What is A Useful Central Bank? Lessons from the Interwar Years

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Prepared for the Norges Bank Symposium "What is a Useful Central Bank?"[1]

Oslo, 18 November 2010.

ABSTRACT

The paper reviews various aspects of central banking in the interwar years to try and see if any suggestion can be drawn for the current and future similar situations. Besides monetary policy, an issue on which rivers of ink have already flown, central bank cooperation, lending of last resort and central bank independence are discussed. The paper argues that three 'lessons' of the 1930s have been learned in 2008-9: (i) a major financial shock requires immediate reaction of adequate size, (ii) lending of last resort should use all available tools, and (iii) international cooperation is essential. Other "lessons" may provide guidance for the future: avoid the recurrent belief that - *this time* - the business cycle has been conquered for good, establish policy guidelines for future credit and asset booms, expect long 'exit' periods from oversized central bank balance sheets and unconventional assets, cooperate with the government while at the same time maintaining mutual independence.

JEL classification: E 5, N 1, N 2, G

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[1] Preliminary draft, for conference presentation and comments only. Please do not quote without permission. <giannit@econ.duke.edu>

History has the ability to administer a dose of humility

(Sandra Pianalto[2])

A fairly large consensus exists that monetary (and fiscal) policy played a decisive role in making the slump of 2008-09 just a "Great Recession" rather than a second "Great Depression". The clever, if simple, exercise conducted by Eichengreen and O'Rourke (2010) in comparing the behavior of key variables - such as industrial output, trade and monetary instruments - in the last three years with 1929-33 has been more effective than a host of academic papers in showing the risks facing the world economy in mid-2008 and the main reasons why the worst has been, so far, avoided. The benchmark for "the worst" remains the Great Depression of the early 1930s.

This paper takes up once again the issue of the "lessons of the interwar years" for which there has been no lack of soul searching ever since the Great Depression itself, from Nurkse (League of Nations 1944) to Minsky (1963), Kindleberger (1986), Bernanke (collected in Bernanke 2000), all the way to the enormous production of 2010 alone[3]. It does so in a symposium that goes under the title of *What is a useful central bank* and of a session devoted to the broad theme of *central banking*, rather than monetary policy, the subject matter of most of the recent discussions on "the lessons of the 1930s".

The interwar years changed the way central banking was carried out by its practitioners and perceived by both the government and the public. Monetary policy was given new responsibilities, beyond the maintenance of currency convertibility. Lending of last resort was conducted with a host of new instruments, many of which were hitherto believed to be utterly heterodox. As the result, central banks ended up performing tasks and providing services only loosely related to their core monetary functions. Deep changes took place in the government – central bank relations, and a new international dimension was added to the *art* of central banking. As the current Great Recession and its aftermath seem to highlight equally profound changes in the practice of central banking, this paper discusses the "lessons" of the interwar years not only

[2] CEO and President, Federal Reserve Bank of Cleveland. Oral remark at the conference *A Return to Jekyll Island* (November 5-6, 3010)

[3] In the relatively short period of time it took to write this paper, the flow of additional papers on the lessons of the Great Depression for the present situation has been so strong that only some of them could find their place in the references.

for the monetary response to the current crisis but also for other less frequently discussed aspects of central banking.

1. "Useful" central banks in transition.

The interwar years fall within the long transition from a monetary system based on the convertible note (prevailing until 1914) to the universal adoption of fiat money after 1971-73 (Giannini 2004). Central banks were transformed by the process. At the end of the 19th century they were private banks of issue entrusted by governments with the public function of maintaining currency convertibility - that is to keep the country on the metallic standard. By the 1950s most of them were, *de facto* or *de jure*, public institutions with a wide range of responsibilities, often including bank supervision, and close relations with the national governments.

Central banks were among the main actors in this long transition, at times leading the process, at other times lagging behind and being led by the executive and legislative powers. Their paramount "usefulness" can be assessed by their ability to deliver a payment system both efficient and stable. A system, in other words, characterized both by low transaction costs and by widespread trust about the future readily availability of means of payment (liquidity) at (almost) constant purchasing power and at the expected cost. This was not an easy task in the rapidly changing economic, political, and international circumstances of the interwar years, and central banks were not always successful in guaranteeing an efficient and stable monetary system. By this yardstick, one might argue e*x post* that in the interwar years these institutions were not always as "useful" as they were required to be. Nevertheless, the number of central banks in the world increased from 18 in 1900 to 59 in 1950, perhaps indicating that contemporaries appreciated the usefulness of central banks.

In the heydays of the gold standard (1870s - 1913) the debates both on rules versus discretion (currency versus banking schools) and on the very desirability of a central bank (as opposed to a free-banking system) had given way to an accepted "orthodoxy" that gave central banks the sole task of maintaining gold convertibility (Capie *et al* 1994: 2-15). As custodians of the gold standard, central banks enjoyed both prestige and a high degree of independence. Their "usefulness" was widely accepted. Even so, however, no one-size-fits-all model of central banking emerged. The textbook case (the Bank of England) was not replicable outside of the British Isles for, among other reasons, the uniqueness of the London discount market which allowed money supply (and gold price) to be set by frequent small adjustments of the rediscount rate (the Bank rate). Central Banks on the Continent, notably the Reichsbank and the Banca d'Italia and, to a lesser extent, also the Banque de France, resorted to a wider mix of instruments.

The financial crises of the 1890s and 1907 showed that the mere application of Bagehot's rule (lend freely in a banking crisis) was not enough to restore stability and trust. International agreements for gold-currency swaps, moral suasion to make commercial banks bail out illiquid competitors, discount of hitherto non-admissible paper and closer cooperation with governmental institutions were all brought to bear in the crises.

