involved – at different degrees – in credit policy and banking supervision. These two other functions were much more about making markets and influencing directly the allocation of funds, rather than solely managing markets.

A lot of work remains to be done in order to provide a much more detailed account of national characteristics. I have discussed only some hypotheses that should be taken into account in order to explain this variety: federalism, universal banking and the structure of the financial system, views on state intervention and monetary theory. Foreign exchange policies have been mostly put aside in this article (except for Germany) but they also shown strong institutional and strategic complementarities with domestic credit and monetary policy.