
The Interwar Years as the Crucible of Central Banking

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Before WWI, central banking was a rules-based matter

- Central bankers followed five rules.
 - (How many can you think of?)

Before WWI, central banking was a rules-based matter

1. The golden rule
2. The real bills doctrine or rule
3. The rules of the game
4. Bagehot's rule
5. The resumption rule.

To elaborate (briefly)

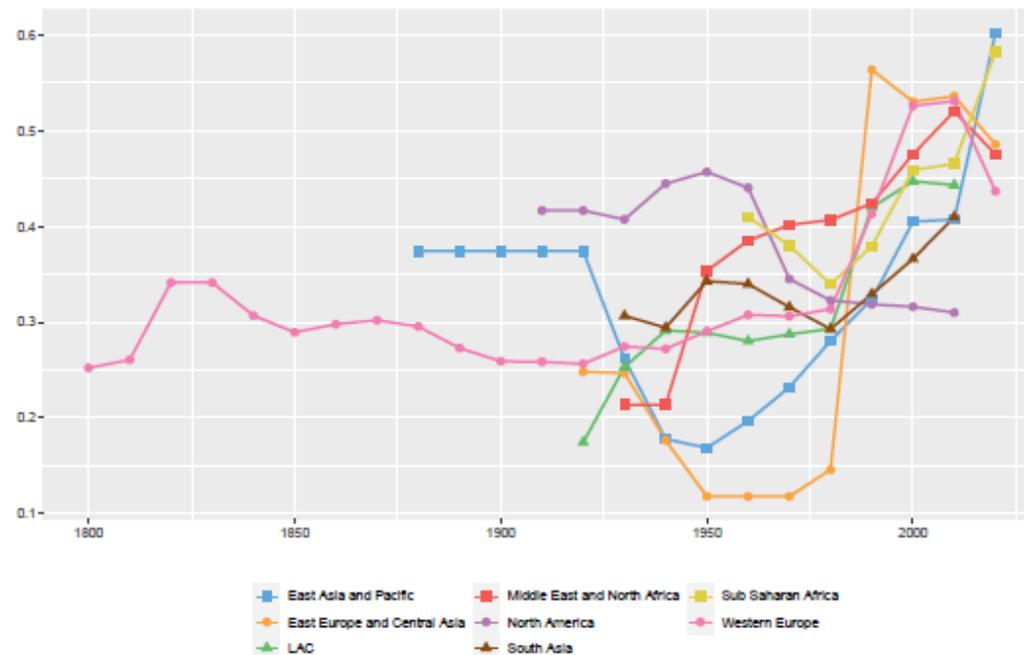
- Gold convertibility/the exchange rate was the principal target (“the golden rule”).
- This was compatible with a fairly straightforward monetary rule (the “real bills doctrine” or rule → provide as much credit as required by the legitimate needs of business, which could become uncomfortably procyclical, but not debilitatingly so.
- Pursuit of this target and doctrine allowed a limited amount of discretion (limited deviations from “the rules of the game”).
- In extremis, the principal target could be suspended so that the central bank could act as a lender of last resort, subject to “Bagehot’s rule.”
- And backed up by the “resumption rule,” namely that convertibility would eventually be restored at the pre-crisis parity.

WWI and the 1920s then shattered this rules-based order

- The gold standard was suspended during the war. It was restored subsequently but lacked the credibility it had enjoyed previously.
- The real bills doctrine survived, but it was challenged by new approaches to monetary policy (Keynes' in *The Tract on Monetary Reform*, for example). It was also qualified by fiscal dominance (central banks lent to governments during WWI and after, and were subject to fiscal dominance).
- The rules of the game became harder to enforce with the extension of the franchise and the rise of competing sources of pressure on central banks (pressure to pursue objectives other than gold convertibility).
- And legal independence was still low by our modern standards.

And legal independence was still low by our modern standards (Cukierman unweighted index)

Figure 21: Preferred legal Central Bank independence index (LVAU) per geographical area, decade average



Notes: LVAU is the unweighted Cukierman et al. (1992) index that takes the simple average of eight components: chief executive officer (CEO), policy formulation, objectives, advances criterion under limits on lending to the government, securitized lending criterion under limits on lending to the government, terms of lending, potential borrowers from the bank criterion, and other criteria on the limits on lending to the government (see Dincer & Eichengreen, 2013).

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- In addition:
- Bagehot's rule became problematic when systemically significant financial institutions lacked good collateral and no alternative existed for stabilizing the financial system.
- The resumption rule was followed incompletely in the 1920s and not at all in the 1930s.