The "classical gold standard" was the first casualty of the First World War, even before it was officially declared. It was a system suited to the 19th century societies of the developed world. Its success rested on four pillars: (i) relatively competitive markets and therefore price flexibility, (ii) moderate or no trade-union market power and therefore wage flexibility, (iii) small government and therefore remote danger of fiscal deficit monetization and (iv) restricted franchise, with the cost of deflation falling largely on social classes barred from ballot participation. The War shook all four pillars. At the same time it enormously widened the range of central bank activity and increased the number of instruments available to it.

It is said that everything is permissible in love and war. Central banks were permitted, even required, to organize, supervise and sanction bank moratoria, to underwrite government bonds and cajole commercial banks to join in consortia to the same end, to manage the foreign exchange of the currency, to provide technical expertise in a wide array of matters including negotiating foreign loans, to finance compulsory requisitions of key commodities such as wheat, to advance money to government contractors and to back all this up by issuing paper (fiat) money for huge multiples of their metal and foreign exchange reserves.

The notion of a "useful" central bank and of what might be expected of it was considerably expanded by the conflict. The perimeter of their action was enlarged, either by *ad hoc* legislation or administrative measures, particularly as far as lending and discounting operations were concerned. More important still, central banks became aware that, to be "useful", at times of extreme emergency they need to possess as wide a panoply of instruments as possible.

After the war, the return to the gold standard was advocated by the Cunliffe Report, by the Brussels and Genoa International Conferences, and by influential segments of the society all over Europe. But the four pillars on which the "classical" gold standard rested had all been damaged beyond repair. Oligopolistic product and labor markets set in, reducing price and wage flexibility. Domestic and international governments debts soared and with them the risk of monetization. Universal male suffrage and stronger trade unions changed the political landscape. The pre-war conditions for the viability of the classical gold standard had been wiped away but politics, ideology and mainstream economics made sure that only few people could see that the king was naked.

The new gold exchange standard was more difficult to manage than the classical pre-1914 version of the system. Central banks adapted to the new conditions and did their best to run the system. They regained much of the independence lost in the war. International cooperation increased. It took the form of syndicated stabilization loans, gold-currency swaps, payment services for sister central banks, and exchange of information.

With the collapse of the precarious interwar gold standard, between 1931 and 1936, the first golden age of central banking also came to an end.[4] Central banks found themselves treading unchartered land. The Great Depression triggered a wave of legislation on banks and central banking in almost every country. Credit-granting activity was regulated and supervised. Central banks got new by-laws. The role of governments was strengthened even when, as in the case of Italy, its supervisory activity was delegated to the technically better-equipped central bank. Stripped of the gold standard, central banks adapted slowly. In the autarkic environment of the 1930s they learned new tools such as the quantitative control of credit, the regulation of foreign exchange, and the management of clearing agreements. These technologies were used to the extreme of their possibilities during the Second World War, after which the adaptation to a new transition awaited the central banks.

[4] The hint here is to the title of a recent book (Gerlach et al. 2009) referring to the current Great Recession

2. The 1920s: "useful" central banks, monetary policy, and macro imbalances.

The monetary policy "lessons" of the 1920s must be discussed in three contexts: Europe, the United States and international macroeconomic imbalances.

In Europe, monetary policy was dictated by the political decision to reinstate the gold standard, if in a modified form. The decision on the stabilization rate (i.e. the gold content of each currency) involved crucial issues of political economy like Keynes' "euthanasia of the rentier". In this complex game, central banks were involved only as technical experts for their governments. Once the decision was taken, however, it fell upon central banks to make it operational. The adoption of the gold exchange standard required the negotiation of international loans, in which both the technical expertise of the central bank and its international credibility proved to be essential. Their "usefulness" was undisputed. Monetary policy was dictated first and foremost by the new gold parity. Deflation was the key word in the UK and, to a lesser extent, in Italy. France and Belgium were allowed a more expansionary monetary stance by stabilization rates close to or undervalued relative to the purchasing power parity. The obvious textbook lesson here is that fixed exchange rates dictate monetary policy: the trilemma cannot be evaded.

In the United States, the years immediately following the First World War were characterized by rapid growth in total factor productivity, due to the diffusion of the dynamo as "general purpose technology" which led to an investment boom (Gordon 2006). Consumer demand also grew rapidly. Bank credit fuelled demand both for investment (including real estate) and consumer goods. The equity market soared: as Irving Fisher (1930: 157) put it: "anything that increases the nation's productivity tends to be reflected in the bull market". Financial innovation was fast to catch up. If we substitute the information technology for electricity as general purpose technology, it is easy to see the similarities between the 1920s and the most recent decades.

Is there a "lesson" here for monetary policy in the expansionary phase that led up to both crises? Reflecting on the 1920s, Hawtrey (1933 80-81) wrote: "Much controversy has been aroused as to the proper functions of a central bank when faced with an inordinate Stock Exchange speculation. Apart from the condemnation of gambling as a vice (a matter which hardly concerns a central bank) the central bank is only concerned with speculation as a possible cause of inflation”. In Hawtrey’s opinion, up to July 1929, “the Federal Reserve Banks can hardly be accused of having done more in the direction of preventing inflation than the circumstances required” (1933:81). Hawtrey’s benign assessment of US monetary policy in the 1920s was not popular at the time. The Board of Governors was accused both of creating the stock market boom through an easy monetary policy from 1924 to 1927 and then of producing the crisis by abruptly raising its discount rate from 3.5% to 6% between May 1928 and August 1929 (Hetzel 2008: 16-17). The declared aim was to cool off the stock market speculation, a matter, according to Hawtrey, of no concern to a central bank. Is there a lesson here from the 1920s for a discussion of US monetary policy in the run up to the present Great Recession? The matter is beyond the scope of the present paper. It is enough here to notice that the question of whether central banks should also target asset prices (including real estate) was discussed both in the 1920s and in the most recent period (e.g. Vickers 1999 In both instances the conclusion by most economists and central bankers was that asset prices should not concern to central banks. It is possible, however, that by raising rates in 1928-29 the Fed also intended to deflate the bubble.

