

The Ghost of Deflation Past

Thomas Mayer

13 December 2013

Key Ideas

- *Monetary and debt developments in the G7 countries point to relatively sluggish growth but do not signal deflation risks.*
- *The realignment of 'internal real exchange rates' in the euro area will most likely come through a rise in prices in Germany (and a few other stronger countries).*
- *The lessons learned in the early 1930s have made a come-back of deflation quite unlikely.*

With inflation rates in both the US and the euro area falling to new post-recession lows, fears of deflation have re-emerged. In the US an eventually inevitable adjustment to the Fed's purchases of US Treasury and mortgage bonds is creating concerns that a possible tightening of financial conditions in response to the 'tapering' of the purchases could stifle the upswing and push inflation even lower. In the euro area, there are fears that deflation as a result of a sluggish recovery coupled with the need of weaker countries to regain external competitiveness against stronger countries through wage and price cuts would again lead to doubts in financial markets about the solvency of governments and banks in the highly indebted, weaker countries of the currency union.

In this note we take a look at the development of monetary aggregates and debt in the G7 (US, UK, France, Germany, Italy, Canada and Japan), plus non-G7 euro-area countries, which have an important bearing on the future development of price levels. We also discuss the problem of restoring external competitiveness in the weaker euro-area countries without aggravating their debt burden. Our key conclusions are i) monetary and debt developments in the G7 countries point to relatively sluggish growth but do not signal deflation risks; and ii) the realignment of 'internal real exchange rates' in the euro area will most likely come through a rise in prices in Germany (and a few other stronger countries). The lessons learned in the early 1930s have made a come-back of deflation quite unlikely.

Thomas Mayer is Associate Senior Fellow at CEPS and Senior Advisor to Deutsche Bank.

CEPS High-level Briefs, a new CEPS publications series written by eminent economists, offer opinions, insights and solutions into the salient challenges confronting European policy-makers and markets. The views expressed are attributable only to the author in a personal capacity and not to any institution with which he is associated.

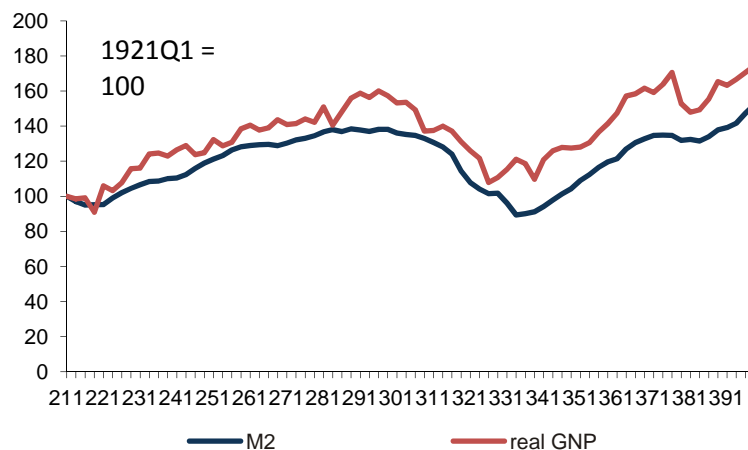
Available for free downloading from the CEPS website (www.ceps.eu) • © CEPS 2013

Lessons learned...

A considerable part of economic research over the last 80 years has been devoted to the analysis of the Great Depression of the early 1930s. The most famous verdict on this case came from Milton Friedman and Anna Schwartz.¹ They argued that the Fed had failed to protect the economy from deflation and depression by allowing broad money to drop. They did not replace 'inside money' (created by banks) that was destroyed by credit contraction in the wake of bankruptcies with 'outside money' (created by the central bank) and hence allowed the US economy to be suffocated by the credit and money collapse.

We have written extensively on the performance of credit during the Great Depression and provide here only some additional evidence on monetary developments.² As can be seen from Figure 1, the broad money stock M2 dropped sharply (by altogether 35%) between the end of 1929 and the middle of 1932. This led to a sharp contraction of the 'Marshallian K', the ratio of money to GDP (Figure 2).³ K is a simple measure of the tightness of money supply: a fall indicates the possibility of an economic contraction due to a shortage of money; a rise opens the possibility of an economic expansion owing to an abundance of money.