Now that the gold standard no longer provided an anchor for monetary policy

- There arose the need to develop an alternative anchor. And these took the form of:

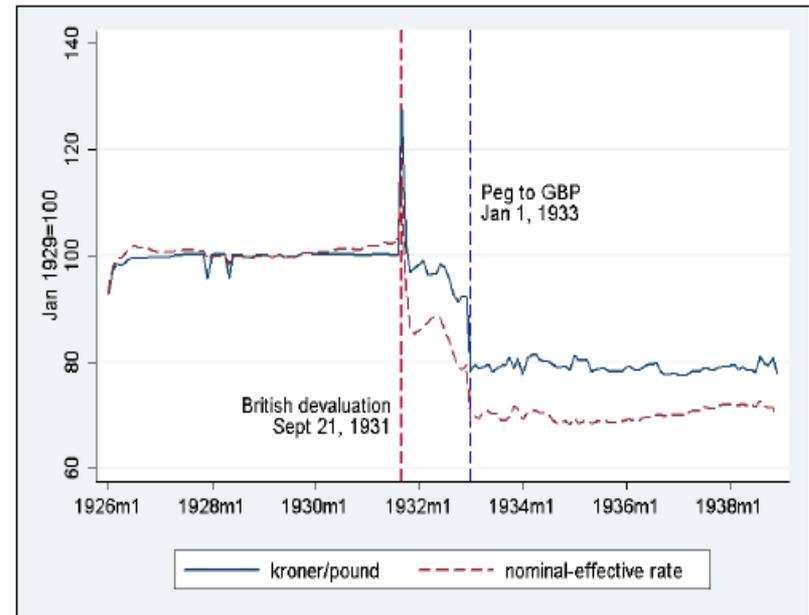
Now that the gold standard no longer provided an anchor for monetary policy

- There arose the need to develop an alternative anchor. And these took the form of:
 - Exchange rate targeting/shadowing.
 - Interest rate targeting.
 - Price level targeting.

Exchange rate targeting

- Case of the members of the sterling area is well known.
- Denmark (here) looks an awful lot like an exchange rate targeter.
- Scott Urban and others argue that the practice was widespread.
 - It wasn't limited just to the members of the sterling area.
- He argues that by the standards of today, the 1930s wouldn't be considered "floating" or even "managed floating."

Figure 2: Danish exchange rate



Source: Author's dataset. See Part 4 for currency sources.

- Urban (2009).

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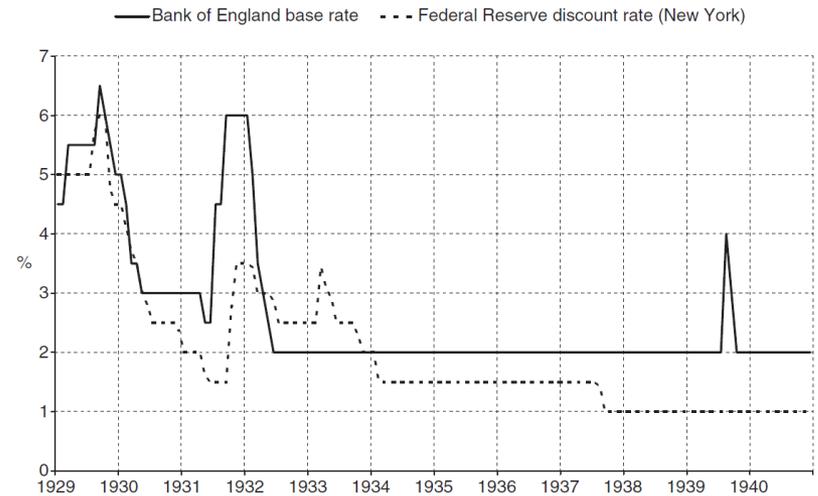
*THE NAME OF THE ROSE:
CLASSIFYING 1930s EXCHANGE-RATE REGIMES*

Scott Andrew Urban

Interest rate targeting

- Bank of England policy of cheap money is an example.

Figure 5: Official interest rates, monthly averages: UK and US, 1929–40



Sources: UK: <http://www.bankofengland.co.uk/statistics/rates/baserate.xls>, 08.04.10; US: <http://www.nber.org/databases/macroeconomic/contents/chapter13.html>, 08.04.10.

Interest rate targeting

- Bank of England policy of cheap money is an example.
- A low and stable Bank rate kept other rates low and stable as well.
- This is not an endorsement of interest rate targeting under all circumstances.
- But it is one approach interwar central banks tried.
- And it served them well during and after WWII.