American monetary policy in the 1920s was partly dictated by international considerations. Low American interest rates were needed to keep England and Central European countries on the gold standard. In particular they allowed Germany to run a large current account deficit both to pay reparations and sustain domestic investment. In other words, American monetary policy was the key instrument by which the “transfer problem” (in today’s language the international macroeconomic imbalance) was temporarily solved.

To conclude on this point, one parallel between then and now stands out. According to Meltzer (2003: 261), the US monetary policy of the 1920s, “was supposed to achieve three ends: mitigate business fluctuations, prevent inflation and restore the international gold standard […] The apparent success of postwar policies in achieving the three main objectives and preventing financial panics increased the credibility of policies and *the belief that a new and more stable era had begun* (italics mine). The rise in United States stock prices relative to earnings in 1926 supports this interpretation”. A similar belief (or illusion) that an era of “great moderation” had dawned was widespread among the public, the politicians and the economists in the decade or so prior to the Great Recession[5]. The lesson for both economists and 'useful' central banks is unequivocal: in the future a larger dose of humility will create a more favorable intellectual environment for policy making.

3. The monetary response to the great depression.

Great Depression of the 1930s was a defining moment in the history of the twentieth century; as such it has been the continuous focus of interest by economists, historians and policy makers.[6] Even a very brief review of the yet unresolved debate on the causes of the Great Depression is beyond the aim of this paper.[7] Nor is of particular interest here the discussion of what triggered the Depression (i.e. the straw that tipped the scale), another thorny issue in the literature. Regardless of where one stands on either the causes or the trigger, there is much broader consensus about the monetary policy "lessons". Both from a monetarist and Keynesian stance the monetary policy response to the onset of the slump, both in Europe and the United States, has long been regarded as a major blunder, if for different reasons.

As Hawtrey noted at the time, "the mistake of the Federal Reserve Banks was in their hesitation to lower interest rates and relax credit after the crisis of October had broken out. This was the moment when prompt action was needed to prevent pessimism getting hold of the vicious circle of deflation being joined." (Hawtrey 1933: 81). Whether this "mistake" actually caused the Depression, as argued by Friedman and Swartz (1963), or simply made it deeper and longer does not change the fact that it was a major policy blunder. This is the simple, loud and clear lesson that a large majority of economists and policy makers brought home from the Great Depression. The lesson was learned and the "mistake" was repeated neither in 2000-1 nor in 2007-8.

Why did the Fed hesitate in vigorously responding to the first signs of the slump? The question is of interest because, according to Meltzer (2003: 272) the "Federal Reserve behaved as it had not behaved earlier and should not be expected to behave again". Friedman and Swartz

[5] "Few disagree that monetary policy has played a large part in stabilizing inflation, and so the fact that output volatility has declined in parallel with inflation volatility, both in the United States and abroad, suggests that monetary policy may have helped moderate the variability of output as well" (Bernanke 2008).
[6] Perkins library (Duke University) holds 1,585 books with title containing the words "Great Depression"
[7] For a still useful survey of the debate see Eichengreen (1992b) and Kindleberger (2000).

(1963: 407 ff) argue that the Fed was either unwilling or unable to act because the death of Benjamin Strong in 1928 and his replacement with the less charismatic leadership of George Harrison deprived New York from its previous ability to lead the FOMC. A similar view is expressed by Wicker (1966): the Board lacked clarity in its interpretation of the events. Eichengreen (1992a) and Temin (1989) put the blame on the gold standard and on lack of international cooperation to ease its constraints and allow coordinated expansion. Bordo and Wheelock (2010) highlight the inadequacy of the Fed's discount window. Meltzer, however, argues that the problem with "these explanations is that the Federal Reserve was not entirely passive for the three and a half years of decline. More than once it purchased securities or lowered the rediscount rate [..] If the crisis was largely due to an absence of leadership, more effective action would have been taken later, when the System was reorganized [..] but in the middle and late thirties, the Federal Reserve did next to nothing to foster recovery" (Meltzer 2003: 273). For Meltzer, the cause of inaction is to be found in the Federal Reserve economic "model". Miller and others on the board "interpreted the Depression as the inevitable consequence of the preceding growth of bank credit and asset prices [..] because credit expansion had increased without equivalent purchases of real bills, this policy was inflationary. Deflationary policy should have followed [..] That mistake had to be corrected" (Meltzer 2003: 274). Strong's policy had violated the rules of the real bills doctrine, the pillar of the Federal Reserve monetary "model". If this is the case, then a further 'lesson' emerges concerning a 'useful central bank': it should not only possess an excellent team of economists (and perhaps also economic historians) but, much more important, an adequate economic 'model'.

If there is large (if not unanimous) consensus that an immediate monetary "stimulus" would have changed the course of the Depression, much less agreement exists on the related issues of the relative importance of monetary versus fiscal policy and on how long easy money should have been maintained. Regardless of where one stands on the issue as far as the 1930s are concerned, we should be weary of mechanically drawing 'lessons from history', given the difference between the two contexts. In particular, precisely due to the timing and magnitude of the "stimulus', the slump has now been much shorter than eighty years ago (if equally deep, in comparison with the first 12-15 months of the Great Depression). International conditions now are also very different from then: there is no gold standard (or fixed exchange rate regime) and, for the time being, protectionist reactions have been kept reasonably at bay.