Figure 1. Money and real GDP in the US during the 1920s and 1930s



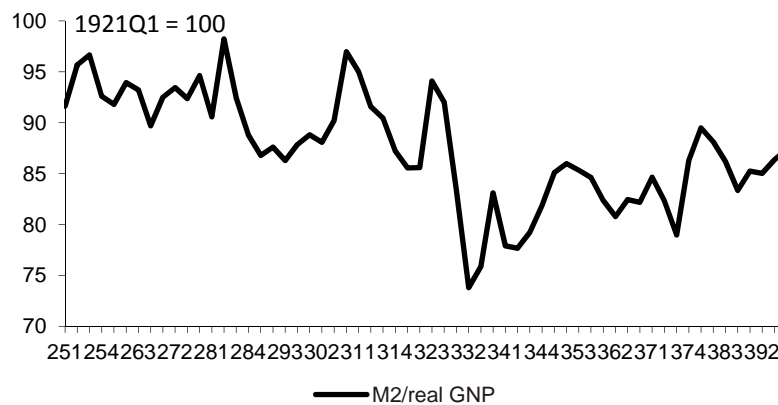
Source: Haver Analytics.

¹ Milton Friedman and Anna Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton, NJ: Princeton University Press, 1963.

² See, for instance, Michael Biggs and Thomas Mayer, "Bring credit back into the monetary policy framework!", PEFM Policy Brief, Political Economy of Financial Markets programme, St. Antony's College, Oxford University, August 2013.

³ We used here real GDP for the calculation of K, as a vicious circle of deflation expectations led to an even greater fall in nominal GDP than real GDP or M2.

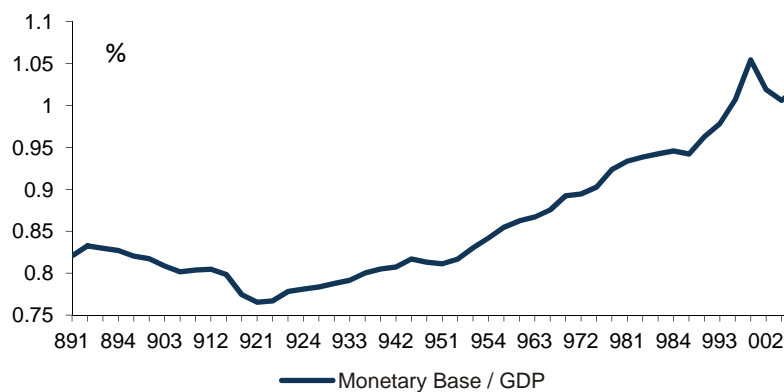
Figure 2. Marshallian K in the US during the 1920s and 1930s



Source: Haver Analytics.

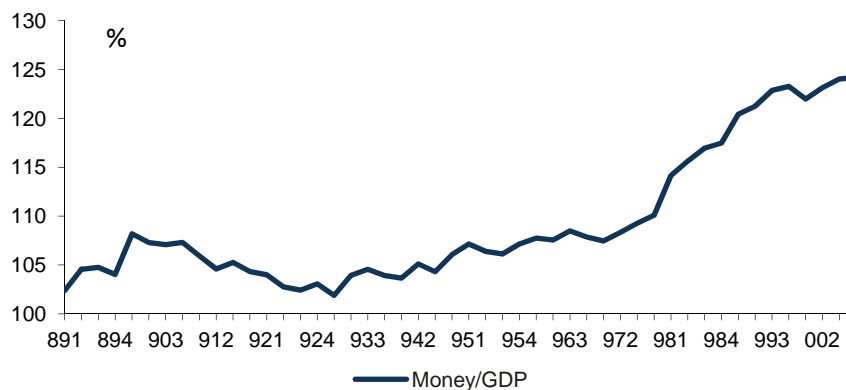
Another example of the failure of a central bank to protect the economy from the destruction of inside money in the wake of a financial crisis is Japan in the early 1990s. As can be seen from Figure 3, the monetary base dropped significantly relative to nominal GDP between the second quarter of 1989 and the first quarter of 1992 (although it increased moderately in absolute terms during this period). The decline in the base relative to GDP translated into a decline in the Marshallian K with a lag of about half a year. Reflecting the tightening of the money supply, Japanese inflation fell from 4.2% in November 1990 to 0.4% in March 1995.

Figure 3. Monetary base in Japan during the 1990s (% of GDP)



Source: Haver Analytics.

