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The Pattern of Central Bank Development: Past, Present and Future

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Introduction

Commercial banking began in Italy in the 16th century. The public banks of Naples were in the forefront of that development. Since then, they, and the practice of banking world-wide, have been undergoing a continuous process of development, partly in response to the changing structure and needs of the macro-economy and partly in response to crises, some man-made, e.g. in the guise of wars and political disturbances, and some not, e.g. natural disasters such as plagues and earthquakes.

The early Italian banks introduced many crucial innovations, such as lending on the basis of collateral, and the use of bills of exchange. The public banks of Naples had a special role in this regard, since they developed a flexible form of deposit certificate, the fedeli di credito, based on currency, or other assets placed with them, that were flexible, redeemable and transferable, and, arguably, also the first recorded instances of cash credit overdraft facilities, see Chapter 2, Section 5, by Costabile and Nappi. These remarkable innovations are described at greater length in several of the subsequent Chapters, notably in Chapters 2-4, and their balance sheets of these banks (1587-1806) are reported in Chapter 5 (Balletta, Balletta and Nappi).

In particular, the paper by Avallone and Salvemini, Chapter 4, not only describes why the public banks in Naples, connected to large charities,¹ became preferred to private bankers, (mostly managed by foreigners, e.g. Genoese), but also records why the fedeli di credito were so popular. Silver coins were subject to clipping and their other transactions costs, e.g. ensuring safety, weight,

¹ This charitable connection provides the main theme of Chapter 3 by Di Meglio, 'Before Public Banks: Charity, Welfare and the Economy in 15th Century Naples'. This is based on the archival records of the SS Annunziata Hospital, and, through these, shows how a charitable hospital also gradually developed a banking function.

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forgery, etc., were also greater than those of the *fedi di credito*. Such coins were also subject in many regions to periodic debasement, following by inflation, and then 'crying down' to halt such inflation, all of which led to a greater demand for the paper of stable public banks, see Neal, Chapter 6. And, of course, there were usually many different coins in circulation at any time, whose value varied continuously against each other. One of the main roles of public banks, such as the Bank of Amsterdam, (see Chapter 13 by Quinn and Roberds) was to provide a more stable and efficient medium of exchange, notably for bills of exchange, than could be obtained through the use of coins of shifting values.

Not all the developments that have occurred in the banking industry since then have been as beneficial as the *fedi di credito*. The charitable impulse that was associated both with the Neapolitan banks and several other early Italian banks, such as the Monte de Paschi di Siena, is now somewhat conspicuous by its absence. Under the Amato-Carli Act of 1990 there was an attempt in Italy to restore the role of non-profit organisations, in the guise of Banking Foundations, in the governance of the newly privatised banks, as recorded by Giannola, Chapter 16; but this model has not been entirely successful. Many would, however, argue that the shift of investment banking in the USA from partnerships to limited liability companies, and the switch of housing finance from mutual associations, (S&Ls in the USA, Building Societies in the UK), to regular commercial banks have been deleterious in effect. Jerry Epstein, Chapter 15, notes that non-profit-maximising banks have not been as pro-cyclical as shareholder banks, and argues that a larger share of public sector or stakeholder banks would provide a beneficial diversification for the financial system.

Whereas bank intermediation has, on balance, been enormously beneficial, (lending to keen borrowers, providing a liquid and safe source of financial assets, running the main payment systems, smoothing out the jagged fluctuations of cash flow, etc., etc.), there is one facet of its activities that remains of persistent concern, which is that bankers, being normal human beings, and their banks tend to amplify the inherent cyclical fluctuations of our economy. During good times profits are high; asset prices rise; borrowing gets repaid; defaults are low; and bankers tend to lend more, thereby reinforcing the boom. And when the bust occurs, the amplification feedback mechanism goes into reverse.

Particularly during the boom period this amplification process can threaten price stability and also the adherence of the local paper currency to an external standard of value, such as the gold standard or a pegged exchange rate. Although several of the early Central Banks, such as the Bank of England and Banque de France, were founded to help finance their country's war expenditure, a role that remained paramount during major wars, e.g. in the Napoleonic era, WWI and II, these nationally pre-eminent banks soon became accorded with the quasi-political task of managing the monetary and banking system as a whole, so as to maintain price stability.