Only with this *caveat* is it perhaps useful to recall the US monetary policy after 1935 as seen by the most important historian of the Federal Reserve. “[Eccles] was a strong proponent of government investment spending as a countercyclical policy and believed that the Federal Reserve should keep market rates low to facilitate private spending and government finance during the depression. Despite these strongly held views, Eccles and the Board became convinced after 1935 that the growing volume of reserves at the member banks posed threat of future inflation. The Board’s principal policy action in these years increased reserve requirement ratios as a preemptive act against inflation. Between August 1936 and May 1937, the Board doubled those ratios, thereby contributing to a steep recession in 1937-38” (Meltzer 2003: 416).

4. Central bank cooperation

By the late 19th century some economists and policy makers had begun to stress the importance of central bank cooperation to produce stability in the international gold standard. The crisis of 1907 seemed to confirm the importance of cooperation. It was even argued that an “International Bank” should be created to avoid “monetary wars”, i.e. a scramble for liquidity at times of crisis (Toniolo 2005: 20-23).

The war enhanced cooperation among allied central banks, in particular to coordinate efforts in currency pegging. The central bank governors of England and France even set up a direct telegraph line between their two offices for regular, direct communication. It was during Strong’s wartime visits to London that he developed the close personal relation with Norman that would shape central bank cooperation in the 1920s (Toniolo 2005: 16-17).

In the 1920s, cooperation among the main central banks focused on the restoration of the gold standard. In 1921, Norman issued a manifesto outlining four principles of central banking: independence, separation from commercial banking, bank supervision and international cooperation (Sayers 1976). Norman’s view of cooperation was relatively narrow, it entailed exchanging information, mutual provision of financial services, provision of gold storage facilities and the discount of approved bills (Borio and Toniolo 2008: 33). Monetary policy coordination was not on Norman’s agenda.

The most important area of central bank cooperation in the 1920s was the flotation of international "stabilization" loans, pioneered by the Dawes loan that sanctioned the end of hyperinflation and the adoption of the gold standard by Germany. It was followed by syndicated loans to the central bank of countries ready to reintroduce gold convertibility (Clarke 1967).

Cooperation was also needed to ease the "transfer problem" connected with the German Reparations (the man-made "macroeconomic imbalance" of the 1920s). The issue, however, was highly contentious and was one of the main reasons for the strained international economic relations of the 1920s and their impact on central bank cooperation, which could accomplish little in the absence of a favorable political and diplomatic environment. Eventually, the most important accomplishment in central bank cooperation, the creation of the Bank for International Settlements, was made possible because a window of opportunity opened in 1929 by the universal desire to put an end to the decade-long struggle over German reparations (Toniolo 2005).

International relations notwithstanding, in the 1920s cooperation among central banks was more explicit and continuous than it had been before 1914, probably for three reasons: a) the war-enhanced prestige of central banks, b) pressure from the markets seeking the "seal of approval" from the central bank community to resume sovereign lending, c) the excellent personal relations between Norman and Strong and their shared belief that conditions should be maintained for capital flows to finance Germany's current account deficit.

Whatever cooperation existed in the 1920s, it broke down during the Depression and its aftermath. There is large scholarly consensus that stubborn adherence to the gold standard was one of the main reasons for the international spread of the slump. Given the trilemma (a country cannot simultaneously have fixed exchange rates, free capital mobility and independent monetary policy), the gold standard fixed exchange rates and free capital mobility might have been maintained only by closely coordinated monetary reflation. The alternative solution - universal return to floating rates - also required coordination to avoid beggar-thy-neighbor competitive devaluations. In the absence of international policy coordination, Great Britain devalued and introduced a tariff, the countries who stayed on gold (most of them in a rather perfunctory way) resorted to controls on capital movements, tariffs and, eventually, clearing agreements. International macroeconomic imbalances were made more acute by the flight of gold to France and the United States (Feinstein, Temin, and Toniolo 2008).

In the fateful summer of 1931, central banks eventually put together, through the BIS, a 'rescue package' for Germany. International lending, however, came late, was of insufficient size and was accompanied by the wrong conditionality: deflation was recommended to maintain gold convertibility. Eventually, as did the Asian countries in the wake of the crisis of the late 1990s, Germany learned to fend for herself: international cooperation was no longer an option.

It may be of some interest as a "lesson" for today to recall that Kindleberger (1986) argued that international economic cooperation suffered from the absence of a hegemonic power: the "no-longer London, not yet Washington" situation, in the long transition from 1914 to the 1940s. The question of whether we are again in a similar epoch of transition between two different equilibria in international relations can hardly be avoided.

The responsibility for the collapse of international economic cooperation during the 1930s can hardly be laid at the door of central banks. Not only were they, after all, relatively small players in the overall game of international relations, but also they had retained from the 1920s at least an aspiration for mutual assistance. In the divided and autarkic world of the 1930s, central bank governors still found it useful (and probably pleasant) to regularly meet, month after month, at the Bank for International Settlements in Basel. Low key cooperation continued in such matters as gold storage and transfer, short term lending, technical support of clearing agreements, exchange of information (Toniolo 2005). What relevant cooperation took place, as in the case of the Tripartite Agreement of 1936, it was conducted at government level, and central banks only provided advice and expertise. Did low-key cooperation among central banks matter? Perhaps not much there and then, but it fostered personal understanding and kept communication channels open: both proved useful when the time for closer cooperation came in the 1950s.

