

Summary
Was Debt Deflation Operative during the Great Depression?

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Important questions remain regarding the transmission mechanism that linked falling prices and falling output during the Great Depression, despite recent analysis suggesting that the worldwide deflation was initiated and propagated by negative impulses associated with the interwar gold standard.¹ A key issue is whether the deflation during the early 1930s was unanticipated prior to the onset of the Depression. If it was at least largely unanticipated, then when combined with rapidly rising nominal debt issuance, non-monetary, financial theories contribute to a satisfactory explanation of the persistent monetary non-neutralities that were present during the Depression. These theories, notably Bernanke's (1983) explanation and extension of Fisher's (1933) original debt-deflation hypothesis, hold that events in the financial markets other than shocks to the money supply can account for the paths of output and prices without invoking irrational behavior on the part of agents.

In his debt-deflation hypothesis, Fisher asserted that (nominal) over-indebtedness and deflation are the dominant forces that account for "great" depressions. Specifically, he argued that given nominally-denominated debt contracts, a protracted fall in prices and nominal incomes substantially increased real debt burdens, led to debtor insolvency, lowered aggregate demand and thereby contributed to a continuing decline in the price level and thus further increases in the real burden of debt.

Bernanke (1983), in what is now called the "credit view," provided additional details to help explain Fisher's debt-deflation hypothesis. He argued that in normal circumstances, an initial decline in prices merely reallocates wealth from debtors to creditors, such as banks. Usually, such wealth redistribution has no first-order impact on the economy. However, in the face of large shocks, deflation in the prices of assets

forfeited to banks by debtor bankruptcies leads to a decline in the nominal value of assets on bank balance sheets. For a given value of bank liabilities, also denominated in nominal terms, this deterioration in bank assets threatens insolvency. As banks reallocate assets away from loans to safer government securities, some borrowers, particularly small ones, are unable to obtain funds, often at any price. Further, if this reallocation is long-lived, the shortage of credit for these borrowers helps explain the persistence of the downturn. As the disappearance of bank financing forces lower expenditure plans, aggregate demand declines, which again contributes to the downward deflationary spiral.

Analyses such as Cecchetti (1992), which carefully demonstrate that the deflation was anticipated at short horizons *once it started*, do not bear directly on our discussion.ⁱⁱ Instead, “[t]o show that debt-deflation was an important part of the contraction of the early 1930s it is important to document the accumulation of substantial medium- and long-term debt prior to 1929.” In addition, “[t]he finding that deflation could have been anticipated at horizons of 3-6 months does suggest that simple debt-deflation theories for the propagation of the Great Depression must rely on the failure of agents to anticipate deflation several years in advance, not several quarters in advance.”ⁱⁱⁱ Below, we argue that debt-deflation was operative both because of a rise in nominally-denominated debt and because the deflation in the early 1930s was unanticipated *when this debt was being incurred*.

We demonstrate three facts consistent with the debt deflation/credit view explanation of the Depression. First, we document that private medium- and long-term nominal debt during the 1920s exhibited a combination of a high initial value relative to income and a rapid growth rate that is unparalleled in a consistent data set covering more than half a century. Second, using estimation results from a Markov switching model of the price process, we argue that the debt issued during the decade preceding the downturn occurred in a stable price regime. Third, using the results of this model of prices, we show that at about the onset of the Depression, the price process switched to one of deflation. These

second and third facts lead us to conclude that the deflation was unanticipated when the debt was being issued.^{iv} Taken together, the evidence suggests that the rising real debt burdens at the beginning of the Depression were unanticipated and the necessary conditions appear to have existed for debt deflation to be operative during the Great Depression.

References

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Endnotes

- ⁱ See for example, Bernanke (1993) and Eichengreen (1992).
- ⁱⁱ The evidence on whether the deflation in the U.S. in the 1920s and 1930s was anticipated has been the subject of considerable debate. Hamilton (1987, 1992), Dominguez, Fair and Shapiro (1988), and Evans and Wachtel (1993) present evidence that the deflation was unanticipated while Cecchetti (1992) and Nelson (1992) find the opposite. Most of the analyses concentrate on whether the deflation could be forecast at short horizons.
- ⁱⁱⁱ Both quotes are from Cecchetti (1992), footnote 26.
- ^{iv} Evans and Wachtel (1993) present a Markov switching model of the price level over the 1929:1-1939:12 period. Thus, their model can not be used to indicate what the state of the inflation process was during the time debt was being incurred or whether a switch in the inflation process occurred before or during the debt accumulation of the 1920s.