The greater the power of the issuer of local currency, the less its value has needed to be strictly tied to its metallic content in gold, silver or copper, i.e. seignorage will be greater. As Eichengreen shows in Chapter 14, the US dollar, the linchpin of the international monetary system, no longer has any firm link to a precious metal. He argues that, historically, the conditions supporting an international currency, besides its metallic content, were size, stability, liquidity and power. Several of the early Italian City States, Genoa, Florence and Venice had the attributes that made their currencies widely acceptable in international trade. The Neapolitan silver piastra was not so used; Eichengreen suggests that this may have been owing to some political limitations.

Just as the following Chapters record the evolving patterns of commercial banking in Naples, and more widely in Europe, so it is the purpose of this Chapter to analyse and record the changing pattern of Central Banking. The history of Central Banking, as I have outlined previously, (Goodhart, 2015), can be divided into periods of consensus about the roles and functions of Central Banks, interspersed with periods of uncertainty, often following a crisis, during which Central Banks (CBs) are searching for a new consensus. The timeline is roughly as follows:-

Table 1

History of CBs has swung between periods of Consensus and Uncertainty

	<u>Consensus</u>	<u>Uncertainty</u>
1873-1914	Gold standard; Real Bills Doctrine; Lender of Last Resort (LOLR)	

1914-1933		Break-down of GS; Break-down of Real Bills Doctrine; Unemployment and inflation
1934-1970	Fiscal (Keynesian) dominance; CB subject to Finance Ministry; Financial repression; Interest rates used for BoP, otherwise low	
1971-1990		Stagflation; Monetarism vs Keynesianism; Liberalisation and Financial Crises
1990-2007	Independent CBs; Inflation Targets; Great Moderation	
2008-		Great Financial Crisis; Financial Instability; Deflation

Most monetary historians, and this book is about monetary history, will be familiar with these key aspects of CB history. It may, however, be worthwhile emphasising a couple of features from this history, which have become less familiar during recent decades. These are, first, the Real Bills Doctrine and the second is the conclusion of much analysis into the onset of the depression in the USA in 1929-33, that this was largely caused by excessive competition in the banking and wider financial systems, since that lowered profit margins and encouraged a riskier reach for yield. Many of the more stable banking structures, including most likely the public banks of Naples, have been cartelised.

The Real Bills Doctrine

Prior to the 20th century, most government deficits were incurred by the need to finance war. Almost by definition, war is not productive, so monetary finance of war-time expenditure was inherently inflationary. So, banks, and especially Central Banks, tried to avoid purchasing government paper, beyond the minimum necessary to satisfy politicians' willingness to extend their Charter. Moreover, until the middle of the 19th century the rulers of many European states were either unwilling or unable to repay all the debts that occurred to finance their wars, employing various forms of default, either strategically or under duress. Consequently, the better established

banks often had more credibility and a better record of repayment than their rulers. This was one reason why in several countries debt management was largely delegated to the Central Bank.

Larry Neal argues in Chapter 6 that Bartolomeo d'Aquino's establishment of the final public bank, the Banco del Santissimo Salvatore in 1640, was motivated essentially by the need to manage the outstanding public debt (most of which he had purchased at fire sale prices in the previous years from the original holders). Thereafter, it became recognized as the government's bank but existed harmoniously with the original seven public banks, at least after the Masaniello revolt was repressed.

Moreover, absent wartime, rulers during these early centuries often ran a surplus, and there was not always a large stock of short-dated public sector debt, through which to operate in order to manage the money market. So, the preferred liquid asset for money market operations, and for Central Banks' open market operations, became bills of exchange, short-dated credit instruments drawn by the borrower, and, when accepted, became a two-name bill. Here the main distinction was between real bills, largely drawn by industry on the basis of trade and inventory, and speculative bills, which were drawn largely for the purpose of purchasing assets, which were hoped to rise in price.

The basic idea was that the volume of real bills would rise and fall with the volume of output and trade, so that the monetarisation of real bills would not lead to inflation; according to the quantity theory of money, where $MV = PY$, the Real Bills Doctrine would bring about a close positive correlation between movements in M and Y , leaving P stable. Similarly, real bills would be self-liquidating, since, being based on trade and production, the borrower would always be able to repay the bill from the proceeds of the sales involved in the trade and sale of goods in process. In contrast, the repayment of speculative bills would depend on the course of asset prices, which, being uncertain, meant that they were much more subject to default.

One of the key founders of the Federal Reserve System, Paul Warburg's enthusiasm for "real bills" may have been based on his experience of mutual monitoring of other bankers' acceptances in Germany, with ultimate recourse to borrowing against short-term acceptances from other banks,

ultimately from the Reichsbank. Perhaps the Banco de San Salvatore performed this lender of last resort function in the case of Naples.