Table 1. Interest Rates (%)

	Bank Rate	Treasury Bill Rate	Yield on Consols
1929	5.50	5.26	4.60
1930	3.42	2.48	4.48
1931	3.93	3.59	4.40
1932	3.00	1.49	3.75
1933	2.00	0.59	3.39
1934	2.00	0.73	3.10
1935	2.00	0.55	2.89
1936	2.00	0.58	2.93
1937	2.00	0.56	3.28
1938	2.00	0.61	3.38

Price level targeting

- Sweden
 - Ohlin and Lindahl
- US starting in 1933?
 - FDR and 1929 price level target.

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A pioneer of a new monetary policy? Sweden's price-level targeting of the 1930s revisited

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The article re-examines Sweden's price-level targeting during the 1930s which is regarded as a precursor of today's inflation targeting. According to conventional wisdom, the Riksbank was the first central bank to adopt price-level targeting, although in practice giving priority to exchange-rate stabilisation. Based on Bayesian econometric techniques and the evaluation of new archival sources, we come to the conclusion that defending a fixed exchange rate is hard to reconcile with the claim of adopting price-level targeting. This finding has implications for the prevailing view of the 1930s as a decade of great policy innovations.

1. Introduction

Sweden's monetary policy during the 1930s is one of the most fascinating episodes in Europe's economic history of the twentieth century. In late September 1931, when Sweden suspended the gold standard, the finance minister made the public statement that from now on, monetary policy would be aimed at stabilising the internal price level. Judging from the record, the goal was achieved rather successfully. It is also impressive to see how intensely contemporaries were debating monetary policy during those years. Eminent economists such as Gustav Cassel, Eli Heckscher and Bertil Ohlin were participating in this public discussion.

Because of the remarkable statement by the finance minister and because Sweden recovered more rapidly from the depression than most other European countries, its monetary policy has repeatedly been invoked as a new model, most enthusiastically by Irving Fisher (1935). In recent times, it has also been cited as a sort of precursor of today's inflation targeting (Svensson 1995; Bernanke *et al.* 1999). In this article, we examine the question of whether or not the Swedish central bank (Riksbank) was in fact targeting the price level.

In spite of the admiration for Sweden's record during the 1930s, this question has only rarely been studied systematically. Besides contemporary

Price level targeting

- Sweden
 - Ohlin and Lindahl
- US starting in 1933?
 - FDR and 1929 price level target.
 - Or so it is argued.

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<http://www.aeaweb.org/articles.php?doi=10.1257/aer.98.4.1476>

Great Expectations and the End of the Depression

By GAUTI B. EGGERTSSON*

This paper suggests that the US recovery from the Great Depression was driven by a shift in expectations. This shift was caused by President Franklin Delano Roosevelt's policy actions. On the monetary policy side, Roosevelt abolished the gold standard and—even more importantly—announced the explicit objective of inflating the price level to pre-Depression levels. On the fiscal policy side, Roosevelt expanded real and deficit spending, which made his policy objective credible. These actions violated prevailing policy dogmas and initiated a policy regime change as in Sargent (1983) and Temin and Wigmore (1990). The economic consequences of Roosevelt are evaluated in a dynamic stochastic general equilibrium model with nominal frictions. (JEL D84, E52, E62, N12, N42)

What ended the Great Depression in the United States? This paper suggests that the recovery was driven by a shift in expectations. This shift was triggered by President Franklin Delano Roosevelt's (FDR) policy actions. On the monetary policy side, Roosevelt abolished the gold standard and announced an explicit policy objective of inflating the price level to pre-Depression levels. On the fiscal policy side, Roosevelt expanded real and deficit spending which helped make his policy objective *credible*. The key to the recovery was the successful management of expectations about *future policy*.

Roosevelt's rise to power is modeled as a *policy regime change*, as in Thomas Sargent (1983) and Peter Temin and Barry Wigmore (1990). This paper formalizes Temin and Wigmore's argument in a repeated game setting using a dynamic stochastic general equilibrium (DSGE) model and argues that the regime change can account for the recovery. In the model, a regime change means the elimination of certain "policy dogmas" that constrain the actions of the government. The regime change generates an endogenous shift in expectations due to a coordination of monetary and fiscal policy. This coordination ended the Great Depression by engineering a shift in expectations from "contractionary" (i.e., the private sector expected future economic contraction and deflation) to "expansionary" (i.e., the public expected future economic expansion and inflation). The expectation of higher future inflation lowered real interest rates, thus stimulating demand, while the expectation of higher future income stimulated demand by raising permanent income.