5. Unorthodox lending of last resort

In Bagehot's view, lending of last resort is a rather clean affair: "Lend freely at high rates". Actual lending of last resort in major crises is never as simple and clean as Bagehot wanted it to be. His model, however, approximates the Bank of England's operations for a most of the 19th century. The game changed when, as in 1890, the illiquidity (or likely insolvency) of a single intermediary threatened the stability of the whole system. The Bank of England rushed to organize an international consortium of banks to set up a guarantee fund for the debts of the too-big-to-fail Baring Bank. Bail outs of this kind inevitably entail discretionary decisions about resource allocation and a departure from the rule about the liquidity of central bank assets. Moreover, bail outs of too-big-to-fail intermediaries almost inevitably require working in close contact both with the government and with private banks. The purest advocates of central bank independence might have raised an eyebrow.

In the interwar years, lending of last resort and bail outs were necessarily "messy", entailing the use of various unorthodox tools.

A brief review of methods and tools of lending of last resort may well begin with the Bank of England, at the time the self-styled custodian of central bank orthodoxy. In the late 1920s, the Old Lady was called upon not only to bail out Banks but also to directly support industrial companies in distress, no longer eligible for loans from private sources. The Bank's prestige and treasure came to be spent to bail out and reorganize industrial concerns.

Norman's preferred ways were those of "privacy, speed, determination, and reliance on a few good men", but sometimes direct financial intervention was needed, as in the case of the bail outs of the Williams Deacon's Bank, of the Banca Italo-Britannica and Anglo-South Bank which left the Bank of England with an indirect holding of bank equity (Sayers 1976: 263).

In 1928, the Bank of England stepped in to save from bankruptcy a Newcastle armament manufacturing firm, Vickers-Armstrong. The rescue entailed the Bank getting involved with the restructuring and management of the company as well as holding substantial interests in it (Sayers 1976: 314-322). The Bank's involvement with manufacturing companies increased when "the troubles of various industries came upon its doorstep" Governor Norman got personally more and more involved in an effort of "rationalizing the heavy industries of Britain […]" and came to regard this work "as his most effective contribution to the revival of industry and the reduction of unemployment" (Sayers 1976: 322). When the Mac Donald labor government came to power, Norman's efforts were increased by his commitment to exorcise "the specter of nationalization" (Sayers 1976: 324), seeking the "moral support" of Snowden, the new

Chancellor. In 1929, to manage its increasingly important stakes in manufacturing, the Bank of England created a Securities Management Trust, a company with limited capital designed to be "the channel through which the Bank itself would provide funds for schemes supported by the Bank" (Sayers 1976: 325). When the Securities Management Trust had to be explained to the Macmillan Committee, Norman said that "he was a public servant who believed that the Bank should be the catalyst in bringing together the needs for industrial reconstruction and the financial resources the City would mobilize" (Sayers 1976: 325). As the result of the Bank's involvement with the manufacturing industry, Norman drew industrialists into the Court of Directors and hired a specialist in industrial affairs. The Governor "was conscious that since the departure from the gold standard the Bank's responsibilities in the narrowly monetary field had become more complex and more closely dependent on assessment of industrial and regional effects" (Sayers 1976: 551).

The Bank of England's involvement with manufacturing did not provide a major "stimulus" to the economy; nevertheless, the "exit strategy" was neither easy nor quick. For most of the 1930s, the Bank's original idea to marshal support from the City to ailing manufacturing sectors soon proved to be a dead end, leaving the Old Lady to run the Securities Management Trust largely with her own resources. It was only immediately before and during the war that the Bank could take the lead in "bringing a wide circle of City institutions into some permanent and public link between finance and industry". Norman never regretted his deep involvement with industrial restructuring and believed that, in the operation, "not a bob seems to have been lost, notwithstanding the worldwide crisis through which we had to pass" (Sayers 1976: 551).

Lending of last resort in some continental countries – such as Austria, Germany and Italy – led to a deeper involvement of central banks with industry than in the case of Great Britain. There are many reasons for this, including the central banks' implicit mandate to sustain economic development besides monetary stability and their close links with governments. However, the main reason why bailing out banks also entailed bailing out industrial companies is to be found in the close links between commercial banks and industry.

During the 1920s Italian large commercial banks had gradually acquired an ever larger stake in manufacturing and utility companies. By the end of the decade they looked more like holding companies than commercial banks, while at the same time being deposit-taking institutions. In 1931, the three largest Italian banks had direct or indirect control of about one half of the companies listed in the Milan Stock Exchange. When, in the same year, the government required the Bank of Italy to provide a massive liquidity infusion to the three banks and taking industrial equity as collateral - thereby avoiding a major financial crisis - for a time the central bank found itself indirectly owing the majority stake in several of the country's largest industrial companies (Toniolo 1995).

Scholars are still debating whether in the summer of 1931 Germany was hit by banking or a currency crisis (Temin 2008). The debate need not interest us here. More interesting is the fact that the desperate state of the major banks took the Reichsbank and the government by surprise. Apparently, the authorities were ill informed both of the magnitude of long-term lending by the large banks to industry and of their vulnerability to withdrawals of short term deposits by foreign lenders (James 1985). Lack of information delayed central bank action as lender of last resort until after the fall of the Danat Bank, heavily invested in the textile sector. The 'lesson' from this episode is that a central bank is more "useful" when bank supervision is entrusted to it, and it is well organized for the task (including coordination with government authorities).