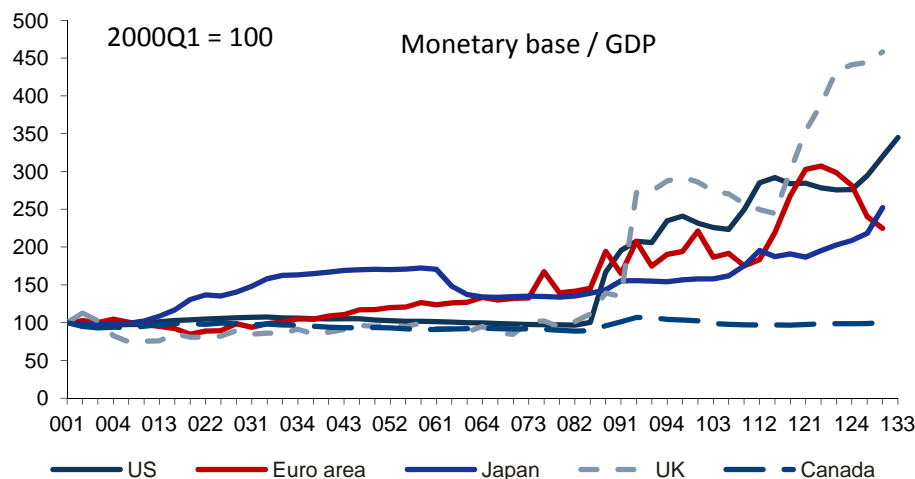
Figure 4. Marshallian K in Japan



Source: Haver Analytics.

In contrast to the developments in the 1930s and early 1990s, central banks this time were quick to replace destroyed inside money by outside money so as to avoid a similar drop in the Marshallian K . This can be seen from Figure 5, which shows the development of the monetary base (i.e. the central bank money stock consisting of banknotes and deposits held by banks with the central bank) relative to nominal GDP since the early 2000s. Following the adoption of a policy of ‘quantitative easing’ (buying of government bonds) in 2001, the monetary base grew relative to GDP in Japan through 2002-03, but it dropped again in 2006. However, with the beginning of the financial crisis in 2007, the monetary base of other central banks expanded sharply. The ECB started early, but the expansion remained fairly moderate until the end of 2011, when the bank flooded the banking system with term liquidity. With some confidence in the sustainability of EMU returning following ECB President Mario Draghi’s declaration that the ECB would do “whatever it takes” to protect it, the base declined again.

Figure 5. Development of the monetary base in G7 countries



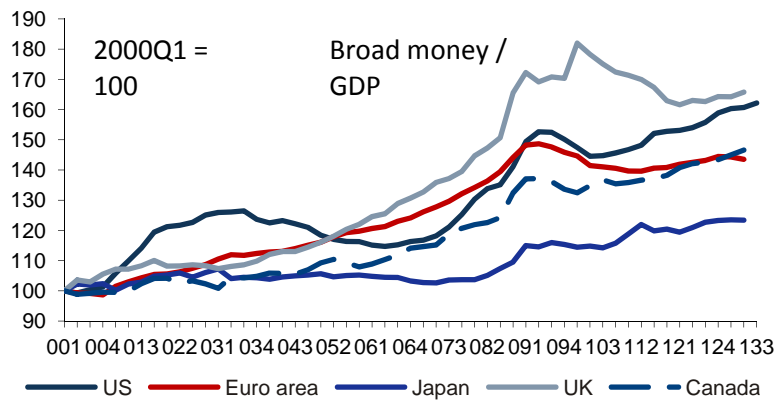
Source: Haver Analytics.

The Fed and the Bank of England engaged in a massive base expansion as of the middle of 2008. The Fed’s expansion occurred in several waves (rounds of quantitative easing) whereas the expansion of the Bank of England came in two big steps. The Bank of Japan followed initially in a more gradual way but has recently moved to a more forceful base expansion. The only G7 central bank showing restraint in base expansion was the Bank of Canada.

The expansion of the monetary base more than made up for the reduction of the credit and money multipliers caused by the banking crisis and led to a rise in the Marshallian K in all countries following the beginning of the financial crisis (Figure 6). The US already engaged in more substantial money expansion in the early 2000s, but lowered the ratio of broad money to GDP as of 2003. K expanded again as of 2007 and presently stands about 60% above its 2000 level. The expansion was more aggressive in the UK, where despite a correction in 2010-12, K presently is almost 70% above its 2000 level. In the euro area, K peaked in early 2009 and is presently up 43% relative to 2000. Despite little movement in the monetary base, K expanded in

Canada to a level (relative to 2000) similar to that in the euro area. It seems that Canadian credit and money multipliers have not suffered much during the financial crisis so that a rise in K could be achieved through traditional monetary policy measures. By contrast, the expansion of K in Japan has been more closely linked to the development of the monetary base relative to GDP.

Figure 6. Marshallian K in the G7 countries



Source: Haver Analytics.