Roosevelt was elected president in November 1932 and inaugurated in March 1933, succeeding Herbert Hoover. This was at the height of the Great Depression, when the short-term nominal

* Research and Statistics Group, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045-0001 (e-mail: Gauti.Eggertsson@ny.frb.org). I thank Stephen Cecchetti, Helima Croft, Stefano Eusepi, Bart Hobijn, Nobu Kiyotaki, Friedrich Mishkin, Emi Nakamura, Maurice Obstfeld, Hugh Rockoff, Thomas Sargent, Jon Steinsson, Scott Sumner, Eric Swanson, Andrea Tambalotti, Alan D. Viard, and especially Michael Woodford, the editor, and three anonymous referees for helpful comments. I also thank seminar participants at the NY Fed, Board of Governors, Federal Reserve System Conference in San Francisco, NBER ME 2005 fall meeting (especially Anna Schwartz for insightful comments), and the NBER Summer Institute 2006. I also thank Benjamin W. Pagsley, Krishna Rao, and Erick Sager for excellent research assistance and many helpful discussions and comments, and Stephen Cecchetti for data. The views expressed here are those of the author, and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

There was a diversification of goals and objectives

- Reflecting extension of the franchise and rise in political pressures generally
 - Address unemployment and growth problems.
 - Address “macroprudential concerns” (stock prices).
 - Help with debt management (“fiscal dominance”).
 - An example was Banque de France balance-sheet falsification in 1923. (Read about it here.)
 - Even implement industrial policies
 - Bank of England and “industrial rationalization” for example.

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The false balance sheets of the Bank of France and the origins of the Franc crisis, 1924–26

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This study explores the role of accounting manipulation in a period of economic and political crisis. Recently discovered archival material at the French Ministry of Finance casts new light on the false balance sheets issued by the Bank of France during the 1920s and permits a comprehensive review of the nature and extent of falsification. This episode of accounting manipulation marked a turning point in French monetary policy. It destroyed the credibility of governmental monetary intentions and was the beginning of the second franc crisis. A new interpretation of this episode of national currency depreciation is suggested. In line with Aftalion's (1926) findings, the study identifies the centrality of the psychological influence of note circulation disclosures as a motivation for falsification.

Keywords: central bank; France; accounting; balance sheet; credibility; franc crisis; psychology