A great virtue, therefore, of this doctrine, was that it unified the conduct of monetary policy to maintain price stability with the maintenance of financial stability. After the collapse of the Real Bills Doctrine this unification has fallen by the wayside with both the objectives of price stability and financial stability being seen as separate, requiring largely differing instruments, and sometimes even potential conflict.

The reason why the Real Bills Doctrine failed during the interwar period was that it was inherently procyclical. When the US economy went into a nosedive after 1929, trade and production declined by so much that the volume of real bills declined very sharply. There were not enough real bills left to provide the Federal Reserve System with a sufficient basis to expand the money supply and counter the Depression. As is well known, the operational mechanism of the Fed had been based on the Real Bills Doctrine, and Friedman and Schwartz (1963) and Allan Meltzer (2003) both blamed the adherents of Fed staffers to the Real Bills Doctrine for their incapacity to undertake sufficiently expansionary monetary policy during that period. Indeed, more generally, adherents of the Currency School of monetary policy have always been strongly antagonistic to the Real Bills Doctrine, whereas adherents of the Banking School tended to make it a core plank of their policy proposals, prior to the inter-war disaster, and have had something of a soft spot for it even afterwards, although now clearly recognising its basic flaw.

The dangers of excessive competition in banking?

Whenever there is a crisis, there is an immediate surge of studies to explain the causes of that disaster. There were a number of studies done in the US in the 1930s, whose general conclusion was that a prime cause of the financial crisis had been excessive competition in financial markets, thereby driving profit margins down, and causing bankers to search for yield, quite largely by taking on riskier assets and riskier clients.

One reason for the resilience of the Neapolitan banks as a group may have come from a cartel-like arrangement among them, as they recognized each other's *fedeli di credito* and accepted them as deposits. A large part of the daily work of the clerks was to redeem notes of other banks that they had accepted.

Although there was no equivalent inter-war financial crisis in the UK, the economic downturn was again partly attributed to the same cause, excessive competition. Consequently, both industrial and financial strategy during the 1930s largely involved the attempt to corral industrial and financial groups into cartels, whether formal or informal, with the aim of reducing pricing competition and restoring profit margins to a level that would maintain the solvency of the firms involved, whether financial or industrial. As recorded, for example, in Sayers' history of the Bank of England (1976), much of Montagu Norman's role during this period took the form of being cheerleader for such industrial and financial reorganisation into cartel-like structures.

It is, at least, possible that one of the reasons for the very low level of bank failures and financial crises during the subsequent period, 1934-1970, was that excessive competition in the banking sector was constrained, and profit margins remained comfortable. As has been frequently remarked, the growing liberalisation of financial markets during and after the 1970s, was often the precursor of subsequent financial crises, in some part because competition, if unchecked, could lead to a combination of declining profitability and growing risk-taking. It is notable that the countries which survived the Great Financial Crisis (2008/9), such as Sweden, Canada and Australia, had domestic retail banking markets that were largely oligopolistic in character, without much competition from foreign banks. Nevertheless, the earlier views that competition in this field could be both excessive and dangerous have not only been disregarded in recent years, but largely turned on their head, insofar as most current commentators seem to believe that start-up challenger banks provide an unalloyed benefit to the macro economy.

How did the Great Financial Crisis (GFC) occur?

As is now quite generally accepted, one of the failings of Central Banks that led up to the GFC was their failure to appreciate Minsky's analysis (19xx) that (macroeconomic) stability would lead to

financial instability. Thus there were some generally accepted myths prior to 2007, which central bankers and financial regulators were as prone to hold as commercial bankers, commentators and other outsiders. These myths were:-

- 1) Price stability, plus Basel Capital Adequacy Ratio requirements, would guarantee solvency;
- 2) With solvency thus guaranteed, liquidity will always be available via wholesale markets;
- 3) That maturity mismatch in the banking system can be ignored.

The tendency of regulators to take financial stability for granted was reinforced by the mind-set of current mainstream macro-economists. In their case, the predominant macro-economic model, the Dynamic Stochastic General Equilibrium (DSGE) model, assumed a world of representative agents who never ever defaulted. Since they never defaulted, lending to them was as riskless as lending to the government. There was, therefore, no need for banks, since the riskless agents could borrow and lend amongst themselves at the single current, riskless interest rate. Accordingly, the whole panoply of financial intermediation, default risk and concern about financial stability was simply air-brushed out of the standard mainstream models. In such models the GFC simply could not occur. Thus, mainstream economists on the whole paid as little, or less, attention to financial stability issues as regulators.

