Lesson Two: Complex and Problematic Fluctuations

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The Lesson

This post continues to look at lessons from the Great Recession identified in *Evolution or Revolution*? (2019). From the editors, Blanchard and Summers: "The second lesson is the complex nature of fluctuations, from the role of nonlinearities in leading to potentially exploding or imploding paths, to the limits of policy, to the persistent effects of shocks." This lesson begins by summarizing the "shock and propagation" view of the business cycle that long dominated Keynesian thinking. New Keynesians (NK) altered the Early Keynesian (EK) approach by accepting, perhaps for convenience, that propagation mechanisms can be understood as linear, arguing that vector autoregressions adequately capture reduced-form dynamics.

B&S offer three dimensions of the proposed rethinking of the nature of fluctuations. "First, financial crises challenge how we should think of shocks. The notion of random shocks always raised nearly metaphysical issues: presumably behind a shock to consumption or to wages is some deeper explanation, some underlying shock that should be explained, and so on…. Second, financial crises are characterized by essential nonlinearities and positive feedback whereby shocks are strongly amplified rather than damped as they propagate…. Third, financial crises are followed by long periods of depressed output."

GEM Extreme-Instability Model

What follows outlines the GEM Project's model of extreme instability, the business-cycle class that includes the Great Recession. (For elaboration, see the website's e-book, chapter 6.) The model is consistent with evidence produced by the 2008-09 crisis that remain elusive in mainstream macro analysis. The GEM model, which is a variant of "shock and propagation" approach but not restricted to mechanism linearity, is constructed on intuitive dynamics. It puts meat on the vague "complex and problematic" fluctuations featured in *Evolution or Revolution*?

The generalized-exchange model of the Great Recession is constructed on four uncomplex propositions. First is the centrality of nominal demand disturbances, which are usefully separated into two classes. In most usual, macro shocks are promulgated by *stationary demand disturbances* (SDD), which yield familiar, relatively mild recessions that are stabilized, after a short period, by automatic stabilizers augmented by standard central-bank "lean-against-the wind" intervention. The other category of nominal propagation, much less frequent but generating much greater welfare loss, is *nonstationary demand disturbances*. NDD features contracting aggregate spending sufficient to overwhelm both automatic stabilizers and orthodox central-bank interventions. If not contravened, NDD induces rapidly cumulating job and income loss, collapsing profits, price deflation, broad debt default, wealth destruction, and chronic depression, adding up to massive welfare loss.

Second, in modern, highly specialized economies, many wages and prices adjust very slowly in response to market disruptions. Meaningful wage rigidity (MWR), microfounded in the GEM Project, plays the starring role here, translating demand contractions into involuntary job loss and underutilized capital. Since the Second Industrial Revolution, total nominal spending interacting with MWR is at the heart of recessions and depressions. The third proposition is another manifestation of rational behavior. In the wake of the 2008 bankruptcy of Lehman Brothers, it was readily observable that many investors/lenders (I/L) became uncertain about trend macro prospects; depression was talked about. In GEM modeling, I/L perceptions of the credibility of stabilization authorities' trend full-employment objective is denoted by $\acute{C}$. As $\acute{C}$ deteriorated in late 2008, I/L paused in their acquisition of assets, reasonably waiting for credible asset-market floors to emerge. This is Nancy Stokey's (2009) persuasive argument about rational inactivity. Asset prices reacted to hesitant buyers with an accelerated, sickening collapse. The S&P 500 equity index lost nearly a third of its value in the month following the Lehman failure.

Fourth is the destabilizing feedback between cumulating damage to the financial system's capacity to recycle saving into investment/consumption and collapsing aggregate demand. A lesson of both history and logic is that an unchecked contraction in nominal spending in highly specialized economies results in depression. The collapse in living standards, massive forced job loss, widespread private debt default, widespread destruction of wealth, and other predictable costs of a 21st century depression would make its 1930s predecessor look like a walk in the park.

The GEM model, rooted in optimization and equilibrium, provides content to the complexity issues that worry B&S. Macro shocks are well motivated. This is notably true for wage disturbances that they cite, although classifying them as shocks makes little sense in generalized-exchange analysis. Propagation nonlinearities and positive feedback are rationally modeled. And the explanation of the typically sluggish recoveries that follow financial crises is properly rooted in slowly rebuilding confidence, income/wealth, and nominal demand.

Generalized-exchange modeling identifies powerful macrodynamic mechanics, probing the nature of brewing NND and providing guidance for stabilization policymakers. It emphasizes the need for concerted government action (on all fronts, in size and with speed) to halt and reverse contracting nominal demand. A central objective must be to restore, especially with respect to investors and lenders, the credibility of the trend real-side (full-employment) objective of stabilization authorities. Such credibility is the antidote to investor/lender uncertainty that rationally induces Stokey inaction that is the primary engine of NDD. Effective policy features rapid, large-scale interventions to unfreeze financial markets. That focus is, of course, not exclusive. To reiterate, in episodes of extreme instability, stabilization authorities properly pull out all the stops, undertaking a broad range of actions to boost total spending. The GEM model's alternative to the *Evolution or Revolution's* policy consensus featuring financial regulation describes, in a nutshell, the Federal Reserve's successful approach in 2008-09. But the GEM model does more, providing a roadmap for preventing Great Recessions, not just preventing depression.

Conclusion

By its nature, extreme instability is always associated with a separation of rational investor/lender decisionmaking from the economy's fundamental endowments. How else, in the 1930s, could an economy with the productive potential of the United States, rooted in its vast physical, organizational, and human capital, produce such a prolonged period of substantially depressed spending, capacity utilization, and living standards? Insightful analysis of investor/lender confidence is needed and provided in the GEM Project's NDD model. Modern macro theory hampered by general market equilibrium is unable to coherently explain the broad, devastating market failure in 2008-09, typically treating extreme instability as some sort of anomaly. The best of the sparse research that directly models NDD macrodynamics has focused on self-referential confidence-spending feedback in conditions of macro uncertainty.

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