Analyzing the Prewar Business Cycle

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Consumers and firms do not take the actions they do as a result of solving complex optimization problems. Economic models that assume that consumers and firms do solve complex optimization problems have yet to yield a single empirical result that is not more plausibly explained by models with much less restrictive assumptions. The economic concepts that have shown themselves to have value in explaining how the world works and which have proven to be helpful guides to economic policy making--downward sloping demand curves, opportunity costs, comparative advantage, and so forth--are analytically independent of the idea that economic agents optimize. The central phenomena of macroeconomics--large fluctuations in the rate of growth of output and the involuntary idling of resources--are compatible with the idea that the behavior of economic agents is always and everywhere optimal only if common sense is dispensed with and the obvious is denied. The approach adopted in this thesis attempts to explain the macroeconomic course of the economy between 1893 and 1933 by taking seriously what business firms (and, to a lesser extent, households) claimed at the time they were doing. In many cases we can be fairly certain (as certain as it is possible to be in a field like economics) of the procedures business firms were employing at a given time. We also can gain a good idea of when the procedures were adopted and why. For instance, anyone who has read even a small portion of the Everest of contemporary accounts of the wage policies of manufacturing firms in the late 1920s must become convinced that these firms had drastically changed their policies from what they had been previously, and for reasons wholly unrelated to changes in those limited constraints on behavior--primarily technology and relative prices--that are admissable in neoclassical models.

The most important consequence of the depression of the 1890s was the subsequent merger wave. From this merger wave emerged an industry structure within manufacturing and a set of decision rules, based in part on that structure, that allowed for rapid recovery from the discoordinative effects of exogenous shocks. The combination of output maintenance and money cost reduction that large, economically powerful firms carried out during downturns resulted in economic contractions being kept fairly brief between 1902 and 1929.

However, after 1921 the process began to unravel. The inventory debacle of 1920-1921 led to changes in the rules linking sales and production. Money-cost rigidities increased markedly, most particularly with

[1]This essay is drawn from my dissertation, *Prosperity and Depression, 1893-1933,* written at the University of California, Berkeley under the supervision of Richard Sutch.

respect to wages, but more generally as a more punctilious approach to contracts and the waning of the market power of a number of important companies made the forced cost adjustments of previous downturns much more difficult. Companies for whom freight costs were an important part of final product prices had the additional problem that railroad freight charges began to move countercyclically as a result of the ICC's implementation of the provisions of the Transportation Act of 1920.

In the summer of 1929, then, the economy was in a much more perilous state than outward appearances would have suggested. When sales began to decline in the late spring and summer there was no hint of the catastrophe to come. But almost immediately firms began to take actions that would lead to disaster. Production declines and cut backs in purchases of raw materials and semi-finished goods, resulting from a disinclination to accumulate inventory, were much more marked in the first six months of this downturn--the critical period--than in previous downturns. The decline in business spending was accentuated by the increase in cash-to-receipts ratios resulting from the reluctance of many firms to rely on bank credit during downturns. No actions were taken to cut wages, as had always been done in the past; quite the contrary, money wage rates were scrupulously maintained to much public fanfare. Nor were the vigorous attempts to renegotiate contracts that had marked the 1920-1921 period repeated. The legal climate had changed and, perhaps more importantly, so had the balance of economic power between many producers of final goods and their suppliers. The ICC, by now almost wholly absorbed with the task of shoring up the eroding position of the railroads, undertook actions with respect to freight charges that were counterproductive to nearly all concerned.

As best it can be judged from the business press and from the public pronouncements of businessmen themselves, optimism remained remarkably strong throughout 1930, despite the absence of recovery. With hindsight, the prolongation of the downturn is unsurprising given that the actions business firms were taking were short-circuiting the means--namely, the restoration of favorable price-cost margins--by which, as Jacob Viner, Wesley Mitchell, and other American students of the business cycle recognized, previous downturns in the twentieth century had been brought to an end. The events of 1929-1931, particularly the abortive revivals in the spring of 1930 and the spring of 1931, the disinclination to restock depleted inventories, and the very low levels of business fixed investment, are consistent with the failure of this underlying determinant of discretionary business spending to recover.

The hope that recovery could be brought about without the sort of price-cost readjustments that had previously been necessary was clung to for what seems in retrospect to have been an extraordinarily long time. The explanation for this is that the new decision rules that were causing the problem had not been adopted capriciously. They represented the responses of firms to what had been seen to be the lessons of 1920-1921; albeit shaped by the rest of the particular, contingent history of American manufacturing, by the purely organizational considerations that limited the sorts of changes possible, and by certain aspects of American society at the

time. These rules would not be discarded easily. A firm which, for instance, broke ranks with others in its industry on the issue of maintaining money-wage rates would run several risks. If it was not one of the dominant firms in its industry it would run the risk of retaliations from the dominant firms. If it was one of the dominant firms, it would face the glare of the intense negative publicity that would have greeted any prominent manufacturing firm that cut wages across the board in 1929 or 1930 (and so far as I have been able to determine none did). In addition, it would run the risk of alienating its workers, which would result, at the least, in a costly upsurge in quit rates when the downturn was over.

By the spring of 1931, it had become clear that an unprecedented economic disaster was in progress. Just as many of the new business procedures of the 1920s were adopted because their predecessors revealed themselves to have high probabilities of yielding unacceptable results, they began to be abandoned for the same reason. Reversion to a process of liquidation was being forced on many firms by events. By the fall, even those, such as U.S. Steel, that had been ardent propagandists for the high-wage movement were forced to take action. Whether the reversion to previous methods that had become widespread by the fall of 1931 would have been sufficient to bring on recovery, absent the effects of adverse monetary developments seems probable, but cannot be demonstrated. At this point, two years into the contraction, the binding nature of liquidity constraints would have made a rapid recovery on the order of late 1921 very unlikely, but at the very least something like the slow revival that in fact set in after March 1933 (or in January 1934, after the rapid production increases of the late spring and summer of 1933 and the subsequent relapse had played itself out) could have been expected.

The principal alternative accounts to this one are all concerned to one degree or another with specifying the nature of the shocks that might lead to the phenomena associated with business cycles. In this respect each theory has some value. However, pinning down the particular shock responsible for a particular downturn (the centerpiece of old-style Keynesian-Monetarist debates) has not proved very fruitful in accounting for why downturns differ so markedly in severity. It turns out that the nature of the originating shock is of much less importance than is the ability of the economy to cope with the shock. (Notice that I did not bother to specify the nature of the shock associated with the 1929 cyclical peak--I do not consider it to be of much importance.) The point of the thesis is that the ability of the economy to cope with shocks changes over time. Existing macroeconomic theories pay either little attention (Keynesian theories, particularly of the Alvin Hansen-Robert Aaron Gordon school) or no attention (Monetarist and equilibrium business cycle theories) to this fact. To deny that the stability of the economy changes significantly over time it is necessary to deny that over time business firms change their procedures with respect to such things as inventories and wages. To dismiss the arguments raised in this thesis it is necessary to believe either one of two preposterous things: businessmen never change their procedures, or they do but it does not matter.