In Germany, as in Italy, last resort lending to 'universal banks' entailed accepting long term industrial paper as collateral, in violation of the central bank's statutes. The Golddiskontobank, a subsidiary of the Reichsbank, created during the monetary stabilization period and allowed to continue as a tool for foreign trade financing, was instrumental in providing guarantees for bank liabilities. The government also "arranged for an Akzept & Guarantee Bank to provide a third signature for papers to make it eligible for discount at the Reichsbank" (Kindleberger 1984: 377). The banking sector was reorganized and, eventually, as in Italy, the large Banks came under government control. "This was the price for substantial Reich support during reorganization: by 1932, 91% of Dresdner's capital was in public ownership, 70% of the Commerzbank and 35% of the Deutsche" (James 1985: 210). After 1931, the Reichsbank "became practically a dictator over the credit life of the nation. The increased importance of the Reichsbank came not only through its position of court of last resort for foreign exchange, money, and credit but also through actual ownership participation in the control of the Joint Stock banks and the central banking institutions" (Northorp 1938). Under

Schacht's second tenure as President, the Reichsbank became a powerful tool of resource allocation under the Five Years Plan.

The American case stands out for the absence of lending of last resort by the central bank throughout the most acute phase of the Great Depression. The reasons why the Fed did not intervene to 'bail out' illiquid banks are partly the same that explain the timid monetary response to the slump (Bordo and Wheelock 2010). However, there is little reason to believe that all Federal Reserve Banks objected in principle to 'saving' individual banks and/or the lacked the experience in carrying swift and effective lending of last resort: in July 1929 the Atlanta Fed had been perfectly able to rapidly shift all the needed liquidity to a number of Florida banks hit by an exogenous shock to the economy (Carlson et al. 2010). It is nevertheless true that not all the Federal Reserve Banks were equally capable or inclined.

Support to ailing banks came from the Administration and Congress. In 1931, the National Credit Corporation (NCC) was set up to stem liquidity crises. Funding would come from the banks themselves, invited to join the NCC on a voluntary base. The initiative was met by lukewarm enthusiasm from the Fed and the banking community and turned out to be quite ineffective (Mitchener and Mason 2010). A new institution, the Reconstruction Finance Corporation (RFC), was created in 1932 to grant credit to banks that could not get it from the market. When the Emergency Banking Act was passed on 9 March 1933, the RFC was called upon to reorganize and support the banks that were declared solvent. In 1934, the RFC and Federal Reserve began lending directly to business and in due time the former came to have direct or indirect control of institutions, particularly banks, in which it was invested. It often used this position to "replace officers and significantly alter the business practices of the institution" (Mitchener and Mason 2010).

It is perhaps possible to see an analogy between the RFC and the Trouble Assets Relief Program (TARP) of 2008, in the close cooperation between the Treasury and the central bank, in the impact each program had on the asset side of the Fed's balance sheet and also in their costs turning out to be a small fraction of what was originally planned or feared. By early 1936 the amount of RFC exposure had fallen by 35 per cent of its end 1934 peak, bringing hefty revenue to the budget. The 1937 results were even more favorable to the administration. The 'lesson' here is that governments (and central banks, as their adviser and technical arm) should not be deterred from initiating support programs for ailing financial institutions by fears about their long-term fiscal impact: in due time, markets recovered and what in 1933 looked like a heavy burden on the federal budget, turned out to be of much lesser relevance by 1937. The subordinate 'lesson', of course, is that both patience in avoiding a fire sale of assets and the choice of the appropriate exit timing are of crucial importance.

One of the most relevant consequences of the massive lending of last resort that took place during the Great Depression was to convince legislators that bank supervision was essential to the pursuit of financial stability. In various countries public enquiries had shown that the balance sheets of the banks were, if not utterly 'cooked', inflated by unrealistic valuations of assets and credits (Giannini 2004: 220).

Until the mid-1920s, of all central banks, only the US Fed was endowed with powers of bank supervision. Such powers were however shared with the Comptroller of the Currency. The banking crises of the early 1920s, with their huge bail out costs, resulted in supervisory authority being conferred on the Bank of Italy in 1926. Japan followed suit in 1928. During and after the Great Depression, provisions for bank supervision became a standard item in the legislation adopted by most countries to regulate the banking system (and, in many cases central banking). The US Emergency Banking Act of 1933 strengthened supervision and added supervisory powers to the newly-created Federal Deposit Insurance Corporation. Supervision was at the heart of bank legislation in Germany, France, Belgium, Switzerland, Italy. The main exception was the United Kingdom where the Treasury and the central banks preferred to issue "recommendations" to the commercial banks. (Giannini 2004: 221)

6. Central bank independence.

Economists look for simple, measurable indicators of central bank independence such as "the right to change the key operational instrument without consultation or challenge from the government" (Capie, Goodhart, Fisher and Schnadt 1994: 50). However, the use of simple categorizations "requires a fairly intimate knowledge of the structure, organization, and working practices of the institution, to say nothing of the personalities in both central bank and government" (Capie, Goodhart, Fisher and Schnadt 1994: 50). Economic history contributes to the understanding of actual (as opposed to legal) central bank independence.

During the interwar years, central bank independence ebbed and flowed. In 1914-18, everything – including central banks – was subordinated to military success. As mentioned above, central banks were important instruments in the war effort. They worked in close contact with and subordination to their respective governments.

Immediately after the war, the Bank of England sought to revive its freedom to determine the level of the short-term rates, but realized "that however it exercised a nominal freedom to fix the key rate, it would remain effectively shackled as long as huge weekly maturities of Treasury Bills left the quantity of bank cash uncontrolled" (Sayers 1976: 112). Moreover, the debate on the Cunliffe Report highlighted the power of the Bank to affect the overall internal economic conditions, an issue - seldom raised before 1914 – with wide-ranging political implications.