There were, of course, other problems with invalid beliefs, notably the belief, widely held amongst both bankers and credit rating agencies that a widely geographically diversified portfolio of US mortgages would not be risky, since the probability of a significant decline in US housing prices, over the whole country, was extremely unlikely.

Commentators, especially perhaps journalists, like to attach blame to individuals, or sets of individuals, accusing them of venality, and other human flaws. On this account, the main reasons for the GFC were common failures to appreciate the extent of risk that had been building up in the system, a failure that was common to those in authority, to economists, as well as to those more typically bearing the brunt of blame, such as bankers and credit rating agencies.

Where do CBs stand now?

The GFC exposed considerable shortcomings in the role of Central Banks, particularly a failure to give sufficient weight to the role of financial stability. So most CBs now have an expanded mandate, to give more weight, perhaps equal weight, to financial stability as to price stability. If you have two objectives that are separate, the Tinbergen Rule requires two sets of instruments to achieve greatest efficiency. This has led to the growth and use of macroprudential measures of various kinds. In addition, the depth of the 2008/9 crisis led to official interest rates falling to the zero lower bound (ZLB). Since this was not, of itself, sufficient to restore either the major advanced economies to the target inflation rate (usually 2%), nor led to a satisfactory recovery in real output, there was an additional need for unconventional monetary policies, largely connected with increasing the size of the CB balance sheet, i.e. QE in various forms.

Since there is a considerable overlap between macropru measures and monetary policy on one hand, and macropru and micropru control measures on the other, there has been some tendency for all three to be concentrated in the Central Bank. But macropru and QE both involve, in many cases, interventions into politically sensitive areas, such as intervention in housing and other markets, and interaction with debt management more broadly. Even though Central Banks have taken the initiative in expansionary policies to help our economies recover, in some large part because of constraints on the use of fiscal policy, they have run into criticism about whether their powers have become excessively broad, and their accountability insufficient.

As a result, there are now voices challenging Central Bank independence (CBI); the state of confidence amongst Central Banks that their role is clear, that their instruments can be successfully calibrated to achieve their mandated targets, and that they are confident that they know exactly how and what to do, is slipping.

Antoin Murphy in his later Chapter 12 invokes an analogy between the collapse of faith in bankers and central bankers after the GFC in 2008 and the collapse of faith in John Law and the Mississippi System in 1720. Both involved houses of cards based on the belief of ever-rising asset prices, but both demonstrated the power of finance and monetary management (and mis-management) to affect the 'real' economy.

One feature of financial crises is that they tend to generate radical proposals for reform of the system, which when subject to wider discussion tend to lead to a compromise outcome, as set out in tabular form in Table 2, below:

Table 2

<u>Date</u>	<u>Crisis</u>	<u>Radical Proposal</u>	<u>Compromise Outcome</u>
Early 1800s	Suspension of GS	Ricardo's Currency Board	Bank Charter Act 1844
1929-1933	Collapse of US Banking System	Chicago Plan	Glass-Steagall
1970s	Stagflation	Monetarism	Pragmatic Monetarism
Now	Collapse of Banking Systems	Narrow Banking	Ring-fencing and ?

Do we need to re-think monetary policy?

The fact that monetary policy has not (yet) been successful in bringing about a strong recovery after the Great Financial Crisis 2008/9 has suggested that there may be a need to rethink, at least some aspects of, monetary policy. There are various different elements of this, as follows:-

1) Raise the inflation target?

If the ability of monetary policy to restore satisfactory growth and prevent deflation has been limited by hitting the zero lower bound, or the effective lower bound, then one suggestion that has been put forward is to raise the normal inflation target from 2% to, perhaps, 4%. This runs into a number of difficulties as follows:-

- If the current problem is that CBs cannot hit 2%, what is the point of raising the target, at least now, to 4%?
- Whereas quality changes and technical innovations meant that 2% can be viewed as, in practice, close to price stability, the same could not be said of a target of 4%. The latter would undoubtedly mean that inflation, and inflationary expectations, would be built into the system.

- If the politicians and CBs change the target now to suit policy in the current conjuncture, would that not make it more likely that they would change the target in future to get a better chance of meeting their current objectives? In short, would not a change in target lower the credibility of the whole exercise.

2) Lean versus clean

The GFC was caused by a financial crisis, notably the interaction of bank credit expansion with a housing price bubble. Financial factors that lead to potential crises do not appear in CBs' mandates or professed objective reaction functions. So, the question is now often raised whether CBs should lean against financial asset booms and busts, and expand their reaction function to incorporate some measures of credit and asset prices. This suggestion contrasts with the view that CBs should focus solely on inflation and the output gap, trusting in their ability to clean up in the aftermath of financial crises.