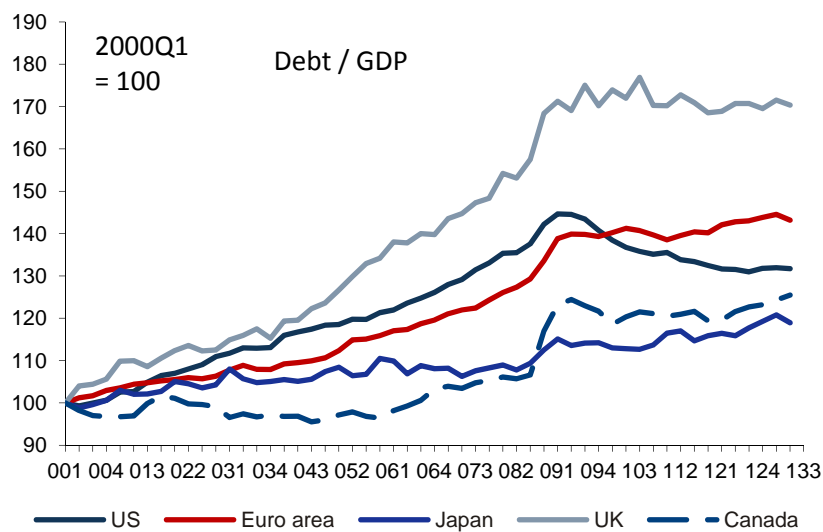
...leaves debt at elevated levels

The expansion of base money and the Marshallian K prevented a repeat of the experience of the 1930s. At the same time, however, it also prevented a more aggressive reduction of credit and debt. In part, the expansion of broad money relative to GDP was the result of a higher preference for liquid assets after the financial crisis. But it also reflected the stabilisation and, in some cases, further expansion of credit. This can be seen when we look at the item equivalent to total domestic credit on the liability side of the balance sheet, namely total domestic debt.

As can be seen from Figure 7, the financial crisis stopped the fast run-up of debt relative to GDP around 2009 in most countries. However, except the moderate decline observed since then in the US, debt ratios have been stable or have increased further, albeit at a lower speed. The debt ratio has moved sideways in Canada and the UK, where it has been at the highest (relative to its 2000 level) of all countries considered. But the debt ratio has slowly crept higher in the euro area and Japan. In the former region, it still stands more than 40% above its level of early 2000.

Thus, the corollary of the avoidance of a slump in money supply (and K) like in the 1930s was a delay or slowdown of deleveraging. This was achieved in part by the public sector offsetting the de-leveraging of the private sector. This helped to avoid a sharper contraction, but is now probably also preventing a more rigorous recovery as public and private households still struggle with heavy debt loads. Perhaps it is not a coincidence that within the G7 countries economic recovery seems most robust in the US where de-leveraging has progressed the most. The situation still seems most precarious in the euro area, where total debt still seems to be rising relative to GDP.

Figure 7. Total domestic debt in the G7 countries



Source: Haver Analytics.

Preventing regional deflation...

Neither the development of the monetary base nor of the Marshallian K would point to deflation risks in the euro area. Moreover, the decline of headline inflation recently below 1% is more likely to echo the past recession than to foreshadow worse to come. Just as in July 2009, when it dropped to -0.6%, it is likely to edge up again on the back of the nascent economic recovery. However, when we focus on the crisis countries within the euro area, deflation risks become more visible. Table 1 gives the October 2013 headline inflation rate for the euro area in total, the GIIPS group of countries (Greece, Ireland, Italy, Portugal and Spain), the GIPS group (GIIPS without Italy) and the member country with the lowest inflation rate of all. Clearly, the worse off countries are the lower is their inflation rate.

Table 1. Euro area consumer price inflation, October 2013

Euro area	GIIPS	GIPS	Greece
0.7%	0.2%	-0.3%	-1.9%

Source: Haver Analytics.

The data of Table 1 should come as no surprise. The countries in trouble experienced higher labour cost and price growth than the countries that are now economically stronger. This has led to an appreciation of their 'internal real exchange rate', which now needs to be corrected. For this to happen, costs and prices in the crisis countries must decline relative to those in other countries, notably Germany. Since both wages and prices in Germany do not seem to be grossly misaligned, it would seem that devaluation in the other countries should occur by a decline in wages and prices there. However, a larger drop in the price level in these countries would raise the real value of the outstanding private and public debt and bring back concerns about the solvency of governments and banks. Against this background it seems likely that the majority of ECB Council members would prefer regional relative price adjustments to come about by more inflation in the stronger countries instead of deflation in the

weaker ones. This is possible without the ECB missing its aggregate inflation goal for the euro area as a whole. To illustrate the case, consider the following scenario: Inflation runs at 5.7% in Germany and 0.5% in all other countries. With German inflation entering the euro-area's harmonised inflation rate with a weight of 27%, the euro-area inflation rate would amount to 1.9%, in line with the ECB's goal of an increase in the price level of close to but below 2%.