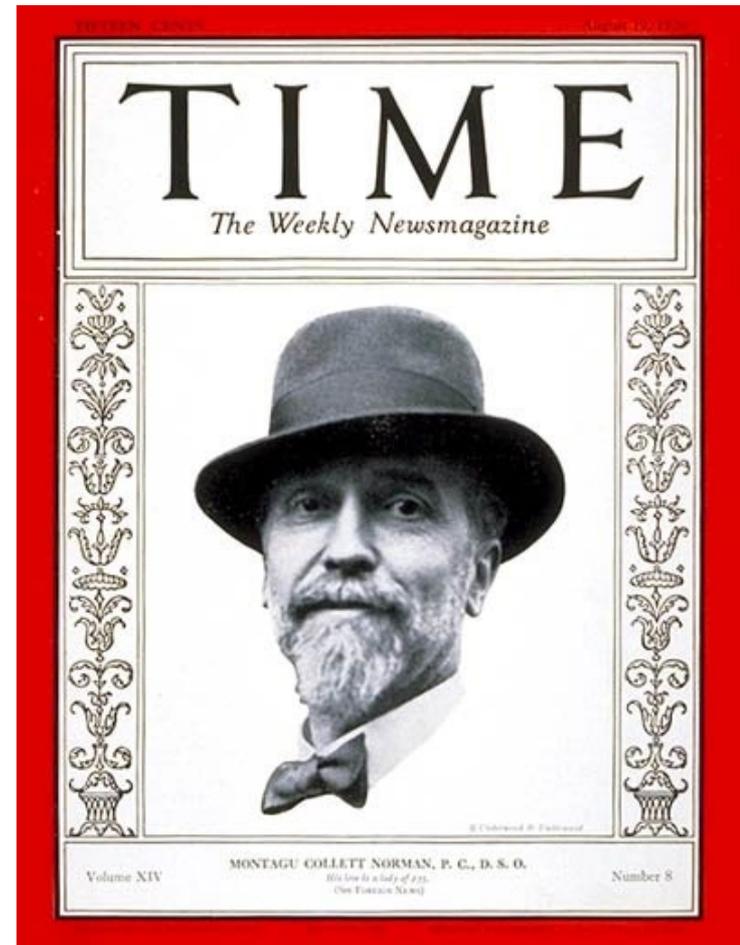
Introduction

There is a wealth of historical and theoretical literature dealing with the manipulation of financial statements. This focuses most notably on the motivations of company directors and the reputational impacts of manipulation. The instigators of manipulation set out to influence the perceived value of a company and the decisions made by current and potential shareholders by altering the informative content of financial statements. They may also look to initiate a transfer of wealth towards shareholders by reducing the amount of tax owed to the relevant authorities, seek lower-cost financing facilities from banks, reduce wage-bills or retain high profit margins (see, for example, Stolowy and Breton 2004; Rezaee 2005). Any disclosure of such ‘doctoring’ has very serious consequences in terms of reputation and confidence, not only for the company concerned but also those beyond it – adverse impacts may generate mistrust in a whole business sector and spread internationally (Lee, Clarke, and Dean 2009).

The consequences of manipulation are felt particularly in banking and finance. Works on the history of accounting have shown that information contained in bank balance sheets was often analysed as public property owing to their significance for wider financial stability (see Bernal Llorens 2004; Billings and Capie 2009; Bernal Llorens and Sanchez-Ballesta 2010). A notable

Normally, one would think that with new responsibility comes new transparency

- Transparency is how central banks reconcile increased responsibilities (expanded mandate) with inherited independence.
- They didn't do too well along these lines.
 - Earlier Banque de France episode.
 - Montagu Norman's example ("Never explain, never excuse").



Act as lenders of last resort

- Defined as central bank assistance to financial intermediaries in the form of emergency loans etc.
- There had been plenty of earlier experience
 - Sir Francis Baring had referred to the LLR function in the 18th century; Bagehot elaborated it in the 19th.
 - Riksbank in the crisis of 1857.
 - Bank of England in the Overend-Gurney crisis of 1866.
- But these were the two oldest and most experienced central banks in the world.
- Newly established central banks were slower to recognize these responsibilities.
- But recognition of central banks' responsibility for financial stability was widespread.
- Problem was that implementation was – how to put it – spotty. In some cases (like the Fed's), powers/discretion were limited.

Act as lenders of last resort

- It was as a direct result of this unhappy experience that CBs acquired more expansive LLR powers.
- Federal Reserve, for example, was permitted to loan only to member banks in return for only limited collateral (short-term commercial and agricultural loans).
- So between 1930 and 1932, a dollar at a nonmember bank was more than 5 times as likely to be rendered illiquid by a suspension or closure than a dollar at a member bank.
- In response, in 1932, Congress added Section 13(3) of the Federal Reserve Act.
- 13(3), as you know, played an important role in the GFC, permitting the Fed to famously to discount “for any participant or facility with broad-based eligibility” anything that moves (“notes, drafts and bills...”) “under unusual and exigent circumstances.”
- We have this interwar experience to thank.



Conclusion: the interwar period as the crucible of modern central banking

- Move away from rules-based prewar approach.
- Search for new anchors for policy.
- Diversification of policy goals and objectives.
- Broadening of lender-of-last resort capacity and responsibility.

- It can be said that central banks took on their modern cast in this period.
- But without the independence and transparency of modern central banks.
- A tension that may explain why the experience of central banking in this period was fraught.

-
- Thank you.

Appendix

- 1910-1920 Period:
- There are 9 countries that exist in our sample for the whole period: Denmark, Sweden, Japan, Belgium, France, Spain, UK, Switzerland, Norway. (we also have US starting from 1914).
- There is an increase in the index for Switzerland in 1911.

- 1920-1930 Period:
- We have 10 countries above for the whole sample during this period. We have other countries including into our sample during the period: Greece, Mexico, Poland, Finland, Turkey, Hungary, Colombia, Chile.
- There is a decrease in Spain in 1922.

- 1930-1938 Period:
- We have 18 countries above for the whole sample. During the sample we have Portugal, Canada, El Salvador, India, New Zealand, Taiwan added to our sample.
- There are decreases in the index for Sweden, France, the US, Greece,
- There are increases in the index for: Mexico and Columbia.

- 1938-1950 period:
- We have 24 countries for the whole sample. At the end of the sample we have 29 CBs overall.
- There are decreases in the index for Japan and Poland
- There are increases in the index for Spain, the UK, the US and Mexico.