This debate continues with economists, such as Borio at the BIS, suggesting that the authorities should lean against financial cycles, opposed by economists such as Lars Svensson, who argues that the case for doing so has not been satisfactorily made.

But this debate has been largely put to one side by the development of macroprudential policies, additional to, and separate from, the general official short-term interest rate. The generally accepted idea now is that CBs should try to use such macroprudential instruments relatively aggressively first. Only if these are seen to fail, or to be unusable in practice, might it then be worthwhile to reconsider the mandate of the CB, whether to include leaning against financial cycles.

3) Why so ineffective?

If we are to rethink monetary policy, we need to know why it has failed to restore satisfactory growth, despite being more expansionary and accommodating than ever before in history. There are many potential answers to this. One of these is that a combination of demography, with a world-wide sharp improvement in the ratio of workers to dependents, and the opening-up of China

and Eastern Europe to the world's trading system, introduced a huge positive supply-shock to the labour force. This weakened labour bargaining power, reduced the natural rate of unemployment, and imposed continuing and severe downwards deflationary pressures on the world. But this shock is now coming to an end, and may even reverse, as the baby boomers move into retirement, and migration from the agricultural interior in China to the manufacturing coast also comes to an end. If so, the continuing deflationary trends of the last 30 years, or so, may now reverse, bringing about a return to more inflationary, and previously normal, conditions.

Another, not-mutually exclusive explanation, is that the failure of central bank expansionary policies to succeed fully was partially due to the weakness of the transmission mechanism through commercial banks, as a combination of raised capital requirements, lower profitability, and massive fines for improper prior behaviour, weakened the banks, and led them to be ever more cautious in extending loans, leaving excess reserves unused.

A third explanation is that labour-saving technology has been largely responsible for the weakness of wages and labour bargaining power. As is well known, there is considerable disagreement about the extent and direction of technological innovations over future decades.

4) What if another downturn?

One of the major concerns about current monetary policy, is that it has largely used up all likely available instruments. Interest rates have remained rock bottom and central bank balance sheets have expanded enormously, to a degree that worries many commentators. Also, public sector debt ratios have continued to rise despite attempts at austerity, and the worsening dependency ratios and rising costs of health care, suggests that such public expenditures are likely to increase as a proportion of GDP. This makes it more difficult to envisage aggressive Keynesian countercyclical measures. In this context, with both monetary and fiscal policies largely exhausted, how could we offset a future recession? It is not easy to see how this could be done.

Whereas a faster renormalisation of interest rates would give greater head-room for cuts in the face of future recessions, the increases in such rates, particularly with the massive debt overhang that has already occurred, could, of itself, tip our economies back into the recession which we might have such difficulty in countering.

Where are CBs now?

Let us contrast the state of CBs in the Great Moderation with that now following the Great Financial Crisis.

Table 3
Contrast in Role of CBs

	<u>Focus</u>	<u>Instruments</u>	<u>Confidence</u>	<u>Independence</u>
<u>GM</u>	<u>Narrow:</u> Price Stability	<u>Single:</u> Interest Rate	High	Undoubted
<u>GFC</u>	<u>Broader:</u> Price Stability Financial Stability	<u>Many:</u> Interest Rate UMP, unconventional monetary policy Macro-Pru Stress Tests Resolution	Groping	At some risk

Furthermore, CBs have, as noted earlier, been allocated a second objective, that of maintaining financial stability. This has led to a dilemma. If the associated powers of undertaking microprudential supervision and applying macroprudential instruments is allocated to an institution other than the central bank, then the CB will have responsibility of financial stability without being in control of either the information or the instruments needed to achieve that. On the other hand, if the CB is given responsibility for micro supervision and macroprudential instruments, then the width of its power has extended so far that democratic legitimacy is called into question. Moreover, the application of macroprudential instruments, at least in some cases, can take the CB into fields such as the housing market and debt management, which are both politically sensitive and more normally within the remit of the Ministry of Finance, rather than the CB. Either way, the previously straightforward and relatively simple delegation of responsibility for controlling inflation, via the use

of a single instrument, i.e. the short term interest rate, has now become much more complicated and subject to debate.

So, the future of the central bank in our economies now appears far more uncertain than it was during the splendid decades of the 'Great Moderation'. However, the future cannot, perhaps fortunately, be forecast. The present conjuncture for central banks looks somewhat unstable, but how their future may develop remains opaque.