...leads to questions about the distributional impact of monetary policy

The consequences of monetary policy action for the distribution of wealth between creditors and debtors were hardly discussed before the financial crisis. Assuming that the business cycle leads policy rates to follow a sine curve, they are indeed immaterial. Gains by debtors when rates are low are offset by gains by creditors when rates are high so that the distributional effects even out over the cycle. However, when rates stay low for a very long period of time, the distributional effects can become an issue. Even worse, since Germany is a large net lender to other EMU countries, negative real rates in Germany over an extended period of time force a wealth transfer from German creditors to debtors in other countries. This raises a number of questions over the democratic legitimacy of a monetary policy that induces such a wealth transfer:

Has the ECB Council been given the right to induce real wealth transfers among EMU member countries? Article 125 of the EU Treaty, which forbids 'bail-outs' of financially troubled countries, would seem to say no.

What is the democratic legitimacy of the Council's decision? According to the ECB's statutes, Council Members should pursue price stability for the euro area as a whole and not the interests of their home countries.

How well do the members of the Council represent the constituency of the ECB, i.e. the inhabitants of 'Euroland'? Germany's population of 82 million can appoint two of their nationals to the Council, the same number as 1.3 million Cypriot and Maltese citizens.

Disagreement between a German-led minority and the majority in the ECB's Council over the latest rate cut suggests that these questions are beginning to play an increasing role for the common monetary policy in the future.

Forward or backward?

Political conflicts over the distributional effects of monetary policy can be democratically resolved only if EMU is complemented by Political Union, as originally envisaged by the founding fathers of EMU. But as the pooling of national sovereignty in a Political Union was rejected, EMU was created along the lines of a gold-standard regime: Money was to be issued by a central bank far removed from politics and committed to price stability as its single goal coupled with national sovereignty and liability in all other policy areas. But a gold-standard regime is an inherently open system: countries can go bankrupt and leave the system when they mismanage their economies.

Since political leaders and monetary policymakers did not want to accept these consequences, they decided in mid-2012 to give the ECB the function of a lender of last resort to governments. This eliminated the threat of sovereign bankruptcies and exits from EMU, but at the same time changed the nature of EMU from the gold standard model to a model in which money can be created by a 'state central bank' as a liability of the state, i.e., a 'state debt money system'. But without a state established democratically through Political Union, this construction is unstable. Sovereign states will not accept orders from the Brussels bureaucracy with regard to economic and fiscal policy and they will reject Germany assuming a hegemonic role in EMU to enforce the orders. Germany, on the other hand, will question wealth redistribution implied by the common monetary policy. Hence, to stabilise EMU, policymakers will have either to move forward and create Political Union, or move backward and return to the platform of an open gold standard. If they can neither go forward nor backward, EMU is likely to unravel over time into national or regional currency areas.



ABOUT CEPS

Founded in Brussels in 1983, the Centre for European Policy Studies (CEPS) is widely recognised as the most experienced and authoritative think tank operating in the European Union today. CEPS acts as a leading forum for debate on EU affairs, distinguished by its strong in-house research capacity, complemented by an extensive network of partner institutes throughout the world.

Goals

- Carry out state-of-the-art policy research leading to innovative solutions to the challenges facing Europe today,
- Maintain the highest standards of academic excellence and unqualified independence
- Act as a forum for discussion among all stakeholders in the European policy process, and
- Provide a regular flow of authoritative publications offering policy analysis and recommendations,

Assets

- Multidisciplinary, multinational & multicultural research team of knowledgeable analysts,
- Participation in several research networks, comprising other highly reputable research institutes from throughout Europe, to complement and consolidate CEPS' research expertise and to extend its outreach,
- An extensive membership base of some 132 Corporate Members and 118 Institutional Members, which provide expertise and practical experience and act as a sounding board for the feasibility of CEPS policy proposals.

Programme Structure

In-house Research Programmes

Economic and Social Welfare Policies
Financial Institutions and Markets
Energy and Climate Change
EU Foreign, Security and Neighbourhood Policy
Justice and Home Affairs
Politics and Institutions
Regulatory Affairs
Agricultural and Rural Policy

Independent Research Institutes managed by CEPS

European Capital Markets Institute (ECMI)
European Credit Research Institute (ECRI)

Research Networks organised by CEPS

European Climate Platform (ECP)
European Network for Better Regulation (ENBR)
European Network of Economic Policy
Research Institutes (ENEPRI)
European Policy Institutes Network (EPIN)