In the post-war Europe, the high outstanding public debt, the central banks' involvement in industrial restructuring and the politicians' awareness of the impact of the Bank's action on the real economy complicated the search for central bank independence. Norman and Strong became the self-styled apostles of central bank independence on the international arena. They managed to have the principle of independence proclaimed at every economic conference and eventually engraved in the tables of the League of Nations.

Yet the two friends disagreed about the nature and limits of independence. Norman's view was radical to the point of arguing the Bank should have the right to rebuke the government in public and to be free to make decisions on several issues regardless of any political consideration. Strong, on the contrary, repeatedly told his friend that the Fed could never openly act against the government's interest (Giannini 2004: 260-1). The disagreement reflected differences in the institutional arrangements and in the practice of government in the two countries.

Keynes would agree with Strong's more realistic approach. Questioned on the issue of subordination or cooperation between the Bank of England and the Treasury in matters of monetary and exchange rate policies, Keynes observed that: "you can have the two bodies which maintain their respective spheres of responsibility and of power and yet necessarily always work together. It is the fundamental question of the relation between any central bank and any Treasury". He added that in theory acting together might require the subordination of one to the other but that "in *this country* (italics mine) the future of regulation would be that the Treasury and the Bank of England would be neither subordinate to the other but would always be pursuing the same policy". (Keynes [1926] 1981:512, quoted in Bibow 2010)[8].

Things were different on the Continent. The Reichsbank's independence was imposed on Germany by the allied powers. It was not necessarily the optimal solution (imposed institutions seldom are). Schacht's defiant attitude during his first tenure at the Reichsbank contributed to destabilising the Weimar Republic. In France, the Bank's relations with the government had always been close, with the latter having the final say in case of dissent. However, Moreau stood firm against Poincaré's fixation on stabilizing the Franc at an unreasonably high parity. His prestige was such that the mere threat of resignation brought the Prime Minister to reason. Then as now personalities mattered both in shaping and using central bank independence.

The return to gold convertibility increased *de facto* central bank independence. As Norman remarked, only central banks possessed the experience and technical skills to manage the gold standard.

On the other hand, in the 1930s, central banks lost prestige and autonomy precisely because they remained too stubbornly independent in interpreting their role as custodians of gold convertibility. But the main reasons why, in the 1930s, formally or informally, governments increased their control over central banks are to be found in the neo-mercantilism of the era. Dictatorships came to control large segments of the economy through 'plans', price manipulation, and, indeed, credit allocation. Even democracies resorted to foreign trade management through the so-called clearing agreements and 'foreign exchange controls". Central banks possessed unique technical skills to conduct these operations but they remained subordinated to the policy choices of their governments.

The Italian and French Banking Laws of 1936, are examples of soft nationalization. The German law of 1937 brought the Bank formally under Hitler's control. In other European countries (such as the United Kingdom, France, the Netherlands and Belgium), formal nationalization came only after the war, it was largely – as Dalton, the British Chancellor of the

[8] Sixty years later, Alec Cairncross wrote that "The British experience has been that there is no alternative to a close relationship (between the Government and the Bank) with each preserving its independence of judgment but with responsibility for major decisions resting inevitably on the government of the day" (Cairncross A. 1988: 71-2).

Exchequer put it – “bringing the law into accord with the facts” (Toniolo 2005: 293). The same can be said of the United States where, according to Meltzer, the Fed took the backseat even before the Banking Act of 1935 (Meltzer 2003: chapter 6).

7. Interwar lessons for a “useful” central bank.

The current recession was potentially even more virulent than the crisis of 1929-33. The financial system was now larger compared with GDP, and more complex. Markets are now more interconnected then ever. Leverage was now greater and banks were made more vulnerable by heavy reliance on short term wholesale sources of funding. Technology allowed massive amounts of money to be moved by the click of a mouse: one didn’t have to line up for hours on the sidewalk outside her bank to move her accounts. Yet the impact of the financial crisis on the real economy, massive as it is, was not on the scale of the 1930s. After a more pronounced plunge in 2008 than in 1930, output, trade and employment were stopped in their free fall. To economic historians, the rebound looked unexpectedly swift in most of the world (much less so in Western Europe and the United States). There are, and will be, many policy lessons to be drawn from these two episodes. This paper is confined to the ‘lessons’ from the interwar years for a “useful” central bank. They can be divided into two categories: those that have already been learned and applied, and those on which attention should be paid over the next months and years.

Three main ‘lessons’ of the Great Depression have already been learned by policy makers: (i) a major financial shock requires immediate reaction of adequate size, (ii) lending of last resort should use all available tools, and (iii) international cooperation is essential.

It is by now largely - if not universally (e.g. Taylor 2009) - accepted that disaster was avoided by swift monetary easing and fiscal expansion (e.g. Bernanke 2010, Crafts and Fearon 2010, Eichengreen 2010). Central banks used all the orthodox and heterodox ammunition available in lending of last resort, if necessary disregarding the nature of the collateral. Emergency lending followed national conditions, institutions and culture confirming the “lesson” that “it works well if tailored on the environment” (Bordo and Weelcock 2010). “The world rose to the challenge, with a remarkable degree of international cooperation, despite very difficult conditions and compressed time frames” (Bernanke 2010:1). Since the end of the Second World War, central bank cooperation has increased over the years, reaching probably its highest level ever by the end of the century. It focuses not only on monetary policy but on several other issues as well, including bank regulation (Borio and Toniolo 2008). In the wake of the 2001 terrorist attacks on the twin towers, central banks immediately reacted at unison. Policy coordination was also high by historical standards in 2008. So, "while central banks alone cannot solve the economic problems of the world" (Bernanke 2010:2), they proved now to be more "useful" institutions than they had been in the 1930s. The analysis of the Great Depression by economic historians over the past decades has played an important role in highlighting the policy mistakes made at the time and inoculating against their repetition. Economic history is useful to a "useful" central bank.

