Comment

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Douglas Irwin's paper should encourage doctoral students in macroeconomics because it is one example of a broader phenomenon: the basic facts of some of the most important episodes of macroeconomic history remain obscure.

Irwin explores a key counterfactual question about the great deflation of the early 1930s. He shows that, absent the French monetary policies of that period, the great deflation would have been avoided, or at least greatly diminished. That is an important contribution; the failure of the gold standard to deliver a stable monetary regime in the interwar period was central to the history of the 20th century—not just to the monetary history of the 20th century—because without that failure, neither the Great Depression nor World War II would be imaginable. Economic historians, especially Barry Eichengreen, have been writing about the importance of the French absorption of gold in the late 1920s and early 1930s for a long time, and the conclusions Irwin reaches will not surprise them. But no one had quantified the extent of the French contribution to global deflation of the early 1930s.

Irwin's study is not just relevant for understanding the history of the Great Depression. It raises deep questions for international monetary policy today concerning the desirability of maintaining fixed exchange rate regimes. A central lesson of the French experience is that multilateral fixed exchange rate regimes like the gold standard are destined to end—and to produce catastrophic collapses when they do. Indeed, I would go further. That lesson also applies to the euro zone's currency union, even though its member countries have given up autonomous monetary policy (for now).

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National politics are incompatible with an international monetary standard because national politics always trump international relations. International monetary standards, therefore, create monetary time bombs. Nations necessarily experience different economic shocks, and their political systems necessarily respond to those shocks nationally, balancing the relevant national political interests. International monetary agreements that seek to constrain those independent domestic responses are simply too weak. The euro zone sought to imitate the currency union of the United States, but that goal was founded on a political fantasy. The United States can maintain a currency union among its states because its currency union spans a nation, no less and no more. The world isn't a nation, and neither is Europe. When productivity growth differs among nations adhering to an international monetary standard (as it does in Greece and Germany today), the time bomb does not have a very long fuse. Even when two countries have more in common (like Germany and Spain), shocks that hit one but not the other will derail a currency union. Today's Spanish banking crisis is a prime example of such a shock.

From its beginnings, the international exchange rate system established after World War I was destabilizing because currency parities were established far from their equilibrium values. That created the need for substantial international balance-of-payments adjustments via gold flows, including substantial gold flows into France. That problem, however, could have been resolved through adjustments in income and prices (albeit painfully) without causing international havoc. The deeper problem that produced a global depression was that participating national governments, not market processes or global authorities, ultimately controlled how their nations adjusted to international gold flows. The countries importing huge amounts of gold (France and the United States) did not expand their money supplies enough to counter the deflationary pressures from the countries that were exporting gold and deflating their money supplied. The problem in the United States was largely that the Federal Reserve placed domestic objectives above international ones, although its conceptions about domestic monetary objectives were deeply flawed (Friedman and Schwartz 1963; Meltzer 2003; Calomiris 2012).

The problem in France was not just that central bankers failed to comprehend the importance of the global supply of money for determining prices under the gold standard. Nor was it that they failed to see the need for cooperation among central bankers. Political and economic constraints prevented the Bank of France from expanding the French money supply in tandem with France's expanding gold holdings. Domestic factors trumped the so-called rules of the game, with dramatic and unintended international consequences.

It is important to emphasize that French policy did not consciously produce a global deflation. As Eichengreen (1982; 1986) has shown, the French government and the Bank of France were constrained in their actions, and those constraints likely reflected a combination of factors, including prior French monetary and political history, and the condition of French banks. Furthermore, the nature of French economic expansion during the late 1920s—which was heavily focused on capital investment rather than export production—did not promote speedy automatic adjustment of the balance of payments in reaction to French gold inflows. Indeed, from 1926 to 1932, the French real exchange rate and real wages in tradable goods were quite stable.

The global economy, therefore, needed a forward-looking, activist French policy of monetary, credit, and fiscal expansion to make international adjustment work, but those policies were inconsistent with the actions of the Bank of France, the French government, and the French commercial banks. The central bank's "cover" reserve ratio rose consistently from 1928 to 1931, from 40 percent to 80 percent. Not only was high-powered money constrained by the lack of central bank actions, but the money multiplier was falling, mainly as the result of French banks' desire to accumulate reserves, as the French banks boosted their reserves-to-deposit ratio. And the French government ran substantial budget surpluses.

These actions were not the result of ignorance or stupidity; they were responses to the weakened institutional structure and heightened risks that plagued French public finances, central banking, and its commercial banks. Poincaré's ascendancy in 1926 was a big positive for French political and economic management, but it was not a miracle drug to instantly heal all of France's ailments (Eichengreen and Wyplosz 1986).

French budget surpluses were responding to the high risk of default on French public debt. At the end of World War I, France had a public debt-to-GDP ratio that reached nearly 200 percent. French

budget deficits did not fall as quickly as those of Great Britain; from 1920 to 1923, they consistently ranged between 5 percent and 15 percent of GDP. The curtailment of reparation payments from Germany in 1924 contributed to widespread fears of rising tax burdens or high inflation. French sovereign yields remained substantially higher than British yields as late as 1927, although they fell below British yields in 1929 (Friedman 1953; Eichengreen 1982; Bordo and Hautcoeur 2003).

Most important, the Bank of France's latitude to pursue monetary expansion had been substantially circumscribed. In April 1925, the bank was implicated in a fraud involving public finances, which led to legislation that effectively prohibited the central bank from expanding the money supply (Eichengreen 1982; 1986). Commercial banks were also in a risky position, which led them to increase their reserve ratios as gold flowed into the country (Bouvier 1984).

In hindsight, France was in the middle of a sustainable expansion—one that left it much better off than Britain, Germany, and the United States by 1930. Hindsight, as they say, is "20/20." French fiscal, financial, and economic strength were all being tested in the 1920s, and they were not apparent until the Great Depression was underway. Economic adjustment in France took those domestic constraints into account; it had little choice to do otherwise. Furthermore, the political consequences of the central bank's involvement in fiscal fraud were (unsurprisingly) far-reaching and long-lived. When a central bank loses the trust of its nation, it should expect to be stripped of much of its discretionary authority. The timing of the Bank of France's emasculation, of course, couldn't have been worse from the standpoint of the gold standard and the global economy.

What lessons can we derive from France's experience? The French gold sink reflected a "perfect storm" of economic and political circumstances, which produced a disastrous accumulation of gold, tight monetary policy, tight bank lending policy, and tight fiscal policy. The more important lesson, however, is that the reasons such storms happen have not disappeared. Nations, then and now, inevitably get into trouble, inevitably experience shocks that weaken their financial, fiscal, and monetary institutions, and inevitably handle those challenges more poorly than we economists would like since problems are addressed by imperfect political systems. The overarching lesson of France in the 1920s is that international monetary arrangements

need to take all those facts seriously, rather than design exchange rate policies on the basis of ignorant, utopian fantasies. Of course, expecting countries to behave that way would itself be an ignorant, utopian fantasy. The apparent impossibility of learning in international monetary affairs ensures that monetary history will remain an interesting subject.

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