Besides outlining these three major achievements of the late 2000s, the history of the interwar years briefly reviewed in this paper highlights other 'lessons' for the future which "useful" central banks should carefully consider.

The first of such lessons relates to the monetary policies of the 1920s. The jury is still out on whether the most appropriate policies were followed both then and in 2002-2007. Some issues however were discussed in the interwar years that resurfaced in the most recent period and need to be considered by central banks when confronted by future investment and credit booms. In particular: (i) Should central banks target asset prices, and if so how? (ii) Is there a way of knowing the appropriate moment for raising rates? (iii) How can central banks reconcile their domestic with their international responsibilities? It is not easy to answer these questions but the fact that they can be legitimately asked after eighty years points requires attention. One 'lesson' from the 1920s is already clear, a 'useful' central bank should dismiss the recurrent intellectual hubris of believing that - *this time* - the business cycle has been conquered for good.

The second "lesson" relates to what we now call exit strategy from monetary easing. In 1935, the Board of Governors' raised rates too early, thus precipitating a 'double dip'. France expanded in the 1920s but then kept high rates after 1933 prolonging the Depression (and running deadly political risks in doing so). Great Britain expanded after 1931 and enjoyed a swift recovery from the Depression. Germany and Italy avoided a "double dip" by expanding in the mid-1930s (if for not-so commendable reasons). The 1930s show that the legacy of a major depression is "a substantial increase in long-term unemployment and economic inactivity" and, thus, a lower level of potential output" (Crafts and Fearon 2010:37). Given this, the 'lesson' is that risk is probably minimized by erring on the expansionary rather than on the deflationary side.

The third 'lesson' from the 1930s for the coming months and years regards the winding up of central banks' entanglement with the financial sector resulting from emergency lending. As we have seen, for a long time after the Great Depression, many central banks retained a close involvement with financial and industrial companies. Both in Europe and in the United States, full exit from the *ad hoc* institutions created in the Great Depression did not occur until at least the 1950s (for the US, see Mitchener and Mason 2010)[9]. Placing industrial and financial assets on the market without a loss was difficult in the 1930s and impossible when the war came. Political and social considerations added to the difficulty of divesting. It was, nevertheless, undesirable for central banks to hold on indefinitely to industrial equity and illiquid bonds. Their involvement in financing - even managing - banks, companies, and *ad hoc* institutions violated the principle of allocative neutrality of monetary policy, exposed them to criticism from every quarter and contributed to their loss of independence. It is therefore desirable today that central banks return as soon as possible to "the type of lender of last resort transactions that fit within the Bagehot Standards" (Feldstein 2010:137), and to smaller and more liquid balance sheets. The "lesson" from the 1930s however is to expect difficulties and delays down the road. "Conditions on the ground" will determine the timing of the "exit strategy". Unwinding TARP has already proven to be a success story even though the initial time table has not been completely met.

Finally, are there lessons from the interwar years for central bank independence? In the 1930s central banks lost a great deal of their independence both because of prestige loss in managing the Depression and because, in the closely-managed economies of the 1930s, governments gained the control of most aspects of policy making while at the same time availing themselves of the technical expertise of central banks. Neither condition will represent itself in the future years. The Great Recession has been better managed than Great Depression: no similar reputational loss awaits central bankers. And there is no reason to expect a new wave of autarky, exchange controls, and state-managed credit allocation. The notion that a "useful" central bank must be independent in setting monetary instruments will not be challenged. The overall definition and practice of independence, however, might evolve. Managing the crisis entailed

[9] Even so, in the US, the Depression "left behind a legacy of stimulus institutions such as Fannie Mae, the FHA, and the Small Business Administration that, it can be argued, were never truly unwound (Mitchener and Mason 2010: 3)

closer cooperation with the Treasuries which will continue during and beyond the “exit” period. Moreover, central banks from emerging-market countries will gain international weight and many of them are assigned, like the Fed, the dual targets of price stability and some measure of real-economy performance (growth, employment). Each of them interprets “independence” according to national tradition and institutions. The banal but important lesson is that in the future, as in the interwar years, a simple, one-size-fits-all, concept of independence will not apply to all “useful” central banks.

In the opening section, the interwar years were put in the context of a long transition from one to another payment technology. Central banks did not always rapidly adjust to changes. They dragged their feet before letting go of the gold standard and afterwards they “took the back seat”. The period 1914 - 1950 was one of such tectonic movements that central banks were by no means the only ones to adjust slowly; their “usefulness” was nonetheless reduced in the process. The past two decades were, possibly, not as momentous as the interwar years but they certainly witnessed changes that again challenge central banks. The evolution of financial markets and intermediaries has been one step ahead of regulatory reform. Monetary policy is bound to operate in a context of higher uncertainty and in the little-explored territory of close-to-zero interest rates. Macroeconomic imbalances are of an order of magnitude never seen in economic history. Fiscal policy and monetary policy are bound to be closely interlocked. Adapting to the new environment is perhaps a challenge to “useful” central banks similar to that of the 1930s. Only history will tell if “the golden years of central banking are over”, as Gerlach et.al. (2009) put it. What can be said, taking a last “lesson” from the 1930s, is that now the necessary adaptation of central banks takes place with no reputational loss due to their conduct of policy during the Depression. It is more likely now than then that they will be able to adjust and retain their usefulness.

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